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3



LENIN SPEAKING ON THE ELECTRIFICATION PROGRAM CHARTED BY THE NINTH COMMUNIST PARTY CONGRESS IN 1920 — THE CORE OF THE FIRST SOVIET ECONOMIC PLAN.

# COMMUNIST PARTY CONGRESS

## *Landmark in the Country's Life*

ALL EYES will turn to Moscow on January 27 for the opening session of the Twenty-First Congress of the Communist Party of the Soviet Union. Delegates from all Soviet Republics will represent eight million party members, people from every walk of life. They will gather to sum up the results of more than two months of nationwide discussion on the program for the country's economic development during the seven years from 1959 through 1965 and approve the target figures for this development.

Each party congress is a landmark in the life of the country and its people. All congresses since the Socialist Revolution of 1917 have had much in common—the major item on each agenda has been the welfare of the nation. And yet each congress has had its own distinguishing feature reflecting the specific tasks dictated by the different periods in the country's history.

### New Tasks

In outlining the main tasks of the new seven-year plan Nikita Khrushchev, First Secretary of the Party's Central Committee, stressed that the Soviet Union has entered a new and most significant period of its development—the period of the intensive large-scale building of a communist society. This period, prepared by the previous progress in the country's economy and culture, will be the decisive stage of peaceful competition with the capitalist system, the time when the Soviet people will have fulfilled the task of overtaking the most advanced countries of the world in per capita production and achieve the world's highest living standards.

For a long time now the congress has been the big subject in every newspaper and magazine in the country, the central theme of innumer-



PARTY MEMBERS AIR THEIR VIEWS AT PRE-CONGRESS MEETINGS OF LOCAL BRANCHES.

# PARTY CONGRESS

*Landmark in the Country's Life*

THE NEW PLAN'S TARGET FIGURES WILL SUM UP THE NATIONWIDE DISCUSSION.



able radio and television programs. Questions to be presented to the delegates have been discussed and debated endlessly at sessions large and small, at shop meetings, in farm conferences and over family dinner tables.

A congress such as this is of intimate concern to every Soviet citizen, and workers in all fields signalize its opening with new records of production and accomplishment. For Soviet people this is a congress of the party under whose leadership and guidance they have built themselves a richer present, the party that directs the construction of an even richer future.

The plans and goals adopted at previous party congresses are realities of Soviet life today. For proof one need look no further than the Twentieth Congress, held in February 1956.

The plans framed then for the expansion of the economy—industrial and agricultural production, scientific research, education and social welfare—have been translated into tangible realities. These are thousands of newly built factories, farms and housing developments, hundreds of new schools and stadiums. These are also a shorter working day without reduction in pay, lower taxes, higher pensions and longer maternity leaves for working women.

Everything for the people, everything for the man—this is the basic directive of the Communist Party of the Soviet Union.

## The Party and Its Program

For the party itself the convocation of a congress is an event of primary importance since this national meeting of democratically elected delegates is the party's highest ruling body, its decisions binding upon every member.

The Communist Party of the Soviet Union is a voluntary association of like-minded people pledged to a program of common action. Its members believe in socialism as a way of life, not as a mere philosophical idea. United in program and in outlook, they are working to build a communist society in the Soviet Union.

Individual Communists are working people—in industry, agriculture, science, the arts and professions, in any other field of endeavor—who are required to be the best producers and most skilled leaders in their own shops because they are party people. As party members, they must demonstrate their right to leadership by their own deeds and their personal example.

The Communist Party is organized on a basis of democratic centralism, a principle developed by Lenin, its founder. Democratic centralism means that all guiding bodies, from the top to the bottom—from the Central Committee to the shop branch committee—are elected by secret ballot. It means that all committees must present regular reports of their work to the membership that elected them; that decisions of higher bodies are unconditionally binding upon the lower bodies; that every member, regardlesss of his position or rank, is obligated to carry out all party decisions.

These principles, in which democracy and centralism combine and supplement each other, make the party a united and mobile organization with collective leadership and at the same time stimulate the activity and initiative of its members.

Before a decision is adopted by majority vote, free and unhampered discussion, whether it relates to a simple shop problem or to a national policy, is the inalienable right of every member. This right is widely exercised and strictly enforced as is evident, for example, from the present pre-congress debates on the country's future being held at party meetings in every branch, party conferences at district and regional levels, and party conventions of all Soviet Republics.

In structure, the party may be likened to a pyramid. The leading body of each local organization is the general membership meeting. These meetings elect delegates to district and regional conferences. These conferences elect delegates to the party conventions in each of the Soviet Republics, and these in turn elect delegates to the national party congress.

## How the Congress Is Organized

Party rules require that national congresses be held at least once every four years. Extraordinary congresses may be called by the Central Committee on its own initiative or at the request of as few as one-third of the total number of party members represented at the last previous congress.





DELEGATES AT THE 20th PARTY CONGRESS HELD IN 1956.







The ratio of representation is determined by the Central Committee. For this year's congress, one delegate with a deciding vote is elected to represent every 6,000 regular members of the party and one delegate with a deliberative vote to represent every 6,000 candidate members (a year's probationary period is required of candidate members before they are approved as full party members). The congress, then, is representative of the entire membership.

Since the congress is the party's highest ruling body, it is empowered to change the party rules and programs if deemed necessary. It meets to determine the tactical line of the party on basic questions of current policy; to consider reports of the party's Central Committee, the Central Auditing Commission and other central organizations; to elect the incoming Central Committee and Auditing Commission. One of the most important functions of the party congress is to work out general directives on domestic and foreign policy and to outline the program of economic and cultural development of the country.

The party's Central Committee called this Extraordinary Twenty-First Congress to consider the target figures for the expansion of the national economy for the next seven years.

### Nationwide Discussion

It should be noted here that Soviet economic plans are not speculative forecasts of possibilities but have the force of law, and every component of the economy is required to adhere to it. That is why the plans are drafted by the country's most competent people in each economic area and are discussed at such length and so widely before they are framed into proposals by the party congress and then into law by governmental bodies.

The seven-year plan for 1959-1960, called to life by the rapid all-round development of the Soviet economy since the Twentieth Party Congress, has been worked out, like the previous plans, with the active help of the workers at industrial establishments and local government bodies. Participation of millions of people resulted in many valuable corrections and additions to the original drafts.

Consequently, when the party congress adopts the target figures for the seven-year plan, it will be summing up the vast amount of work that has been done by all the people and will reflect in its decisions the will and interests of the entire nation.

AT MEETINGS HELD THROUGHOUT THE COUNTRY WORKERS ARE DISCUSSING THE 7-YEAR PLAN AND SUGGESTING WAYS TO MEET AND SURPASS PROPOSED TARGETS.

# Target Figures for an



THE PLAN PROVIDES FOR HIGHER WAGES AND A CONTINUED DECREASE IN HOURS.

THE target figures for the 1959-1965 seven-year plan to be approved by the Twenty-First Congress of the Communist Party with the amendments suggested during the nationwide discussion envisage an accelerated development of every section of Soviet economic life—industry, construction, transport, agriculture, consumer goods production and social services. The proposed velocity of progress is based upon priority expansion of metallurgy, fuels, chemicals, energetics, machine building and all other divisions of heavy industry. This will help ensure the rapid development of the entire economy with the resulting rise in living standards.

## New Geography

Coordinated into the seven-year plan are such factors as the more effective tapping of natural resources and the more serviceable distribution of industry geographically. The intent is to bring manufacturing centers closer to both raw material sources and to consuming areas.

The plan concentrates particularly upon the eastern regions of the country, those to the east of the Volga River, beyond the Urals, in Central Asia, in Siberia and in the Far East. These regions have been developing industrially at an astonishing rate.

In Siberia, Kazakhstan, Central Asia, the Urals and the lands east of Lake Baikal intensive metallurgy is being developed. Here too there are new electric power centers.

The region between the Volga and the Urals is to increase its production of natural gas and oil, and in Uzbekistan a new oil and natural gas center is growing up. The eastern territories, in particular the Cen-



THE FIGURES MEAN BUSY AND EXCITING YEARS FOR THESE CONSTRUCTION ENGINEERS.



DEBATES AND SUGGESTIONS RECEIVE COMPLETE COVERAGE.

PROPOSALS AND DISCUSSIONS RECEIVE COMPLETE COVERAGE.



# Economy of Plenty

tral Asian republics, are destined to take a leading place in the production of industrial chemicals.

In the European regions of the country the plan concentrates on ferrous metallurgy development through use of the iron ore resources of the Kursk Magnetic Anomaly and the Ukraine; on expanding nonferrous metallurgy on the Kola Peninsula; the speedier growth of the chemical industry; and improved extraction and processing of natural gas and oil in the North Caucasus and the Ukraine.

While the target figures for economic expansion in the seven years ahead will be national in scope, they will have been carefully based upon both the needs and the resources and manpower skills of each of the republics that make up the Soviet Union.

### Industry to Almost Double Output

In terms of industrial output, the increase called for by the target figures by 1965 will be in the neighborhood of 80 per cent. A daring increase this would seem, but it is estimated very hard-headedly and realistically on present production and capacity potentials.

Production of steel is to be boosted within the seven-year period from 55 million to 86-91 million metric tons a year. Aluminum output calls for a 2.8-fold increase and refined copper production a 1.9-fold boost. Chemical output is to treble and oil output is to be doubled within the next seven years.

In power production the target figures predicate a very long stride toward complete electrification of the country. The output of electricity is to more than double, to reach an annual figure of 500-520 billion kilowatt-hours by the plan's completion in 1965. A part of this enormous output will come from new atomic power stations.

Unified power systems will be created in the European part of the country and in Central Siberia. Joint power systems will be completed for the Northwest and West, the Transcaucasus, Kazakhstan and Central Asia.

The decisive factor that will make for increased output all along the economic line will be mechanization and automation of production processes. This presupposes larger numbers of machines, machine tools and instruments. The rate of development of the engineering industry is, therefore, to be sharply increased. Its production output within the next seven years is to double.

### Transport and Construction

There is to be a very radical shift in railway transport. By 1965 the amount of freight carried by electric and diesel-powered trains is to increase from the present 26 per cent to 85-87 per cent of the total freight turnover.

The length of rail to be changed over to fit electric and diesel locomotives will stretch 60,000 miles. Another 5,600 miles of new main railway track is to be constructed and another 5,000 miles of subsidiary line is to be laid.

The target figures foresee construction on a massive scale in every part of the country and particularly in the eastern regions. The capital investment to be made in 1959-1965 will be 80 per cent greater than that of the past seven years. The sum to be allocated will total close to the



MORE COAL CUTTING COMBINES WILL MAKE MINING EASIER.



AGRICULTURAL OUTPUT WILL INCREASE BY 70 PER CENT TO MEET THE COUNTRY'S GROWING DEMAND.

# TARGET FIGURES



PLANNED CONSTRUCTION REQUIRES MANY NEW CEMENT PLANTS LIKE THIS ONE.

entire capital investment the country has made since the 1917 Revolution.

Aside from larger capital investment in heavy industry, the plan requires an investment of 80 to 85 billion rubles in consumer and food industries. This is almost double the amount invested during the seven years previous to the present planning period.

Construction of housing and municipal facilities is to be sharply stimulated by capital investments of 375-380 billion rubles—80 to 83 per cent more than was invested in the preceding seven years. Capital investments for construction in the field of public health and welfare, the medical industry, physical culture and sports will amount to 25.4 billion rubles—an 80 per cent increase.

## Boost in Farm Output

For agriculture the target figures set a program that will require an almost 70 percent boost in total farm output. By 1965 the average acreage yield is expected to be higher than the very high figure achieved by American farm production.

The yearly output of grain is set at 165-180 million metric tons. Sugar beet production is to double its present production level of 70-78 million tons. Vegetables are to be grown in quantities sufficient to meet the total consumer need. Production of fruit and berries is to double and grape growing to quadruple.

The figures for livestock and dairy output are similarly high. Meat production is to double with a goal of 16 million tons and milk yield is to increase 1.7 to 1.8 times.

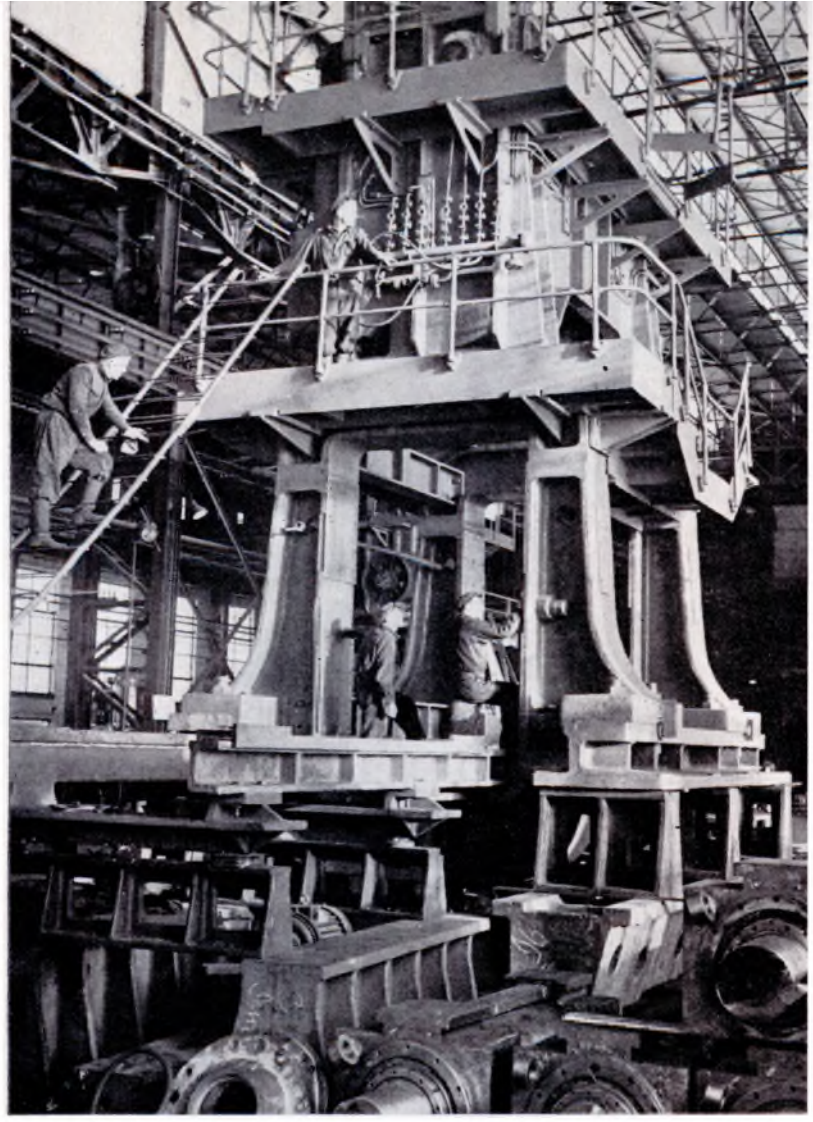
Here, too, the target figures hinge upon industrial growth. The plan for agriculture requires a larger measure of farm mechanization and electrification, and larger output of mineral and chemical fertilizers. It hinges upon large-scale irrigation of arid lands and drainage of swamp areas. It hinges upon education, since larger numbers of trained people in all the farm specializations will be needed.

## Rise in Living Standards

The target figures propose new increases in production of consumer goods that will go far to create an economy of abundance. The output of the food industry is to increase 1.7-fold and that of light industries 1.5-fold.

The rate of growth envisaged for manufacture of fabrics, clothing and footwear will bring the Soviet Union very close to American levels, both in terms of total volume and per capita production. As for foodstuffs, the Soviet per capita production of a number of essentials is expected to exceed that of the world's leaders by the plan's end, and perhaps even before then.

There are to be large increases in the production and sale of household appliances—washing machines, vacuum cleaners, refrigerators and electrical appliances generally. As compared with the seven years



NEW ROLLING MILLS ARE NEEDED TO KEEP PACE WITH INDUSTRIAL ADVANCES.

just passed 5.6 times as many refrigerators are expected to be sold through retail trade, 8.8 times as many washing machines, 4.6 times as many television sets and 2.7 times as many motorcycles and motor scooters.

The target figures presume not only more consumer goods available for purchase but a larger consumer purchasing power.

The high rate of economic growth in the Soviet Union has always been accompanied by a rapid growth in national income. During the seven-year plan period it will increase by 62-65 per cent.

Under the Soviet system the entire national income is distributed in the interests of society as a whole. Approximately one-quarter of it goes directly for personal use of the people in the form of wages and social services. Three-quarters is used for further expansion of the economy and for other needs of the nation, which in the final analysis also redounds to the good of the people.

On a solid foundation of growing nationally-owned wealth the target figures for the seven-year plan visualize a vast program for a continued rise in living standards.

The real incomes of industrial and office workers and of collective farmers—the figures which actually measure incomes in terms of what they can buy—will increase by 40 per cent. The plan also provides for further boosts in wages for low and medium paid workers beyond those already instituted. Additional improvements in the pension program are planned to give larger grants to retired workers at the low end of the scale.

The changeover nationally to a seven-hour working day without reduction in wages is well on the way now and it will be general by 1960. By then, too, all underground workers in coal and ore mining will have shifted over to a six-hour working day. Beginning with 1964 there will be a gradual cut in working hours to a 35-hour five-day week, in some industries to a 30-hour week. This will also be effected without a reduction in wages.

To overcome the existing housing shortage, construction everywhere in the country is going on at an unprecedented rate. The target figures for both the budgetary allocations and the scope of the building program provide for further expansion. The 1959-1965 period will see 15 million new apartments built in towns and cities. This is 2.3 times more than were built in the past seven years. Another seven million houses are to be built in rural areas.



TO MEET POWER REQUIREMENTS MANY LARGE AND SMALL STATIONS WILL BE BUILT.



THE PLAN ACCELERATES THE BUILDING OF BIG APARTMENT PROJECTS TO PUT AN END TO HOUSING SHORTAGE.



MORE FURNITURE AND CONSUMER GOODS ARE COMING.

# TARGET FIGURES



NEW FACTORIES HAVE BECOME THE HUB AROUND WHICH WHOLE CITIES ARE PLANNED

## Education

Of truly great importance for the future of the Soviet Union is the proposed reform for the entire system of education to meet the growing needs of the economy and culture. Along with the nationwide discussion on the target figures for the over-all development of the country there has been a similarly wide discussion on the project to bring schools and colleges closer to the everyday practical needs of the nation.

Forecast for the seven-year plan period is a further development of education facilities for both city and country communities, and a large expansion of evening and correspondence schools.

By 1965 the number of pupils in schools will have grown from the 1958 figure of 30 million to 38-40 million. There will be a substantial increase in the numbers of people attending the vocational schools.

Some 2,300,000 graduates are expected from colleges and universities between 1959 and 1965, as compared with the 1,700,000 graduated between 1952 and 1958. There will be, in addition, no fewer than four million young people studying at the specialized secondary schools during these years.

## Long-range Planning

Although the scope of the new plan presently being considered is so much larger and bolder than that of any of the previous plans, the possibilities are also enormously greater than they have ever been. Nor do Soviet planners stop at this projected plan for the seven years to come. They are already working out plans for economic and cultural development for a longer span of time.

Tentative calculations indicate that within a 15-year period the Soviet Union will be producing not its present fifth of the world's industrial goods, but closer to a third of the world's total. Measured by rate of industrial growth, the country confidently expects to overtake and exceed per capita production of the United States some five years after this present 1959-1965 plan is completed.

By the seventies, and it may be sooner, the Soviet Union will have moved to first place in both total and per capita production, a position which will provide the Soviet citizen with the highest living standard the world has ever seen.

# PLANS become REALITY

**By ANATOLI YEFIMOW**

***Director, Economic Research Institute, USSR State Planning Committee***

YEAR by year the Soviet Union's growth has been charted by a master economic plan. The first of these plans was outlined in the spring of 1920, at the Ninth Congress of the Communist Party.

It was at a time when the Civil War was still raging but the outcome was already predictable. The young Red Army was pushing back the counter-revolutionary and interventionist forces on one front after another. Many of the delegates had come to the party congress in Moscow straight from the battlefields.

At Lenin's suggestion a uniform economic plan for the whole of the country was discussed. It forecast the reconstruction of the war-shattered country around an almost impossibly ambitious electrification project. Appointed to head a committee of economists, engineers and scientists who were to draw up a detailed plan was Gleb M. Krzhizhanovsky, a prominent engineer and scientist who had taken part in the revolutionary movement since the nineties.

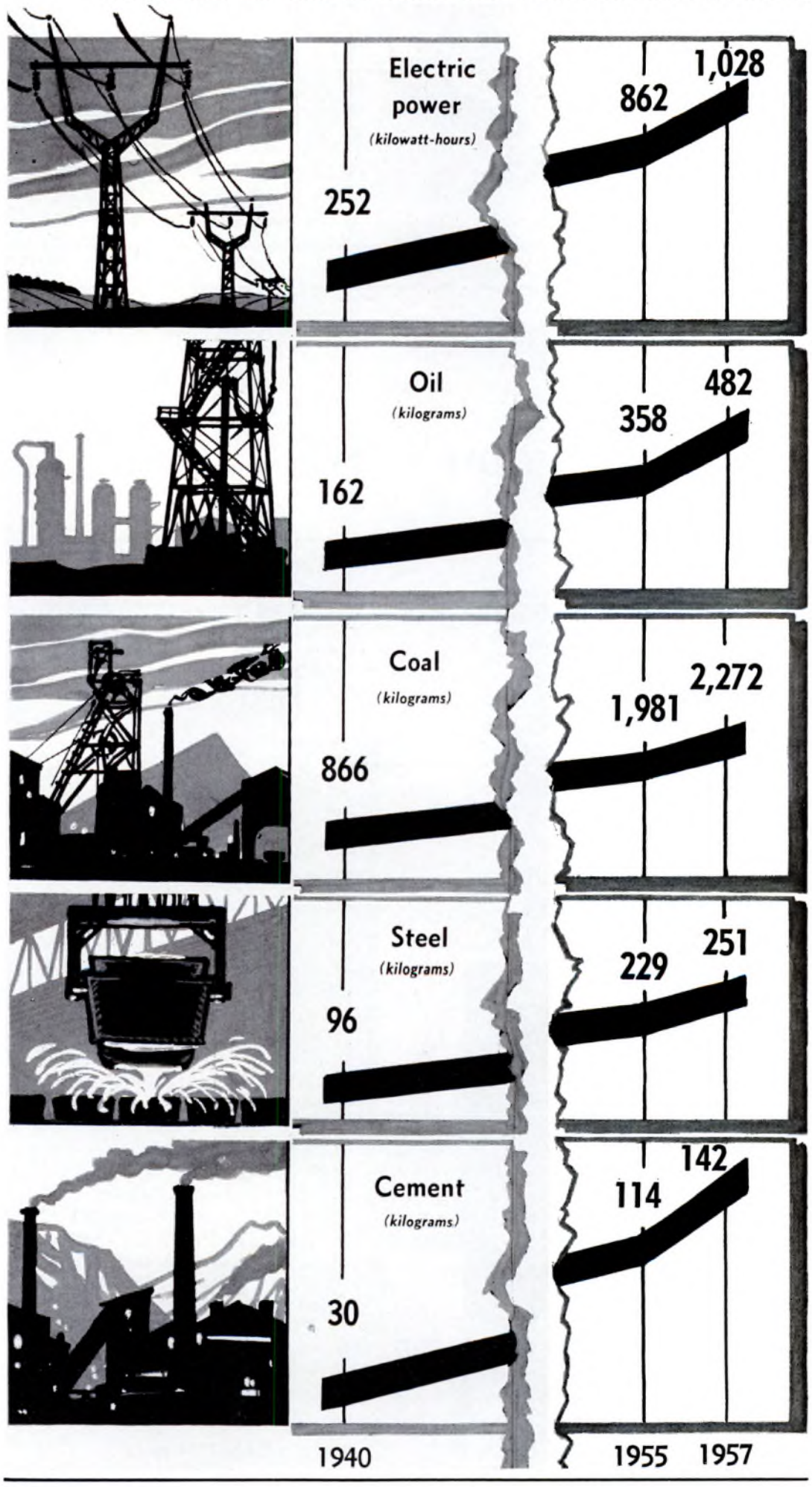
It was at the Fifteenth Congress of the Communist Party in December 1927, that the now familiar Russian word *pyatiletka—pyat* means five and *let* means years—was coined to denote the five-year plans for industrial and agricultural development by which the Soviet Union has guided its economic growth. By then the shattered economy of the country had been rebuilt and the industrialization program which Lenin had envisioned in 1920 was under way.

### Five-Year Plans

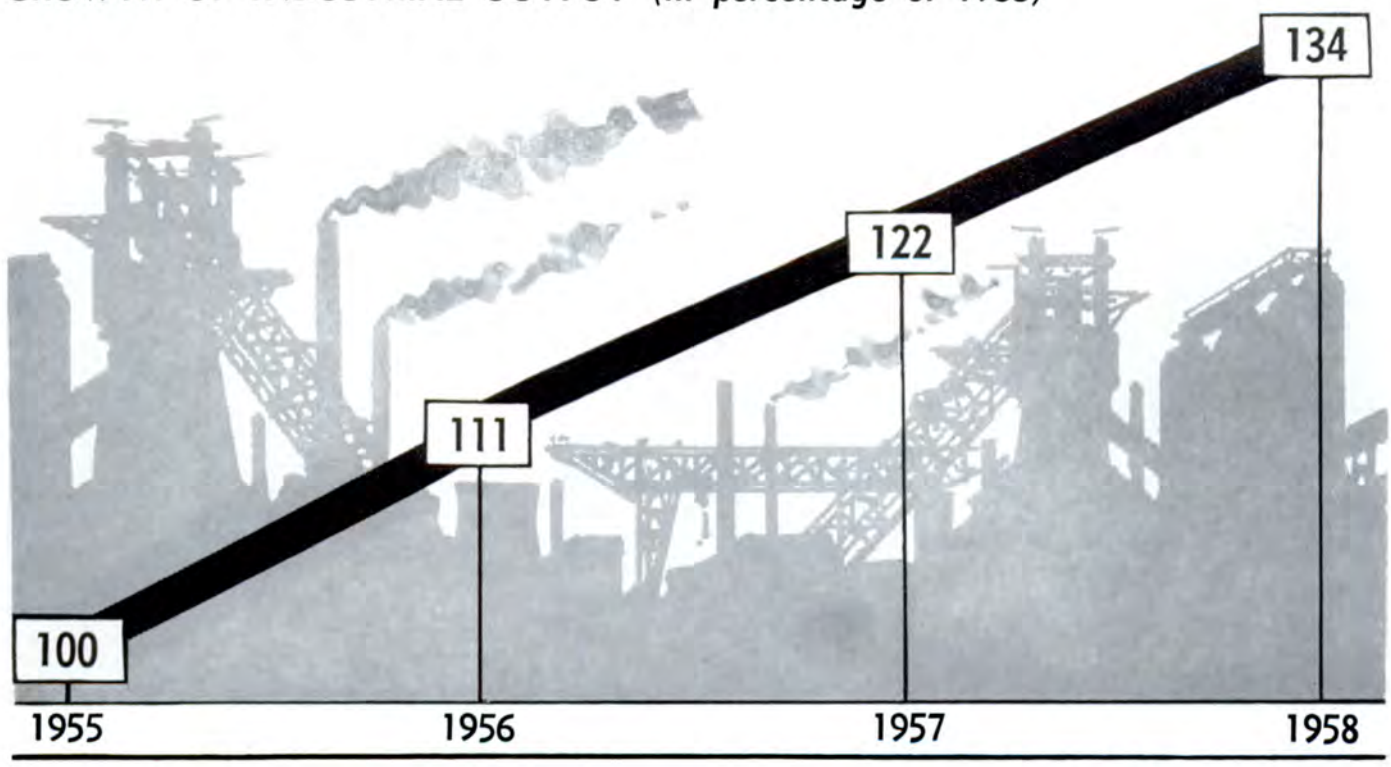
On the stage of the Bolshoi Theater where the Fifteenth Congress met, stood a huge map of the Soviet Union on which were dotted the factories, mills, mines, power stations, railroads, canals, seaports, towns and cities to be built—a massive plan to industrialize the country in five years.

To many people abroad, and even at home, the plan seemed an unattainable fantasy. Those who would have liked to see it fail called it a bluff, a propaganda trick.

But this first plan was not only fulfilled—in nine months less than the five years allowed—it was overfulfilled. What made the impossible

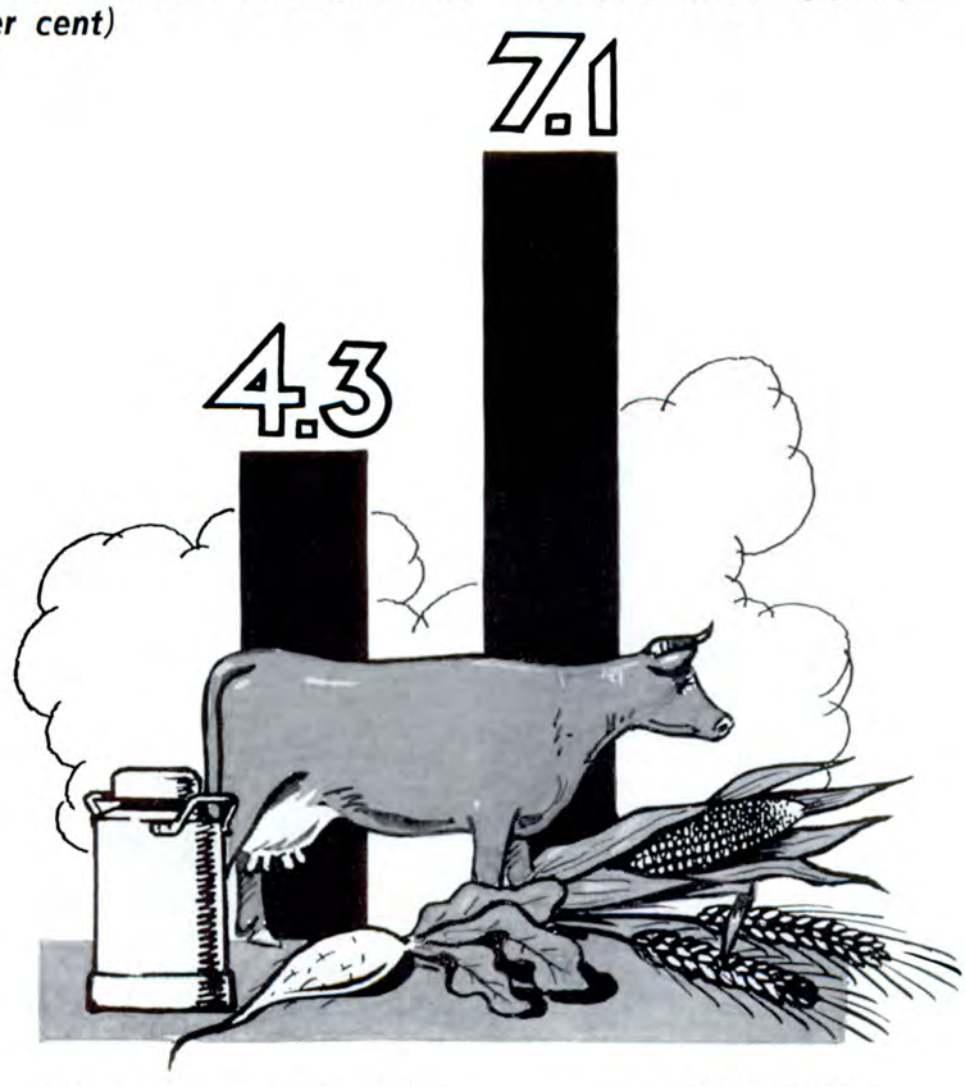


**GROWTH OF INDUSTRIAL OUTPUT** *(in percentage of 1955)*




# PLANS become REALITY

**AVERAGE YEARLY INCREASE OF AGRICULTURAL OUTPUT** *(in per cent)*




**Within the pre-war (1930 to 1940) and post-war (1946 to 1957) years**

**Within 1954 to 1957**

feat possible was scientific planning, the great potentials of a socialist economic system, the creative participation of millions of people and the guiding role of the Communist Party in the life of the nation.

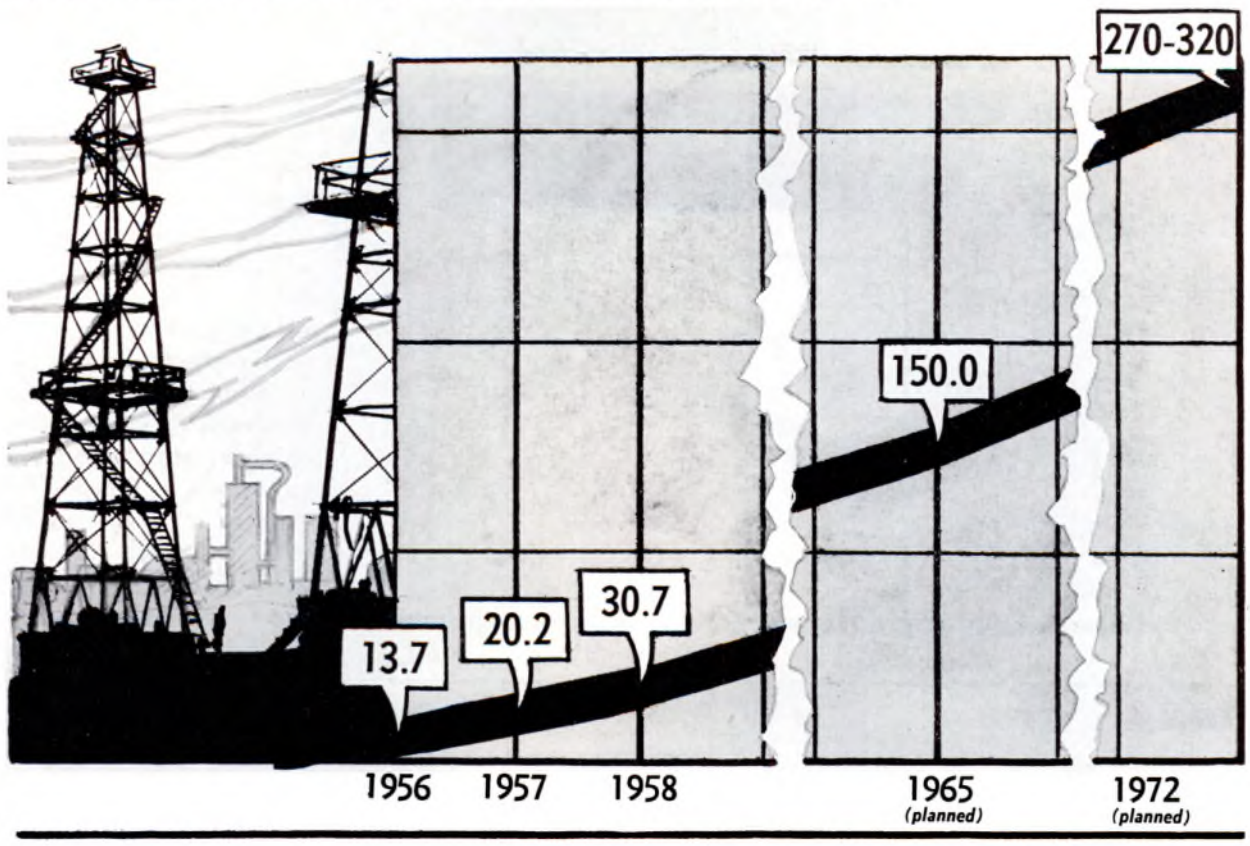
Pre-revolutionary Russia had been a backward country of small peasant farms. By 1932, the end of the first five-year plan, this country had become an industrial power with a rapidly expanding production. Agriculture, too, had made progress, with millions of small peasant households joining to form collective farms which made large-scale mechanized production possible and thus insured constant growth of marketable output.

The first five-year plan covered the period from 1928 through 1932. For the subsequent development of the country's economy the second five-year plan was charted to cover the period from 1933 through 1937. It was followed by the third five-year plan, started in 1938 and interrupted by the war. The fourth five-year plan covered the period from 1946 through 1950, and the fifth from 1951 through 1955. The Twentieth Party Congress, which preceded the one opening this January, approved the directives for the sixth five-year plan to cover the period from 1956 through 1960.

The planned Soviet economy has developed without interruption except for the war period, without depressions or recessions of any kind. As a matter of fact, the rate of economic growth has usually exceeded the levels set by the plans.

During the three years which have passed since the Twentieth Party Congress industrial production has increased by 10-11 per cent annually instead of the planned 7-10 per cent, with each one per cent of increase now worth more than 10 billion rubles compared with 0.5 billion three decades ago, at the beginning of the first five-year plan.

In 1958, during the first half of the year




alone, more coal was mined than for the whole of 1949, as much iron, steel and rolled metal turned out as for all of 1950, more electric power generated than in 1951, almost as many tractors manufactured as for 1953, a considerably larger number of locomotives produced than in 1954, and more natural gas than in 1956.

There has also been a marked increase in agricultural production during recent years. In the early post-war period the annual farm output increase did not exceed 4.3 per cent. In the period from 1954 through 1957 the increase amounted to 7.1 per cent a year, while in 1958 agricultural production grew 17 per cent over the preceding year. Last year's grain harvest was the largest ever gathered, topping even the 1956 bumper crop. The yield of other crops was equally high.

### Changes in Industry and Agriculture

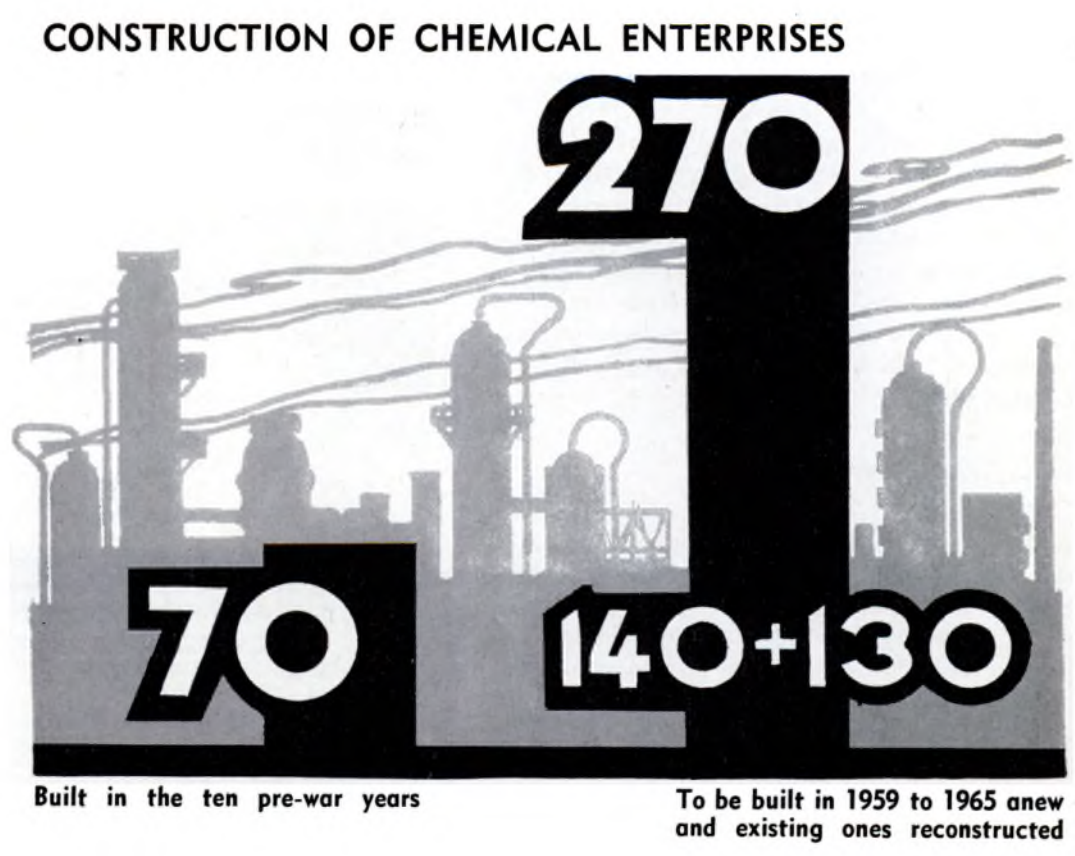
Accompanying the quantitative growth are important qualitative changes. In 1957 the decentralization of industrial management placed most of the country's enterprises under local jurisdiction. In 1958 the reorganization of state-owned and operated machine and tractor stations turned over the bulk of agricultural machinery to the collective farms, thus consolidating their economy.

Both changes, before they were enacted in law, were presented for nationwide consideration. The draft on industrial management was debated at 514,000 meetings throughout the country with an estimated audience of 41 million people. Some 2,300,000 people spoke at those meetings, commenting on the draft or suggesting amendments. In addition, articles and letters by some 68,000 people appeared in newspapers and journals.

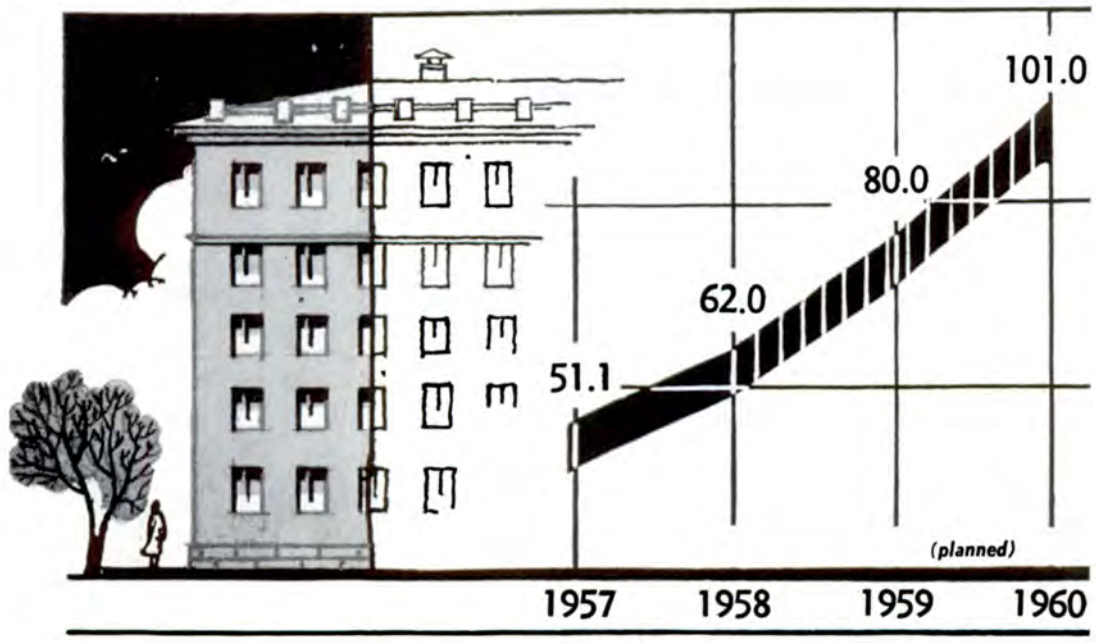
Discussion on the farm proposal took on even larger proportions, with 50 million citizens attending 577,000 meetings and some three million speakers participating actively in discussion. Close to 103,000 articles and letters were published as part of the national debate.

"These figures," commented Nikita Khrushchev, "speak eloquently of the fact that our Soviet society not only declares its democratic principles but puts them into regular practice."

The major changes in industrial administration and farm operation have had most beneficial results and were no small factors in accelerating the growth of the country's economy. Both in industry and farming great successes were scored and higher production targets for the future were set up in the past year or two.



**HOUSING CONSTRUCTION IN CITIES**
***(millions of square meters)***




# PLANS become REALITY

Recent years have seen the discovery of major raw material deposits and power sources in various parts of the country. This has provided possibilities for establishing very profitable new enterprises and whole industrial centers, particularly in the eastern regions. Also in the East a new grain producing area has been developed in recent years by the cultivation of millions of acres of virgin lands.

In addition to the geographical redistribution of industry and agriculture, there has also been a shift in the relative importance of various branches of the economy. While formerly coal played a major role in the supply of fuel, now the emphasis on natural gas, comparatively new for the Soviet Union, is increasing. Another example is the chemical industry, which is becoming one of the major producers of consumer goods. Increasing emphasis during recent years has been placed on housing construction, which now greatly exceeds all previous highs.

### Seven-Year Plan

All this required basic changes in both current and long-term planning. Many of the new projects and tasks were truly gigantic, and it became evident that the remaining years of the 1956-1960 five-year plan were insufficient for their fulfillment. Thus, it was life itself, the growing possibilities and requirements of Soviet society, that called for the drafting of a new economic program for a longer period.

Beginning with the fall of 1957 a plan to cover the period from 1959 through 1965 was being prepared and discussed in the Soviet Union. In November 1958 the Central Committee of the Communist Party approved a draft outlining the target figures for this seven-year plan. It is these figures that will be considered by the delegates of the Twenty-First Party Congress.

The new plan, like all those that had preceded it, has been drawn up with the active participation of millions of Soviet citizens. People have met to work out seven-year plans for their factories and farms. These plans were integrated into seven-year plans for each branch of the economy. These in turn were merged into seven-year plans for the whole of an economic area or a republic.

The regional plans, with the manifold changes and additions made at every level, were merged into the national plan which was presented to the country for discussion. Again, as during previous nationwide discussions, thousands of meetings are held, millions of citizens suggest their amendments and countless items are printed in the press.

Many of the recommendations grew out of the debates held at Communist Party local meetings, regional conferences and republic-wide conventions. An active part in the nationwide discussion was taken by the Young Communist League. During recent months the trade unions also held sessions on an industrial and territorial basis to consider the target figures that would be integrated into the seven-year plan.

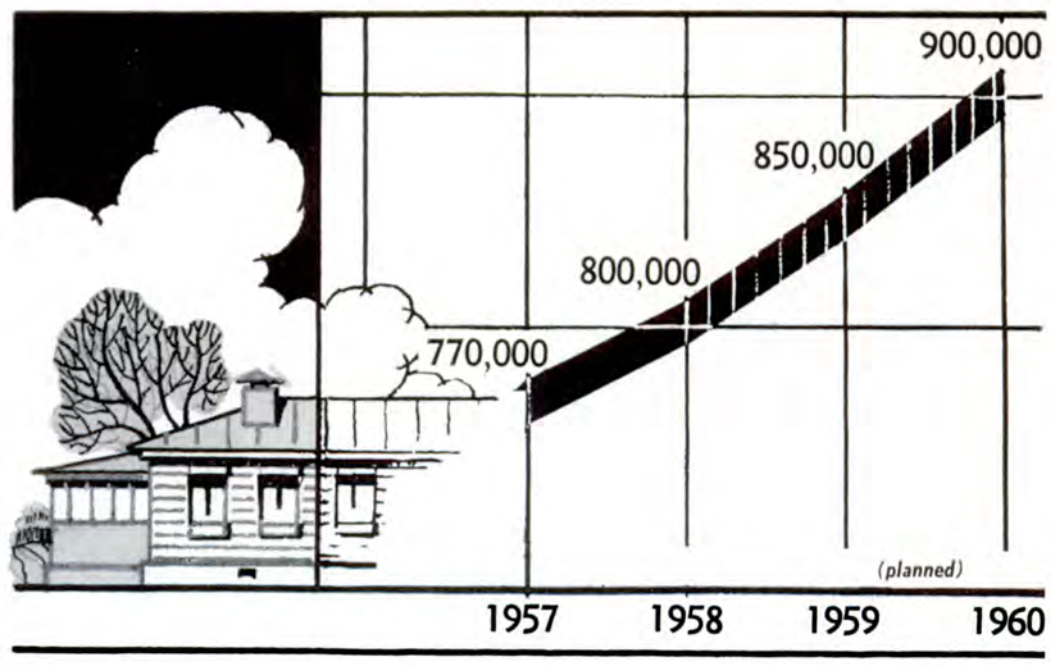
Thus the Twenty-First Party Congress will be summing up the vast amount of work and discussion that has been under way these months. Its final proposals will be a digest of the views and opinions of all the country's citizens.

### Creative Initiative

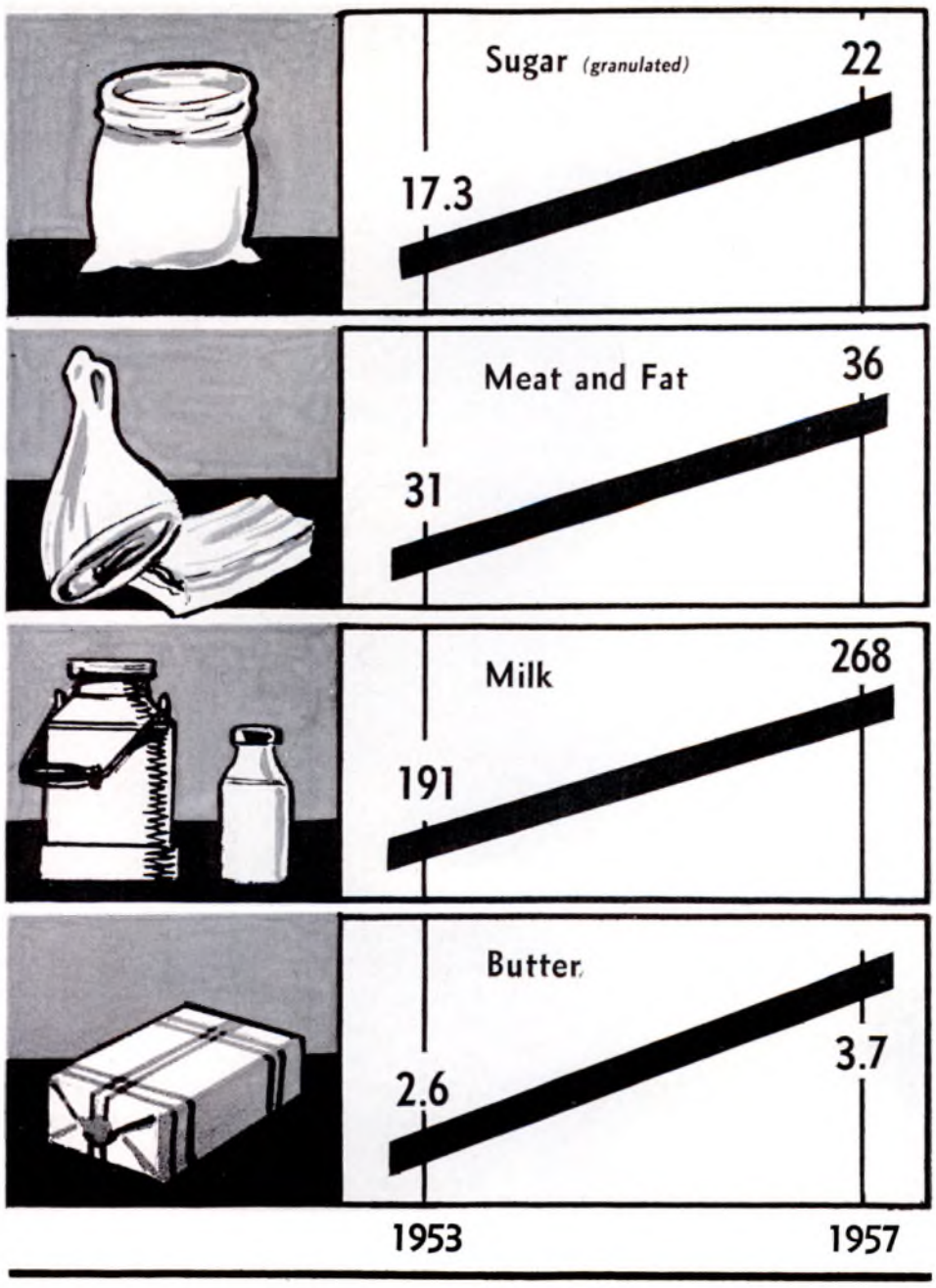
Since planning is done at all levels, beginning with the single factory or farm, large numbers of people are directly involved in sketching out drafts and submitting them to higher planning bodies. Many of the suggestions made by workers and farmers for their factories and farms are of primary importance in arriving at regional and even national target figures.

The Magnitogorsk Iron and Steel Plant, one of the country's largest metal producers, is a

**HOUSING CONSTRUCTION IN RURAL AREAS**
***(number of houses)***



## PER CAPITA PRODUCTION *(in kilograms)*




Stalingrad Hydroelectric Station now being completed. Its projected capacity of 2,310,000 kilowatts is expected to be topped and will exceed 2,500,000 kilowatts.

### The Country's Main Economic Goal

Each of the economic plans since the first has moved the Soviet Union one step further toward the main economic goal—to overtake the world's most developed countries in per capita production of industrial and consumer goods. What this means for the Soviet Union is that the time is steadily approaching when society as a whole and each of its members will enjoy an abundance of material and cultural wealth.

Some thirty years ago the Soviet level of per capita production as compared with the American level was 24 times lower in electric power, 15 times lower in steel, 12 times lower in oil. Today the gap has narrowed enormously and is narrowing further with each working week and even day.

In production of electric power the gap has been reduced from a factor of 24 to 4. In steel the differential is even smaller. In cotton fabric production the gap has narrowed from 4.5 times to 2, in woolen fabrics from 7 to 1.4.

The high rate of industrial and agricultural development visualized by the target figures for the seven-year plan will bring per capita production to a point where the gap will be minimal and in some cases will be completely bridged.

New tasks to be charted by the Twenty-First Party Congress will exceed in their scale all previous plans. No one in the Soviet Union doubts that the plan for 1959-1965 will be carried out successfully and that the country's main economic goal will be achieved in a future not too distant.

case in point. Its engineers have worked out a way of utilizing available equipment so as to make it possible to double the plant's output, and the target figures for the plant have been increased accordingly.

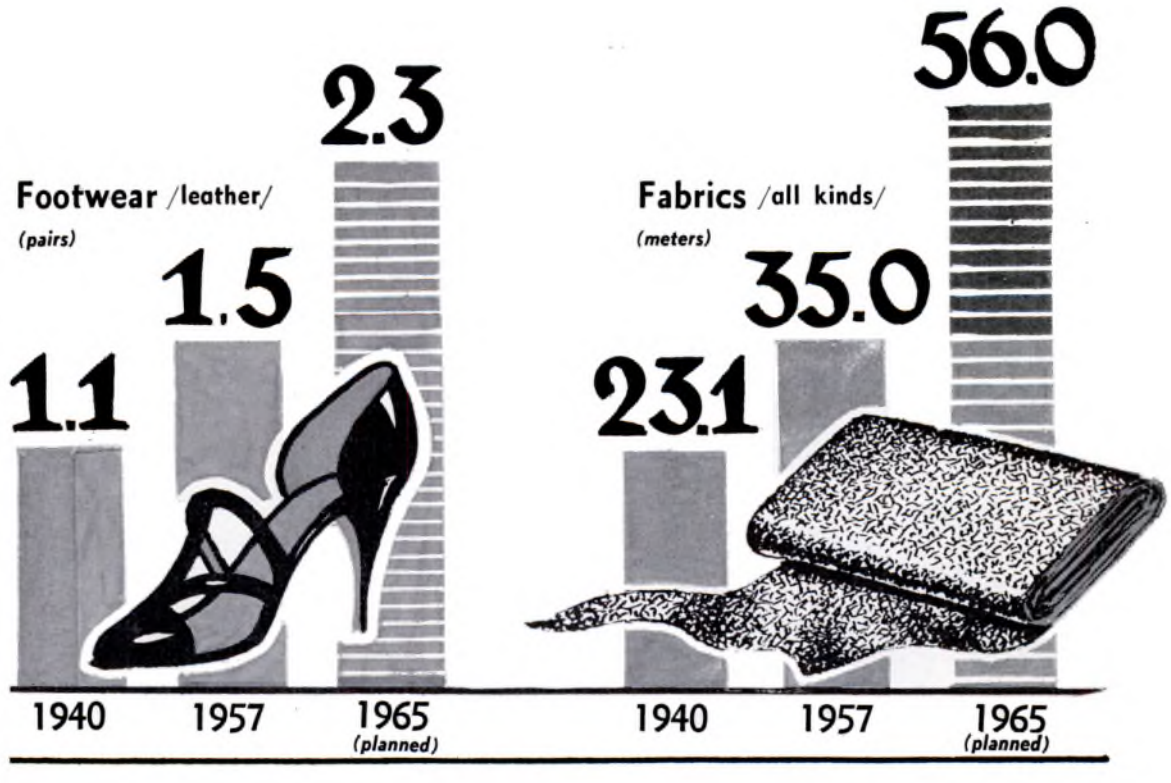
Other plants have followed suit and have adopted higher iron and steel production quotas which are thoroughly practicable by reason of Magnitogorsk workers' new look at the problem. More efficient use of existing blast and open-hearth furnace capacities alone, they believe, can give the country additional millions of tons of metal.

This example shows that the plan, whether for a factory or for the country as a whole, is a blueprint modified and improved as new approaches develop and as experience is gained.

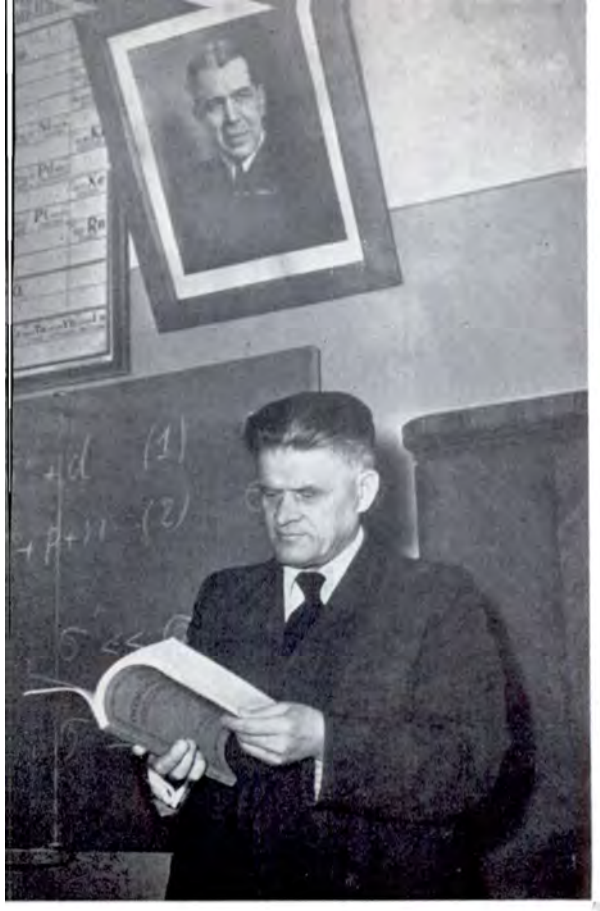
Examples of creative initiative may be cited for any section of the national economy. Some months ago power engineers working with the generators of the new Lenin Hydroelectric Station on the Volga River found ways of increasing kilowatt capacity from 2,100,000 to 2,300,000. Their methods now are used widely to increase the country's power output.

The most recent application is the new

## PER CAPITA PRODUCTION



# Soviet



## PAVEL CHERENKOV

Pavel Cherenkov (shown in the photo at the left under the portrait of his teacher, the late Sergei Vavilov) heads a department at the Physics Institute of the USSR Academy of Sciences. He was born in 1904. In 1928 he was graduated from Voronezh University with a diploma which qualified him as teacher of mathematics and physics.

The research work for his master's degree, completed in 1935, was done under the supervision of Academician Sergei Vavilov, then President of the USSR Academy of Sciences. It dealt with the luminescence of solutions of uranyl salts subjected to gamma radiation.

It was in the course of this work that Pavel Cherenkov made the outstanding discovery which is a landmark in twentieth century physics, a discovery which won him the Nobel Prize.



## IGOR TAMM

Igor Tamm works in the Physics Institute of the USSR Academy of Sciences. He was born in 1895. In 1918 he graduated from Moscow University where he has been lecturer for two decades.

His research work has led to important contributions in quantum mechanics and its applications, in particular, to the theory of irradiation, the theory of cosmic rays and the interaction of nuclear particles. He suggested the quantum theory of the dispersion of light in solids and developed the theory of the dispersion of light by electrons. In 1934 he advanced and substantiated mathematically a theory of nuclear forces which served as model for the modern mesonic theory of nuclear forces.



## ILYA FRANK

Ilya Frank works in the Physics Institute of the USSR Academy of Sciences. He was born in 1908. In 1930 he was graduated from Moscow University and began work at the Leningrad Institute of Physics. He has been on the staff of the Physics Institute of the USSR Academy of Sciences since 1934 and professor at Moscow University since 1944. His work is principally in optics and nuclear physics. His major contributions were made to quantum physics and the physics of neutrons.

# Physicists Awarded NOBEL PRIZE

THREE Soviet physicists—Pavel Cherenkov, Igor Tamm and Ilya Frank were awarded the 1958 Nobel Prize in physics "for the discovery and interpretation of the Cherenkov effect," as the citation of the Swedish Academy reads. The award is recognition of a major discovery in irradiation effect which has long been widely known and has been used as a highly important tool in many areas of modern physics.

Previous Nobel awards to Russian scientists went to Ivan Pavlov and Ilya Mechnikov for their work in medicine and physiology in the early 1900's, and to Nikolai Semenov who shared the 1956 chemistry award with the British scientist Cyril Hinshelwood.

Cherenkov discovered the irradiation effect called by his name in 1934 when he was investigating the irradiation given off by pure liquids exposed to gamma rays, the very intense rays emitted by radium. This research was being done at the suggestion and under the guidance of the late Academician Sergei Vavilov.

The investigation disclosed unusual properties of the new irradiation which helped distinguish it from the luminescence of liquids under the effect of gamma rays. Vavilov sought the explanation of this new phenomenon in the greater velocity imparted to electrons by gamma rays when they pass through certain media.

The phenomenon, discovered by Pavel Cherenkov, was explained in a theory developed by Igor Tamm and Ilya Frank in 1937. They showed that the source of the radiation were electrons that moved in a particular medium at a speed greater than that at which light passes through that same medium.

When the speed of an electrically charged particle moving in some medium exceeds the speed of the propagation of light waves in that medium, the particle itself glows. A simple mechanical comparison of this kind of radiation is afforded by waves produced in the air when a body flies through it at supersonic speed.

According to the Einstein relativity theory, particles of matter cannot move at a speed greater than the speed of light passing through a vacuum. This is the greatest velocity possible. But in many media the speed of light is less than in a vacuum and it is therefore experimentally possible to obtain charged particles that move in a particular medium at a speed greater than that of light in that medium.

Tamm and Frank demonstrated that the radiation of charged particles moving at a speed faster than light propagates in the form of a cone, its axis coinciding with the direction of the velocity of the particle's speed and the medium's deflection factor for the given length of the wave of emitted light. Experiments both in the Soviet Union and abroad have long since confirmed both the Cherenkov phenomenon and the theory developed by Tamm and Frank to explain it.

The light deflection factor for various media is either known or is easily calculated. The Cherenkov irradiation is therefore a very convenient tool with which the speed and even direction of movement of charged particles can be measured. This method of measuring the velocity of particles can be used not only for electrons, of course, but for any other electrically charged particles. It is exceedingly accurate and is being used very widely and very effectively in modern physical research.

Cherenkov counters, devices which employ the effect of the Cherenkov phenomenon, are very important instruments for recording charged particles. With these counters the new elementary particle, the anti-proton, was discovered and studied in 1955. They are used in cosmic ray investigation and in experimenting with accelerators that produce high energy particles. Cherenkov counters were carried by the Soviet earth satellites to record the streams of charged cosmic ray particles.

The work of Vavilov, Cherenkov, Tamm and Frank is highly esteemed in the Soviet Union. In 1946 it won the Stalin Prize. In 1958 it was the entry of the USSR Academy of Sciences for the Nobel Award, and the decision of the Swedish Academy undoubtedly reflects the opinion of scientists the world over.

In an interview given to the press shortly after the award was announced Ilya Frank stressed the indebtedness of the Nobel Laureates to Sergei Vavilov.

"I am very proud," said Frank, "that the work of Soviet physicists, my own work included, has been appraised so highly by the Swedish Academy of Sciences and awarded a Nobel Prize. I would also like to note that the success of the work, begun 25 years ago, was ensured in the first place by the fact that it was conducted by a large group of research and technical workers who contributed to no small extent to the discovery and explanation of the Cherenkov effect. And first of all I would like to note the invaluable aid rendered us by the outstanding Soviet scientist, the late Academician Sergei Vavilov.

"I am also glad to see that the results of our discoveries are being applied in various fields of physics and are being further elaborated by many scientists in many countries."




# A Promising



Signing the new movie exchange pact: Eric Johnston for the USA, Vladimir Surin for the USSR.

JANUARY marks a year since the agreement on cultural, technological and educational exchanges was concluded between the United States and the Soviet Union. It has been a productive and a promising year, an increased interchange of people and ideas that has done much to create a better climate of understanding between our countries.

In the joint communiqué that announced the agreement, it was the expressed hope of both signatories that the program of exchanges would serve as an important beginning step cutting through some of the misconceptions that have kept our countries apart. Friendlier relations between the United States and the Soviet Union, the communiqué said, would unquestionably make for friendlier world relations.

President Eisenhower stated that such agreements would result in improved mutual understanding between the peoples of the United States and the Soviet Union. The opinion of the Soviet public was voiced by Premier Khrushchev, who wrote in his message to the President of the United States that the agreement was a good practical step toward rapprochement between our countries.

Khrushchev's message read: "It is gratifying that this agreement has met with approval both in the USSR and the USA, and in other countries as well. This, I believe, is due primarily to the fact that the people see in it

Young Americans are greeted by their Soviet hosts upon arrival in Moscow. There are flowers and speeches, and, of course, cameramen to record the eventful beginning of the youth exchange program.




Executive of an American ice revue company sees the arena where his troupe will perform.



# Exchange Year

concrete proof that Soviet-American relations can really be bettered, and this holds the promise of a general improvement of the present unstable and alarming international situation."

### A Good Start

The agreement covered a two-year period, 1958-1959, and provided for exchange delegations of people in industry, farming, science, education and public health; for reciprocal visits of writers, artists, composers and theater groups; for exchange of groups representing young people's and women's organizations; for sports competitions;for exchanges of films, radio and television broadcasts.

This exchange program has been most encouragingly carried through in the first year of its operation.

Visiting our country during the year were delegations of American power engineers, metallurgists, chemists, physicians, educators, radio and television people. Among our guests were American composers and writers. Soviet workers in metallurgy, building, medicine, education and other fields returned the visits.

There were also exchanges between scientists of our countries, reciprocal visits of

*Continued on page 20*

A press conference held by an American delegation after watching the Soviet elections last March. A similar group from the Soviet Union observed the 1956 presidential election in the United States.



INTERVIEWS

## *YOUTH EXCHANGES CONTRIBUTE TO PEACE*

*Says* **Sergei Romanovsky**

*Chairman, Committee of USSR Youth Organizations*

THERE is perhaps no better guarantee of enduring peace than the growing friendship between American and Soviet young people that has developed out of the exchange agreement.

Dozens of young Americans—college students, editors of student newspapers, representatives of such organizations as the YMCA, the YWCA, the United Student Council, the Lisle Fellowship, the Experiment in International Living —last year toured the Soviet Union. There were also Soviet youth delegations touring the United States at the same time.

It was my pleasure to be part of a Soviet youth group that visited the United States. I am not likely to forget the friendly way in which we were greeted everywhere we went nor the wealth of impressions we gathered.

Our Committee of USSR Youth Organizations has worked out with American youth groups a larger program of activities for 1959. On an exchange basis, 20 young Americans chosen by the US Council on Student Travel will visit the Soviet Union. There will be visiting delegations from the YMCA, the YWCA, the Young Adult Council, the Young Democrats, the National Federation of Young Republicans, the 4-H clubs and other youth organizations. About 100 young tourists have been invited to the Soviet Union by the Bureau of Youth Tourism.

## *MORE RADIO AND TV EXCHANGES*

*Says* **Dmitri Chesnokov**

*Chairman, State Committee for Radio and Television Broadcasting*

THE Soviet people regard the exchanges of radio and television programs as an important means of creating better understanding between our peoples. But thus far these exchanges, as desirable as they are, only touch the fringes of this very important area of cultural contact. We should like to see much more done with the possibilities—a regular and consistent exchange of dramatic productions, of popular science and other programs as outlined by the exchange agreement.

A delegation representing NBC, ABC, Westinghouse and other American radio

and television broadcast companies came to the Soviet Union last October to work out specific exchange plans for 1959. The American delegation was received by our Committee for Radio and Television Broadcasting and by the State Committee for Cultural Relations with Foreign Countries.

The Americans visited the Sound-Recording House and the Moscow Television Studios where they saw Soviet television films suggested for American presentation this year. Late last year a delegation of Soviet radio and television people came to the United States for an exchange visit. These reciprocal visits have made it possible to work out many of the details of the exchange program in our field for 1959.

## *A NATION IS BEST UNDERSTOOD THROUGH ITS ART*

*Says* **Boris Pokrovsky**
*Stage Director, Bolshoi Theater*

THERE is much more in an exchange of artists than the opportunity it offers to see or hear another country's performers. The soul of a people is to be understood best through its art and that understanding brings sympathy and friendship.

That is why we were glad to hear baritone Leonard Warren and tenor Jan Peerce sing in our theater and why we were so pleased at the reception of the gifted Van Cliburn by our audiences.

It was not only individual American artists who played for Soviet audiences but such groups as the justly famed Philadelphia Orchestra led by Eugene Ormandy. The appearance of the eminent conductor Leopold Stokowski was indeed a major cultural event in the Soviet Union.

We reciprocated with such Soviet artists as violinist Leonid Kogan and pianist Emil Gilels and were, of course, enormously pleased with the reception accorded the Moiseyev and Beryozka dance companies by Americans.

All this is very much to the good. More would be even better. A good many exchanges have been worked out for 1959. We at the Bolshoi Theater are now rehearsing a large ballet troupe for an American tour this spring. Its program will include Khachaturyan's recently staged ballet *Spartacus*, which was very much a success in the Soviet Union, and perhaps another new ballet, *The Hunchbacked Horse*, by the young composer Shcherbakov.





# A Promising Exchange Year

ROY HARRIS CONDUCTS A MOSCOW ORCHESTRA IN HIS FIFTH SYMPHONY, DEDICATED TO THE SOVIET PEOPLE.





PROF. HERMAN MARK, AN AMERICAN CHEMIST, LECTURES ON POLYMERS FOR THE FIBER AND PLASTIC INDUSTRIES.

AMERICAN UNIVERSITY NEWSPAPER EDITORS ARE SHOWN COPIES OF A STUDENT PUBLICATION IN LENINGRAD.



A NEW HOUSING PROJECT IN MOSCOW'S SOUTHWEST AREA IS INSPECTED BY A GROUP OF U.S. BUILDERS.



INTERVIEWS

## *VERY ENCOURAGING TECHNOLOGICAL EXCHANGES*

*Says* **Yuri Maxarev**
*Chairman, State Committee on Science and Technology*

THAT part of last year's exchange agreement which called for reciprocal visits of industrial specialists has been very successfully carried out. The possibilities for wider exchanges are very encouraging, particularly since these were the first official USA-USSR exchanges undertaken in the technological and industrial fields.

We had a visit from representatives of the American iron ore and steel industries headed by Edward Ryerson of Chicago. Our guests visited plants in several industrial centers. What was most edifying was the ease with which communication was established. We spoke the common language of modern technology and had no difficulty understanding each other. The American steelmen noted in conversations that there was much they had seen in our country that was new, interesting and useful.

A delegation of Soviet steelmen and ore mining specialists returned the visit last fall and went through twenty of the big American plants. They have the warmest memories of the hospitality accorded them everywhere they went.

There was also an exchange of specialists in the plastics industries and in automation. Our engineers participated in the 14th annual electronics conference held in Chicago, and went through the computer exhibit held in New York, the metal processing equipment exhibit in Cleveland and the plastics exhibit in Chicago.

The first contacts have already confirmed that the exchange of scientific and technological achievements between our countries is beneficial to both sides and, what is more important, promotes mutual understanding and closer relations between our peoples.

## *WE WERE GLAD TO WELCOME U.S. EDUCATORS*

*Says* **Vyacheslav Yelyutin**
*Minister for Higher Education*

THE initial steps taken this past year for exchanges of American and Soviet college educators have been mutually informative and, it is our hope, will encourage continued and much broader contacts.

Our ministry was happy to welcome a delegation of natural science instructors

led by Professor John Turkevich of Princeton and delegation of instructors in the humanities led by Dr. Francis Brown of the American Council on Education.

A group of American university presidents, headed by Dr. Edward Litchfield, chancellor of the University of Pittsburgh, made a tour of colleges in a number of Soviet cities. Dr. Litchfield, in a report published on his return, commented on the attentions paid to higher education by the Soviet government and the respect accorded in our country to learning.

"They believe in higher education," Dr. Litchfield said, "and pay for it gladly." That accounts, he added, for the extraordinary accomplishments in education in so short a time span and forecasts an even more impressive development for the future.

In reciprocal exchanges, three delegations of Soviet college educators visited American schools.

Moscow and Leningrad universities are presently host to 22 young American college and graduate students and a group of Soviet students are studying at American colleges.

## *A MOST PRODUCTIVE EXCHANGE YEAR FOR MEDICINE*

*Says* **Prof. Alexander Myasnikov**
*Director, Institute of Therapy*

FOR medical scentists this first year of exchanges under the USA-USSR agreement has been most productive. Americans working in various branches of medicine have visited research institutes, laboratories and hospitals in Moscow, Leningrad, Kiev and other Soviet cities. Our medical scentists have had the opportunity of learning about American research in progress and have seen how public health services in the United States function.

A year ago I had the pleasure of taking a group of American clinical cardiologists led by Professors White of Boston and Wright of New York through our Institute. Later we were visited by Professors Raab of Vermont, Pereiro of New York and Andrews of Baltimore.

During the year Professors Pavel Lukomsky, Zigmas Januskevicius and I represented the Soviet Union at the Fifth Congress on Internal Medicine held in Philadelphia and were taken around to hospitals and research laboratories in Philadelphia, Washington, New York and Boston.

We found, as we thought would be true, that the research being done in cardiology and other such vitally important medical specialties in both countries was proceeding along generally parallel lines and the question







U.S. EDUCATORS AT A MOSCOW ENGINEERING SCHOOL.

# A Promising Exchange Year

*Continued from page 17*

agricultural and social security delegations and youth groups. American and Soviet track and field, basketball, hockey and rowing teams have competed for athletic prowess.

Soviet audiences warmly applauded conductor Leopold Stokowski, singers Blanche Thebom and Leonard Warren and other American artists, while pianists Emil Gilels and Vladimir Ashkenazi, violinist Leonid Kogan, the Moiseyev and Beryozka dancers were enthusiastically welcomed by American concertgoers.

### Over and Above the Program

All these and other exchanges were carried through in this first year with gratifying success, particularly notable since the exchanges went a good way beyond the scope called for by the agreement, a most encouraging sign for the future. A display of books by Prentice-Hall Publishing Company authors, for example, was arranged in the Soviet Union and exhibitions of American artists were held in Moscow galleries.

Reciprocal visits not stipulated in the agreement were made by a number of groups and public figures. During the year Dr. Detlev Bronk, President of the National Academy of Sciences, Adlai Stevenson, Walter Lippman, Eleanor Roosevelt and Cyrus Eaton visited the Soviet Union. Mr. Robert Dowling, head of the American National Theater and Academy, came to discuss enlarged cultural exchanges and to plan the American tours of Soviet theater companies. At the end of last year Georgi Zhukov, chairman of the USSR State Committee for Cultural Relations with Foreign Countries, visited the United States.

The Soviet and American people have always respected each other's national culture. But while exchanges had previously been haphazard, now they have become incomparably broader and more regular. The United States and the Soviet Union are both highly de-

PROF. KOGAN (LEFT) OF THE FIRST MOSCOW MEDICAL INSTITUTE REVIEWS A CASE FOR U.S. SCIENTIST HOSCH.





AMERICAN EXPERTS WERE INTERESTED IN THE MACHINERY USED ON THE COLLECTIVE FARMS OF THE ALTAI TERRITORY.

veloped countries with wide experience in various spheres, and the increasing exchanges will be of great use to both nations.

We can borrow much from each other. Active cooperation of Soviet and American scientists in the battle against cancer and cardiovascular diseases, for example, as well as close collaboration in other fields might be invaluable not only to the peoples of the Soviet Union and the United States but to all mankind.

### For the New Year

Outlined for the new year are many eagerly anticipated projects. In prospect is a rather extensive motion picture exchange program negotiated late last year. It covers showings of American and Soviet feature films and documentaries in both countries, arrangement of film festivals and joint production of motion pictures.

The famous Bolshoi ballet will be touring the United States this spring and American music-lovers will be hearing violinist Igor Bezrodny, cellist Mikhail Rastropovich and singers Pavel Lisitsian and Zara Dolukhanova. Soviet audiences are looking forward to the American ice show performances and will be happy to be applauding Van Cliburn again on his second tour of our country.

The sports exchange for this year is far wider than the agreement provides for. Exchanges of tourists, literature, lectures by specialists in various fields will also be expanded. A feature of this year's exchange will be the exhibitions.

The Soviet exhibition will be held in the New York Coliseum and will show development in industry, farming, building, education, social security, public health and culture, to give Americans an idea of what the Soviet Union is like and what it is doing. The American exhibition will be held in Moscow. Both exhibitions will undoubtedly draw large crowds of visitors, and, we venture to suggest, will show many more similarities in the Soviet and American ways of life than differences.

To further expand our contacts in 1959 it would be quite feasible to exchange delegations of writers and journalists, representatives of Soviet and American cities, deputies of the USSR Supreme Soviet and United States Congressmen, as well as delegations of trade unions and other public organizations.

What we both need is to have more citizens and delegations of our countries visiting each other! This will surely help us get to know each other better, promote mutual understanding and establish closer friendly contacts between our peoples.



both we and American scientists asked as a natural consequence was this one: why not joint research that would hasten the day we can check these crippling and killing diseases and, it may be, eliminate them completely.

## *WE MUST GET TOGETHER MORE OFTEN*

*Says* **Prof. Yekaterina Vasyukova**
*Director, Institute of Endocrinology*

AS A worker in medicine I am especially pleased with the sections of the agreement which provide for exchange delegations of medical people and specialists in allied fields. This gives us the opportunity to exchange our experiences, and I cannot think of a more useful or desirable undertaking.

Last year I visited the United States for a month with a delegation of Soviet women physicians invited by the American Women's Medical Association. Our delegation was heartily welcomed everywhere on its tour of hospitals and research centers in seven cities. We were also welcomed at the homes of American scientists and doctors.

Very often our discussions centered around the thought that Soviet and American specialists must get together more often and share their work for mutual benefit and for the benefit of world science.

We were more than pleased to welcome our American medical colleagues who came to the Soviet Union with a return visit. We are happy to see that the friendly ties we made on our reciprocal visits have been so greatly extended during the first year of the exchange program.

## *WHEN PEOPLE TRUST EACH OTHER, EVERYONE IS HAPPY*

*Says* **Pyotr Rodionov**
*Retired Construction Worker*

I HAVE LIVED many years in this world of ours and know very well how important it is for people to have confidence in each other. But mutual confidence comes only with familiarity.

That is why I would like to see more exchanges between the United States and the Soviet Union. There is no doubt that closer contact will promote better understanding between our countries. In my opinion, this is the way to build mutual trust.

When people trust each other and live like good neighbors, the work goes well and everybody's life is happier.



IN LENINGRAD, MRS. ROOSEVELT STOPPED TO SEE THE PIONEERS PALACE.



FULLY PARALYZED ONE YEAR AGO, THIS GIRL NOW SHOWS SHE'S RECOVERED.








**By Yelena Doroshinskaya**

# Eleanor Roosevelt and

MRS. ELEANOR ROOSEVELT made a three-week visit to the Soviet Union recently. She came at the invitation of the United Nations Association of the Soviet Union with a delegation from the comparable American organization.

During her stay, Mrs. Roosevelt toured Moscow and Leningrad where she saw the sights and spoke with many of the people. She was welcomed by Georgi Zhukov, Chairman of the State Committee for Cultural Relations with Foreign Countries; Yevgeni Afanasenko, Minister of Public Education; and other officials.

In a talk with Yekaterina Furtseva, member of the Presidium of the Communist Party's Central Committee, Mrs. Roosevelt inquired into many aspects of Soviet life—the position of women and their participation in government and public life, the country's social achievements and the public health, welfare and education set-up.

At a press conference held for Soviet and foreign newsmen shortly before she left, Mrs. Roosevelt commented on the very cordial reception accorded her and other members of the delegation during their stay.

Asked her impression of the tour, Mrs. Roosevelt said, "We are convinced that, like Americans, people in the Soviet Union do not want war, but Soviet people have seen war closer than Americans, so, naturally, they hate it more."

Mrs. Roosevelt said that she had seen a lot during her three-week stay. She found her visits to kindergartens, schools and colleges especially interesting. "I could observe that in the comparatively short period of time that has elapsed since my last visit to the Soviet Union about a year ago the standard of living has improved markedly. Life is getting better and better."

OLGA KOROBCHUK'S SEVENTH GRADE ENGLISH PROVED ADEQUATE FOR HER NEEDS.





ELEANOR ROOSEVELT IS A LUNCHEON GUEST OF HOUSEWIFE NADEZHDA KOPYTSKAYA.

# Nadezhda Kopytskaya

AMERICAN newspaper readers may remember the letter which appeared in the *New York Times* about two years ago from a Leningrad housewife. The letter, an appeal to American mothers to use their efforts to avert war, elicited a reply from Mrs. Eleanor Roosevelt in a radio talk. Mrs. Roosevelt sent the text of her talk to Nadezhda Kopytskaya, the writer.

Mrs. Roosevelt's reply was not the only one. Many others arrived from women in the United States, Canada, Holland, Denmark and elsewhere. The aftermath has been a friendship by mail which this Leningrad housewife has made with many of these correspondents. Like herself, they feel that war would be an inconceivable disaster.

### A Story Behind the Letter

Nadezhda Kopytskaya lives on Leningradsky Soviet Street. Her husband, Anatoli, works as a grinder at the Kirov Plant. She has five children—15-year-old Valentin, 11-year-old Galina, 8-year-old Alla, 7-year-old Anatoli and 3-year-old Mikhail.

She pointed to her children when I asked her what impelled her to write the letter to the *Times*. The gesture needed no elaboration. This was her personal stake in peace.

There was nothing out of the ordinary about that morning two years ago, she told me. Her husband had gone off to work and the older children to school. Alla and Anatoli were in kindergarten and the baby asleep in his crib. She was in the kitchen preparing lunch and listening to the news broadcast at the same time.

In the newscaster's review of the international situation, the word "war" kept cropping up. Perhaps, she said, it was because the house was so quiet, so peaceful, that the word struck her so hard. She had gone through the siege of Leningrad during the last war, had helped other women dig up the mutilated bodies of children in the wreckage of a kindergarten struck by a Nazi shell. What could she do to stop that from happening again?

Without giving herself time to think about whether this letter from one mother would mean anything, she sat down at her kitchen table, wrote what she felt and dropped the letter into the mailbox.

And the replies? One of them came from Lola Robert who lives in New York. Mrs. Robert asked that her letter addressed to Soviet mothers be given space in the Soviet press. Nadezhda Kopytskaya took the letter to the editorial offices of the *Leningradskaya Pravda* and it was published.

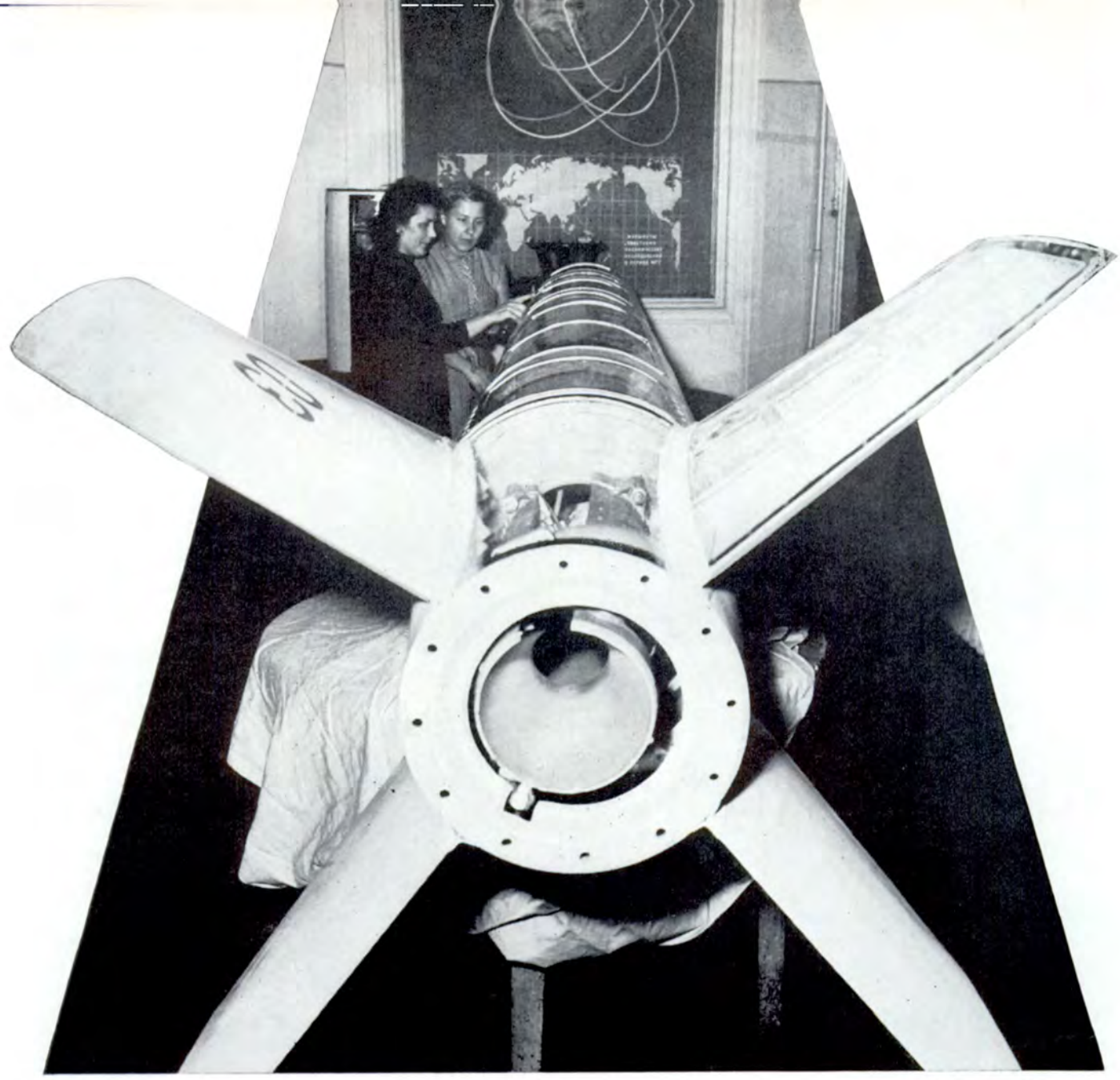
Among the letters was one from Leonie Rittenhouse of Darien, Connecticut, the mother of four children. She and Kopytskaya, the mother of five children, became warm friends. They corresponded regularly, wrote each other about their families, exchanged toys and books. They had a great deal in common, the two mothers found.



When Nadezhda Kopytskaya wrote a letter to the *New York Times* about two years ago, numerous replies came from many countries.

Kopytskaya was embarrassed when I told her that her letter to American mothers was a service for peace, that it helped bring people in the United States and the Soviet Union that much closer by cutting across political differences.

"You're exaggerating its importance," she protested. "There was no politics in my mind when I wrote it. I don't know very much about politics. It was something I felt I had to do for my children and my family and my city which suffered so much during the last war."



ONE OF THE SOVIET HIGH-ALTITUDE METEOROLOGICAL RESEARCH ROCKETS RECENTLY DISPLAYED AT THE MOSCOW PLANETARIUM.

# SPUTNIK III EXPLORES THE COSMOS

By ALEXANDER NESMEYANOV, *President, USSR Academy of Sciences*

EXPERIMENTAL DOGS SPECIALLY TRAINED FOR ROCKET FLIGHTS ARE EXAMINED AFTER EACH JOURNEY TO DETERMINE UPPER ATMOSPHERE INFLUENCE UPON THEIR ORGANISMS.







THE Russian word sputnik has made its way into all the world's languages. It is symbol for the space age that began when the first earth satellite was launched, an event as significant for civilization as the discovery of fire and electricity, the invention of the steam engine and the release of atomic energy.

It is these discoveries and inventions that mark off epochs in human history. The time boundaries of these epochs are rapidly narrowing. There were thousands of years intervening between the stone, bronze and iron ages, but only a few decades between the age of steam and that of electricity. And between the building of the first atomic reactor and the launching of the first sputnik there was a span of only a few years.

The epoch of cosmic exploration can already be seen in bold outline. Its details are evolving out of the data recorded by the earth satellites already launched and those to come.

Soviet scientists readily share their cosmic research data with the world. Long before the first sputnik was launched, the experimental procedure and the instrumentation to be employed had been described in scientific journals accessible to all. After each sputnik was launched, the Soviet press published a complete report of the design, the instruments carried and the operating procedure. The points of transit were announced daily and the findings reported to numerous international conferences, including last year's International Geophysical Year Assembly in Moscow.



THE SPACE TRAVELER OF THE FUTURE WILL WEAR PROTECTIVE GARB SIMILAR TO THIS ONE.

### Test for Calculations and Instruments

To construct and launch artificial earth satellites is a complex scientific and technological task. As the weight of the satellites increases, the problems in launching them become more difficult. However, the advances made in Soviet rocketry are helping to solve the peaceful problems of cosmic research.

The design efficiency and the accuracy of the calculations that shot the sputniks into space have been amply confirmed. The tracking of the sputniks and the measurements of their orbit paths similarly coincide with precalculated data. The scientific instruments they carried also operated as scheduled.

The vast experience that has been gained thus far in rocketry, instrumentation and computation is of invaluable importance for future efforts with larger sputniks and heavier instrument loads, and for future sputniks with a human payload, the next of the major projects of the space age.

A satisfactory solution has been found to the problem of maintaining normal air pressure inside the sputniks. To maintain a constant temperature under sharply changing external thermal conditions is also a complex and difficult problem. This is particularly true for large satellites that carry heat-generating apparatus. That the problem was successfully solved is evident from the fact that the temperature inside Sputnik III stayed within the range of 60° to 70° F. throughout the whole period of instrument operation.

The telemetering apparatus also passed a most exacting test imposed by space flight. Sputnik III's radio transmitters were powerful enough to produce audible signals at distances of 6,000 miles and more.

The apparatus of the satellites incorporated a large variety of transistors. All the scientific and measuring apparatus of Sputnik III was controlled automatically by an electronic time programming device made up entirely of transistor elements. As a matter of fact, this sputnik carried several thousand various transistors.

The possibility of errors in measurement due to interaction between the individual instruments—an ever present problem in these spheres close packed with apparatus—is ruled out by a judicious arrangement of the sensitive instrument parts.

To track the course of the sputniks there is a network of ground stations equipped with radiotechnical and optical instruments. The stations are continuously being refined and today comprise a complicated system of automatically functioning devices that gather, record and analyze highly accurate and predictive data.

### How High Is the Atmosphere?

Analysis of the data on the deceleration of sputniks, the way in which their orbits gradually come closer to earth, indicates that the density of the atmosphere at an altitude of 140 miles is five to ten times greater than had been assumed previously from studies made with research rockets. Density at that height was found to be three ten-millionths of a gram per cubic meter.

The first two sputniks showed that the density of atmosphere varied with the time of day and the latitude over which they were traveling. This has been confirmed by Sputnik III, and continued observation of its orbital changes will enable scientists to map out more clearly a model of density within a wide range of altitudes above the earth's surface.

Electronic manometers of special design installed in Sputnik III permit direct measurements to be made of the very low atmospheric pressure found at great heights. These readings show that the density at about 165 miles is a ten-billionth of that at ground level. Higher up, at about 230 miles, it is about a tenth or twelfth of this value. These figures compare favorably with those derived from the sputnik's deceleration.

Further information as to how high the atmosphere extends is given by another instrument carried by Sputnik III—a mass spectrometer. This instrument, designed to check what kind of electrically charged particles are to be found at great altitudes, recorded ions of both elemental oxygen and elemental nitrogen at heights ranging from 150 to 600 miles.

The discovery of these elements, the main constituents of air, 600 miles up indicates that the atmosphere extends out very much farther than had been thought previously.

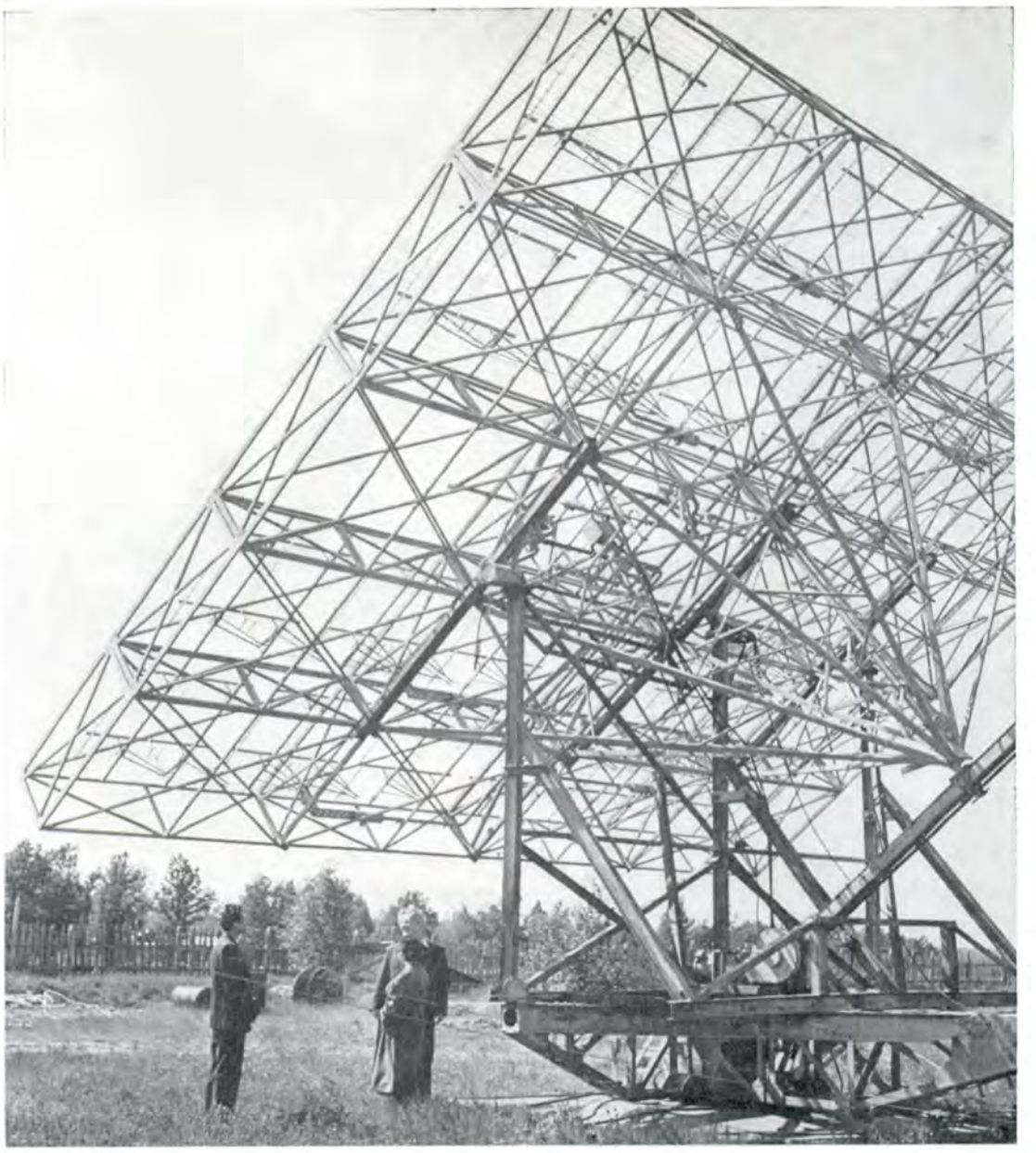
### The Ionosphere and Radio Communications

The ionosphere is that part of the upper atmosphere which contains large numbers of electrically charged particles. They constitute a kind of mirror reflecting radio waves back to earth, thus making long-distance transmission possible, the propagation of radio waves far beyond the limits of direct visibility.

The ionosphere is made up of several levels which vary as to their electron density—measured by the number of electrons per cubic centimeter—and in the type of radio waves they will reflect. A detailed study of the iono-

# SPUTNIK III

# EXPLORES THE COSMOS



GIANT ANTENNA OF A SATELLITE-TRACKING RADAR-SCOPE, ONE OF A CHAIN THAT GIRDS THE SOVIET UNION.

sphere is therefore of prime importance for radio communication.

An analysis of the radio signals sent by the sputniks helped estimate the extent of electron concentration in the regions lying above the level with the maximum content of electrons, denoted as the level of main maximum ionization. The observations showed a tenfold increase of electron concentration from an altitude of 65 miles up to 185 miles. From 185 miles up to 300 miles the concentration declined by 50 per cent.

These results are similar to those obtained with the aid of geophysical rockets, especially the one launched by the USSR Academy of Sciences last February. But since the measurements with the aid of sputniks were carried on for an incomparably longer time and over various parts of the earth, much more extensive data were gathered.

Sputnik III readings show that positive ion concentration in the daytime is some 160,000 ions per cubic centimeter at an altitude of 490 miles and about 500,000 ions per cubic centimeter at 150 miles. These findings are of inestimable value for determination of ionization variations above the main maximum in the ionosphere.

Interesting results were received by Sputnik III on the temperature of ionospheric electrons. It proved to be much higher than the temperature of neutral particles and ions at the altitudes of the satellite's flight. This is an unexpected result which requires further study. Physicists think it might be due to variable geomagnetic fields.

In its flight through the upper atmosphere, Sputnik III acquired an electrostatic charge on its outer surface. Measurement showed this was a negative charge and its intensity proved to be far greater than expected.

Another surprise was the unexpectedly great intensity of the electrostatic field in the upper atmosphere. It measured from 10 to 100 times stronger than had been anticipated. This is a finding that may prove to be the key for an understanding of some hitherto unexplained processes that occur in the ionosphere.

### The Earth's Magnetic Field

A magnetometer carried by Sputnik III has mapped out the magnetic field of the earth hundreds of miles above the ground. Analysis of readings indicates relatively brief but rapid changes in the field each time the satellite passed through what is known as the $F_2$ layer of the ionosphere. This is thought due to systems of currents in that region. The suggested explanation will be verified by further study of the data gathered.

The Sputnik III readings also show that the distortion of the earth's surface magnetic field known as the East Siberian Anomaly falls off only very slowly with increasing height. This appears to disprove the theory that the sources of the anomaly lie in the upper layers of the earth's crust.

Valuable information was received on meteor particles which not only is important for theoretical studies of the cosmos but also has very practical meaning for ensuring safety of future manned flights into outer space.

Sputnik III's recorders, whose measuring surface totaled 840 square centimeters, have registered an average of one strike every 100 seconds. This corresponds to the density of the meteor substance of less than one ten-billionth of a gram per square meter of surface per second. Besides this very low density, however, the instruments recorded at one point a short but sharp increase in the number of impacts that reached a figure of several dozens per square meter per second.

### A Halo of Charged Particles

The study of cosmic radiation with the aid of artificial earth satellites creates new opportunities for obtaining information on the origin of particles with extra high energies. Valuable data have already been provided by Sputnik II. The study was further advanced by Sputnik III whose more complicated instruments were able to collect more detailed information. In addition to charged particles, these instruments also recorded photons and heavy atomic nuclei in cosmic rays.

Moving from south to north, Sputnik III recorded an average intensity of 300-500 photons per second passing through its counters. After crossing 60° north latitude the number of photons increased sharply. As the sputnik moved from north to south there was a sharp drop below this latitude.

The high readings indicate that a new source of photons comes into play. The natural explanation for this phenomenon is its connection with the Northern Lights, since their zone is close to 60° north latitude.

As the sputnik passed over the equator, even more intense streams of charged particles were recorded. The number of particles in these streams is thousands of times more than in the stream of cosmic rays.

It can thus be concluded that our planet, like some other celestial bodies, is circled with a kind of halo of fast moving particles held in a ring by the earth's magnetic field.

The data on heavy atomic nuclei gathered by Sputnik III has proved to be very important for advancing the theory of the origin of cosmic rays. The readings indicate that the number of heavier-than-iron nuclei in cosmic radiation is roughly 10,000 times less

than the number of nuclei of iron, nickel and cobalt.

Generally speaking, the composition and proportion of the different atomic nuclei in cosmic radiation is related to the abundance of chemical elements in the universe. The preliminary results of Sputnik III investigations confirm the view that the proportion of extra heavy nuclei approximately corresponds to the proportion of these same nuclei evolved from analyzing the composition of planets, stars and meteorites.

Promising results have been achieved in the study of corpuscular radiation. One of the most interesting here is the discovery of intensive electron streams recorded by Sputnik III. The intensity of these streams increased with altitude and above high geomagnetic latitudes. At times the streams even jammed the instruments and exceeded the upper limits of their measuring scales.

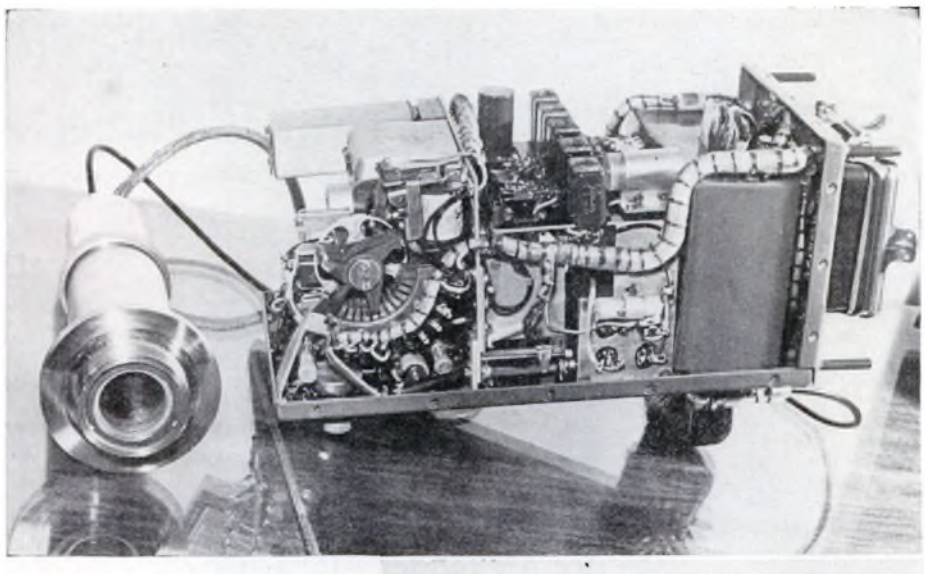
These electrons cannot be corpuscles coming from the sun because their velocity is too great. It seems more likely that they are electrons from the earth's own atmosphere accelerated to very high energies—estimated at 10,000 electron-volts, according to Sputnik III data—as a result of variable magnetic fields produced in the outer atmosphere by the interplanetary environment and the sun's corpuscular streams.

## Toward Manned Space Flight

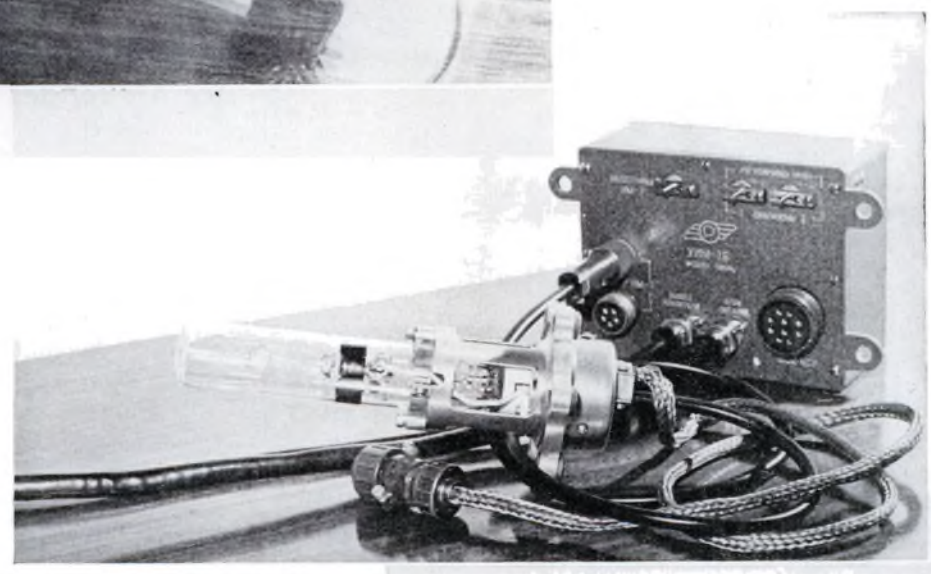
The launching of each earth satellite brings us measurably closer to human flight in space. Sputnik II with its dog traveler supplied the first reliable experimental data ever gathered on biological aspects of space flight. We now know that a highly organized living organism can withstand the great accelerations required to launch a satellite in orbit and can tolerate the subsequent condition of weightlessness.

Of course, a great deal of exploratory work will need to be done before the first man is launched into space. But a manned satellite and even manned space stations that would serve as departure terminals for flights to the moon and planets closest to the earth, while projects for the future, are very much on the working agenda of space engineers, space biologists and space medical researchers.

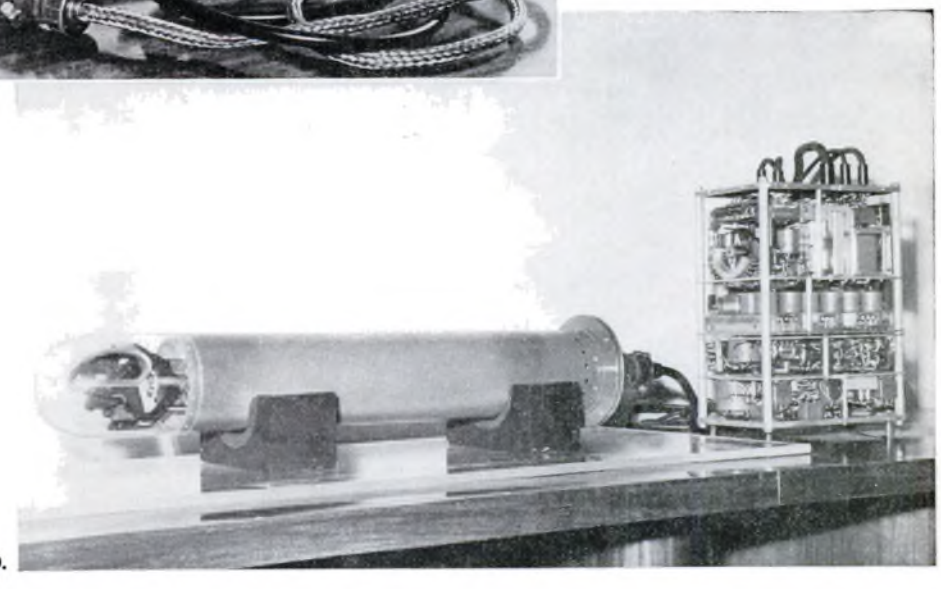
More immediate, however, than a manned satellite launching are other projects which are not so dramatic but are, nevertheless, of enormous value for science—the launching of wholly or partially recoverable satellites, the development of oriented satellites for many kinds of experiments which cannot be carried on under terrestrial conditions, and the design of "eternal" satellites that will circle the earth at high altitudes and will have a practically unlimited life span.



MASS SPECTROMETER TUBE AND ELECTRONIC UNIT USED IN SPUTNIK III.



IONIZATION MANOMETER AND D.C. AMPLIFIER USED IN SPUTNIK III.

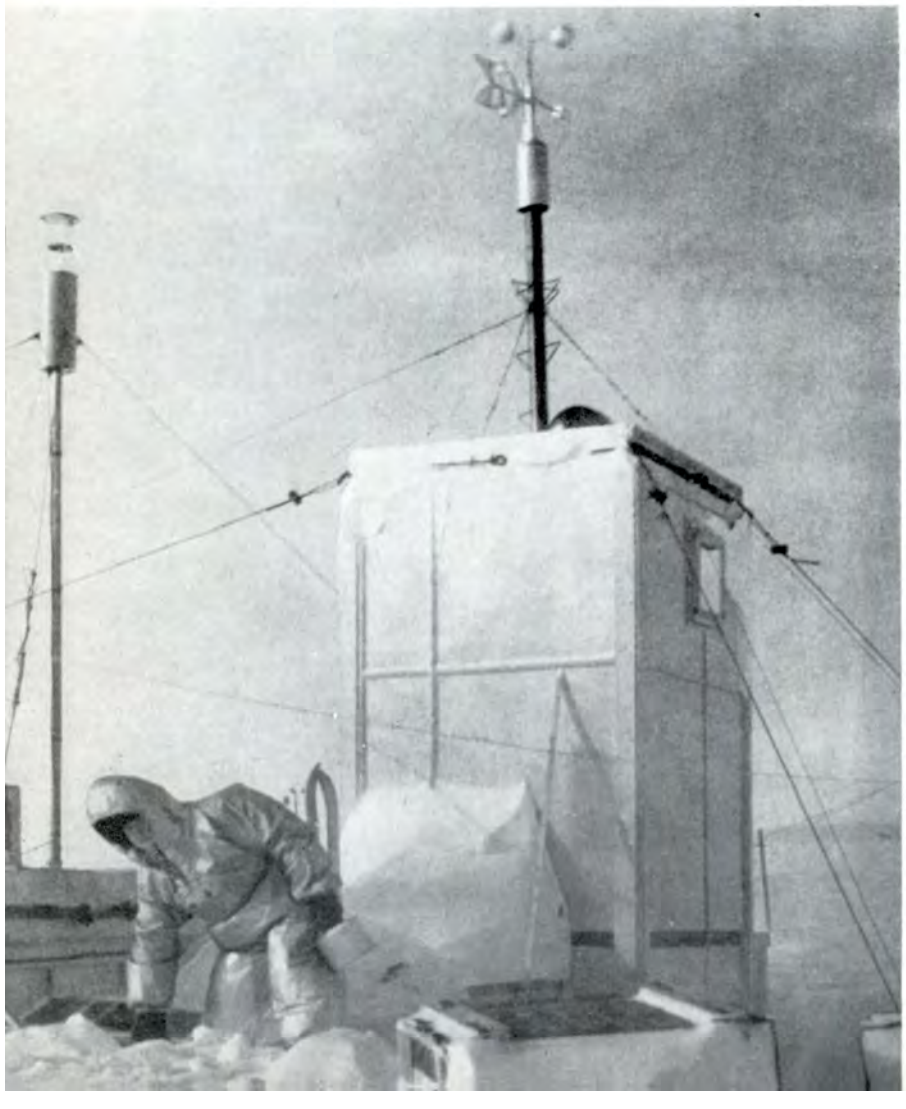


ORIENTATION AND ELECTRONIC UNITS TO MEASURE EARTH'S MAGNETIC FIELD.

AN AERIAL VIEW OF MIRNY, THE SOVIET ANTARCTIC EXPEDITION BASE CAMP. THERE ARE FOUR OTHER STATIONS CARRYING ON THE IGY PROGRAM ON THE COLD CONTINENT.

# In the Heart of the Antarctic

SOVIETSKAYA STATION RECORDED THE EARTH'S LOWEST TEMPERATURE — 178°.



By Alexander Afanasiev

IN the heart of the eternally frozen Antarctic, thousands of miles removed from civilized settlements, IGY scientists of many countries are exploring the unknown mainland of the icy continent. In these regions of eternal deep-freeze the Soviet Antarctic Expedition has located six stations. Four of them are in the hinterlands, outposts of the coastal base camp at Mirny.

The Vostok station, in the region of the Southern Geomagnetic Pole, is 874 miles from the Mirny base. Another station, the Sovietskaya, is located at an almost inaccessible 12,000 feet above sea level, 880 miles from Mirny and 434 miles from the pole.

Research at these Antarctic stations in meteorology, aerology, terrestial magnetism, glaciology, the ionosphere and other fields under the IGY program is carried on under incredibly difficult conditions. At stations in the interior scientists report that automatic instruments stop registering, ink freezes despite the anti-freeze mixed with it and kerosene solidifies to look like wet snow.

Until recently the coldest place on earth was considered to be at Verkhoyansk, in North-East Siberia. Instruments there recorded a temperature of 155.6 degrees below zero. Then instruments near Oimyakon,



THE ICEBREAKER *OB* IS ONE OF THE SHIPS THAT BRING FRESH SUPPLIES AND EQUIPMENT AS WELL AS PERSONNEL REPLACEMENTS FOR THE SOVIET ANTARCTIC EXPLORERS.

on the upper reaches of the Indigirka River, also in Siberia, recorded a still lower temperature—159.8 degrees below zero.

Two years ago a new absolute low in the air's temperature was registered at the Amundsen-Scott station at the South Pole—a reading of 166.1 degrees below zero! But even this, IGY scientists have discovered, is not the coldest reading. A temperature of 176.18 degrees below zero was recorded at the Vostok station and a still lower one of 178.16 at the Sovietskaya station.

Peculiar things happen to metals and other materials and to the human organism at these glacial thermometer readings. They can be observed under artificially created low temperature conditions. As a result of decrease in volume which takes place in deep cold, the metal's durability increases under static loads and declines sharply under impact loads. Ice will become so hard that it cannot be cut by a saw. It will at the same time become much more brittle.

The effect of such low temperatures on the human organism is obviously of much more than theoretical interest. The enormous loss of heat in the human organism when exposed to such outer cold will result in changes in the periphery tissue and will unbalance the normally coordinated flow of arterial and venous blood. The sharp drop in temperature will disturb tissue metabolism and affect the thyroid and suprarenal glands.

The polar stations of the Soviet Antarctic Expedition are equipped to provide normal living and working conditions. Workrooms and living quarters are roomy and properly ventilated. An indoor temperature of 63-72 degrees is constantly maintained.

Scientists work outside for periods no longer than 20 to 30 minutes. They wear masks, glasses and fluted clothing into which oxygen is piped. Those doing meteorological and aerological work outdoors are equipped with 40-watt electric heaters keeping their feet, hands and body warm.

These are some of the defenses with which the scientists have equipped themselves to meet the killing Antarctic temperatures. They are adequate not alone for the absolute low temperature already recorded but for the even lower temperatures that may have to be faced as the scientists push further into the interior of this unknown continent of perpetual frost and violent storm.

THE BASE CAMP MAINTAINS PERMANENT AIR CONTACT WITH OUTPOST STATIONS.



FOOD PREPARATION UNDER ANTARCTIC CONDITIONS PRESENTS PECULIAR PROBLEMS.





*On the Threshing Floor* by L. Roiter



*The Geologists* by D. Polyakov

# SOVIET ART portrays MAN and his LABOR

By Alexei Gastev

MAN and his labor have always been a pivotal theme of Soviet fine arts. Starting with the twenties this motif has been dominant in art exhibits. And it is altogether natural, since it was the spirit of the time itself, a time of construction on a massive scale, which the Soviet artist was trying to present on canvas or in sculpture.

It would have been an artist of small dimension indeed who could have shut his eyes to the enormous drama being played out all around him. These were heroic scenes—a nation of men and women rebuilding out of war and invasion, transforming a devastated country into an advanced power.

Here were subjects ready and waiting for the artist—a great industrial city arising where there had been only barren waste, or collective farmers harvesting wheat that stretches to an endless horizon. It is this drama and its heroes—the workers and farmers—that Soviet artists have painted and sculptured.

### New Landscapes

A frequently used background in Soviet painting is the industrial landscape. Characteristic is Kotov's *Blast Furnace Number 1* done in 1930, at a time when the whole country was concerned with accelerating the pace of industrialization. The painting, the first blast furnace of the Magnitogorsk Iron and Steel Plant being built, gives the atmosphere of nationwide construction.

This is one of the rarer canvases in which major emphasis is given to the construction itself rather than to the builders. In most paintings with industrial themes the worker is in the foreground. This is typified by Gorelov's *An Honored Steelmaker and His Team;* by Deineka's *The Forgemen;* by the painting done by a group of artists, *Gift from Leningrad,* which depicts the assembly of a turbine for the Tsimlyanskaya Hydroelectric Station.

The big dams built in the last decade to harness the power of the country's rivers have served as background for many paintings. Thousands of young people came to work on these gigantic projects. More often than not the construction sites of the new hydroelectric plants were in distant uninhabited areas with very little in the way of modern comforts.

But these enthusiastic pioneering people made small matter of the hardships. They did the impossible, working against time and

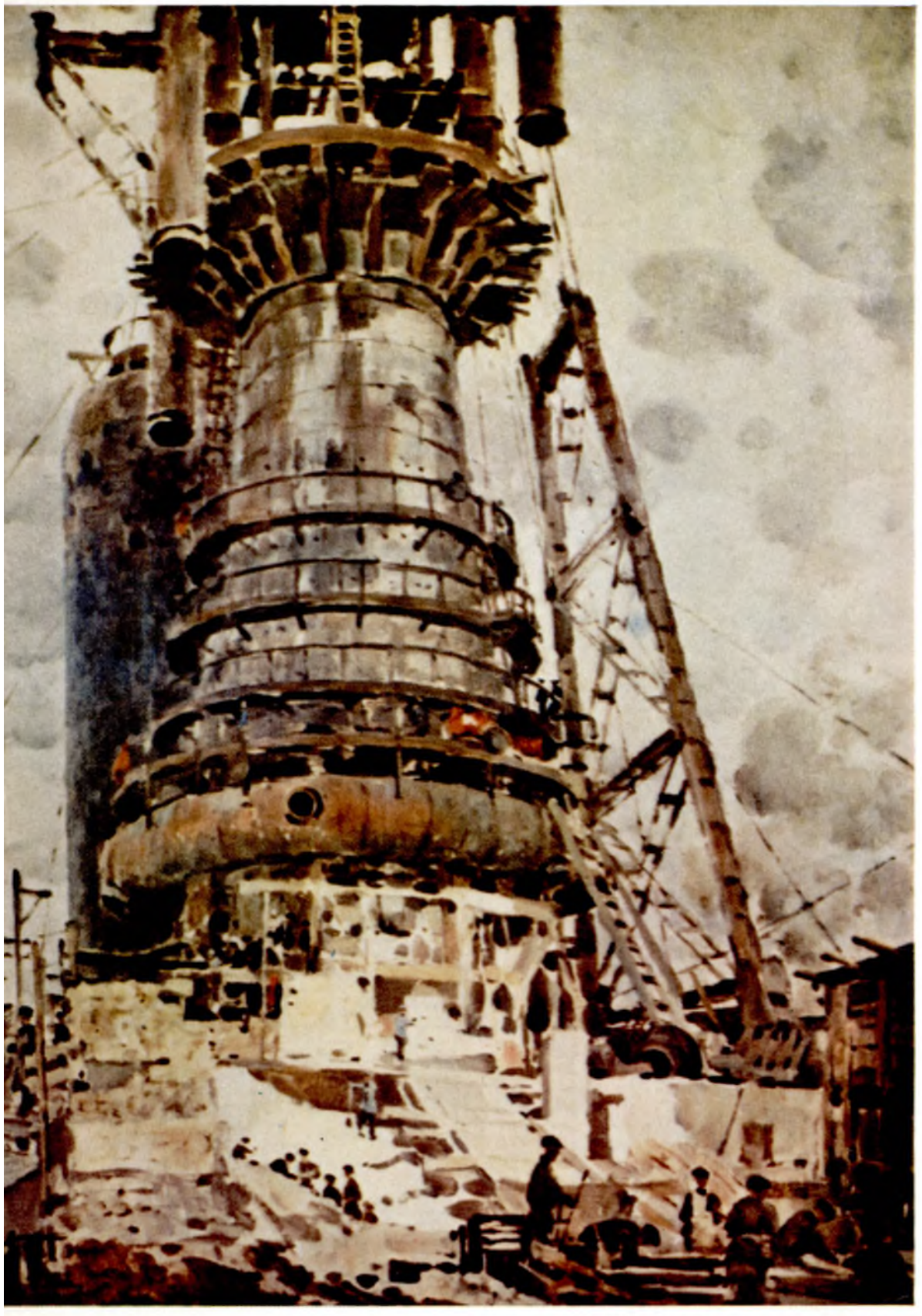
*Continued on page 34*



***How Beautiful!* by I. Zarins**

***Oil Workers of the Caspian Sea* by T. Yashayev**





*Blast Furnace No. 1* by P. Kotov



*Fishermen's* ***Rowing Contest*** by J. Osis



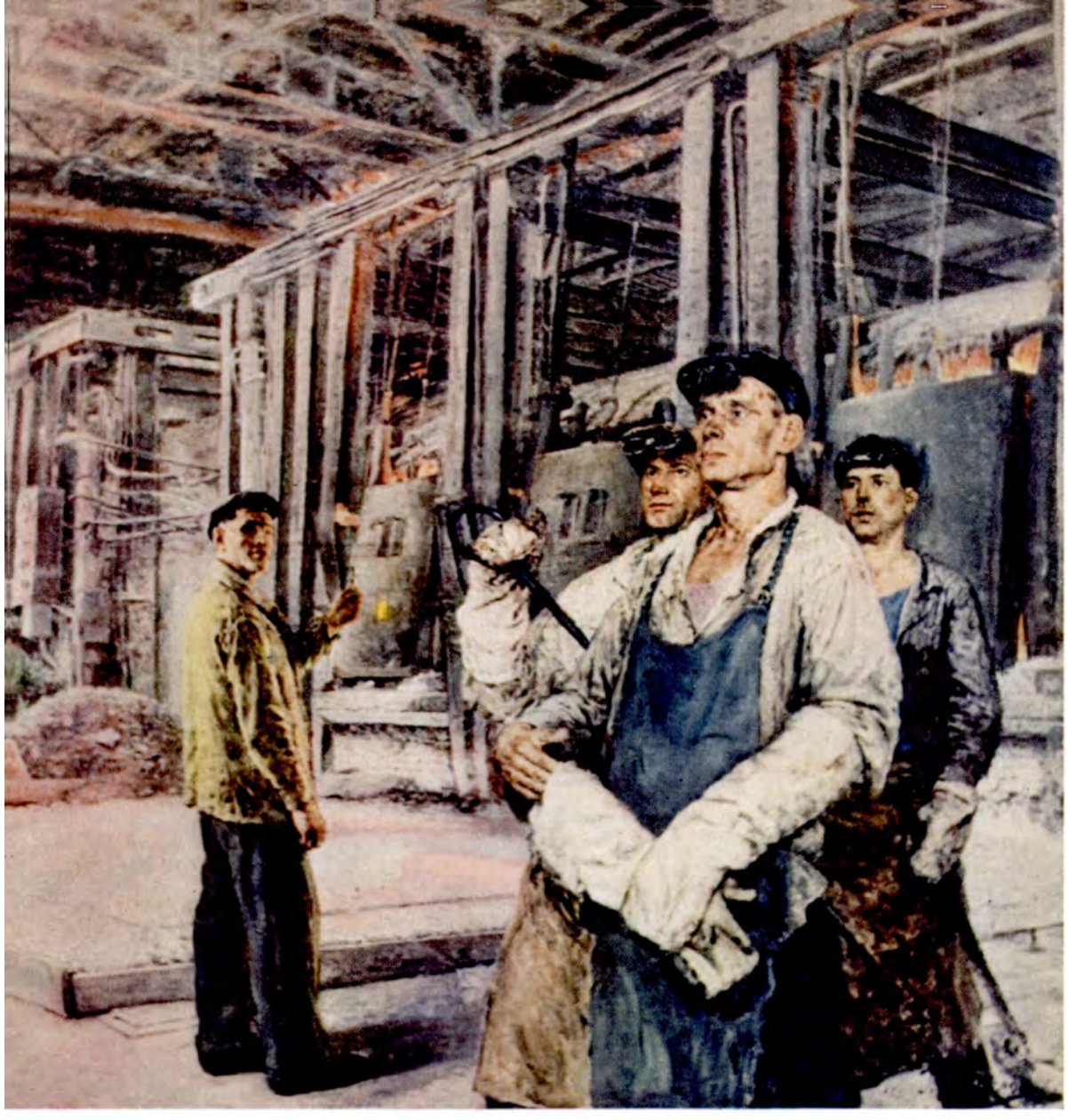
*Awakening of the Virgin Lands* by V. Basov





*Young Prospectors* by V. Gavrilov





*An Honored Steelmaker and His Team* by G. Gorelov

# MAN AND HIS LABOR

*Continued from page 31*

against nature as though they were determined to show the world what Soviet people could do.

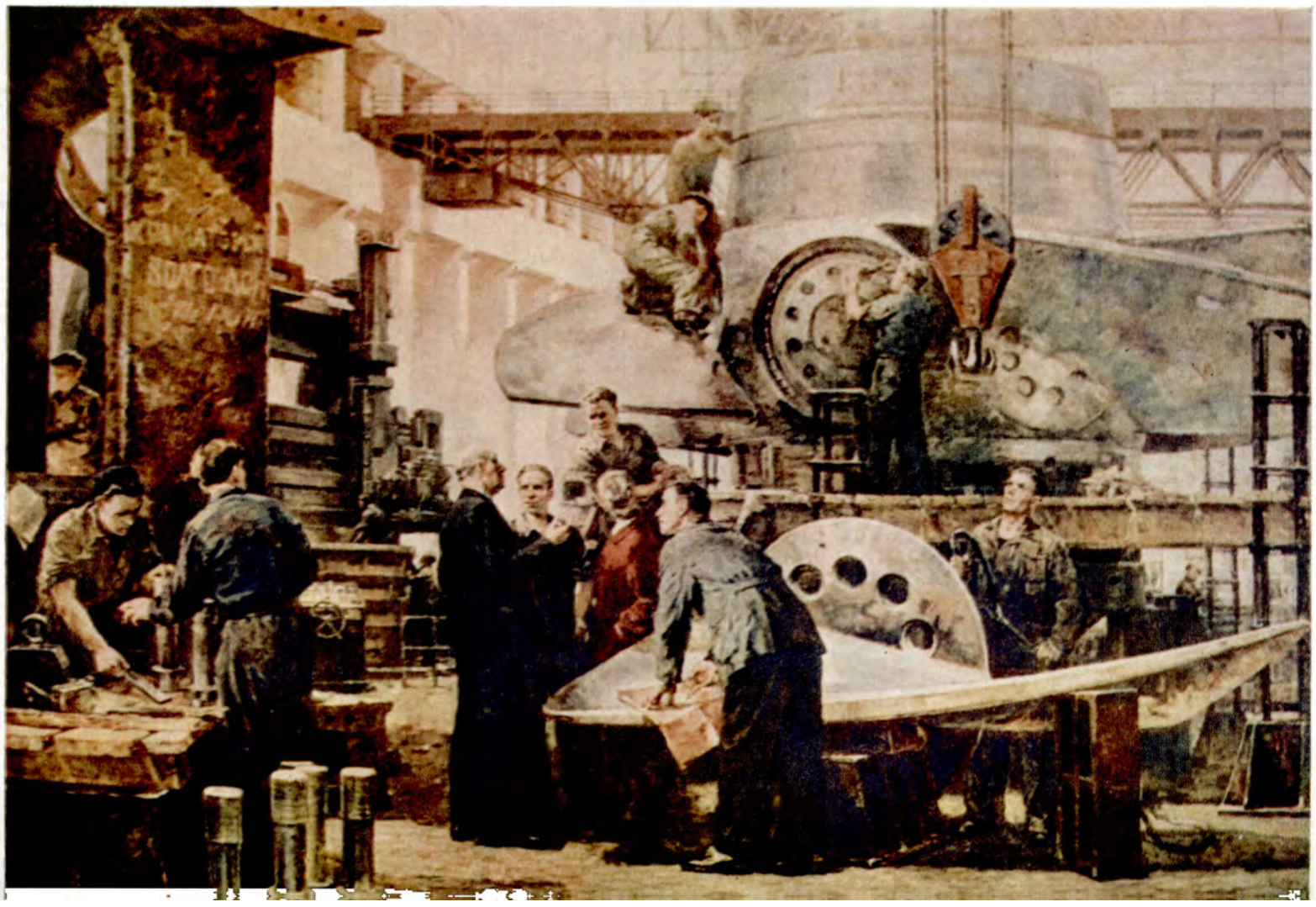
Many artists came to these construction sites. They sketched excavators and cranes and steel scaffoldings, but mostly they sketched the builders. Then they worked their sketches onto canvas.

One such painting is Andronov's *Building the Lenin Hydroelectric Station.* This is a lean picture, sparing of lines. The brushwork is economical but driving, as though it were pulsing with a powerful beat, its movement urgent and irresistible. The men and trucks shuttle back and forth almost in a measured rhythm. The color is restrained and terse, even austere.

### People of New Spirit

At a recent exhibition Zarins, a young Latvian artist, displayed a canvas titled *How Beautiful!* Steeplejacks are working on the top of a building going up. This is hard and dangerous work, but these men are buoyant, at ease in their jobs. Their animation shines through the bright warm colors, the blue sky

*Gift from Leningrad* by N. Veselova, V. Zagonek, A. Rubin and Y. Tulin





***Shamama Gasanova* by G. Akhmedov**

and the sun reflected off the steel girders. There is a warmth and a grandeur and a poetry in work, the artist is telling us with his glowing brush strokes.

*Exchange of New Experience*, a painting by Levitin, personifies lathe operators Genrikh Bortkevich and Nikolai Bykov, who have been competing for priority as top workers in their trade for many years now. The two men are passing on to each other the "secrets" of their success. This is the spirit of friendly emulation and creative rivalry which is symbolic of the relation between Soviet workers.

In his *Young Prospectors*, Gavrilov paints a group of young geology graduates on a first independent expedition for new mineral deposits in unexplored regions of Siberia. Hard and challenging work far from home is beautifully conveyed in the composition.

### Farmer As Hero

Among the many notable paintings on collective farm work is Mylnikov's *In the Peaceful Fields*. A group of singing women walk through a field in flower, the sun overhead glows in their faces. The painter strove to make his figures monumental and therefore placed the horizon low so that the figures, sharply defined against the sky, loom large as they move toward the spectator. The impression the painting conveys is of a fruitful, bulging earth and of farm women walking out to reap its bounty.

Basov's *Awakening of the Virgin Lands* is dedicated to the young people who volunteered to go East to help cultivate barren steppes of Kazakhstan and Siberia. The painting shows the endless plains at evetide. Their silence, undisturbed for centuries, is broken by the rumble of tractors. The eagles, former rulers of the steppe, fly from their nests in the grass, alarmed by the tractor-armed men.

### Sculptured Portraits

Labor as theme is also vividly developed in work by Soviet sculptors. Sabaneyev's small figure *After the Civil War* takes us back to the early twenties. A Red Army man, still in military tunic, wields a pick. It is the demobilized people's army working to rebuild their war ravaged country. There is great power in the pose, the turn of the head, the grip of the strong hands on the weapon of peace which has replaced the weapon of war.

The sculptured portraits of industry and farm innovators personify man, his driving force, his creativity. Akhmedov's sculpture of Shamama Gasanova characterizes the collective farm woman who by her work has earned the love and respect of her people. Gasanova's lips are set in a firm line of determination, her glance is keen and penetrating. On her jacket are pinned two Gold Star medals, for twice she has been awarded the honorable title of Hero of Socialist Labor, the country's highest award for endeavor.

This is the Soviet sculptor's and painter's theme, one which is central to the society he is building as a worker and portraying as an artist. I cannot agree with those who say that by showing man at work Soviet art robs life of its romanticism. It is man through his labor who changes life, makes it meaningful. What more challenging subject can an artist find? Our painters and sculptors do not have to flounder in abstractions for inspiration, they find it in the very life of the people.



***After the Civil War* by L. Sabaneyev**

***Bread* by V. Mukhina**





Graduate students of the Central Asian University in Tashkent with an electronic microscope.



Yuri Ivanov's graduate studies at the Medical Institute of Kuibyshev cover respiration control.



Professor Vertushkov of the Sverdlovsk Mining Institute heads research on Urals' ore deposits.

# SCHOOLING FOR FUTURE SCIENTISTS

By NIKOLAI NAZAROV
*Ministry of Higher Education*

**This is the concluding article in the series on the Soviet system of education published in the last five issues of our magazine. The next issue will carry an article on the USSR Academy of Sciences, academies of Soviet Republics and the country's network of scientific and research centers.**

SCHOOLING for future scientists in the Soviet Union is based upon the solid foundation of the entire system of education. The constant progress of the country's schools, from the elementary grades through college and university level, helps fulfill the vast program of training scientific personnel for all fields of the economy and culture. The scope of this program can be judged by comparing the four-fold increase in the number of workers and employees during the past four decades with the 24-fold increase in the number of scientists with graduate degrees.

The country now has almost a quarter of a million scientists and college instructors. Among them are more than 100,000 people with a Master of Science degree and some 10,000 with the degree of Doctor of Science. The comparatively smaller number of doctors is explained by the fact that this degree is conferred only for outstanding scientific contributions.

Scientific personnel is not only increasing quantitatively. The qualita-



These Azerbaijanian researchers in automation collaborate in designing new types of machines.



The graduate course at Udmurt Engineering Institute requires study of a foreign language.



Michael Gulkhasyan, an Armenian post-graduate, is now working as a specialist in plant breeding.

tive change is also noticeable. As the country's educators bring school instruction closer to real life situations, more favorable conditions are created for future scientists to acquire better background and training in their specialties.

The work-study plan combining studies in the senior grades of secondary school with work in factories or farms is now rapidly spreading throughout the country. As a result young people are obtaining a deeper understanding of the demands that will be made upon them on their future jobs, and they are able to choose more wisely the field in which they are most interested and for which they are best suited.

Similarly, the increasing opportunities to get a college education at evening and correspondence courses while working helps the young people to decide upon a future career intelligently. And this is especially valuable for those who choose to make science their life work.

## Secondary School

Science teaching, in both its more specific meaning and as a method of inquiry, is one of the fundamentals of Soviet education. At home and school children learn to respect scientists and the work they do. Many parents look forward to a scientific career for their child, encourage his normal intellectual curiosity and inventiveness.

In school children are taught to use science as a thinking tool with which to investigate the surrounding world of nature and of man. They are encouraged to analyze phenomena, to think through a problem independently.

In every library there are popular science books for children, and everywhere in the country popular science films are widely shown. Various after-school centers and clubs for young naturalists, young mechanics, budding mathematicians or chemists help to stimulate and direct germinating interests.

Very frequently college teachers and senior students majoring in one of the sciences will give talks to the younger school children and describe the new things being done in science. For older school children the colleges arrange series of lectures on mathematics, physics and biology in addition to those on the humanities.

For children who show special aptitudes for the sciences, special schools are being set up. They will work along lines similar to the special schools for children gifted in music, drawing, dancing and dramatics which have been functioning for a long time now. These new science schools will prepare children for the college or university of their choice.

Thus, the aim of the whole system of Soviet education is to provide more than a superficial acquaintance with the large and evergrowing body of scientific knowledge which actuates our modern life.

## Colleges and Universities

As the work-study plan becomes more widespread, increasing numbers of young people come to schools of higher education equipped with a background of practical experience in some phase of industry or farming related to the profession they wish to follow. They have, besides, a background of general secondary school education. If they are interested in scientific research in addition to the regular college or university program, their creative initiative is encouraged in every possible way and they are given every opportunity to develop their aptitudes.

Any student may join the extracurricular scientific circles or societies. They carry on research under the guidance of faculty members who are research specialists in the corresponding fields. This kind of activity helps the student determine whether he is really suited for a career in science and selects out the most capable students for future scientific work.

In the third or fourth year of study, when the student has chosen his particular specialty, he can engage in more serious research in his chosen field. The research projects carried on are usually those suggested to the college departments by nearby scientific institutes or by local industrial and agricultural enterprises. Frequently they will meet a specific need or will provide the solution for some current practical problem.

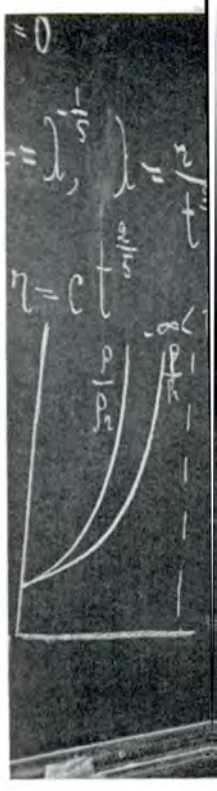
The college graduate with ability continues his studies for a master's degree. Most students do their graduate work at colleges and universities, a smaller number at research institutes.



Alexander Nesmeyanov, President of the Academy of Sciences, with Moscow University post-graduates.



Fatima Velitova, Tatar student at the Kazan Chemical Institute, prepares her master's thesis on analytical chemistry under the guidance of eminent chemist Alexander Arbuzov.



# SCHOOLING FOR FUTURE SCIENTISTS

### A Flexible Organization

The number of students now working for a master's degree totals 30,000 compared with 3,000 in 1930. The increase is even greater proportionally in such republics as Turkmenia, Uzbekistan, Kazakhstan, Tajikistan, Moldavia and Estonia.

Soviet graduate education is rather flexible in organization and is adapted to meet varying individual needs. A college-trained specialist may, for example, take a four-year graduate course by correspondence while working at a full-time job.

These people, comprising about 30 per cent of all graduate students, are science's most valuable recruits since they are mature in every sense of the word. The flexible time arrangements that correspondence study permits is especially valuable for them because it can be worked into their job and family responsibilities more easily than attendance schedules at usual schools.

There are also intensive one-year graduate courses. These are taken for the most part by secondary school science teachers or young university instructors who wish to complete a master's thesis they have been working on for some time previous. Candidates for these one-year graduate programs are selected by the faculty council of a college or university or by a local board of education.

Most graduate students, however, take the three-year course at day schools. Candidates are chosen on the basis of competitive examinations in three subjects—one in a field selected by the applicant as his specialization, the second in a foreign language and the third in philosophy. Required in addition is a paper in the applicant's specialty written on a theme suggested by his professor.

### Stipends and Vacations

An applicant for graduate study must have had at least two years of job experience in his specialty. In specific cases this requirement may be waived and an applicant may be permitted to enroll for the advanced study immediately after college graduation on the recommendation of the faculty council. This waiver is permitted only for the student who has demonstrated outstanding scientific capabilities.

Since all education in the Soviet Union is free, there are no fees of any kind for graduate study. Full-time graduate students receive a government stipend for maintenance—1,000 rubles a month for those who have worked for two years prior to admission to graduate courses, and 700 rubles a month for those admitted directly from colleges.

Every student gets an additional month's stipend annually for the purchase of scientific literature. All instruments and experimental apparatus required for the graduate's scientific work are furnished by the universities and research institutes free of charge.

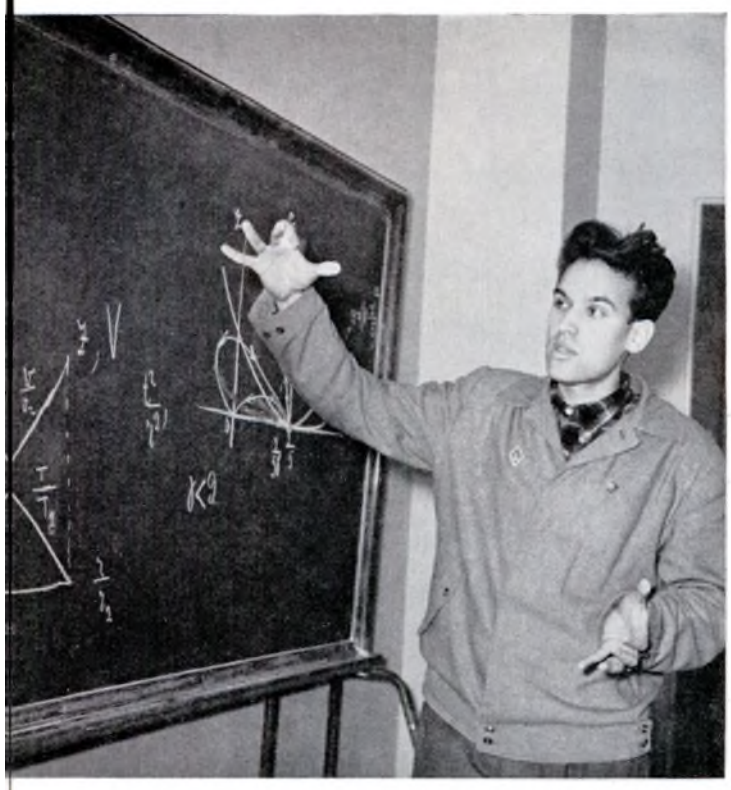
Graduate students get a two-month vacation yearly during which time they receive their usual stipend. Those who are enrolled in the one-year course continue to receive full pay for the job at which they were employed prior to enrollment. Correspondence students, in addition to their regular vacation from work, are allowed another month with full pay.

### Program of Study

When a student who has been working at his specialty begins his graduate courses, he has already received a good grounding in his field. His graduate work is intended to prepare him for independent and original work for the advancement of science.

Students work according to individual programs they themselves set up. They do independent study and conduct their own experiments under the guidance of a senior scientist whose function is largely to stimulate creative scentific thinking.

The student working for a graduate degree is expected to equip himself with a scholar's tools and with the general background that makes



Graduate student Igor Shishkov describes his research problem before a college scientific society in Moscow.



Young scientist Pliyev, who won his master's degree in his native Ossetia in the Northern Caucasus, is now teaching physical chemistry in one of the technological institutes in Kazakhstan

the roundly educated man. However good his professional qualifications may be, the student will not be permitted to defend his thesis unless he has mastered a foreign language, is well versed in philosophy or has done some considerable teaching.

Any thesis submitted toward a master's degree must be published in a scientific journal or independently. This is to guarantee quality and originality of work. After publication the thesis must be defended before an open meeting of the faculty council. The conferring of a degree is decided by secret ballot.

### Thesis Projects

Graduate students Ata Djikiev and Shikhberdy Anaklychev of the Institute of Ethnography of the USSR Academy of Sciences in Moscow, who are natives of Turkmenia, were recently granted their Master of Science degrees in history. One did a study of the old customs of the Turkmens on the southeast coast of the Caspian Sea, the other a study of the present-day customs of oil workers in Turkmenia.

Each student chose his own theme and did original research in his native region. Their adviser throughout the years of graduate study was Academician Sergei Tolstov. They consulted him on research techniques, accompanied him on some of his research expeditions and sought his aid in the solution of knotty problems.

On occasion the thesis project will take the form of assisting some eminent scientist in a research study he has under way. Sometimes a graduate works in collaboration with a group of scientists on a subject of major importance. This enables young scientists to learn not only from their superiors but from one another, too. They boldly and clearly state their own views and at the same time listen to those of the other members of the group.

There are multiple examples of this kind of mutually helpful and creative collaboration which serves to train the new generation of scientists. Professor Vasili Atroshchenko, the well-known chemist who heads the inorganic matter technology department of the Kharkov Polytechnical Institute in the Ukraine, designed an original autoclave in collaboration with one of his students; a highly efficient installation for the production of nitric acid with another; a new ammonium synthesis method with a third.

There is one characteristic that thesis subjects have in common. Whether they deal with theoretical or applied scientific problems, the problems will be current. Theoretical research paves the way to applied science, while applied science, coupled with advancing practice, prepares the ground for new discoveries and major generalizations.

The underlying principle was perhaps best phrased by Nobel Prize winner Nikolai Semenov, a physical chemist who has trained more than one generation of Soviet scientists. "The development of present scientific thinking will depend upon the degree to which its basic ideas are modified and expanded by the vigorous creative work of young scientists."

### Research at Work

At an international congress of chemists held in Philadelphia some time ago there was much interest evoked by a paper on a new method of single-stage oil processing read by a Soviet scientist. The author and originator of the process was Martuza Nagiev, Vice President of the Azerbaijan Academy of Sciences.

Nagiev is one of the growing number of Soviet scientists who do their graduate work outside the university. He went through a vocational school, then graduated from an oil institute and worked as engineer and researcher. It was while he was working that he did the thesis research for his master's and later for his doctor's degree.

A considerable number of scientists complete their graduate requirements on leaves-of-absence from their jobs. They are granted their full pay during such leaves. Others, like Martuza Nagiev, do their thesis project research concurrently with work as engineers or researchers in plant laboratories and technical councils.

There are about 10,000 technical specialists with advanced degrees, masters and doctors of science, now working in industry and agriculture. The requirements for these graduate degrees are stringent, the standards high, but for those who demonstrate the capacity to meet these standards and show progress in their research, the Soviet educational system clears all obstacles that might hamper study.

# Graduate Students of Moscow University

By DMITRI CHERNOV



Kazakh graduate Abdysamet Sadybekov chose soil biology as his major.



Samari Velikovsky joined the staff after earning his master's degree.




Yelegia Petrova is doing graduate work in the field of microbiology.



Arifjan Akrabirov is enrolled in the mechanico-mathematics department.



Ilfa Kutasova, graduate Tatar student, is majoring in philosophy.



Anthropologist Yuri Rychkov conducted excavations in the Pamir Mountains.



Lilia Osipova tests the effect of temperature on infrared absorption.

THE roster of scientists trained at Moscow University is a long and distinguished one. Many former graduates are today's world renowned men and women famed for their contributions in most varied fields of science and technology. Others teach in colleges and universities or work at research centers in almost all parts of the country.

The university's graduate student body includes young people from every one of the Soviet Republics and many foreign countries. They do their graduate study and research under the guidance of most experienced faculty members that include many eminent Soviet scholars and scientists.

Among the hundred academicians and the four hundred professors teaching at the university is chemist Alexander Nesmeyanov, President of the USSR Academy of Sciences. He himself received his scientific training at the university in the twenties. Academician Alexander Oparin, a leading biochemist, is another alumnus who is now teaching future researchers.

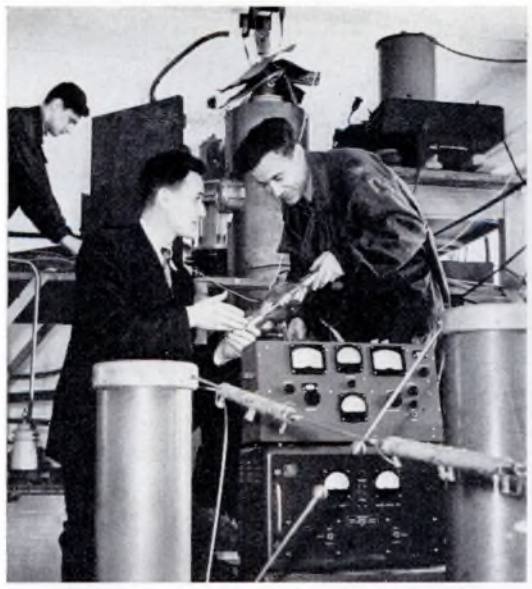
The university is proud of such faculty members as Academicians Dmitri Skobeltsyn and Sergei Vernov, pioneering investigators in cosmic ray phenomena; Leonid Sedov, researcher in mechanics; Victor Vinogradov, the linguistics scholar; Ilya Frank, recent winner of the Nobel Prize in physics.

A common and oft repeated item in Moscow newspapers is the announcement: "Student so and so will on this date make a defense of a thesis he is submitting for his master's degree. The public is invited." The list of candidates more often than not includes students of Moscow University, and the subject matter of their thesis projects covers nearly every field of science known to modern man.

The twelve departments of the university provide undergraduate and graduate instruction in more than 200 specialties. New departments are organized as the need arises. A recent addition is the graduate division of literature of the peoples inhabiting the Soviet Union in the philology department.

Moscow University is the country's leading school for graduate study. The towering new building is a city in miniature. University facilities include 1,500 laboratories, an astronomical observatory and a hundred-acre botanical garden. The university library is a great repository of modern and ancient manuscripts and books in every one of the world's languages.

The pictures on these pages show the multi-national family of graduate students of Moscow University. Some of them began their college education in the classes of this same building, then worked for a while and have now returned for advanced study. But many of the graduate students came to Moscow University from other parts of the country, like the young people portrayed on the facing page.



Setting up a research project in a laboratory of the University's atomic physics department.



Professor Valentin Asmus (center) leads a group of graduate students in a philosophy seminar.

**IRINA BABENKO (RIGHT) TELLS ABOUT HER WORK TOWARD A MASTER'S DEGREE IN PHILOLOGY.**





Anatoli Popov's thesis for his master's degree in chemistry took three years of hard lab work.



Geologist Alexander Stroganov shows off his new specimens to Glafira Krutova, an undergraduate.



Galina Kolenchuk's graduation paper dealt with defining uranium by electrochemical means.

# Graduate Students of Moscow University

**PROF. ISMAIL ZAITOV HELPED MARGARITA REVERDATTO IN HER GRADUATE PROJECT OF MAPPING THE ELBRUS GLACIERS IN THE CAUCASUS AS AN IGY PROJECT.**





**Rufina Tikhomirova (left) of the Journalism School examines the University's newspaper.**



**Students get together for various activities in the dorms' comfortable recreation rooms.**



**A student from Azerbaijan and one from Kazakhstan take time out from their studies to chat.**

Sergei Ushakov, graduate geography student, and his wife Lidia, high school physics teacher, both studied at Moscow University.



Ushakov and his friend geophysicist Koryakin posed for this photo in Capetown, South Africa, with the American scientist Waite (center), their colleague on Antarctic exploration.





**This picture with penguins is from Sergei Ushakov's album on his two Antarctic expeditions.**



# Dean of Soviet Architects

**By Boris Lazarev, Architect**

IVAN ZHELTOVSKY, dean of Soviet architects, passed his recent ninetieth birthday working at his drafting table. In the sacks of birthday messages which arrived for him there were cards and letters from children who had heard his name in classrooms, from masons and carpenters who had worked on buildings he designed, from such pre-eminent people in their own fields as the ballerina Galina Ulanova and the composer Dmitri Shostakovich. All of them wished him as many more years again of creative work.

He commented smilingly to reporters that one or two of the birthday messages from close friends had suggested that he had earned a rest. Perhaps he would take a day or two off when he got around to it, he laughed, but not in the immediate future. He says he is too busy now. The national housing program is to provide the urban population with 15 million new apartments by 1965. Another 7 million houses are to be built in rural communities during the same seven years.

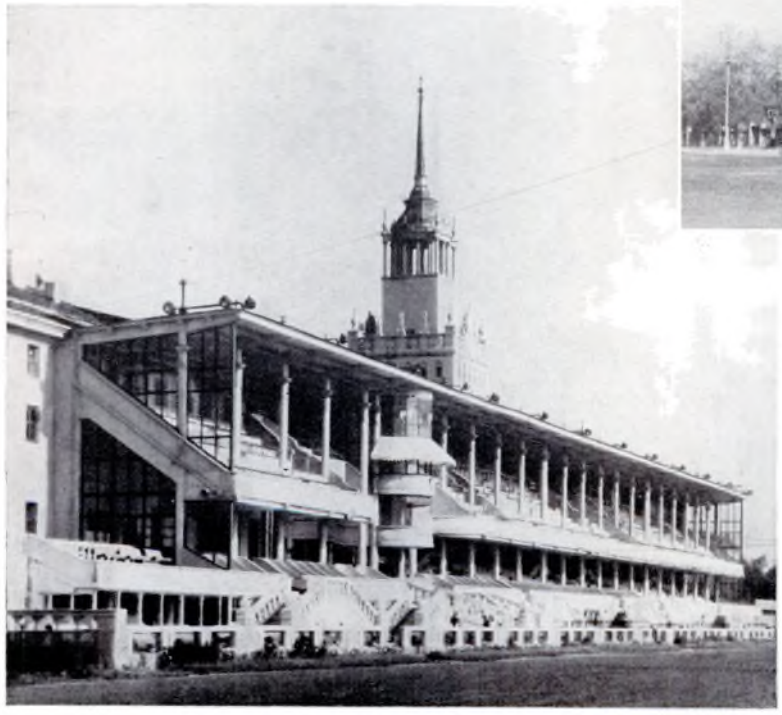
### The Past Four Decades

When the October Revolution took place in 1917, Zheltovsky was past 50, an architect who had designed more than a hundred distinctive buildings and had been honored with the title Academician of Architecture. He would seem to have been at the peak of achievement, his work recognized and handsomely rewarded not only at home but in many countries abroad.

Zheltovsky was one of the intellectuals of the old regime who grasped the meaning of the Revolution in its human terms and translated it into his designs. Invited by Lenin, head of the new government, to serve as architect and consultant on construction, he willingly accepted. Among the projects he directed at the time were a "New Moscow" master plan for reconstruction of the Soviet capital. Many of the drafts he worked out then have long since been given form and dimension in stone.



The Moscow Hippodrome was reconstructed by Ivan Zheltovsky after a fire which almost completely destroyed it some years ago.



Zheltovsky's reconstruction included the use of colored concrete for the grandstand of the track.

He supervised the restoration of the Bolshoi Opera House. He planned the ensemble of pavilions for the first national farm exhibition in 1923; it won him a gold medal at an architectural competition in Paris. In Moscow he designed a power plant, the State Bank building on Neglinnaya Street, the apartment house on Mokhovaya Street which housed the American Embassy at one time, and reconstructed the interior of the Grand Kremlin Palace.

Elsewhere in the country he designed the municipal council building in Sochi, the Government House of the Daghestan Republic in Makhach-Kala and structures in Yerevan and Nalchik. He also planned the Soviet Pavilion for the Milan International Exposition.

During the Second World War he taught in Moscow as head of an institute of architecture and planned for postwar reconstruction and rehabilitation a series of standard housing layouts for factory areas and collective farms that were subsequently published as portfolios.

After the war he worked on the reconstruction of the Moscow Hippodrome, designed several large apartment houses; a large-panel prefabricated cold storage plant; and three motion picture theaters.

### Functional Emphasis

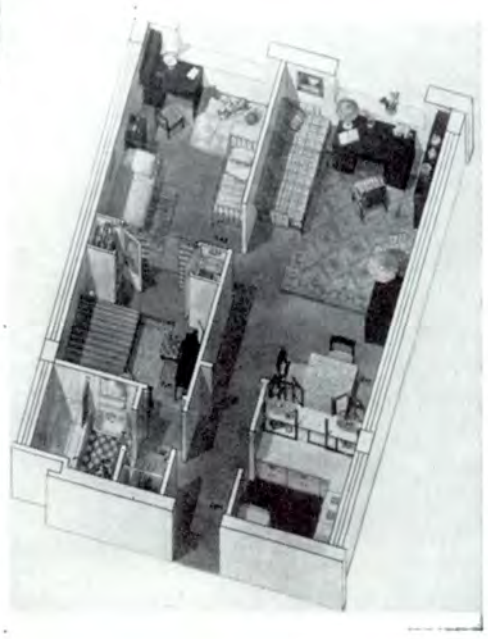
The apartment houses on Moscow's Bolshaya Kaluzhskaya Street, Smolensk Square and Peace Esplanade designed by Zheltovsky are

The tower on this apartment building is a tribute to the old style of architecture. Zheltovsky now eliminates non-functional decorations.





This apartment building demonstrates Zheltovsky's treatment of mass, relieved by first-floor shops.



This small apartment offers comfort and convenience without waste of space.

# Dean of Soviet Architects

Architectural design provides plenty of light for all apartments in this building.





characteristic of his functional emphasis. These are houses for people to live in. The lobbies and halls are roomy, the staircases easy to climb, the elevators are caged in shafts outside the building proper to reduce operating noise to a minimum, the flooring and partitions are sound-proofed, the windows do not frost over even in the coldest weather and the plumbing is laid out so that repairs can be made without inconveniencing the residents.

Together with other Soviet architects Zheltovsky discarded tradition-bound and petrified formulas and designed structures that while individual are at the same time standardized so they can be built simply and economically in large numbers. He has demonstrated in practice that standardized construction, with its enormous saving in building costs, need not conflict with the basic tenets of architectural harmony.

The architect's function, he believes, is to develop an organic unity between the structure's function and the new materials out of which it is to be built. This is the approach which Soviet architects and building engineers generally believe will solve the country's housing shortage within the next dozen years or even earlier.

## His Principles of Design

Most of Ivan Zheltovsky's 90 years have been spent in working out his own principles of design. He has tried to find the common principles shared by such outwardly dissimilar structures as the Spasskaya gate-tower of the Kremlin, the Palace of the Doges in Venice, a Greek temple and a Chinese pagoda.

In working out his designs he thinks in terms of the basic relationship with the environment which a building or a group of buildings



Columns, balconies and large windows
dominate this apartment building
which at one time housed the U.S. Embassy in Moscow.

The State Bank in Moscow
features a more decorative aspect
of the architect's work.



must have. This relationship he defines as "unity of the whole and variety in the parts."

He assigns much importance to proportion. He has concluded from his studies that in the most progressive and forward-looking periods of social development, structures have been built lighter as they climb upward, with each additional weight lighter than the one below it. This is nature's system of proportion that gives its structures a feeling of lightness and enduring strength at one and the same time.

The veteran architect is interested in everything that relates to the way people live and work, whether it is a plan for the Palace of the Soviets or one for a balcony railing. Recently he has been extremely busy with such projects as the designs for a new building for the Tretyakov Art Gallery and a new wing for the Hotel Moscow, besides a new project for reconstruction of the center of the Soviet capital. And despite all this he finds time to work on a color scheme for painting Moscow's buses and trolleys.

"Even a city street," he says, "with its gray buildings in dreary winter weather, can still be given the feeling of light and sunshine. Let's see what we can do with color."

Zheltovsky lives in a house on a quiet Moscow street—a veritable museum of original Leonardos, Raphaels and El Grecos he collected. The chair at his work table once belonged to the famous Russian poet Zhukovsky, and the clock on the table comes from the yacht of one of Russia's famous sailors, Admiral Ushakov. Among the rare books in his library is the *Four Books on Architecture* written by the Italian Renaissance architect Andrea Palladio, with handwritten emendations by the author. But perhaps the most striking sight for the visitor is the studio of this 90-year-old architect, with its walls lined with drawings of work still to be done.



In restoration project
on an old mansion Zheltovsky undertook
the task of replacing its intricate plafond.



# *"YOU'LL REALLY SEE PROGRESS"*

## say villagers

# AT A TRANS-VOLGA COLLECTIVE FARM

By Konstantin Vinokurov



GENERAL VIEW OF THE VILLAGE OF THE TIMIRYAZEV COLLECTIVE FARM SITUATED IN THE WOOD-AND-STEPPE PART OF THE GORKY REGION BEYOND THE VOLGA RIVER.

LET'S SAY this is your second visit to a collective farm. Before you leave you comment on the progress that's been made since your last visit. Invariably, you'll get this in reply: "It's nice of you to say so, but come back in a year or two and you'll really see progress."

There's a small but well-run collective farm that I've been visiting once a year, more or less, for the past ten years. It's in the trans-Volga region, not far from the city of Gorky. The country is heavily wooded with pine forests stretching for mile on mile. In the river valleys you get fir and alder.

The valley soil has always been considered fairly marginal farmland, a lot of work put in and not much in the way of crops pulled out. Where it isn't rocky, it's swampy. But this collective farm—it is named after the prominent Russian agricultural scientist Kliment Timiryazev—has been performing a small miracle of soil enrichment.

It's not a large farm as collective farms go in the Soviet Union—about 8,600 acres all told, compared with the 35,000- to 50,000-acre farms in the grain regions. Most of the Timiryazev farm's land is sown to wheat, flax, corn and fodder, about 500 acres are used for pasture, 150 or so for orchards and a 1,500-acre corner is thick pine forest. The farm has 400 head of cattle, hogs and sheep and several thousand chickens and ducks. The cattle, outbuildings, windmill, brick kiln, dairy, flax oil mill, shops and farm machinery—all this is owned collectively by 164 families.

The farm has gotten its poor-yield land to flourish. Through carefully planned crop rotation, gradually deepening the plowed layers and systematically introducing larger amounts of organic and mineral fertilizer, the fertility of the soil has been raised to the point where it will give 1.6 tons of grain to the acre.

Fruit was almost non-existent some years ago, now the farm orchards bear well and are bearing better each year. The farmers are also very careful about their pine woods. They do a good yearly job of clearing and reforesting, to replenish the trees cut for lumber.

### Ten Years of Growth

It has been a fascinating thing for me in these ten years of visits to watch the farm grow. And not this farm alone but the whole countryside in the Gorky Region.

On a site I remember some years back as dense fir forest, there is now a man-made lake dozens of miles long and wide created when the Volga River was dammed by the Gorky Hydroelectric Plant. Before the plant was built, the Timiryazev farm used to generate its own electricity. It was expensive and inadequate to the bargain. Now all of the farm's power needs are met for a small fee. This has done a great deal to increase labor productivity and reduce overhead costs.

When I visited the farm late last fall, it was a little more than a year since my previous visit and as usual, the farm looked different. There were new buildings at the edge of the village and the ring of axes in the woods nearby seemed to be a carryover from my visit a year ago.

There was the same pungent smell of pine wood shavings I remembered along the village street where more new houses were being built. I saw a finished two-story building with big windows on the village square that I didn't remember being there a year ago.

I said to the farm's chairman, Ivan Yemelyanov, an old friend by this time, "That's a new one, isn't it?" pointing to the building.

He nodded and replied, "We'd feel like we were standing still if we didn't have something new to show you every time you come out. That's our new Palace of Culture."

We stopped at his house for a cup of tea. This is almost a traditional ceremony for Yemelyanov and me now. We sit down and he tells me what's happened on the farm since my previous visit. This time I start off with the same question, "Well, what's new?"

### Better Use of Machinery

"Perhaps the most important of the past year's developments," the farm's chairman begins, "is the reorganization of the machine and tractor stations. Then, with the new government procurement system, we now get higher prices for our crops. And you know,



STOCKBREEDING IS THE FARM'S SECOND LARGEST BRANCH AFTER FLAX. THE FARM'S TOTAL INCOME HAS DOUBLED SINCE 1953 AND EXCEEDED 7 MILLION RUBLES IN 1958.

of course, that farm taxes have been lowered. All of this has given the farm a big boost."

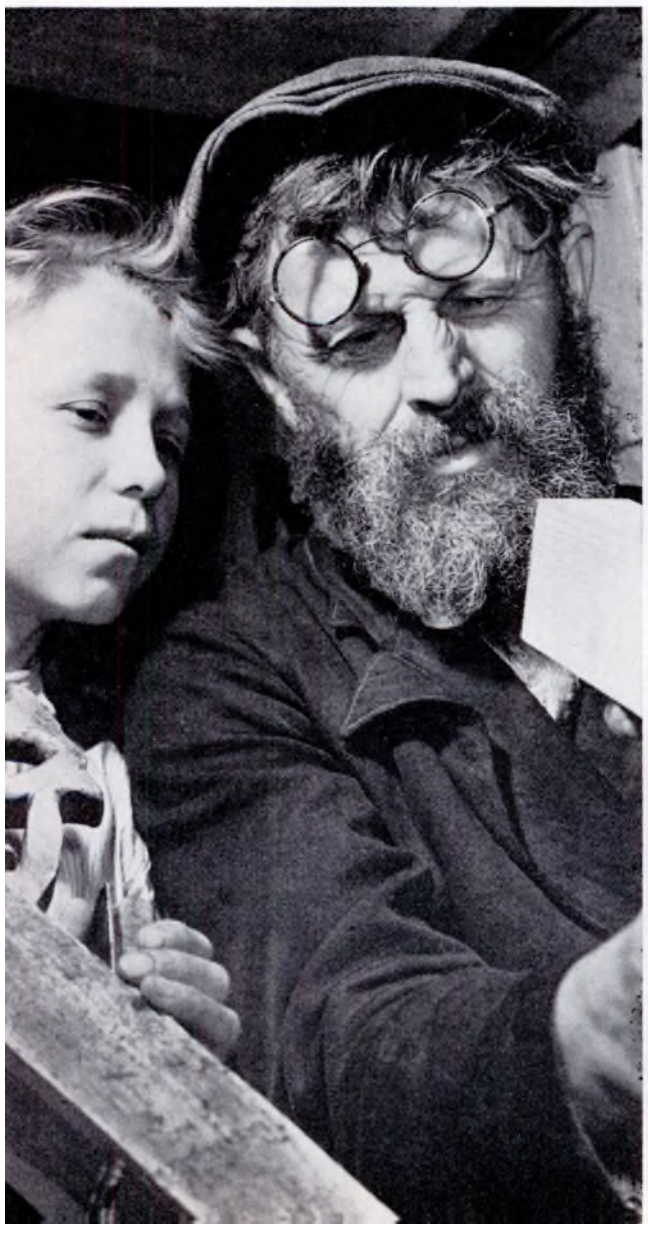
Going into details, Yemelyanov outlined what the reorganization of the machine and tractor stations has meant. "They used to do nearly all the field work on the collective farms in exchange for a percentage of the crops. Now we do it all ourselves, using the machinery we were able to buy when the stations were changed over to maintenance and service depots. Our farm spent 309,000 rubles buying tractors, combine harvesters and other machines.

"Without boasting, I can state that we are able to use this machinery more efficiently, to do more work in less time. We've done deeper plowing this past season, more cultivating, and used more organic and mineral fertilizers. As a result, our yields this past year have been higher."

Figures showed, Yemelyanov told me, that the farm's average milk yield per cow in the past five years had doubled and the total production of meat had more than doubled. The farm increased its cash income from 4,070,000 rubles in 1953 to 7,000,000 rubles in 1958.

"So you see," said the farm's chairman after he'd read me the figures, "we didn't have to count pennies when we bought all that machinery this past year."

NOW RETIRED, FYODOR GALKIN TEACHES CARPENTRY.

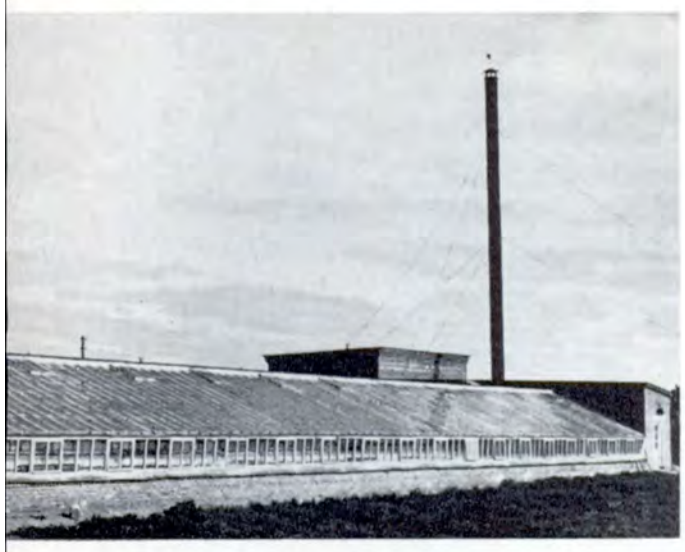


*KROKODIL*, THE FARM'S WALL NEWSPAPER, IS POSTED REGULARLY.



FARM CHAIRMAN YEMELYANOV IS CHESS FAN.





RECENTLY BUILT GREENHOUSE BRINGS GOOD INCOME.



THE FARM'S TROTTERS ARE KNOWN IN MANY PARTS OF THE COUNTRY OUTSIDE THE IMMEDIATE NEIGHBORHOOD.

# FARM'S PROGRESS

### Higher Prices for Farm Products

"How about the new procurement system and the new prices the government pays for your crops?" I asked. "How does that show up in your budget?"

"It's still a little early to say how much more that will amount to in the long run, although there's no question that it will mean more income. Our money crop is flax. By the old system we used to get premiums for flax delivered over and above the amount stipulated in the contract with the government purchasing agency. Under the new system we lose these bonus payments.

"But the way it works out with our more advanced methods of farming is that we're able to improve the quality of the flax we raise and to grow more of it. So with less labor and less money invested we get higher incomes. We also, of course, get the new higher prices for the grain, meat and milk we sell. All in all, our farm's income in 1958 was a half million rubles more than in 1957,

VITYA TUMANOV HELPS HIS YOUNGER SISTER AT SCHOOL.



THE TUMANOV FAMILY BUILDS ITS THIRD HOUSE IN THREE YEARS.



WATCHING TELEVISION AT FARM'S VACATION RESORT



and a slice of that increase is to be accounted for by the new price system."

"What's that construction you're working at near your cattle sheds?" I asked.

"It's a mechanized cowshed we're putting up. It was designed for us by a couple of engineers from a Moscow research institute for livestock breeding who spent some time here. Did you see the new houses we're building and the park we've laid out in the center of the village? We're really growing. Come back in a year or two. . . ."

I filled in the rest of the sentence for him, ". . . and you'll really see progress."

### A Farm Family

I wanted to do some visiting around to see how the collective farm's growth had affected individual incomes. Bookkeeping figures showed that they had just about tripled in the past five years. To get a better picture of what this meant in personal terms I dropped in on the Tumanovs, a family with ten children.

This farm family lives in a house that they built with savings. They moved into it three years ago when the old house got too small for the growing family. Their eldest son Leonid recently got married and moved to his own house. Their second eldest son is now building a house for himself, too.

The family at present has three earners—the father, Semyon, who works with a field crew on cereal crops; Tanya, a daughter, who is a milkmaid in the dairy; and the mother, Yelizaveta, who works with a vegetable crew when she is free from her household chores and the younger children. In 1958 the Tumanovs—that is to say the three earners—brought home 26,702 rubles in cash, three tons of wheat, nine tons of potatoes, vegetables and other foodstuffs for the year's work.

This is tax-exempt income that goes entirely for the personal use of the family. All taxes, capital investments like machine purchases and farm maintenance costs come out of common farm funds.

The income the Tumanovs receive for work done on the collective farm is supplemented with the income from their own household plot. They have their personal kitchen garden, orchard, cow, calf, five sheep, geese, chickens and beehives. This income is subject to a tax, but it does not exceed 4 per cent.

The collective farm has its own vacation resort built in a beautiful pine grove on the shores of the new man-made Gorky Lake. It has its own old-age pension system and social security fund for the sick and disabled.

Toward the end of my stay I sat in at a farm membership meeting. The point under discussion was a projected plan for the farm's further growth. This was part of the nationwide discussion that was going on in preparation for the Communist Party Congress that would be proposing target figures for the country's economy as a whole.

The discussion at the Timiryazev farm was spirited, lively and very much down to earth. When the farmers talked of so many more bushels of wheat per acre, so many more quarts of milk per cow, so many more houses to be built in the next few years, they had no doubt at all that these figures would be realized. Nor did I.

I should know the slogan of the Timiryazev farm by now, I've heard it so often in these past ten years: "Come back in a year or two and you'll really see progress."

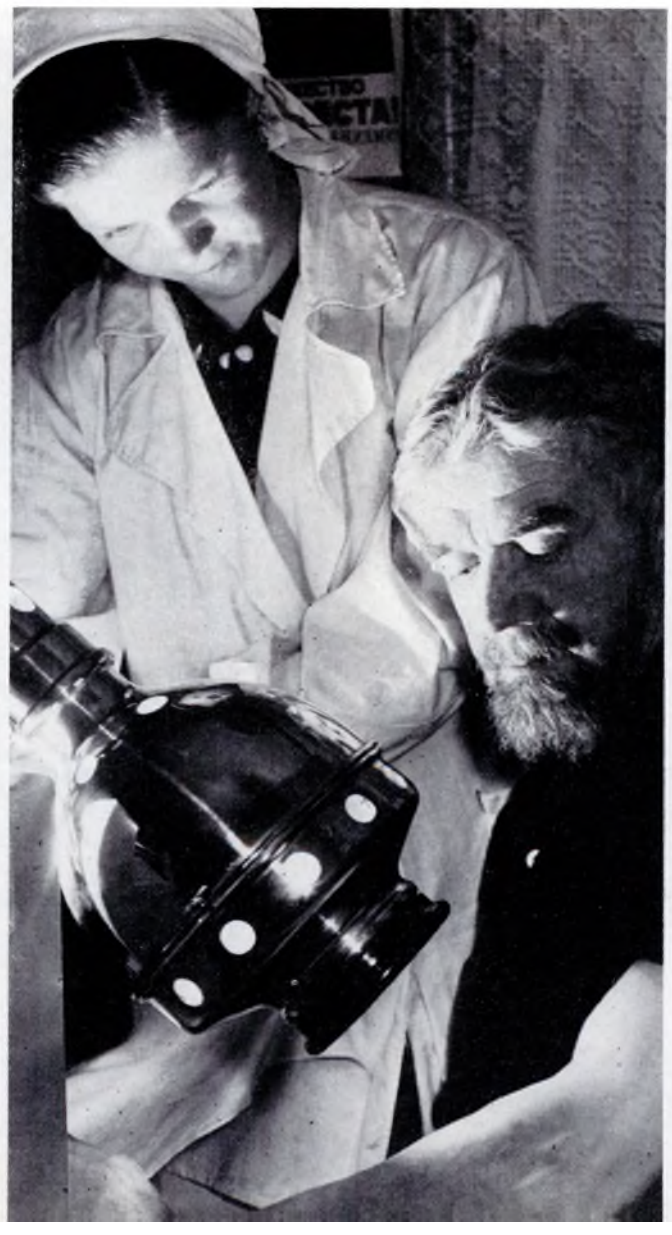


AT THE HAND TAILORING SHOP OF THE FARM'S VILLAGE.

THIS RESORT IS ON NEARBY MAN-MADE GORKY LAKE.



THE RESORT'S ELECTROTHERAPY ROOM. ALL SERVICES ARE FREE.



TODDLERS OF FARM FAMILIES IN THE KINDERGARTEN.



# Siberia's Creeping Orchards



YOUNG HORTICULTURIST HOLDS A CREEPING TREE BRANCH TO DISPLAY ITS FRUIT.

THE APPLES in the picture above were grown on creeping trees that cover the ground like a thick carpet. It might seem that this kind of horticulture would produce inferior fruit, but the fact is that experts find apples grown this way especially fragrant, tasty and attractive.

This odd apple was developed by Siberian horticulturists in a region where, up until just recently, short summers and long winters with their biting cold and sharp wind were considered an effective barrier to fruit growing. Indeed, even the raising of vegetables was once considered to be a feat.

But times have changed. Modern science and machinery have helped move the northern borders of farming closer to the Arctic. As a matter of fact, tomatoes have been grown successfully for many years on the Kola Peninsula beyond the Arctic Circle, and rich harvests of corn have been gathered in areas of almost eternal frost. And now orchards full of apple, pear and plum trees are growing in Siberia.

While seeking fruits adapted to these rigorous climatic conditions, Vsevolod Krutovsky, one of the founders of Siberian fruit growing, produced a creeping fruit tree. He named it the Krasnoyarsk Creeper in recognition of the region in which he made this transformation of nature.

When a sapling is a year old it is bent to the ground. Succeeding branches are also trained in this way so that a grown tree reminds one of a plate of apples framed in their own greenery.

There are many such "plates" these days on Siberia's collective farms and in the orchards of her gardeners. Thousands of tons of apples have already found their way to the tables of city consumers.

BEFORE THE FIRST SNOWFALL THE CREEPING APPLE TREES ARE COVERED WITH PINE BRANCHES AND, THUS PROTECTED, SURVIVE THROUGH THE MOST SEVERE WINTERS.





EYE EXAMINATION AT THE CLINIC OF THE KOLOMNA DIESEL LOCOMOTIVE PLANT. THE WORKERS GET COMPLETE MEDICAL AND DENTAL CARE WITHOUT ANY PAYMENTS.

# HEALTH SHOP IN A FACTORY

*By Georgi Yuryev*

WORKERS at the Kolomna Diesel Locomotive Plant call their factory polyclinic the health shop. An apt name since its job is to keep several thousands of human engines in top-notch running order.

Soviet medical practice stresses disease prevention. The clinic at Kolomna, and those like it attached to every factory of any size in the Soviet Union, is therefore busy the year round with medical checkups to head off colds, infectious ailments and occupational diseases.

The clinic is on the plant grounds. In attendance are a neuropathologist; a dermatologist; an oculist; an ear, nose and throat man; a surgeon; a dentist; and a specialist in corrective exercises.

Seven laboratory rooms provide facilities for thorough diagnostic testing, including X-ray and electrocardiogram. The eleven treatment rooms are equipped to handle everything from a bruise to emergency surgery, and the physical therapy apparatus includes quartz and solux lamps, large and small ultra-high frequency units, Franklin and hydrolytic baths, besides a special hydropathic setup. The clinic has ten examination rooms and directly in the shops there are first aid rooms. There is also a dental laboratory.

Members of the family of a Kolomna worker may be treated by the clinic specialists if they wish and the workers may use the additional services of the Kolomna town hospital. Children are cared for at the town's



THE BEST DOCTORS OF THE TOWN ARE INCLUDED ON THE PLANT CLINIC'S STAFF AS CONSULTING PHYSICIANS.

# *HEALTH SHOP IN A FACTORY*

infant consultation centers and the children's polyclinic. All medical and dental services are supplied without charge.

### Regular Medical Checkup

Before an aspiring locomotive builder begins work at the plant, he gets a complete medical examination by a panel of specialists at the polyclinic in his home district. His medical history is kept on file in the plant clinic. Thereafter his health is checked periodically. Once a year the plant clinic gives vaccinations and other innoculations against infectious diseases.

If a worker's medical history indicates that he at any time suffered from a serious ailment, he is placed under special observation. Instrument-maker Yevgeni Terekhov's medical card, for example, shows a three- or four-time a year follow-up ever since he started work at the plant in 1954. His district polyclinic certified that Terekhov was in good health but noted that some years previously he had suffered from rheumatic fever. He was therefore automatically added to the roster for special checkup.

The clinic pays special attention to workers in the more taxing trades, steel-smelters, coppersmiths, furnacemen and the like. They get medical examinations more often than other workers. They also get priority in accommodation at health resorts.

### Treatment and Follow-Up

Preventive medicine, however, is not the only aspect of the clinic's work. Treatment is provided for workers who suffer from chronic ailments. The treatment may require that the patient's job be changed. If that's the diagnosis, then the job is changed.

Fitter Nikolai Nikulshin is a case in point. He suffered from chronic eczema of the hands. Since his job made it impossible for him not to touch the lubricants which his attending physician thought was a factor in the condition, he recommended "drier" work. Nikulshin was transferred to work on a drilling machine, his wages stayed the same.

Alexei Parkhonin started work at the plant as a chauffeur. He suffered from peptic ulcer, an ailment of long duration with him. He was told to report to the clinic once a month and was given physiotherapy and a special diet, available at the dietetic section of the





Metal worker Pyotr Chekin recovers from pneumonia in the plant's hospital.



Mechanic Ivan Chemodin visits his doctor after returning from sick leave.

Assembler Nikolai Osipov is given physiotherapy to help him recover from the flu.





Daily medical inspection of workers' hands helps to prevent infections from minor cuts.



Thorough regular checkups by the plant's physicians provide each worker with his full medical history.



All work benches, machines and exhaust pipes are checked periodically by the physicians.



Dr. Daniel Pilch, a surgeon, is always ready for an accident or an emergency call from the employees.

Instrument maker Mikhail Romanov is treated at home by his attending physician.



Dr. Maria Alexandrova, plant dentist, cares for Mikhail Avdeyev, employee of the smelting department.



plant cafeteria. Twice, on prescription from the clinic, he was sent to a southern health resort. The consistent follow-up and care did the job, and before long Parkhonin's ulcer was completely healed.

Gennadi Ryzhov's medical record cites another successful treatment, this one not so much medical as financial. Ryzhov worked as an assembler, but after an operation he found the heavy work too much for him. He was thereupon transferred to machine-repair work. But the wages for his new job were lower. The medical commission at the plant established the degree of Ryzhov's incapacity and recommended that the amount of pension allowed for such disability be granted him. With his wages in the new job plus his disability pension his present income is even slightly higher than it was before.

### Paid Sick Leave

The Kolomna plant clinic follows a procedure on sick leave that is standard for industrial establishments everywhere in the country. Dr. Natalia Knyazeva, one of the clinic physicians, examines mechanic Ivan Chemodin, let us say. He complains of headaches and a cough. She diagnoses a bad head cold, prescribes two days in bed and authorizes a sick leave for that period. If his cold hasn't improved by that time, the doctor prolongs his sick leave up to a maximum of six days.

Sick leave of longer duration must be approved by a commission consisting of Dr. Klara Belova, chief of the clinic, a consulting specialist and the attending physician. The commission can grant sick leave for as long as is necessary.

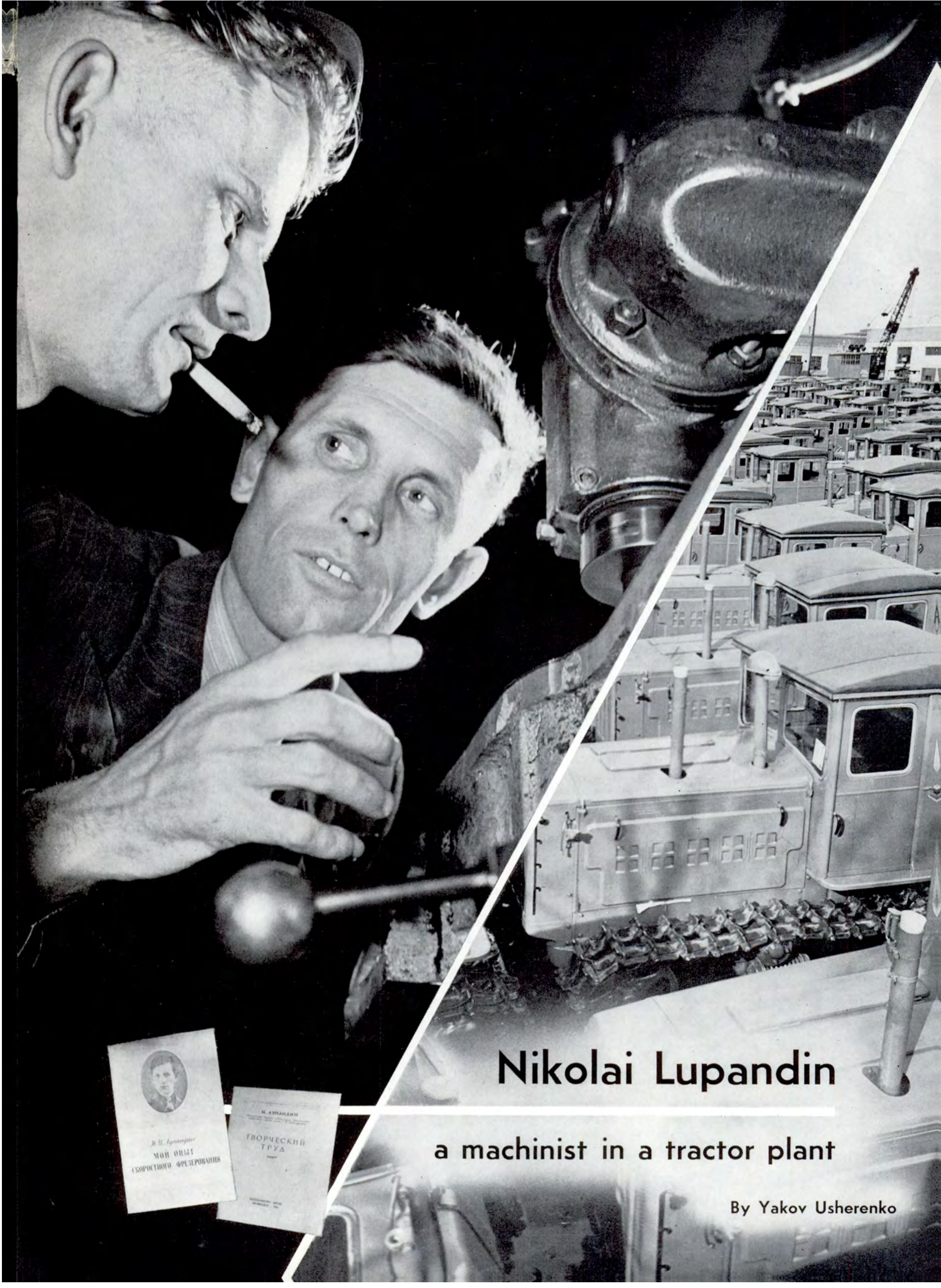
The pay for the days of sick leave depends upon the length of time a worker has been employed in the industry. Workers with less than three years' service are paid half their average wages; after three years—60 per cent, after five years—70 per cent, after eight years—80 per cent and after twelve years—90 per cent. If a worker is incapacitated as the result of an accident at the plant, he is paid his full wages, regardless of length of service.

The money to pay for sick leaves comes from the social insurance fund made up entirely by the industry and administered by the trade unions. No contribution to this fund is taken out of the worker's pay envelope.

A sick leave certificate issued by the attending physician will specify whether the patient can be up and about or whether he is to stay in bed. For more serious cases that require close medical attention, the clinic has its own fifty-bed hospital and, if necessary, the facilities of the larger town hospital. The plant clinic and hospital are supported out of government funds—about two million rubles annually.

Clinic physicians are free to call on specialists at the town hospital for consultation and on the services of a clinical research institute in Moscow if they think it advisable. When the occasion warrants it, patients are sent to the institute for examination and diagnosis.

For all except the most critical cases the plant clinic facilities are altogether adequate and the clinic staff admirably qualified to take care of the health of Kolomna plant workers.




# Nikolai Lupandin

## a machinist in a tractor plant

By Yakov Usherenko



NIKOLAI LUPANDIN READS THE MANUSCRIPT OF HIS NEW BOOK TO ENGINEER VLADIMIR VOLOSHIN.



AS A PRODUCTION EXPERT, HE LECTURES AT AN ENGINEERING SCHOOL.

NIKOLAI LUPANDIN is a milling machine operator at the Kharkov Tractor Plant. Everyone in the shops knows him as a man who can't look at his machine without trying to figure out how it could do a better job. His innovations have introduced much that is progressive in the technology of milling and have brought him the admiration of apprentices and the respect of veterans.

Lupandin is not an engineer by training. He is a practical worker and a very good one. But he has the inventive and the generalizing turn of mind that is the hallmark of the creative engineer. Besides devising a number of original gadgets, he has worked out an approach to milling machine operation based on his experiences which has proved helpful to thousands of workers in his trade.

Lupandin frequently lectures to future engineers at the Kharkov Polytechnical Institute on advanced methods of milling. He has written several books on his experiences in the trade which are used in Kharkov's machine engineering schools. Czechoslovakian machine builders found one of them, *My Experiences in High-Speed Milling*, useful enough to have it published in Prague in a Czech translation.

### Machinist by Choice

For several years now Lupandin has been working in the modeling department of the factory's foundry. He talks of his work in phrases a sculptor might use: "Our milling machine operator is really a modeler of metal who takes a piece of ordinary pig-iron or aluminum and makes an intricate model from it. In the foundry shop it is shaped and molded, and then, in the machine shops, thousands of tractor parts are turned out."

How did Nikolai Lupandin come to choose milling machine operation as a trade out of the many thousands of others he had open to him?

"Partly accident," Nikolai explains, "but mostly conscious choice. I saw my first tractor when I was about twelve. This was in 1930 and our family lived in the village of Tolokonnoye, in the Belgorod Region of the Ukraine.

"It was the first tractor to come to our newly-formed collective farm. The whole village turned out to have a look at the machine and we children, of course, were way in front. We were all crazy to drive it, but I had an even wilder idea. I wanted to build machines just like it.

"It was some little time after that—this is the accident part—that the people in charge of the construction of the Kharkov Tractor Plant visited our village. They told the villagers about the big plant that was being built to make tractors and asked people who were interested in construction jobs to come to Kharkov.

"Our family was one of those that moved to Kharkov. My father wanted me to follow his trade as builder, but by the time I finished seven-year school I knew very definitely what I wanted to do—I was going to make tractors. I applied for the apprentice school at the plant and learned milling machine operation. And that's what I've been doing for 22 years."

### It's His Plant

The first innovation proposal Nikolai Lupandin made was in 1940 when he had been working at the milling machine for a relatively short time. He noticed that old and worn-out cutters which had been replaced were scrapped. This set him thinking.

Cutters are expensive items, and it seemed to the young machinist that more could be done with the worn-out ones than to throw them in the scrap metal bin. He talked to some of the older hands and to the engineer who was head of the shop. Then he tried making a new cutter from an old one. It did the job when he used it on his machine.

Word got around at once, and the management congratulated Lupandin on the money-saving idea. After that all the milling machine operators began to use the renovated cutters. and Lupandin received his first bonus.

Among Lupandin's latest innovations is one on which he collaborated with Alexander Savitsky, a mechanic in his shop. It is a new method for production of models of links in the track of the DT-54 tractor. Casting these parts by the new method cut the production cycle by as much as nine to ten times and eliminated 65 different milling operations which had been necessary before then.

With Ivan Tkachyov, another mechanic in the shop, Lupandin worked out a new method of milling pivot boxes which increased productivity almost eleven times over and was responsible for a large saving in metal, electric power and tools.

HE OFTEN VISITS THE BOOKSHOP NEAR THE PLANT.





LUPANDIN'S GARAGE ADJOINS HIS APARTMENT HOUSE.

# NIKOLAI LUPANDIN

Lupandin's work has stimulated other workers in the modeling shop to suggest innovations, but the very character of socialist production lends itself to this kind of thinking, and figuring out ways of doing a job better and faster.

The modeling shop in which Lupandin works holds regular production meetings in which the operators consider working problems, discuss better ways of using equipment and make suggestions for improvements. The shop management is obligated to report at these meetings what has been done with the proposals submitted by the workers.

This personal concern with the way the shop is doing is the psychological factor which accounts, perhaps more than any other, for the otherwise impossible-to-explain rate of development of Soviet industrial progress. Lupandin has this very personal interest and so does the shop manager, engineer Voloshin, who, by the way, was formerly a metal worker, and so does the very newest apprentice learning the trade.

## Day Machinist—Night Student

Nikolai Lupandin, like the other workers at the plant, puts in a 46-hour week—eight hours Monday through Friday, six hours on Saturday. Now the plant is in process of switching over to a 40-hour week.

This changeover to a seven-hour working day in industry without reduction in pay is being put into effect throughout the country. Some of the factories in Kharkov have already made the switch. The Tractor Plant needs a little more time for the transition on account of its size.

The plant's machinists are all paid on a piece-rate basis. Lupandin's earnings for 1955 were 23,100 rubles, in 1956 he made 25,600 rubles and in 1957 almost 26,000 rubles. In 1958 he earned less—24,000 rubles.

"I didn't get as many bonuses in 1958," explains Lupandin. "This is my final year at the plant's division of the machine engineering school, and my studies don't leave me much time to work on gadgets."

Four evenings a week, from six to ten, milling machine operator Nikolai Lupandin turns student. Of the 400 enrolled at his school, a good half are men who work at the Tractor Plant, the rest come from plants in the area.

Study isn't the easiest thing in the world, especially after a full day's work. In spite of the difficulties, however, one worker out of every three at the Tractor Plant is studying at one or another of the evening and correspondence schools.

To explain his studying, Lupandin says simply, and perhaps that's all that needs to be said, "I'm studying because I want to know more."

## Family Life

As for Nikolai Lupandin's private life—he lives seven or eight minutes away from the plant with his wife Taisia and two young daughters in a three-room apartment. He pays 95 rubles' rent a month. The apartment house he lives in has an attached garage where he keeps his car.

By the time Nikolai gets home from the plant his wife and children are already eagerly waiting for him. While the family has dinner, Nina, the elder daughter, who is in the fifth grade, and Nellie, who is in the third grade, tell their father all the latest school news. Saturdays and Sundays are days for family outings: the theater, movies, museums, exhibitions and book affairs.

Everybody in the family loves books and reading is a favorite pastime with the Lupandins. Nikolai is an inveterate newspaper reader and feels he's missing something if he doesn't go through the Moscow *Pravda* and the local Kharkov paper every day. He is also an omnivorous novel reader and covers a wide range of authors from Leo Tolstoy and Mikhail Sholokhov to A. Conan Doyle and Jack London.

## Social Work

Lupandin has been active in one way or another in social work ever since he can remember. At school he was a member of the editorial board of the wall newspaper. During his apprenticeship he helped organize amateur art circles and in the shop he has always been an active trade unionist.

It was during the war that Nikolai decided to take on the social responsibilities and duties involved in Communist Party membership. The Kharkov Tractor Plant and its workers had been evacuated to Chelyabinsk in the Urals. Times were difficult. Everything was subordinated to the needs of the front.

Work at the plant went on unceasingly seven days a week. When Lupandin wasn't at the plant, he was doing something else that would contribute to the war effort. It was the least a man who was not actually fighting at the front could do, he felt.

Nikolai Lupandin has been a party member for 15 years now. All these years he has fulfilled with honor and distinction the duties of a Communist. In 1956 he was nominated by the workers in the plant and elected deputy to the Kharkov City Council.

For legislator Lupandin we might very well say, as we did previously of his activity as innovator—he is a man who can't sit at a city council meeting without trying to figure out ways in which the city administration will do a better job for the people.

THE FAMILY NEVER MISSES AN OPPORTUNITY TO GET OUT FOR A PICNIC OR HIKE IN THE WOODS.





Vladimir Savchenko (left) and Vladislav Zaitsev, students of the Moscow Aviation Institute, built a tape recorder of their own design. It carries almost 3,500 feet of tape.



Marina Grachova (left) explains her new TV set to Natasha Vasilyeva in a club laboratory.

# Radio Hams

*By Boris Dunayevsky*

An amateur-designed combination radio-TV set and tape recorder equipped with remote control.



RADIO HAMS are a world-wide fraternity, unhampered by customs, boundaries or frontiers. They did yeoman service in tracking the first earth satellites. Moscow central tracking station was flooded with reports from radio hams all over the world who had established contact with the baby moons.

Scientific exchange is an old and honored tradition with radio amateurs. So is service in emergencies.

About 30 years ago the Soviet flyer Boris Chukhnovsky failed to return to the airfield from an Arctic flight. The powerful radio stations were unable to establish contact with the lost plane. It was the radio ham Nikolai Schmidt in the city of Archangel who caught the weak signals through a barrage of static with his homemade radio receiver.

Radio ham Schmidt was the sensation of the hour, and he deserved to be, considering the simple detectors of 30 years ago.

You don't have to look far to find a radio ham in the Soviet Union. In small village or big metropolitan center, you'll find schoolboys and staid pensioners, workers and farmers, men and women of all ages and inclinations busy fabricating their own outfits in one or another of the thousands of radio clubs.

The workshop is the heart of the club and always a scene of concentrated activity. Here amateur designers get the expert advice they need, the parts, the instruments and tools. The dues are minimal—a quarter of a ruble monthly for hams still at school, a ruble for those on jobs. Subsidies for club quarters, equipment and tools are provided by various social organizations, since the dues are too small to keep the clubs going. Besides the clubs, workshops and equipment are made available at schools, colleges and factories.

Many of the hams gravitate naturally into the technical trades and professions, carrying their interest and skills with them.

Boris Khorkov was a high school student and ardent radio ham when I first met him ten-odd years ago. He makes his living now as industrial training foreman at the Moscow Electric and Radio Mechanics Technical School No. 7. His old passion for tearing apart and putting together old radio sets to get something new and different is still with him. When I met him last, he had designed a very interesting type of combination that can simultaneously get radio and TV broadcasts, can do sound recording and can be operated by remote control.

Another radio amateur I know, Laimonis Puce, is a foundry worker by trade. He works in a plant in Riga and spends most of his leisure time at the city radio club. He has designed an intricate musical instrument built around multi-vibrators, called a cametaphone, that can reproduce the sounds of a whole orchestra.

Instruments like it have long been produced by factories, but Puce seems to have given it a new twist. Now he's off on another idea that may or may not be the last word in radio engineering. A radio ham never forgets that the audion tube was invented by a fellow amateur.

Exhibitions of work done by radio amateurs are regularly shown in the larger cities. At an amateur exhibition recently held, the fourteenth of its kind in Moscow, there were 400 displays of sound-recording mechanisms, television sets, short and ultra-short wave devices, radio sets and other apparatus. The exhibits and their builders came from places as distant as Siberia and Central Asia.

These designs and inventions of radio amateurs always attract general interest and attention since both Soviet science and industry are constantly on the lookout for fresh ideas and imaginative concepts.



RUSSIAN MINK IN A LOOSELY FITTING COAT.



PERSIAN LAMB WITH LEG OF MUTTON SLEEVES.



FULL BACK AND NARROW HEM IN MOUTON.

# Fashions in



NUTRIA COAT CARRIES A YOKE BACK.

STRAIGHT LINES AND SET-IN SLEEVES IN KOLINSKY FUR.





PRINTED LAMBSKIN IS VERY NEW.



WHITE FOX SETS OFF THIS PERSIAN LAMB.



# Fur



WARM SQUIRREL PELTS MAKE UP THIS STYLISH MODEL.



MARTEN WITH A FLARED SKIRT.

THE SCALLOPED HEM IS A NEW TOUCH IN THIS MUSKRAT COAT.



# SPEED SKATING in the Soviet Union

By Victor Kapitonov, *Master of Sport*

WITHIN the past ten years Soviet speedsters have broken 44 world ice-skating records and tumbled their own national marks 214 times. Of a total of 13 world records maintained in ice skating, 11 are held now by Soviet athletes.

Male skaters have swept to victory in four of the six world championships and in four of the five European championships in which they competed. At the Seventh Winter Olympics they won in the 500-, 1,500- and 5,000-meter races, establishing Olympic highs for these distances.

On the distaff side we find that Soviet stars have triumphed in each of the nine women's world championships they entered. These wins were contributions of many fine contestants, including the outstanding abilities of Maria Isakova, thrice world champion; Lydia Selikhova, who held the world crown twice; Tamara Rylova, world record-holder in two events; and Inga Artamonova, present world champion.

The men can show three-time world champion Oleg Goncharenko who also is a double winner of the European title; Boris Shilkov, another speedster who held both the world and European crowns; Yevgeni Grishin, the winner of two events in the Seventh Winter Olympics and the European champion; Yuri Mikhailov, Olympic champion; and Dmitri Sakunenko, the over-all world record holder (counting the total number of points for the 500-, 1,500-, 5,000- and 10,000-meter contests).

Back of this rather impressive record of skating successes lies the story of long hours of tedious training and of competition that is both widespread and bitterly fought by thousands of deserving youngsters. Each new season finds new talent rising to the ranks of principal contenders. For example, last season Boris Stenin and Valentina Stenina of Sverdlovsk; Vladimir Shilykovsky, Gennadi Voronin and Valeri Larionov, all of Moscow; and Lydia Skoblikova of Chelyabinsk moved into the top flight list of skaters.

TABLE NUMBER 1

**USSR Sports Qualifying Standards for Men's Speed Skating**
in ordinary rinks

| Sports Categories | Distances in meters — Time in minutes and seconds | | | | |
|---|---|---|---|---|---|
| | 500 | 1,500 | 3,000 | 5,000 | 10,000 |
| Master of Sport | 42.5 | 2:16.5 | * | 8:25.0 | 17:30.0 |
| First | * | * | * | 8:50.0 | 18:20.0 |
| Second | 49.0 | 2:37.0 | 5:25.0 | 9:25.0 | 19:35.0 |
| Third | 53.0 | 2:43.0 | 5:50.0 | 10:00.0 | 21:00.0 |
| First Junior | 56.5 | 3:00.0 | 6:15.0 | 10:50.0 | * |
| Second Junior | 59.0 | 3:09.0 | 6:36.0 | * | * |

*The distance is not contested in this sports category.

## Millions of Skaters

This wealth of talent springs from the fact that skating and skiing are the two most popular winter sports in the Soviet Union. It is difficult to say which is preferred by the majority of the population, but ice skating rinks are available everywhere—in the cities and towns as well as in the most remote villages and hamlets. They range from small ones in playgrounds and little parks, to the vast stadiums and the king-sized

rinks such as that at the Central Recreation Park in Moscow which can accommodate as many as 20,000 or more skaters daily during the winter season.

There are speed-skating divisions in every athletic association and club. Official membership in these divisions alone comes to approximately half a million, not counting the usual fans. All told, the number of people on skates runs into the millions.

Other sources from which skating stars have been developed include the junior training schools which draw school children from the ages of ten years and up, and the youth training centers that attract budding speedsters between the ages of 17 and 20.

The annual USSR speed-skating championships draw a field of 400 challengers from the top talent of the country. Last season 74 skaters had point scores of better than 200 in the over-all competition and 75 speedsters finished the 10,000-meter event in less than 18 minutes. Contests are frequently held on the famed Alma-Ata high-altitude course in Kazakhstan where most of the Soviet successes have been registered.



Boris Shilkov, world and European champion for 1954 and winner of the 5,000-meter event in the Seventh Winter Olympics.

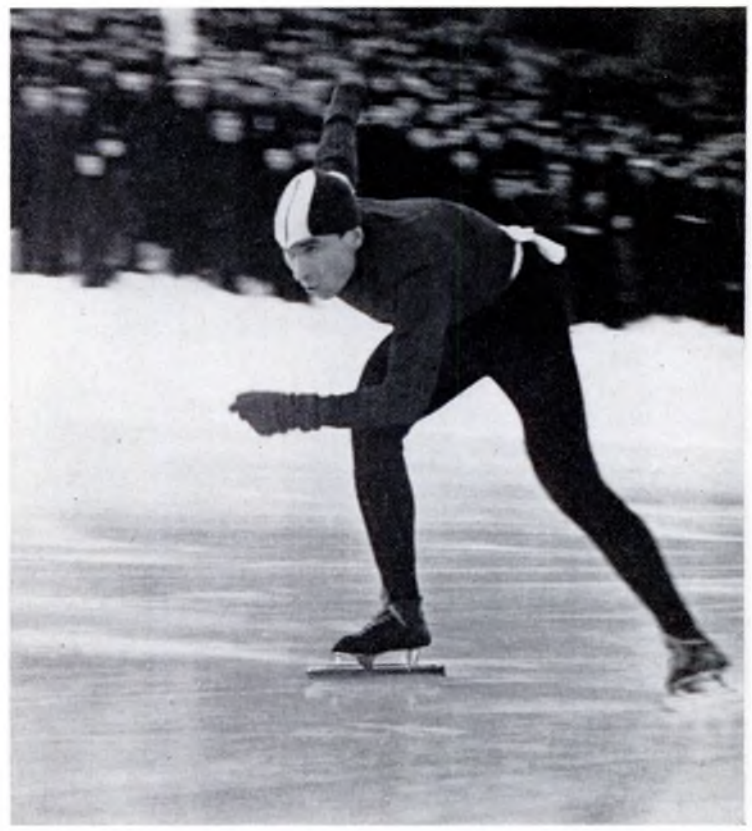
### Sports Qualifying Standards

To promote systematic training and athletic growth of skaters, there is a system of sports qualifying standards for both men and women. The standards are, of course, different for various age groups and are divided in accordance with the skating skill.

The system of sports qualifications is uniform for all athletic organizations of the country and it covers all kinds of sports. As an athlete keeps improving his skill and achieves better results in contests, he is promoted from one sports category to another. The requirements for each category are set by the USSR Sports Qualifying Standards *(see Tables No. 1 and No. 2)*.

Sports writers find that Soviet ice skaters have built a school of their own with some technical features that differ from the others. Our skaters' carriage is low, permitting a more effective springy and softer stroke over any distance. Most of our speedsters keep their arms clasped on their backs during the straightaway stretches and then swing one arm when cutting turns.

Yevgeni Grishin, champion of the Seventh Winter Olympics in the 500- and 1,500-meter events and European champion for 1956.



Oleg Goncharenko, world champion for 1953, 1956 and 1958 and European champion for 1957 and 1958.



TABLE NUMBER 2

**USSR Sports Qualifying Standards for Men's Over-all Skating**
in ordinary rinks

| Sports Categories | Distances in meters — Rating in number of points | | |
|---|---|---|---|
| | 500, 1,500, 5,000, 10,000 | 500, 1,500, 3,000, 5,000 | 500, 1,500, 3,000 |
| Master of Sport | 197 | * | * |
| First | 207 | * | * |
| Second | 220 | 216 | * |
| Third | 236 | 232 | * |
| First Junior | * | 248 | 182 |
| Second Junior | * | * | 192 |

*The distance is not contested in this sports category.



Tamara Rylova, world record-holder in the 500- and 1,000-meter events in the women's division and USSR over-all champion for 1955 and 1957.

Dmitri Sakunenko, holder of the world record in the over-all skating competition. In the 500-, 1,500-, 5,000- and 10,000-meter events he scored 184.638 points.

# SPEED SKATING in the Soviet Union

Vladimir Shilykovsky, USSR national champion for 1958 in the 10,000-meter event.



TABLE NUMBER 3

**Distribution Between Countries of Top 25 Places in World Over-all Speed Skating**

in ordinary and high-altitude rinks

| | | |
|---|---|---|
| USSR | —1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 20, 22, 23, 25 | all in all, 20 places |
| Norway | —16, 18, 19, 21 | 4 places |
| Sweden | —24 | 1 place |

in ordinary rinks

| | | |
|---|---|---|
| USSR | —1, 2, 3, 6, 7, 8, 10, 11, 14, 16, 20, 25 | 12 places |
| Norway | —4, 5, 12, 13, 15, 18, 23 | 7 places |
| Sweden | —9, 19, 22 | 3 places |
| Finland | —21, 24 | 2 places |
| Australia | —17 | 1 place |

## System of Training

Our ice skaters view the sport as recreation or fun and usually turn to other activities in warmer weather. But those athletes who wish to improve their standing are devoted to year-round programs of training. The work is generally divided into three periods: there is a preparatory phase from May through September, the main period running from October through March, and a transitional phase in April.

In the preparatory period the skater devotes himself to all-round physical and special training. The intensity of workouts is increased as are the number of practice sessions during the week. The training includes cross-country running, alternate periods of fast and slow running, imitation skating on grass, roller skating, cycling, rowing, swimming, gymnastics and court games along with body-building exercises.

The main period is split into preliminary, pre-competition and competition stages. During the first dozen workouts on the ice, the skater restores and improves his style, first on the long then on the shorter runs. As the first month comes to an end ice practice is stepped up to 25-30 minutes of uninterrupted skating.

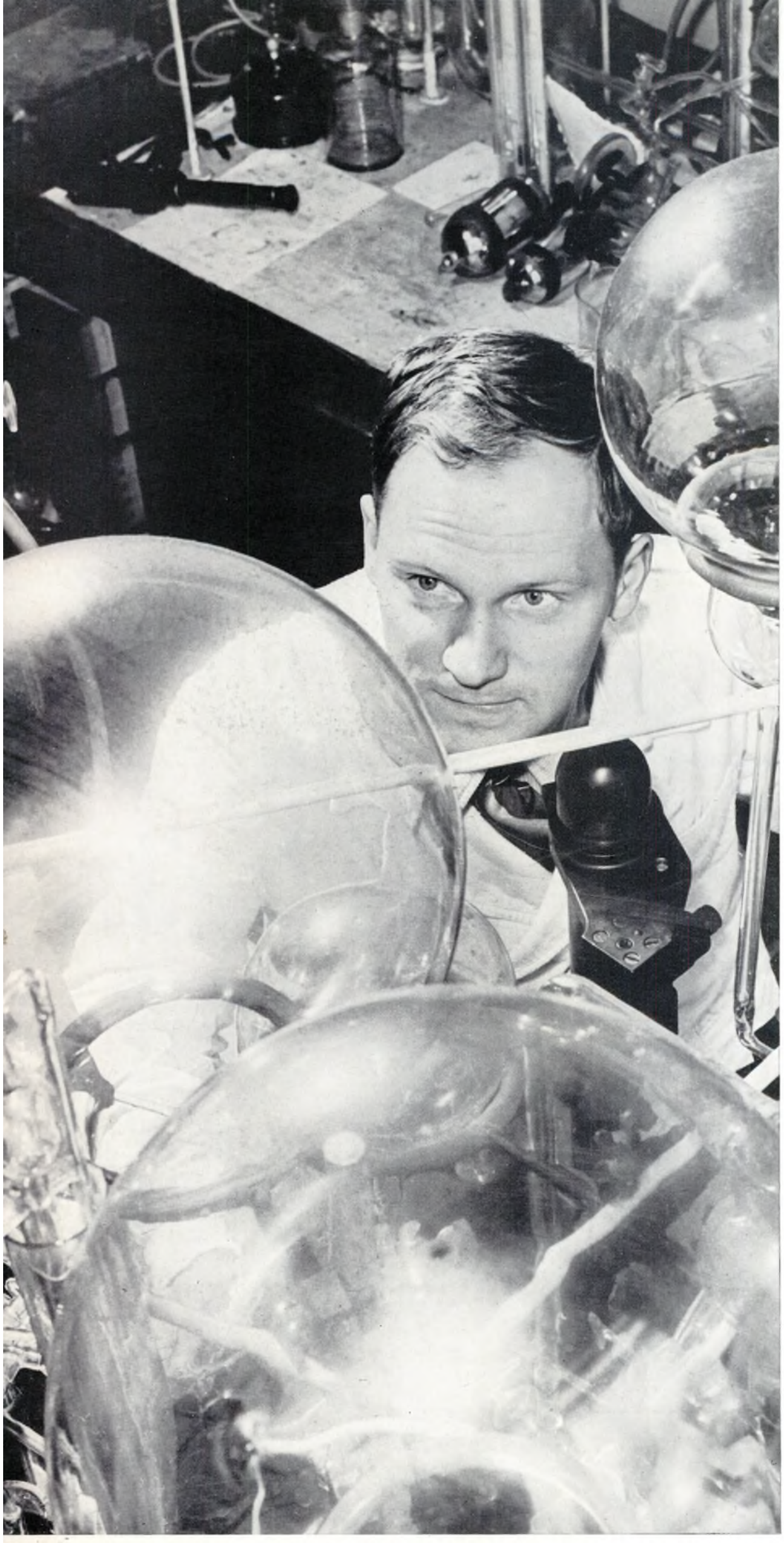
At the beginning a rest day follows three days of practice and later a day's rest follows two days of training on ice. The skater, however, must still do his cross-country running during his "off" day, keeping his muscles toned up and his breathing under control.

There are three or four weeks of this work before the skater turns to pre-competition training, which is more intensive. In the latter part of this stage there are some competitive events that grow increasingly difficult. Much stress is placed on building endurance. But as the pre-competition stage nears an end practice is reduced, and the schedule of two days of workouts and one rest day is alternated with two practice days and two "off" days.

Beginning about mid-January, the competition stage finds actual racing events replacing most of the training sessions, with coaches paying particular attention to the skating form of their charges.

The present skating season promises many interesting events, including the world and European championships for men and the world championship for women. In addition there will be various international matches, such as Sweden vs the Russian Federation, Finland vs Leningrad, Oslo vs Moscow, and the German Democratic Republic vs the Russian Federation.

There is no doubt that from these and other matches, new stars will emerge to challenge the leading contenders who made their reputations in last season's events.



SCIENTIFIC RESEARCH LABORATORIES KEEP PACE WITH THE SWIFTLY GROWING NEEDS OF AN ADVANCING ECONOMY.
*See Story on the USSR Academy of Sciences on Page 20.*


# USSR

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**Front cover:** When Ivan Petrov returned from military service he was warmly welcomed at the Krasnaya Roza Textile Mill in Moscow where he returned to his old job as a maintenance mechanic. See picture story "Back to Civilian Life" on page 38.

*Anything in this issue may be reprinted or reproduced with due acknowledgement to the magazine* USSR.


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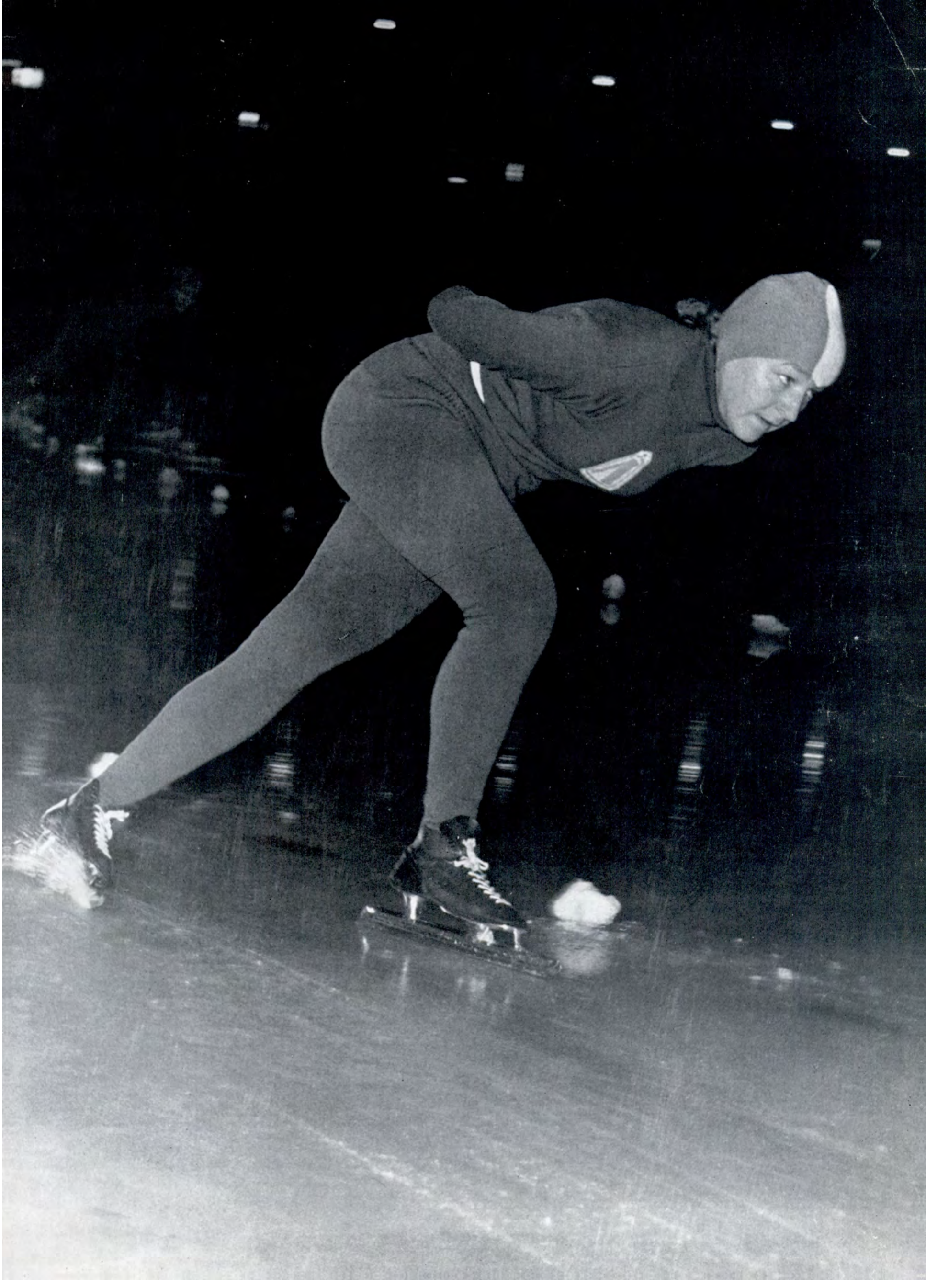
## NATIONWIDE APPROVAL OF SEVEN-YEAR PLAN

No. 2 (29)—20 Cents



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# Discussing the Future

FOR many months preceding the Twenty-First Congress of the Communist Party, the seven-year plan for economic development of the Soviet Union between 1959 and 1965 was discussed at thousands of public meetings held everywhere in the country.

Suggestions for changes and additions came from people of all ages and all vocations, from older people with experience gathered as far back as 1929 when the first of the national five-year plans was adopted, and from young workers recently out of school and on their first jobs. Discussion centered not on whether the target figures could be achieved —no one questioned that—but on ways and means of fulfilling the plan in less than the seven years allotted.

Since it is the people who will be translating these target figures into machines, power stations and consumer goods, they must participate in the planning. That is the meaning of socialist democracy—to encourage the widest possible participation of the country's people in cooperative planning and cooperative work.

## Millions of Planners

In order to draw as many Soviet citizens as possible into active participation in planning and solving the country's problems, it is usual practice for the Communist Party to submit its proposals for public discussion.

In 1957 the Central Committee of the Communist Party published its draft on the reorganization of industrial management for nationwide discussion. The proposal, which aimed at a larger degree of local control of industry, was discussed by an estimated 41 million citizens. Only after this democratic expression of opinion was the draft, with amendments made by workers and technical people, considered by the USSR Supreme Soviet and drafted into law.

The same was true for the law which reorganized the machine and tractor stations and provided that agricultural machinery be sold to collective farms on favorable terms. This was adopted by the USSR Supreme Soviet in the spring of 1958 after some 50 million citizens had had their say.

It is more than probable that when the figures on the current meetings are finally tallied, the number of people who participated in discussion of the seven-year plan in the months before the Communist Party Congress convened will have exceeded 50 million.

## A Plan for a Higher Living Standard

This is hardly surprising since the new economic plan is of vital concern to every Soviet citizen, both in immediate and long-range terms. In essence, it is a plan for raising the standard of living of every worker in the country to a level far higher than the present, a level which will do more than equal the highest living standard any country has yet achieved.

During these seven years industrial production is to rise by 80 per cent, a tremendous climb. Some basic industries will show an even faster rate of growth. Gas output will increase fivefold, chemical production will treble, and the amount of oil, electric power, steel, machinery, meat, sugar and silk fabrics produced will double.

By 1965 the Soviet Union's per capita industrial output will be higher than the present level of Britain and West Germany, the two most highly industrialized countries in Europe. In a number of basic industrial items production will surpass the present level of the United States, in others it will come very close. In per capita output of basic farm products the Soviet Union will outstrip the United States.

Considering what this will mean to every Soviet citizen in terms of everyday needs—an abundance of consumer goods at lower prices, fifteen million new apartments in urban areas and seven million more houses in rural communities, more schools, hospitals, theaters in every part of the country—the interest with which the plan has been discussed is easy enough to understand.

## Down to Earth Discussion

The discussion for the most part was of a practical nature and the suggestions for expediting production in many cases were applicable to a whole industry. Here was a collective exchange of ideas, of experience and of creative thinking on a nationwide scale.

At a meeting held at an engineering plant in Gorky, steelman Ivan Belyaev spoke of the possibilities of producing more steel even with

existing plant facilities. His point was that with a little imaginative thought and consideration all kinds of ideas cropped up. "We did that in our plant," he said, "and found, after we had figured out the angles, that by the end of this year we can turn out 25 per cent more steel with the same equipment we now use." These "angles" will, of course, be passed on to other plants by the State Committee on Science and Technology.

At a meeting on the seven-year plan at a rather antiquated chemical plant in the Tatar Autonomous Republic, engineer Timkin argued for complete overhaul and modernization. Supported by figures he and other men at the plant had worked up, he proved that the renovation costs would easily pay for themselves in three years. His argument had the enthusiastic support of all the workers and specialists at the plant and the funds will undoubtedly be allocated.

At a big meeting at the Riga Car-Building Plant, director Eismand reported on plans for the next seven-year period. The plant, he said, would be building 100-miles-an-hour express trains, new types of suburban electric trains and streetcars. Fitter Jaunproman raised objections. He thought the plant could more productively specialize in electric train building since there were other plants in the country which were especially geared for streetcar building. His point was supported by other people.

Fitter Jaunproman's was one of many such suggestions which are going to shape the work program of big plants for the next seven years. These suggestions came in an endless stream as the discussion proceeded. Secretary of the Moscow Communist Party organization Ustinov noted that during the first month of the discussion alone nearly 30,000 proposals were submitted by the meetings of factory and office workers in the capital.

### In Every Newspaper and Magazine

The pages of all of the country's 7,500 newspapers and 3,000 magazines were open to every citizen for comments and suggestions on the draft plan presented by Nikita Khrushchev on behalf of the Communist Party's Central Committee. The Soviet public had no hesitation in expressing its reaction to the plan as a whole and to its multiple parts. Letters and articles poured into editorial offices from Communists and non-party people, industrial workers, collective farmers, students, scientists, and from people in every other field of work.

Officials of government planning bodies, party leaders, specialists in industry, agriculture, administration, technology and education—all were active participants in the pre-congress discussion. Suggestions, arising either out of a specialized background of knowledge or breadth of experience ranged from a major project for a whole branch of the country's economy to an idea for improving one detail in a production process.

Here, for example, is the December 10, 1958, issue of *Pravda*, one of the two largest circulation dailies in the country, with a typical group of articles and letters from readers on the draft plan.

Komzin, a building engineer in the Volga region, suggests that a central designing office needs to be set up for the great amount of construction going on in the neighborhood of the Kuibyshev power project.

Academician Matsepura of Byelorussia proposes that scientific institutes be located as closely as possible to the production areas around which their research is centered.

Agronomist Chernov wants a larger output of bacteria preparations for farm use than proposed by the plan.

Pensioner Zeifert thinks there are not enough out-of-town homes scheduled for construction where old people without relatives can live at a small charge.

Collective farm chairman Troshin considers the target figures for farm machine production too low.

Rassokhin, secretary of the Kremenchug Communist Party organization in the Ukraine, proposes that a new economic administrative area be set up for Poltava Region and the southern part of Sumy Region in view of the plans for development of both heavy and light industries outlined by the plan for this area where large sites of gas, oil and iron ore have recently been discovered.

Newspapers and magazines received letters by the thousands from their readers with amendments suggested for the draft of the seven-year plan.



### Almost Two Trillion Rubles

The draft of Nikita Khrushchev's report on the target figures of the seven-year plan was published two and a half months before the Congress met. A year and more of preparatory work went into the draft. Its major points were formulated as far back as the Jubilee Session of the USSR Supreme Soviet in 1957 held to commemorate the fortieth anniversary of the October Socialist Revolution.

During the whole of 1958 the outline of the plan was being developed on the basis of reports and proposals from all the republics of the Soviet Union. These, in turn, had been prepared on the basis of the more specific plans for the development of each region, city, town and village by industrial workers, collective farmers, engineers and scientists.

The plan aims at the fullest possible economic and cultural development of each of the fifteen Union Republics. The total of capital investments to be spent these next seven years for construction in various branches of the country's economy will be 1,970 billion rubles. This enormous sum is almost the equivalent of all the money spent for capital construction since the Soviet Union was founded.

How is this great sum to be spent to the best advantage? This is essentially what was discussed at these thousands of meetings.

### People's Policy

Aside from the major value of democratic participation in planning, there is this additional value which the discussion had. The meetings brought to public notice a host of innovators, people with inventive ideas in every sphere of activity.

Even during the months of discussion preceding the congress the plan was beginning to take shape. After the announcement was made in October 1958 that the congress would be convened, the slogan heard in factories and farms everywhere in the country was this one: "Let's Greet the Party Congress with New Production Achievements."

Following the initiative of the Young Communist League young people joined "Teams of Communist Labor" and pledged themselves to more productive work and to harder study and self-education, as befits young citizens of a socialist society.

The discussion showed once again how close a tie there is between the Communist Party and the people. The party's proposal was the expression in the concrete of the wishes and aspirations of the country's 200 million citizens and for that reason it met with general support and approval. In discussion hundreds of thousands of people who are not members of the Communist Party spoke of the party's policy as "their own" policy.

This policy in the most direct sense is a people's policy. In these four decades which have transformed a backward country into a land of great industries, an advanced science and an educated citizenry, the party has always been guided by the concept that the people are the makers of history and that their decisions must shape the future.

# MAN'S FIRST ARTIFICIAL PLANET

## Placed in Orbit Around the Sun

ON JANUARY 2, 1959, the Soviet Union launched a multistage cosmic rocket in the direction of the moon. The rocket's final stage attained the speed of approximately seven miles per second necessary for interplanetary flight. In 34 hours from the blast-off, the rocket had traveled 229,906 miles and passed within 4,660 miles of the moon. Racing on in the cosmos the rocket eventually entered its final orbit around the sun.

**Thus the first man-made planet was created.**

The new planet's elliptic orbit, its plane roughly coinciding with that of the earth, will have an average diameter of 213.4 million miles. As a satellite of the sun, the planet will have a rotation period of 15 months. At its closest approach to the sun (on January 14) it was 91 million miles away, while its farthest departure from the sun (early in September) will be 122.5 million miles.

The last stage of the rocket without its fuel weighs about 3,244 pounds. It has a special container with a payload of scientific and measuring instruments, radio equipment and power sources. All of this totals 796 pounds.

The instruments aboard the rocket provided for detecting the moon's magnetic field and radioactivity; studies in the intensity of cosmic rays and their variations beyond the earth's magnetic field; recording of photons in cosmic radiation; determination of the distribution of heavy nuclei in cosmic radiation; studies of gas components in interplanetary matter, of corpuscular solar radiation, and of meteoric particles.

The radio equipment installed aboard the rocket included three transmitters operating on a number of frequencies and with varied beats. Throughout the period of radio contact with the new planet, all of its transmissions were successfully received by the stations that monitored them. The information relayed by the instruments on January 4 showed that the temperature on the rocket's outer shell ranged from 50 to 59 degrees Fahrenheit. The temperatures inside the rocket were reported within the same range and assured the proper functioning of all its instruments.

The rocket was equipped with a special installation which produced a sodium cloud that made a comet-like wake or tail on January 3. The use of the light filters isolating the sodium line of the spectrum enabled astronomical observatories to photograph the artificial comet.

The cosmic rocket carries a pennant with the emblem of the Soviet Union and the inscription: "Union of Soviet Socialist Republics. January, 1959." Staffs of the research institutes, designing bureaus, the factories and testing organizations responsible for placing the new planet in orbit united in dedicating its launching to the Twenty-First Congress of the Communist Party of the Soviet Union.

Mankind's first artificial planet climaxed the outstanding achievements of the Soviet Union in science and technology. The new satellite of the sun is vivid proof of the high level of Soviet rocketry and demonstrates the rapid progress made by the country in the exploration of the cosmos started October 4, 1957, with the launching of the first sputnik.

Having inaugurated the age of space flights, Soviet scientists and engineers sought to build ever bigger and heavier sputniks with more research instruments. The successful launching of the first three sputniks furnished the preliminary material needed to carry out further space flights deeper into the cosmos.

Nikita S. Khrushchev, Chairman of the USSR Council of Ministers, commenting on the launching of the cosmic rocket, said that it had blazed the path to the moon. He went on to say that the new rocket shows once more that the Socialist system stimulates the swift development of the economy, science, technology and culture, providing unlimited possibilities for the growth of the varied talents of the Soviet people.

The Soviet cosmic rocket supplied a wealth of invaluable scientific information in all fields for which it was designed. Researchers are now busy evaluating and interpreting the data gathered by its instruments.

This bold advance into the depths of the cosmos has opened up new horizons and vast prospects for the broadening of man's knowledge and will serve to benefit the whole world. The old mysteries of the universe will now become more accessible to man, who, in the relatively near future, will be able to set foot on other planets.

# MAJOR ADVANCE INTO THE COSMOS

**By Alla Masevich**

**Vice-President, Astronomical Council of the USSR Academy of Sciences**

**A doctor of physical-mathematical sciences, Alla Masevich is an astrophysicist, specializing in the internal structure of the stars. She is in charge of the optical observation of artificial satellites under the International Geophysical Year program. A professor at Moscow University, she arrived in the United States last December and remained through January along with a Soviet group invited by the American Society of Friends. In an interview given to the magazine *USSR* she said:**

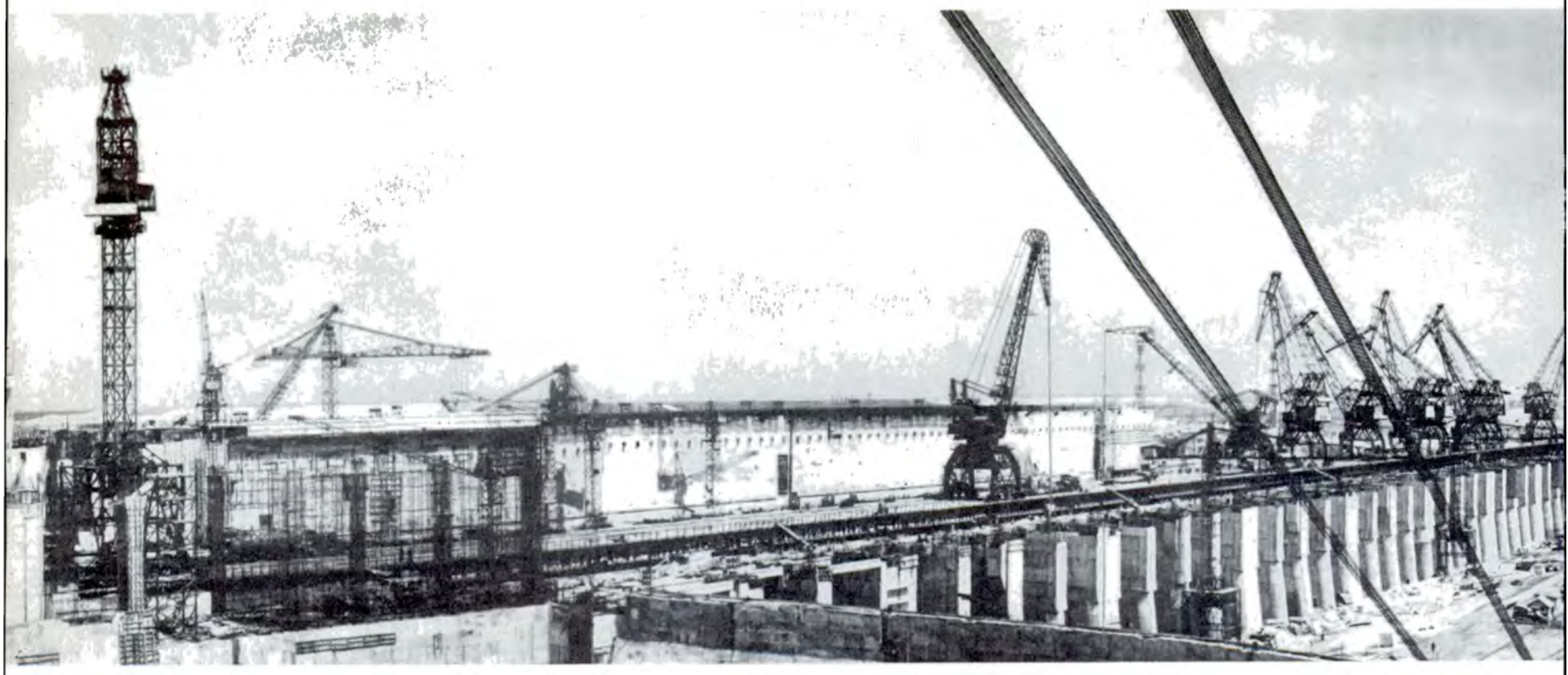
I would describe the launching of the first cosmic rocket now in orbit around the sun as an outstanding achievement of Soviet science and technology. It actually opens a path to the stars and makes reality of our age-old dreams.

All of the data supplied by the rocket will create new possibilities for scientists in the study of the cosmos. As for myself, since I am an astrophysicist, the exploration carried out by the cosmic rocket on gas components of interplanetary matter as well as the data it gathered on corpuscular solar radiation are of special interest.

All of this and additional information which has become available through the launching of the cosmic rocket will throw new light on the origin and development of stars and many other important problems.

It was especially significant that I listened to the radio signals of the new Soviet rocket while on American soil. This is a demonstration of how close we've all become in the common work of scientific research and progress. I feel that the instant reaction of American scientists and the public generally expressed in their warm congratulations to the Soviet people on this outstanding achievement was most heartening.

We Soviet people have taken our stand for international cooperation of all the world's scientists in every field, and in this latest scientific advance wish to emphasize that our chief interest is in its peaceful use for the benefit of all mankind.



MAMMOTH POWER PRODUCER. THE VOLGA'S STALINGRAD HYDROELECTRIC STATION, NOW NEARING COMPLETION, WILL HAVE A CAPACITY OF 2,500,000 KILOWATTS.

# ONE GIGANTIC BUILDING SITE

By Iona Andronov

PEOPLE who have visited the Soviet Union in recent years have described it as one gigantic building site covering the better part of two continents. This is more factual statement than figure of speech. Wherever one goes, in big city or tiny village, construction is under way. Everywhere building projects of a hundred diverse kinds are changing the landscape, on Central Russian and Ukrainian plains, in the Ural Mountains, in Siberian forests, in Central Asian deserts and on the Arctic coast.

One out of every ten Soviet workers is employed on some type of construction project, five million people building everything from apartment houses to power stations—new steel mills, furniture factories, printing plants, schools, theaters and every other conceivable kind of structure.

Cities and towns are being expanded. Villages are being completely reconstructed. Forest and desert are being pushed back to make room for new towns. In the years since the Second World War the number of towns with populations between 10,000 and 500,000 grew from 930 to 1,500. New projects to the number of 100,000 are now under construction and many of them will, before long, be adding their productive capacity to the country's presently operating 200,000 industrial enterprises.

The scale and intensity of construction is greatest in the sparsely populated eastern regions, in Siberia, the Far East and Kazakhstan. Some of the new towns—Angarsk is one of them, on the Angara River, near Lake Baikal in Siberia—are to be found only on the most recent of maps.

A new town is growing up around the communities built in the past two years for workers on the Bratsk power project, the second on the Angara River. Farther west, on the same 56th parallel, big new plants are being built near Krasnoyarsk, one of the leading cities of this booming industrial region on the Yenisei River. Shelikhov, Mirny, Korshunovo, Molodyozhny, Shumikha and Mezhdurechensk, all fast growing towns in the heart of the Siberian forest regions, will be new centers for the production of machinery, aluminum, nonferrous metals, iron and steel, and for mining of coal and diamonds.

Building materials—cement, bricks, slate and precast concrete sections—are in pressing demand everywhere in the country and are

being turned out at a pace greatly exceeding that of other industrial supplies. The number of basic building machines has nearly doubled since 1955, and now the building industry has 50,000 excavators and bulldozers, more than 35,000 mobile cranes and tens of thousands of other machines.

This over-all mechanization has made for economical building. Since 1955, with only a 16 per cent increase in man power, the volume of output in building has increased by 47 per cent. Technical progress has contributed to the higher productivity. One of the newer developments, for example, is rolling mill manufacture of reinforced concrete sections. The Soviet Union now produces more precast reinforced concrete than any other country.

### New Plants Built—Old Plants Modernized

Eight hundred new industrial enterprises were erected and began operating in each of the past three years. These are large plants equipped with modern machinery and automatic units that employ anywhere from 1,000 to 10,000 workers. Close to two-thirds of the country's workers are employed in plants this big. These new enterprises attract a considerable part of the two million young men and women who join the nation's working force every year.

Besides these large plants there are innumerable smaller establishments set up each year—factories, farms, commercial agencies and public utilities. For a complete picture of the rate of economic growth, we must add to these new units the increase in production capacities achieved by modernization and expansion of older plants.

Renovation has been going on at plants all over the country. The Audejas Factory in Lithuania is typical. Until quite recently it was a small unit that manufactured simple cotton kerchiefs and bedspreads. Now, enlarged and modernized, it is a substantial mill with an annual output of 600,000 pounds of yarn and more than half a million yards of tapestry and upholstery fabrics.

This expansion is not confined to production areas, it carries over into distribution as well. Railroad lines have been extended each year. Up to 1956, close to 70,000 miles of new track was laid, enough to circle the equator two and a half times with track left over. Part of the modernization involves electrification of the country's railroads, a program which is proceeding at a rapid pace. Today Soviet railroads lead the world in volume of traffic they carry.

The increasing modernization of old plants and construction of new ones creates a large demand for the most modern equipment. A good example is provided by the metal-working industry where the number of machine tools has increased from 710,000 to 1,840,000 compared with the prewar years, with a nearly threefold rise in semi-automatic and automatic machines. The present capacity of motors running industrial machinery has also been expanded—the kilowatt increase has been from 17 million to 58 million.



INCREASED CAPITAL INVESTMENTS HAVE ACCELERATED FARM MECHANIZATION.

Although most of the new equipment is home built, a considerable part is purchased abroad. The Soviet Union offers a large and steady market to foreign manufacturers of metallurgical, power, forge and press, hoisting and transport, chemical, ore mining, woodworking, pulp and paper, printing, television, refrigeration and food equipment—in fact, to manufacturers of practically every kind of industrial and farm equipment.

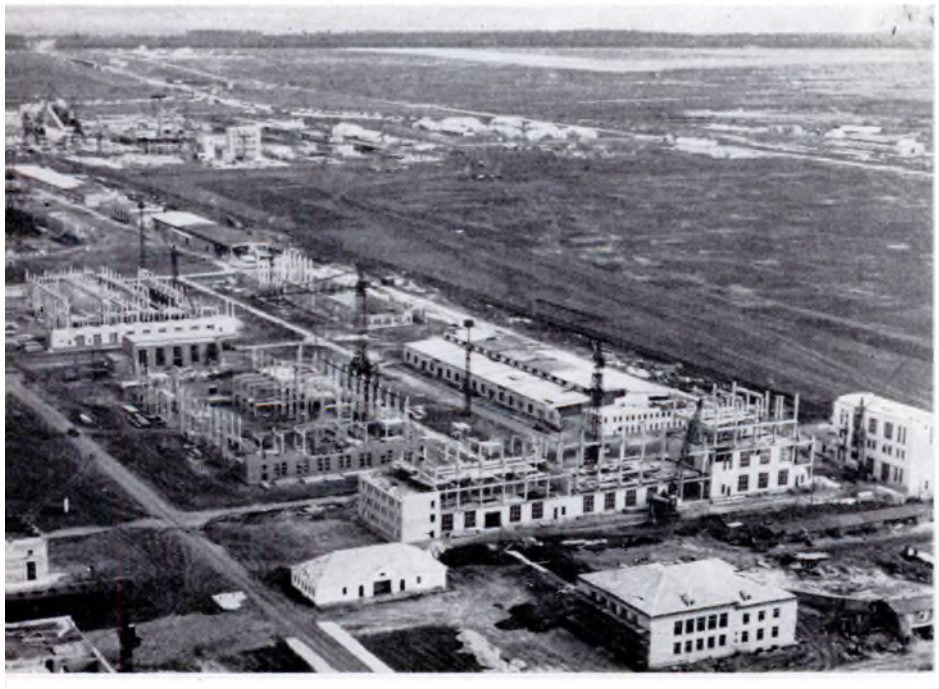
### Ever Mounting Capital Investments

Capital investments for building and equipping industrial, agricultural and service enterprises and for housing, schools and medical centers have risen steadily. The only time that capital investment was curtailed was during the war.

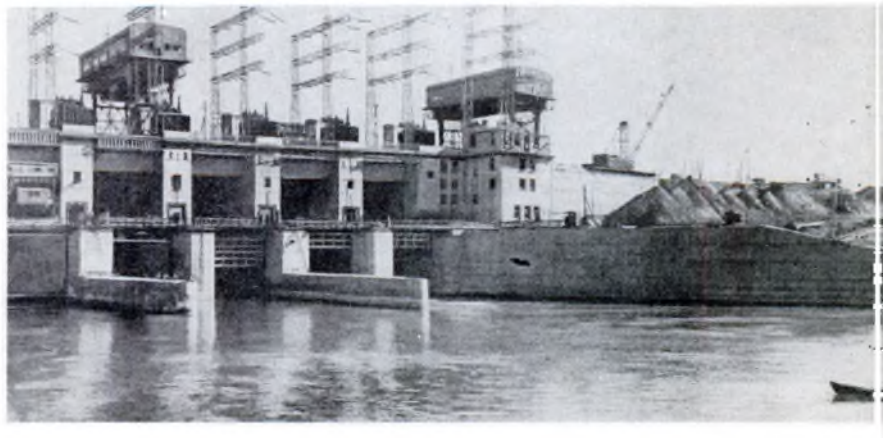
This mounting capital investment makes it possible to expand production capacities and increase output at a rapid rate. In 1957, for instance, three and a half times as many new pig iron capacities were put into operation as in 1953, and approximately twice as many steel, power and cement capacities.

Planning on a national scale permits a distribution of capital investment that will speed development of key regions and industries. Thus, capital investments in the building materials industry for 1957 were increased by 27 per cent, in housing construction by 29 per cent and in agriculture by 21 per cent.

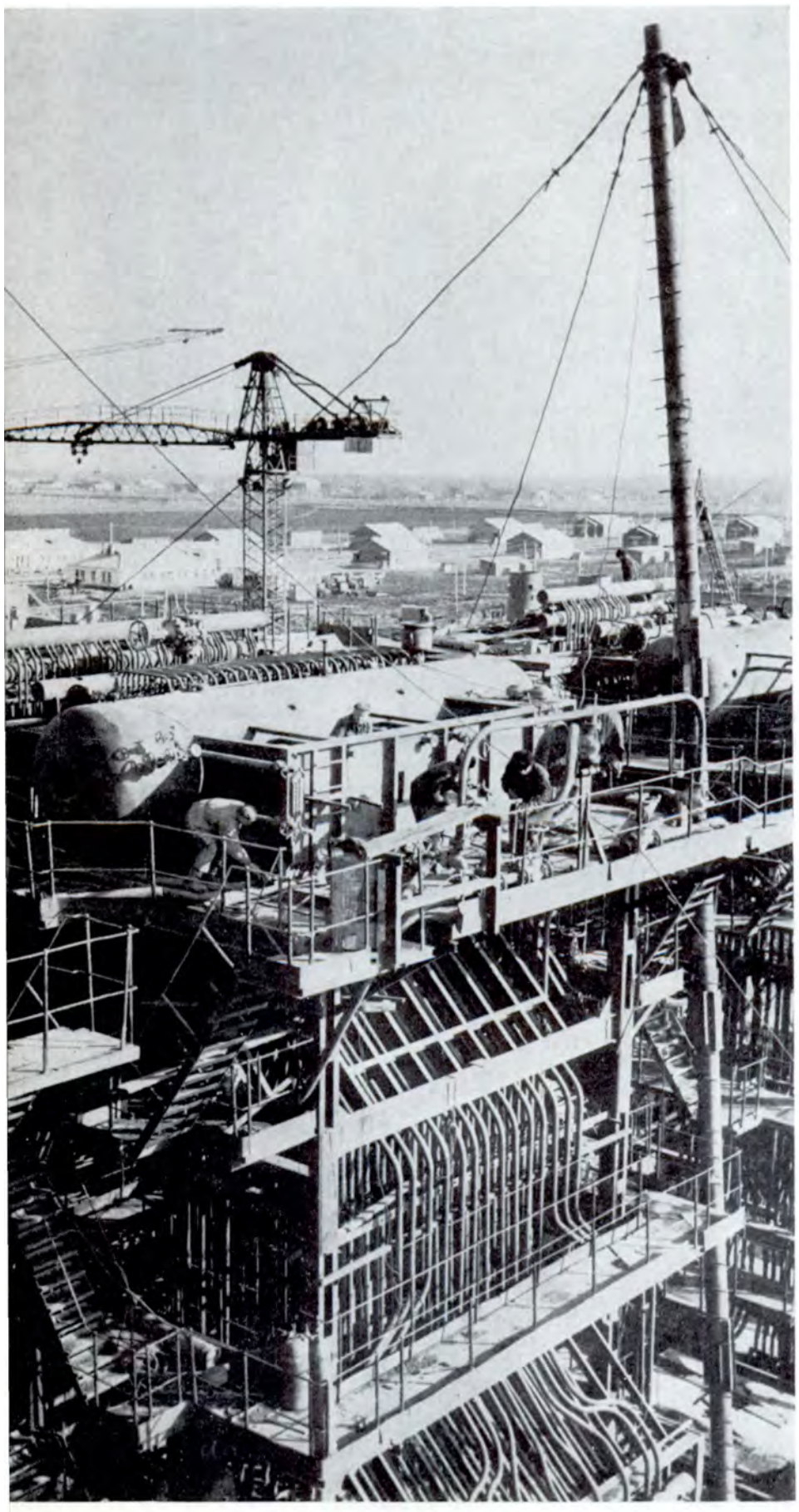
THE COUNTRY'S NEW PLAN SETS A PROGRAM OF GREAT INDUSTRIAL GROWTH.



NEW IRRIGATION PROJECTS BRING LIFE TO CENTRAL ASIA'S DESERTS.



# ONE GIGANTIC BUILDING SITE



THE POWER PLANT OF A SUGAR REFINERY GOING UP IN KRASNODAR TERRITORY.

Last year industrial chemicals, and particularly the plastics and artificial fibers industries, were allocated large capital funds to accelerate production. The rapidly growing plants will soon be turning out very large supplies of materials for consumer goods. In a matter of a few years, synthetics together with natural materials will be meeting vastly increased consumer needs for fabrics, clothing and footwear.

### Building on the Farms

Government capital investments in agriculture in the past five years came to more than 97 billion rubles, compared with 40 billion for the preceding five years. This has made it possible to extend mechanization and introduce advanced methods in all branches of farming. It also accounts for expanded housing construction in rural areas, for the thousands of new schools and community centers, hospitals, stadiums and libraries.

Increased investments have paid off in increased grain production, more cotton, fruits and vegetables. There has been a 40 per cent rise in meat output compared with 1953, a 50 per cent rise in milk and a 40 per cent rise in eggs. The average annual rate of growth in the gross output of agriculture in the past four years was 7.1 per cent.

Considerable funds have been allocated for the reclamation of virgin lands in the eastern regions of the country—almost 30 billion rubles in 1954-58. Not only are these outlays quickly offset by increased profits from larger harvests, but they actually lay the basis for a major source of revenue to perpetuate construction programs. Hundreds of new state farms have been built up on the eastern plains, and more than 350,000 young men and women have settled in these new productive agricultural regions.

More and more aid from the national budget to collective and state farms is being given to bring about a further and faster rise in agricultural production. And the capital investments from the funds accumulated by the farms themselves are growing simultaneously.

### The Future Planned

The future, one might say, is already being built to plan. Its arithmetic is being calculated by the Twenty-First Congress of the Communist Party whose delegates came to Moscow to sum up the results of the nationwide discussion on the draft proposals. The target figures proposed for the period from 1959 through 1965 are based on the solid foundation of construction already completed that has immensely increased the country's economic potential.

The plan calls for more building in the next seven years than in all the 41 preceding years since the Soviet Union was founded.

As much money is to be invested in the economy between 1959 and 1965 as was spent during four earlier decades—the immense sum of two trillion rubles. Capital investments will be increased by 80 per cent as compared with the seven years before. Industrial investments

22 MILLION NEW APARTMENTS AND HOUSES WILL BE BUILT BY 1965.





A NEW RESIDENTIAL SECTION IN KARAGANDA. THE RICH DEPOSITS OF THIS COAL CENTER IN KAZAKHSTAN PROVIDE FUEL FOR THE REPUBLIC'S FAST GROWING INDUSTRY.

will double, with special concentration in the eastern regions—the Urals, Siberia, the Far East, Kazakhstan and Central Asia.

The amount earmarked for further development in the iron and steel industry is 2.4 times greater than in 1952-58; for the power industry it is 1.7 times greater; for timber, paper and the woodworking industries it is more than double.

The size of the construction program can be illustrated by the chemical industry which is to be allocated a minimum of 100 billion rubles, about half to go for building new plants to manufacture plastics, artificial fibers, synthetic rubber and alcohol. By 1965 the Soviet Union will have built or expanded 257 enterprises in the chemical and allied industries. This includes the construction of 11 factories for the manufacture of artificial fabrics, 20 silk mills and 28 knit goods and hosiery factories.

For the consumer goods industries 270 new plants are scheduled for construction, and for the food industries 250 new meatpacking plants, 1,000 dairy processing plants and 200 canneries.

The seven-year plan proposes 10,500 miles of new railway track and a considerable expansion in construction of hard-surface automobile roads. More than 90 new airports are to be built for use by turbojet and turboprop airliners with the goal of increasing present air passenger traffic by six times.

In communications the plan calls for a large expansion in radio broadcasting facilities, a 2.6-time increase in the number of television stations and the introduction of color television.

OLD STRUCTURES ARE RAZED TO MAKE ROOM FOR LARGE, MODERN BUILDINGS.



### Millions of New Apartments and Houses

Housing construction is to be enormously expedited. The new space to be built during the seven-year plan period will be sufficient to rehouse nearly half the country's total population. Planned for 1959-1965 are 15 million new apartments in cities and towns and seven million new houses in farm regions.

As bold and challenging as these projected figures may seem, they are altogether within the realm of possibility if one considers previous performance. In the past five years alone an approximate six million new urban apartments and more than three million rural houses were put up.

Accompanying this gigantic housing construction program will be new schools, kindergartens, nurseries, hospitals, stadiums, theaters, retail stores and public parks and gardens.

Each year the Soviet Union has been building on a progressively greater scale. Each year its national wealth has been increasing and the real income of its citizens rising. By the end of this seven-year plan, with consumer goods in plenty available, the purchasing power of Soviet workers and farmers will have risen by no less than 40 per cent over today's figures.

An ever rising standard of living helps explain why for the people who take part in the tremendous building program the target figures of the new plan have a special meaning. They represent a better life not only for builders themselves but for every family in the country.

THIS map shows a few of the largest construction projects now under way in the Soviet Union, each one of them a detail in the seven-year plan for the development of every phase of the country's economy between 1959 and 1965.

Budgeted for capital construction for the next seven years is the staggering sum of two trillion rubles, almost double that for the period from 1952 through 1958. More than forty per cent is to go for development of the eastern regions of the country which are particularly rich in natural resources. The Urals, Siberia, the Far East, Kazakhstan and Central Asia are major sources for coal and hydropower, timber and grain, nonferrous and rare metals, iron ores and building materials.

Dotted on the map are the rising industrial complexes of eastern regions: Kustanai, Sokolovo-Sarbai, Karaganda, Krasnoyarsk, Bratsk, Irkutsk, Blagoveshchensk and tens of others whose names by the time the new plan is completed in 1965 will be synonyms for steel, aluminum, nickel, magnesium, titanium, chemicals, foodstuffs and consumer items of every kind.

The factories and plants now being built will be powered by new thermal and hydroelectric stations with capacities in the millions of kilowatts.

Plotted on the map are many new oil, natural gas and industrial chemical areas where large-scale processing plants are being built. They center around Stavropol and Baku in the Caucasus, around Dashava in the Ukraine, around Kuibyshev, Stalingrad and Saratov on the Volga, and in the region west of Tashkent in Central Asia.

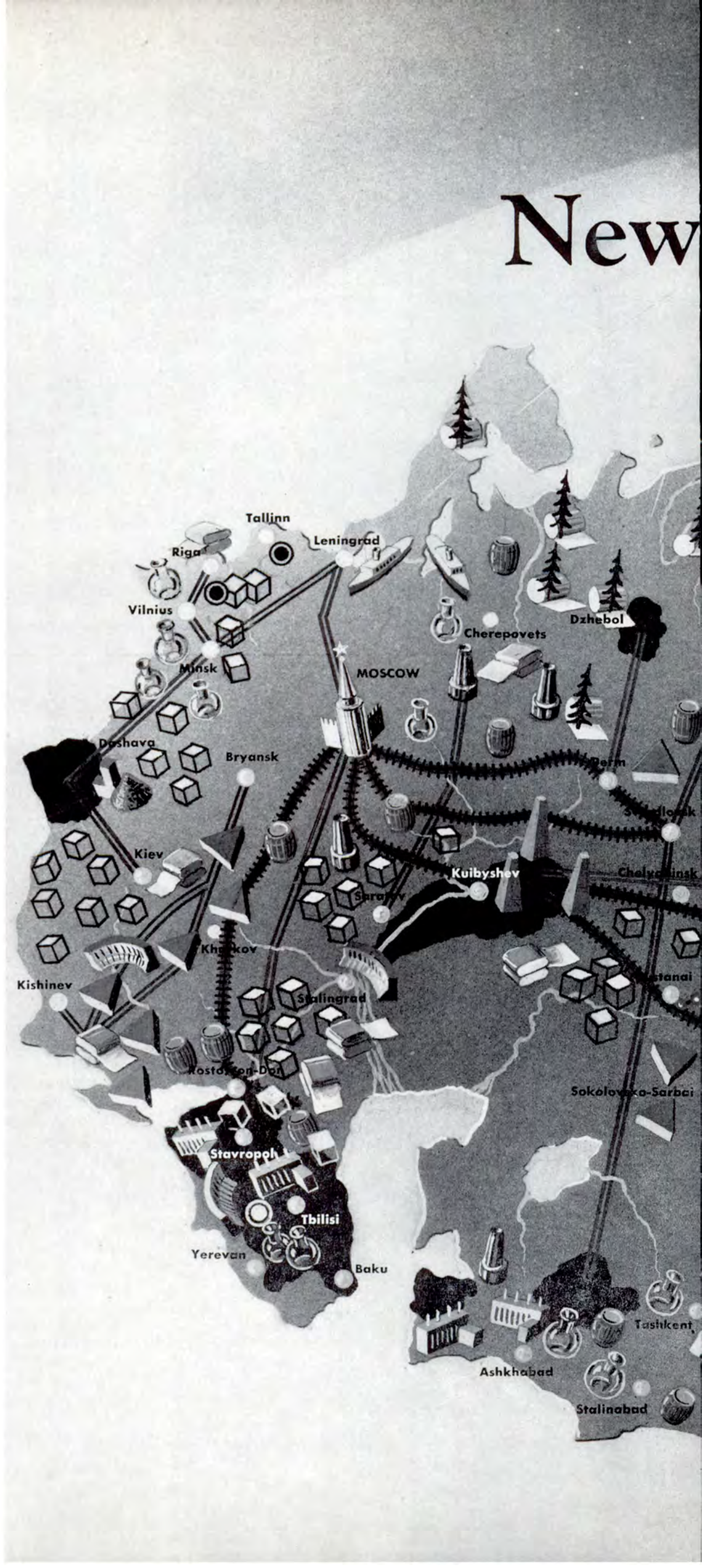
The new gas and oil pipe lines stretch for thousands of miles: from Bukhara in Central Asia to Sverdlovsk in the Urals, from Stavropol in the south to Leningrad in the north: from the Volga shores deep into Siberia.

Shown on the map are the ore deposits north of the industrial city of Kharkov tapped within recent years. These form the Kursk Magnetic Anomaly with reserves rich enough for centuries of future iron and steel production. New iron and steel cities are rising there, in the heart of the European part of the Soviet Union. Others are being built further to the north, around Lipetsk, Cherepovets and other places.

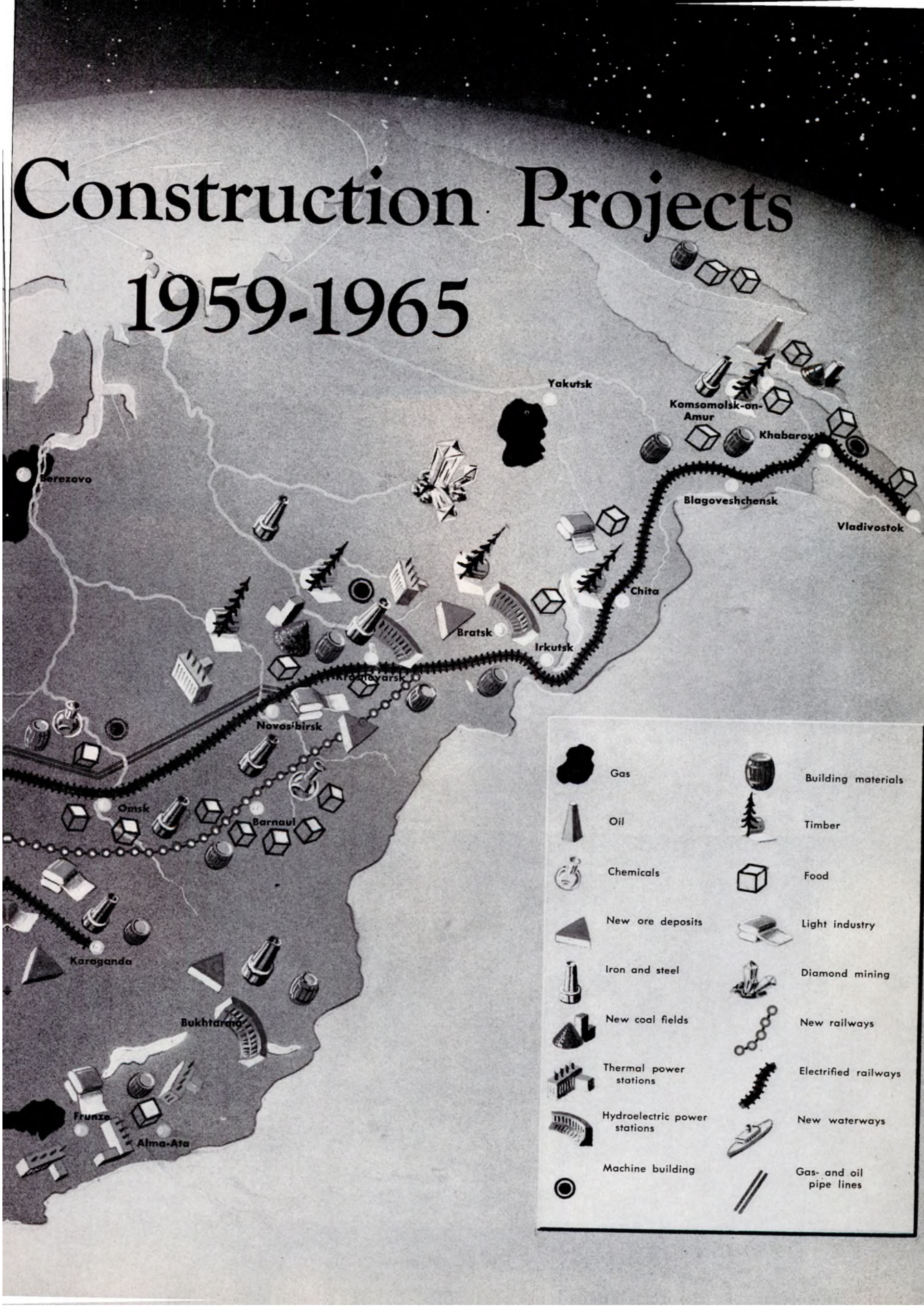
Around such gigantic power stations as the Stalingrad hydroelectric project on the Volga, the Votkinsk on the Kama, the Kremenchug on the Dnieper are the new industrial towns for machine building, instrument making, electronics and chemicals. Everywhere in these booming regions one sees new farms and food processing plants, textile mills and factories of a hundred diversified kinds for consumer goods production.

New railroad tracks are being laid through these towns in construction. They will be running both electric and diesel trains. Many of the older railroads are being modernized. Within the next seven years the country's length of electrified trackage will have tripled.

The map traces the transcontinental Moscow-Kuibyshev-Irkutsk-Vladivostok railroad, the longest electrified line in the world. Running parallel to it are the South Siberian and Mid-Siberian railroads.



# Construction Projects 1959-1965



# Unity of the People and the Communist Party

**The Twenty-First Congress of the Communist Party is a landmark in the life of the Soviet Union, drawing the attention of the whole nation to its deliberations on the country's economic future. Plans for this future were prepared by the entire previous development, by the efforts of all Soviet people under the leadership and guidance of the Communist Party.**

**Soviet people are justly proud of what has been done since the Twentieth Party Congress met in February, 1956. Fulfilling the program charted by that congress, the country scored remarkable achievements in industry and farming, science and technology. Economic progress resulted in a further rise of living standards, in social and cultural advances.**

**New legislation passed during the last three years shortened the working week without reduction in pay, raised the wages for lower-paid workers, boosted pensions for all, lowered the taxes and increased paid maternity leaves for working women. There were more and better consumer goods, an expansion in housing construction and improvements in the educational system.**

**Presented on these pages are interviews with Soviet people of various occupations who were asked to tell about their life and work in the period between the Party Congresses. Their replies demonstrate how the people's desires are embodied in the policies of the Communist Party.**

## "THE GREAT FUNCTION OF SCIENCE IS TO CREATE"

**Academician Nikolai Semenov**
***Nobel Prize Winner in Chemistry***

THESE past three years were very crowded ones for scientific progress in the Soviet Union. In my own field, chemical research, as well as in other fields, there was a very great acceleration forward as a result of plans charted by the Twentieth Congress of the Communist Party. The period between now and 1965 will see even more rapid progress in industrial chemistry, particularly in plastics and artificial fiber.

For me personally, these were gratifying years. In 1956, on my sixtieth birthday, I was honored with the Order of Lenin. At the close of the same year the Swedish Academy of Science awarded me a Nobel Prize for studies in the kinetics of gaseous reactions. Last year I was elected a foreign member of the British Royal Society.

In 1958 I was elected Academic Secretary of the Chemical Sciences Division of the USSR Academy of Science, and I now devote much of my time to extending the activities of the Academy's chemical institutes.

I have recently completed my book *Problems of Chemical Kinetics and Reaction Capacity* which will shortly be published. In translation it will be also published in the German Democratic Republic, Britain and the United States. The American edition of my book will have the Princeton University Press imprint.

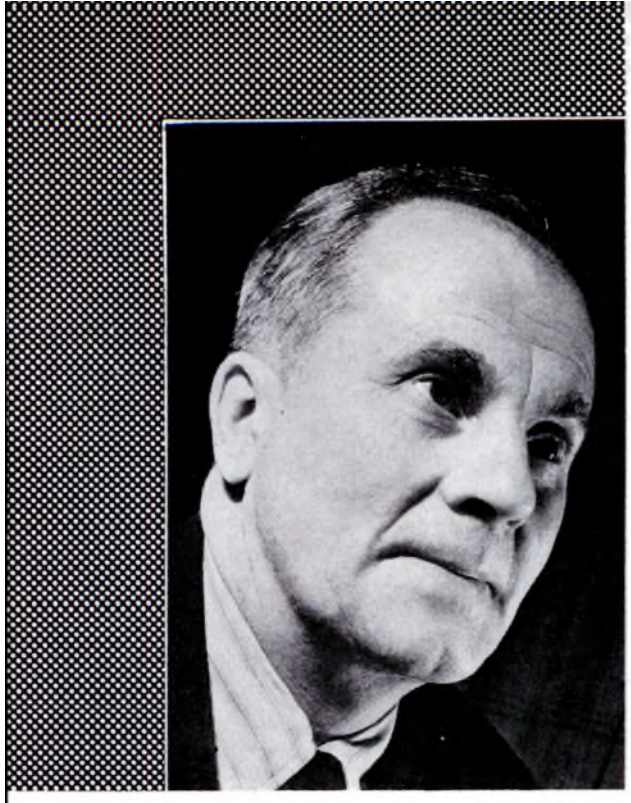
It was my pleasure these past years to meet with foreign colleagues at scientific conferences in my own country and in Sweden, Czechoslovakia, Greece, Belgium and Switzerland. At the Brussels Fair I was one of four scientists respectively representing the Soviet Union, the United States, Britain and France to speak at the symposium "On the Destiny of Man in the Atomic Age."

My thought was that in its present stage of development science has all the possibilities for providing a good life for all the people of our earth. Geared to a race for armaments it can bring about unprecedented disaster. It is the duty, therefore, of every thinking person, and of scientists in particular, to work unitedly to preserve peace.

The possibilities of chemistry, if we consider only this one field of science, are practically limitless. With the study of polymers, we have opened up inexhaustible prospects of new materials artificially created and endowed with desirable properties. These chain reactions which we call polymerization may prove to be as vastly significant in biological processes as they are in chemistry and nuclear physics.

It is chemistry which is working to solve the very greatest problem of science, the transition from the inanimate to the animate—the origin of life itself. This is the great function of science—to create and preserve life, not to help destroy it.





## "SIBERIA IS A TREASURE HOUSE OF NATURAL RESOURCES"

**Konstantin Filatov**
***Chief, Mineral Resources Board of the Russian Federation***

SIBERIA, the country's great treasure house of natural resources, has been developing with extraordinary rapidity in the three years since the last Party Congress. Its sedimentary and eruptive rocks contain coal and iron ore, non-ferrous and rare metals, gold and diamonds. Geologists have uncovered rich deposits of all kinds of minerals and around them have risen new industrial centers.

Topping the list of Siberia's resources is coal, roughly 90 per cent of the country's known deposits. Coal fields have been found which permit opencast mining. Eastern Siberia has all the iron ore needed for a large iron and steel center. The projected Krasnoyarsk iron and steel mills will be tapping the abundant ore of the Angara-Pit Basin.

Diamond fields no less rich than those in South Africa are now being worked in the Yakut Republic in Eastern Siberia.

Large deposits of natural gas have been found in the estuary of the Vilyui River. The first Siberian pipe line when it is built will be carrying this gas to Yakutsk.

So many kinds of minerals have been found in Siberia in these past few years that they could completely fill in Mendeleyev's Table of Elements. Unquestionably this enormously rich region will have central emphasis in the country's new economic plan.

## "I CAN BUY MORE WITH WHAT I EARN"

**Nikolai Afanasyev**
***Lathe Operator***



A LOT of the planning done by the Twentieth Party Congress was pretty directly tied up with my work these past three years. Take my job at the Leningrad Metal Works. Last spring I was machining the rotor for a big 200,000-kilowatt steam turbine, bigger than anything the shop had ever turned out.

And that's only a beginning. The new plan for 1959-1965 calls for an expansion in the construction of thermal power stations. Our plant's engineers are already working on steam turbines with capacities of 300,000 and 400,000 kilowatts. The plan for 1959 is to turn out 1.5 times more turbines than last year.

How does that affect me directly? The more power the country gets, the more goods are turned out in less time and with less labor, and so I can buy more with what I earn. In this last period, for example, although my wages went up by 3 per cent, prices either stayed the same or went down.

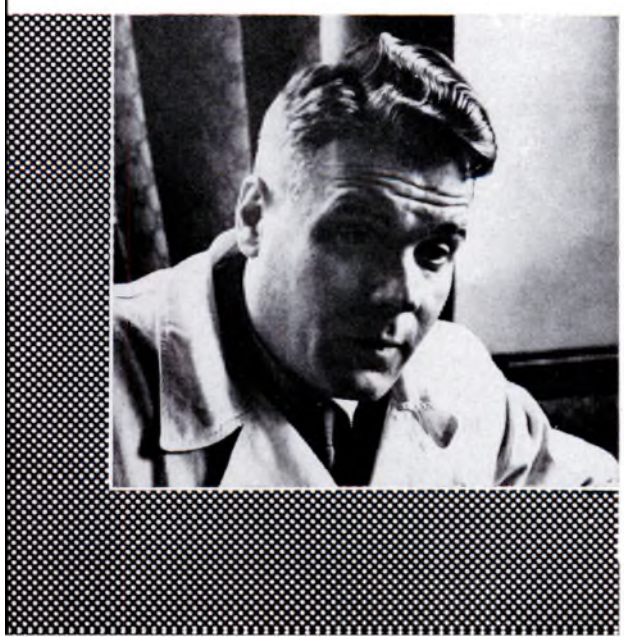
Or take housing, part of the same picture. More power means more building materials turned out faster. Fifty-four new apartment houses went up in my neighborhood. I got an apartment in one of them.

My two children study in a school that was just built, and two more schools are going up now in our neighborhood. Close by we have a community center, a movie and a hospital, all brand new, and a new boulevard is being laid out on the Neva Embankment.

Like other workers at the plant I've tried to make my own contribution to the plans worked out by the last Party Congress to raise the standard of living all along the line by giving the country more power. I've made five work-improvement proposals in the past couple of years, for which I got bonuses. I'm not an engineer, but I've been working at a lathe for 27 years and by this time I know what you can get out of a machine.

## "I SET MYSELF A STUDY PLAN"

**Nikolai Lomakov**
***Watch Factory Engineer***



THESE have been a tough three years for me. I set myself a study plan and it was no easy business keeping at it while I was holding down a full-time job.

I started at our watch factory as a shop worker in 1946. Little by little I worked my way up to the position of shop superintendent. It was then that I had geared myself to earn an engineer's diploma. I had four classes a week and that left me very little time for anything else, especially during the last years of study.

Now it is all over and I have my diploma. College graduation brought me a new promotion—I am now assistant factory manager of production.

I wasn't the only one to take on a study program. We have our own technical school at the factory. Many of our workers are enrolled in advanced training courses.

It's almost a necessity to keep abreast of new technological developments, and there have been many in our industry. Our factory has new automatic production lines that have mechanized most of the manual operations.

In the past three years we put out 47 different types of men's and ladies' watches and alarm clocks. During the years between the Party Congresses we have manufactured more than eight million timepieces—from alarm clocks to the elegant Era ladies' wrist watches. Our watches were displayed at the Brussels World's Fair and won a prize.

Future plans? More study. It's gotten to be a habit by now. I want to learn German in the next two years. It will be useful in my work. Then, I'd like to take a trip to Switzerland and France. And finally, I'm looking forward to moving to one of the apartments which the plant is building for its workers.



## "A FAST GROWING IRON AND STEEL CENTER"

**Alexei Sakharov**
***Chief Engineer, Cherepovets Iron and Steel Works***

IT WAS three years ago that the Cherepovets Iron and Steel Works began operating, and now our old town in the northwest part of the country is almost unrecognizable.

Cherepovets is in the middle of an already highly developed machine-building region. But up to now the supply of steel has had to be hauled in from long distances. With the plant expanding to full capacity, it will soon be supplying rolled steel to meet all the region's needs.

The plant is young and much of our technique has been learned from such older iron and steel centers as Magnitogorsk and Kuznetsk. We have not only caught up with, but in some ways we have been moving ahead faster than our teachers.

Our expenditure of coke per ton of pig iron is the lowest in the country. Our blast furnace workers have exceeded rated capacities by 20 per cent. In this last period some 800 suggestions made by workers have been introduced into processes with a saving of three million rubles.

One of the oft-repeated words heard at the plant these past months preceding the Twenty-First Party Congress has been "semiletka," the Russian for septennial. This is our seven-year plan for the plant's growth that ties in with the plan for the whole country.

## "WE'LL HAVE TWO DOCTORS IN THE FAMILY"

**Yekaterina Tverdokhleb**
***Collective Farmer***

IF YOU walk through our collective farm village here in the Ukraine you'll see many new houses. In these past three years we've had dozens of housewarmings.

The barns are also new and so is the big garage that our collective farm put up to hold the machinery we bought from the local machine and tractor station. It was reorganized into a maintenance depot according to a law passed last spring, and we bought 14 tractors, 9 grain and beet harvesting combines, 17 trucks and other kinds of tools.

For a good many years now I've been working with a group of other collective farm women on our sugar beets. We've been taking in bigger crops than we ever did, and with bigger crops, our share of the farm income has been bigger.

So far as my particular family is concerned, the happiest news last year was that my brother Sergei's two daughters became students at the Kharkov Medical Institute. They will be the first doctors in our family. When my 94-year-old father heard the news, he kept shaking his head and repeating, "Where did you ever hear in the old days of a peasant's daughter becoming a doctor—and two of them in the bargain?"



## "I'VE MOVED TO SIBERIA"

**Boris Melikhov**
***State Farm Worker***



I'VE MOVED more than 3,000 miles—from my native town of Klintsy to Siberia. I'm now living in a new village which didn't exist when I came.

My address is not the only thing that changed in the three years since the Twentieth Party Congress but my trade and my whole way of life with it. It happened this way.

When I graduated from secondary school I entered a trade school to become a fitter. But when the call came for volunteers to go out to Siberia and Kazakhstan to cultivate the virgin lands, so many of my friends volunteered that I made up my mind to go with them.

I came to Altai Territory with a big group of other young men and women. Prefabricated houses were being shipped to the site where the farm was to be laid out, but we didn't wait for them to arrive. Spring was close on our heels and we got down to work right away. We camped out until the houses were set up. There were many evenings when we'd be sitting in our tents, tired out after a day's labor in the field, and talk about what the farm would look like in a couple of years.

I don't think any of us really thought it would grow so quickly. Our Kulundinsky State Farm now has more than 75,000 acres of wheat under cultivation. And there's a neat village of houses, club, hospital and nursery that's growing fast.

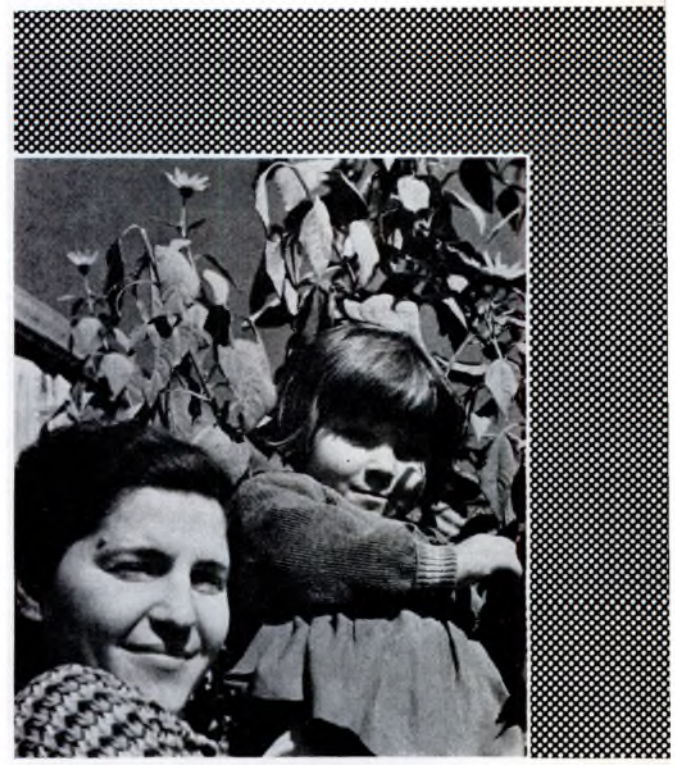
I've made enough to buy one of the houses built by the farm management. I started out as an ordinary farmhand. Then the farm management had me take a six months' course for machine operators and put me in charge of a field crew that cultivates a tract of 10,000 acres.

I liked it here and settled down at the farm for good. My two brothers and my grandmother have come here to live, too. It was my grandmother who raised all sorts of objections when I originally said I wanted to move to Siberia. And now I'm expecting my father and mother, who have decided, after a lot of thinking, to leave our native town and come out here to join the rest of the family.

# Unity of the People and the Communist Party

## "A PEACEFUL WORLD FOR MY CHILDREN"

**Maria Stakhanova**
***Housewife***



SPEAKING as a mother I can say that the main event in our family during these past years was the birth of our daughter Tanya. Now she is almost three. Our son Volodya is at school and getting good marks. So is my husband, Alexander Stakhanov, who is taking a correspondence course at the technical school of the fishing industry. Both of them have a kind of race every evening to see who gets through with homework faster.

Alexander works as a mechanic at the Astrakhan shipyards and the whole family was very proud that a model of a machine tool which he and another mechanic designed was displayed at the city industrial exhibition.

Last year we finished paying up the seven-year loan which we made from the state bank to build our new house. So that now we're free and clear and we're beginning to put up a summer cottage. On the plot of land we received we've already planted apple and pear trees and grapevines.

For the future, my most earnest wish is to see my children growing up in a peaceful world, the same wish that a mother anywhere else in the world has. It's easy to start a fire but very hard to put it out. I've gone through one war, it's enough for a lifetime.



## "OUR CUSTOMERS ARE MUCH MORE FASHION CONSCIOUS"

**Lilya Belova**
***Dressmaker***

MY JOB is making ladies' dresses. One of the things our shop has never lacked in the past three years is customers. More people have been buying clothes because they have more money to spend.

Ours is a custom shop, one of the largest in Moscow. Although there are plenty of ready-made dress stores, there are enough women who want their dresses made to order to keep every tailoring shop busy for months in advance.

After the rush of the New Year holiday season we are now preparing for the spring. I make dresses for students and schoolgirls and my busiest days are just before graduation, in May, getting the girls dressed up for school dances and balls.

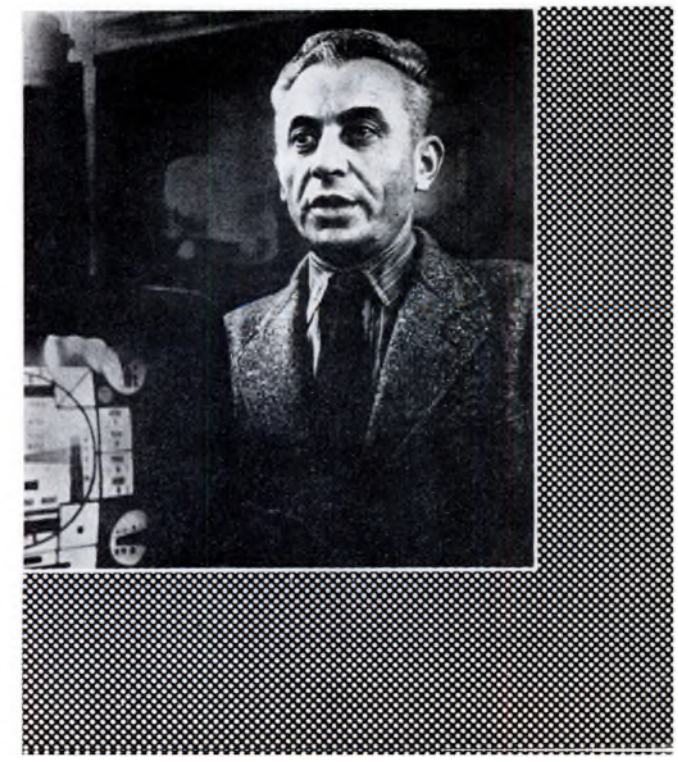
In our shop we have 120 dressmakers, most of them young people and practically all of them studying so they can qualify for the best jobs in the trade. In 1957 I took a six months' course in cutting and pattern-making. Now I make 1,200 rubles a month instead of the 800 I used to get.

Our shop is one of the most popular in the city, it has qualified for the "de luxe" rating. We follow the designs of the Moscow Fashion House and the latest Paris and New York styles.

We've noticed that our customers have become much more particular and fashion-conscious in the past few years. That's all right with us. We like to see them wearing well-designed and well-fitting clothes.

## "I SHIFTED FROM THE ARMY TO TELEVISION"

**Yevgeni Matusovsky**
***Manager of a Radio-Television Store***



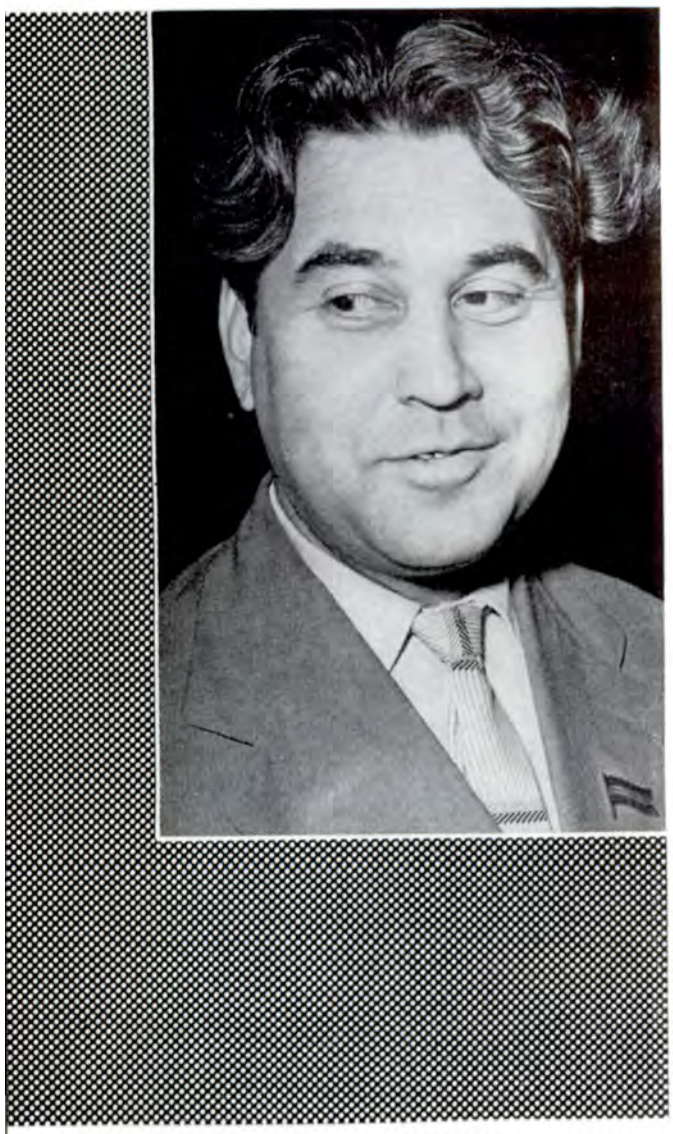
MY LIFE has taken an entirely new turn since the last Party Congress. I had been an army officer for 30 years before then and as a result of the cut in the size of the Soviet military forces—which came out of the congress—I was demobilized.

I had a fairly good background in radio engineering, so I decided to go into that field. I had no difficulty getting placed as manager of a radio and television store. Although I had no retail trade experience, I get along with people and the experience came.

We do a particularly big business in television sets. Three years ago we had only two kinds of sets, now we have more than a dozen of different types. The models we sell in our store range from the large de luxe Ruby-102 which received worldwide recognition to the miniature portable Sputnik based on transistors.

There is also a great demand for various models of radio sets, record players and tape recorders. All told, our store does about five million rubles' worth of business a month.

# Unity of the People and the Communist Party



## "NEW GREAT THEMES FOR OUR WRITERS"

**Kara Seitliyev**
***Turkmen Author***

WRITERS in Turkmenia these days are having to rush to catch up with life. Since the Twentieth Congress of the Communist Party so much has happened in our republic, the changes have been so rapid and so startling that they challenge even the extravagant imagination that tradition attributes to Oriental poets.

Irrigation has meant a new life for the Turkmens. Year after year for untold centuries the hot winds blown in from the Central Asian deserts east of the Caspian have scourged the land. How many farmers must have stood helpless while drought withered their crops.

Now the sands are being pushed back. The first section of the Kara-Kum Canal now completed has brought water to millions of acres of new lands.

The canal makes possible a great expansion of land sown to cotton, the main crop in Turkmenia. And more cotton means, of course, more income for our collective farmers.

Industrially, too, Turkmenia has been pushing forward. New oil, gas, mineral and sulphur deposits have been found in these past three years, and gas pipe lines and chemical plants are being built to process and convey them to manufacturing centers.

All this bustling life is subject matter for our novelists, poets and dramatists. Berdy Kerbabayev, a well-known Turkmen writer, has written *Nebit-Dag*, a novel about Turkmen oil workers which has been translated into many of the languages spoken in the Soviet Union.

Many of our younger writers get their themes and material by working on construction sites alongside the men. Poet Berdy Nazar Khudainazarov wrote his poem *Hot Steppe* out of his experiences as a worker on the Kara-Kum Canal project.

Although I'm beginning to get on in years, I find these "life-to-literature" trips, as we call them, most stimulating. For several months I lived at one of the cotton-growing collective farms. I worked in the fields and ate and slept in the field camps. The multitude of impressions I tried to convey in my poem *A Talk with the Amu-Darya*.

I am now preparing a book of my new poems for publication, and shortly to be published in a Russian translation is a selected volume of my poetry.

The present Party Congress will certainly bring about still greater projects than are now in progress. These are the great themes of the future for our Turkmen writers.

## "ANNUAL BOOK PRINTING TOPS THE BILLION MARK"

**Alexander Rybin**
***Chief, Publishing Division of the USSR Ministry of Culture***

ONE of the important proposals made at the Twentieth Party Congress called for a further increase in book publication. In the three years since, Soviet publishing houses have brought the annual issue to a staggering total of more than a billion—a fifth of the entire world output for a year. The average world figure is two books per person, the Soviet Union prints 5.5.

Books are published in 89 different languages. Belles-lettres, both Soviet and foreign, make up about a third of the total. Last year we issued books by writers of 47 countries, the United States included. The most popular American authors here are Jack London, Mark Twain, O. Henry, James Fenimore Cooper and among contemporary novelists, Theodore Dreiser, Ernest Hemingway and Mitchell Wilson. Jack London and Mark Twain alone have been printed in a total of 30 million copies.

Publication of children's books has grown by more than 30 million copies in the past three years. Textbooks are printed in 60 languages of the country's peoples. In 1957 they totaled 275 million copies.

The decisions of the present Party Congress will mean even greater progress in book publication. The demand of our readers for more books is so great and so constant that we can hardly keep pace.



# Civil War and Reconstruction

By Yuri Polyakov, Historian

**Last November, issue No. 11 (26) of our magazine carried an article describing the historic events of 1917 when Russia's czar was overthrown and, as a result of the Socialist Revolution, the Soviet Government was established with Lenin at its head. This article continues the history of the world's first Socialist Republic through the period of civil war, foreign intervention and reconstruction.**



The cavalry army formed by workers and peasants to defend their new Socialist Republic in the Civil War showed a rare kind of devotion and heroism.

Heroes of the Civil War — Klimenti Voroshilov (at the right), now President of the Presidium of the USSR Supreme Soviet, and Semyon Budyonny, now Marshal of the Soviet Union.



THE history of the decade of civil war, foreign intervention and reconstruction from 1918 to 1928 is a stirring epic of a people fighting to defend the Socialist Republic it had established as a result of the October Revolution of 1917. It was a revolution which had freed Russia's workers and peasants from a feudal burden of economic, social and political oppresion, the like of which no people in Europe had known. With the overwhelming majority of the suffering population behind it, the Revolution was won quickly, easily, at practically no cost in lives.

But no sooner did the Revolution end, than the enemy gathered its forces for attack. Combined against the people were the landlords whose estates had been expropriated, the industrialists whose mills and factories had been nationalized, the feudal princes who had ruled vast regions in the country, and the officialdom and monarchist officers' corps whose privileges had vanished with the Revolution.

Hardly had the Republic been set up and the first decrees on land and peace proclaimed when the guns began to roar at the approaches to Petrograd. Alexander Kerensky, premier of the deposed Provisional Government, and the reactionary General Krasnov at the head



MOSCOW'S RED SQUARE IN 1919. A UNIT OF VOLUNTEER SOLDIERS BEGIN THEIR MARCH TO THE FRONT.

# Civil War and Reconstruction

of Cossack cavalry regiments moved on the city. The attack was thrown back by armed workers, sailors and soldiers.

With this open attack a failure, the enemies of the Revolution set up underground groups in Moscow, Petrograd and other cities and inspired counter-revolutionary outbreaks all over the country. Their purpose was to create civil war and they stopped at nothing, whether plot, insurrection or assassination, that would achieve their end, the overthrow of the Soviet Republic.

Although dangerous, the counter-revolutionary forces within the country were comparatively weak. Without external support they could easily have been put down. This had been forcefully demonstrated by events at the end of 1917 and early 1918 when armed workers' detachments very quickly subdued a series of uprisings by reactionary officers which sprang up in various parts of the country. The internal enemies were, however, abetted in every possible way by foreign governments which took part openly and brazenly in the war against the Soviet Republic. The Civil War, therefore, continued with incalculable losses and years of suffering as the result.

### The Republic in Danger!

At dawn of February 22, 1918, the inhabitants of Petrograd, Moscow, Tver, Yaroslavl, Bryansk and many other Soviet cities were awakened by the alarm of sirens and whistles. They flooded into the streets and in the dim light cast by the street lamps read the handbills posted on the walls. "The Socialist Motherland is in Danger." It was a government decree signed by Lenin that called upon all citizens to come to the defense of the Revolution and the Republic. German divisions were marching upon Petrograd. On that same day 40,000 volunteers joined the Red Army in Petrograd, more than 60,000 joined in Moscow.

Detachments of the newly organized Red Army threw back the vanguard of the German troops approaching Petrograd. A granite monument near the old town of Pskov stands witness to that memorable February 23, 1918, when the Red Army first halted the German offensive. That day has ever since been celebrated as Soviet Army Day to commemorate the great mobilization of the people in defense of the Republic.

This was the sequence of events that led to the German invasion. Russia up until the October Revolution had been one of the Entente nations at war with Germany, Austria-Hungary and Turkey. In the three and a half years of war Russia's losses—men killed, wounded and taken prisoner—were heavier than those of all the other Entente nations put together. Her economy had been completely destroyed and her people had suffered desperately from cold, hunger and pestilence. They demanded an end to the war.

As early as the next day after the October Revolution, the Soviet Government, in its first decree, called upon the belligerent powers to conclude a just peace without annexations or indemnities. The governments of the Entente powers did not even trouble to reply, and Russia was compelled to open negotiations for a separate peace with Germany.

Germany had agreed to negotiate, but it soon enough became clear that she had no intention of concluding a just peace. On February 18, 1918, her guns opened fire. Seven hundred thousand German and Austrian troops attacked along a front that reached from the Gulf of Riga to the mouth of the Danube. With no real resistance from the demoralized old Russian army the enemy divisions advanced rapidly until the way was open to Petrograd, Kiev, Moscow and other vital cities.

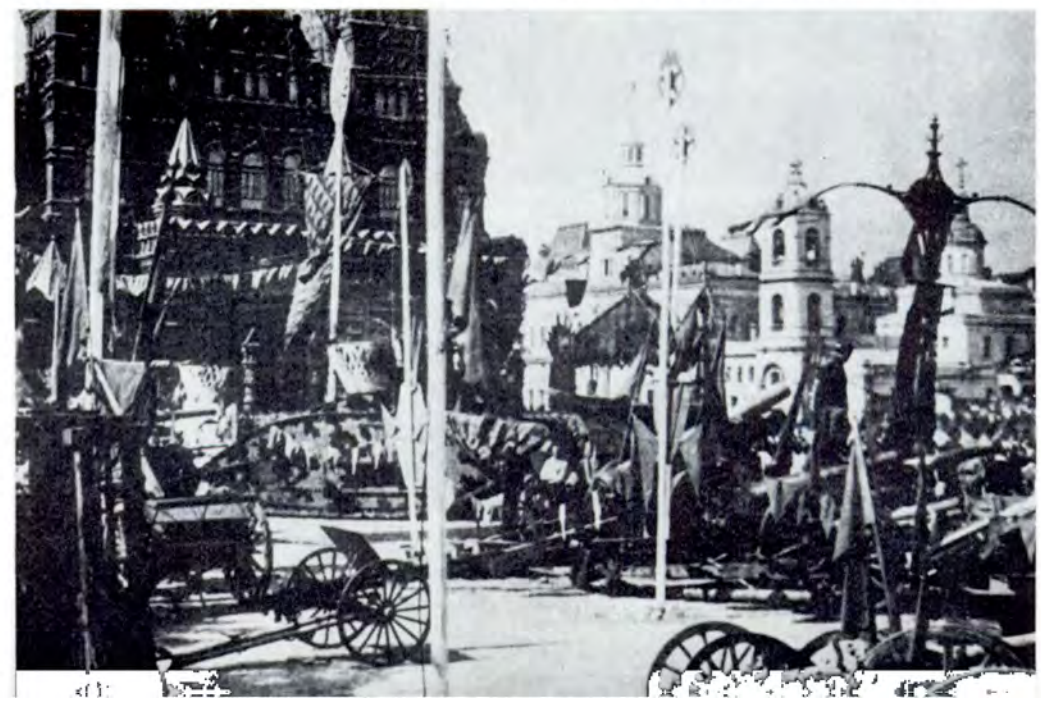
Kaiser Wilhelm's generals were confident of easy victory, certain that the Soviet Government would be overthrown and the country subdued. But this was a new Russia they were facing, with mighty forces for resistance which until then had lain dormant.

The Soviet people were prepared to make heavy sacrifices to end the war. But this ruthless enemy had launched an attack to wipe out the gains won by the Revolution, to destroy the new life they had begun to build. This they would not permit. The peace terms were most severe and onerous but there was no recourse. The Republic desperately needed a breathing spell. On March 3, 1918, the treaty was signed. Soviet Russia lost all the Baltic provinces, Byelorussia and the Ukraine and was forced to pay an enormous indemnity.

### Foreign Invasion

The respite paid for so dearly, however, was short-lived. An attack came very soon from the country's former allies. On March 9, 1918, British soldiers were landed in Murmansk, followed by troops from France and a larger

MILITARY TROPHIES CAPTURED BY THE RED ARMY IN THE CIVIL WAR WERE EXHIBITED IN MOSCOW IN 1919.





Vasili Chapayev, a carpenter, led a celebrated Red Army division and became one of the most famous and popular leaders of the Civil War. His exploits, woven into song and story, have become a vivid part of Soviet history.

British detachment. In April, Japanese troops invaded Vladivostok. Interventionist armies attacked from the south also. British forces dispatched from Persia captured Baku and Turkmenia. All told, the armies of fourteen powers had moved in to throttle the first socialist state.

The counter-revolutionary forces within the country gathered with renewed hope. The Cossack chiefs launched attacks in the Don and Orenburg. An army of reactionary officers led by General Denikin captured the North Caucasus. There were insurrections in the north, the Volga region, Siberia and the Urals.

The attack came almost simultaneously from all sides. Three-quarters of the country fell to the enemy. Only a small patch of territory in Central Russia flew the Soviet flag and the Entente threatened the heart of the country—Moscow itself.

Nor was the counter-revolution the only enemy. When the interventionists captured the granaries—the Ukraine, Siberia, most of the Volga region and the North Caucasus—the serious food shortage from which the people had suffered since the beginning of the war took on the character of wholesale famine.

In addition, the country was kept in a state of turmoil by insurrections which flared up periodically and by terrorist activity directed and financed by foreign agents. Among those assassinated were the Soviet leaders Uritsky and Volodarsky. An attempt was made on Lenin's life, he was severely wounded by two poisoned bullets.

The days of the Soviet state seemed to be numbered. Here were the troops of fourteen world powers fighting against a country which was all but devastated. And with them the forces of the internal counter-revolution amply supplied with arms from foreign arsenals. But revolutionary Russia, hungry, suffering, fighting with little more than bare hands, refused to surrender.

## The People's Army Forms

The grim struggle went on from 1918 through 1920. "A revolution is worth something only if it can defend itself," Lenin said at the time. The Soviet Republic created its own defense, an army of incredible staunchness and heroism made up of Russia's workers and peasants. It was an army to defend their Revolution. Its strength grew with every passing day until by the end of 1920 it numbered more than five million men.

There were officers who had served in the czarist army and now labored devotedly to build up the armed forces of the Soviet Republic. Many were talented commanders who subsequently became Red Army generals and marshals. Out of the ranks of the workers and peasants, too, came many famous army leaders.

Mikhail Frunze, an active participant in the October Revolution, commanded an army that won victories over Kolchak and Wrangel. Klimenti Voroshilov, a Donets metal worker, now President of the Presidium of the USSR Supreme Soviet, was in command of the front at Tsarytsin (later renamed Stalingrad). Semyon Budyonny, a peasant and non-commissioned officer of the old army, organized and led the first guerrilla cavalry group which later grew into the legendary Cavalry Army. The exploits of carpenter Vasili Chapayev and his celebrated army division have been woven into song and story and are known to every schoolchild in the country.

In this people's army the members of the Communist Party were among the most courageous and self-sacrificing. A code of behavior for Communists mobilized for the front included these words: "The title of Communist demands many obligations, it offers only one privilege, to be the first to fight for the Revolution." Upward of 300,000 Communists fought in the Red Army. It was their untiring and selfless work that forged this army of workers and peasants into the well-disciplined force that drove the foreign invaders from Soviet soil and defeated the armies of Denikin, Yudenich, Kolchak, Wrangel and other generals of the internal counter-revolution.

A leaflet issued at the time explained the task of the people's army in terms every worker and peasant who had suffered under the czar understood:

"Arms are given to the workers and peasants for self-defense. Arms are given to the soldier to defend his own interests, to defend the land and freedom, to defend the interests of the poor in town and country.

"A Soviet soldier is defending his own cause, the government he himself set up and which is responsible to him.

"The working people who place arms in the hands of the Soviet soldier bless him for his courageous fight against the enemies of the Revolution, bless him as a mother would her own son."

Rallied around the Communist Party were the country's people. All the other parties—the Socialist-Revolutionary, Menshevik, Anarchist and nationalist parties of all hues—had lost whatever influence they had exerted prior to the October Revolution and the first few years after it. Tested by civil war and foreign intervention they exposed themselves as enemies of the people. They cooperated with the invaders, took their stand with the counter-revolution.

The Communist Party alone led the fight for freedom, shared the privation of those rigorous years, fought for a program and course of action that transformed this backward ruined land into the Soviet Union we see today.

## The Country Transformed

Even in the midst of civil war that transformation was evident. A new country was beginning to emerge with changes taking place in every sphere of life. The remnants of feudalism were destroyed, the privileges of the



Subbotnik (from subbota, the Russian word for Saturday) was the name given to the community work performed on weekends and holidays. The voluntary contribution by millions of people of their energy and skills for the good of the country with no thought of monetary remuneration was a new phenomenon woven in the Soviet society.

# Civil War and Reconstruction

aristocracy abolished. Women were given equal rights with men.

The landed estates were nationalized and the land distributed to those who worked it. Most of the factories were taken over and run by committees of workers. For the first time in Russian history laws were adopted to guarantee the rights of workers. The code for labor provided for an eight-hour working day, annual paid vacations, social insurance and other benefits.

Before the Revolution three out of every four persons were unable to read or write, and in many of the non-Russian regions there was total illiteracy. In the three years immediately following the Revolution, seven million adults were taught to read and write as the first step of an educational program unparalleled in its aim and scope.

Medical services were made free to every citizen and a network of nurseries, milk kitchens, kindergartens and orphanages were built all through the country.

These and other measures for the general welfare were administered by the local councils, the Soviets of Workers' and Peasants' Deputies, elected by and from the people. From the ranks of the people also developed the organizers and administrators of the new society.

The changes taking place were real and tangible, they could be seen and felt by every worker, every peasant. And the people responded. It was their new way of life they were building, whether they fought at the front or worked behind the lines to produce the food and material the fighting forces needed.

The Subbotnik movement (from the Russian word for Saturday) was one concrete expression of the people's efforts for the good of the country. A group of Moscow railroad workers in the spring of 1919 decided to put in several additional hours of overtime work on their free day to do locomotive repair work so that supplies could get to the front more quickly. This volunteer movement spread rapidly through the country and embraced millions of workers.

On July 10, 1918, the first Soviet Constitution was adopted at the Fifth All-Russian Congress of Soviets of Workers', Peasants', Soldiers' and Cossacks' Deputies. This historic document phrased the fact that the people were the rulers of the country and these were the laws they had elected to live by.

### Peaceful Labor

The war and invasion caused incalculable damage to the economy. From the Baltic to the Pacific the country lay in ruins. The regions which had been held by the enemy were scenes of incredible devastation—flooded mines, wrecked bridges, trampled crops, gutted factories. In the areas from which the enemy had been kept out, production was at a standstill. There was no fuel, no power, no raw materials.

The material cost of the civil war and foreign invasion is estimated at some forty billion gold rubles. By 1920 the country's industrial production was at 14 per cent of the prewar level. Some industries, like iron and steel, had been reduced to their eighteenth century level. The harvest was half that of the prewar years.

Postwar reconstruction was an immense task. For five years after the Civil War ended the nation's every effort was concentrated on rebuilding. Men and women both worked indomitably. By the end of 1923, only 562,000 officers and men remained in the Red Army, the rest had been demobilized to help rebuild the country. The job was done, but with enormous sacrifice. By 1926 the economy of the country had been restored to the prewar level.

But this was only the beginning of the long pull—to build the backward peasant country into an advanced industrial power. The Communist Party, guided by a program outlined by Lenin, proposed a plan for industrialization based upon development of heavy industry as the only way of building socialism.

The plan presented unbelievable difficulties. First, the country had barely gotten to its feet. It was ringed by a foreign economic blockade. In the Communist Party there were factions headed by Trotsky, Zinoviev and Kamenev that opposed the Leninist program of industrialization. The overwhelming majority of the Communists and the people, however, stood firm in support of the program, regardless of the sacrifices it entailed.

On January 21, 1924, Vladimir Ilyich Lenin died. A grief-stricken people came from every corner of the country to say farewell to their leader. Hundreds of thousands filed past the bier where he lay in state and great crowds waited patiently in the bitter cold winter for their turn to pay a last homage to the man who had spent his great life fighting to build a socialist society.

As a tribute and pledge, 250,000 workers joined Lenin's party. This large enrollment within a brief period of time was further evidence of the people's faith in the Communist Party and in the policy of industrialization it had proposed.

By 1928 the industrial output had risen 32 per cent above the 1923 figure, a remarkable advance for so underdeveloped a country. But this was only the first long step. In 1928 the first of the Five-Year Plans was drafted to accelerate the rate of industrial progress by socialist planning of the entire economy.

### A United Socialist State

"The Declaration of the Rights of the Peoples of Russia," one of the early govern-

ment decrees after the October Revolution, had proclaimed the equality and sovereignty of all national groups inhabiting the country, their right to self-determination and the abrogation of all national and religious discrimination.

Millions of formerly downtrodden and disfranchised people thus became equal citizens of the new multinational state. The peoples of the Ukraine, Byelorussia, Kazakhstan and other parts of the country set up their own Soviet Socialist Republics.

This did not, by any means, signify secession from Russia. The old enforced unity which, in Lenin's words, rested on falsehood and iron, was abolished forever. It was replaced by a voluntary unity, a unity of free peoples, which had emerged out of the intervention and had been strengthened by the common defense against the foreign invaders.

Fighting together in the Red Army had been Russians and Ukrainians, Georgians and Armenians, Azerbaijanians and Uzbeks, Byelorussians and Latvians, Lithuanians and Estonians, Tatars and Bashkirians—all the people of Russia liberated from national and social oppression. To fight separately would have been to perish, this everyone had learned.

The danger of attack did not end with the Civil War. The threat was ever-present and the need for united effort even more pressing. Only by acting in concert could the republics recover from the war's damage and grow strong.

Early in 1922 representatives of Azerbaijan, the Ukraine and some other republics proposed a union of states. The proposal was widely discussed and enthusiastically welcomed by every one of the republics. At the First All-Union Congress of Soviets, 2,214 delegates elected by the republics convened in Moscow and on December 30, 1922, they voted to form the Union of Soviet Socialist Republics.

Thus the Soviet republics merged into a single multinational state, united upon the principle of equality and fraternal cooperation.

Thirty-six years have passed and this unity, tested by trials and difficulties, stands firm and unshaken. At present the Soviet Union is made up of fifteen Soviet Socialist Republics.

## Soviet People Work for Peace

In the very first days after the October Revolution, the new state declared itself for peaceful coexistence with all nations. After the Civil War and the routing of the interventionists, diplomatic and trade relations with foreign countries were gradually normalized. By the end of the reconstruction period Britain, France, Germany, Italy, China and Japan had formally recognized the Soviet Union.

The Soviet Union, then as now, was firm in its conviction that states with different social and political systems could live together peacefully. Let us work toward mutually beneficial trade and cultural exchange. This was the essence of the proposal it submitted to the Genoa conference of 1922, the first international conference in which the Soviet state participated. Concerned with reducing tensions between states, the Soviet delegation also presented a proposal on disarmament. It was turned down by the Western Powers without even an attempt at discussion.

There was no lack of evidence to prove the point that their intent was to harass the socialist state. Two Soviet ambassadors abroad, Vorovsky and Voikov, were assassinated. The Soviet embassies were repeatedly subjected to police raids. The Soviet Government was presented with ultimatums—the Curzon ultimatum of unhappy memory in 1923 and the Chamberlain Note in 1927. Documents were forged to discredit the Soviet Union and the senseless accusation made that it was responsible for the rise of the national liberation movements in India and other colonial countries.

It was under these very trying conditions that the Soviet Union steadfastly and persistently worked toward peaceful relations with all states.

Recovered from the Civil War, the country moved forward rapidly. By 1941, the time of the Nazi attack, the Five-Year Plans had brought the Soviet Union to second place in the world in industrial output and it had achieved for its people a standard of living immeasurably higher than they had ever experienced.

The Five-Year Plans for the development of the national economy, carried out prior to and since the war, were logical preludes to the sweeping seven-year plan for 1959-1965 just drafted, another stage in the country's development toward a standard of living higher than any the world has yet seen.

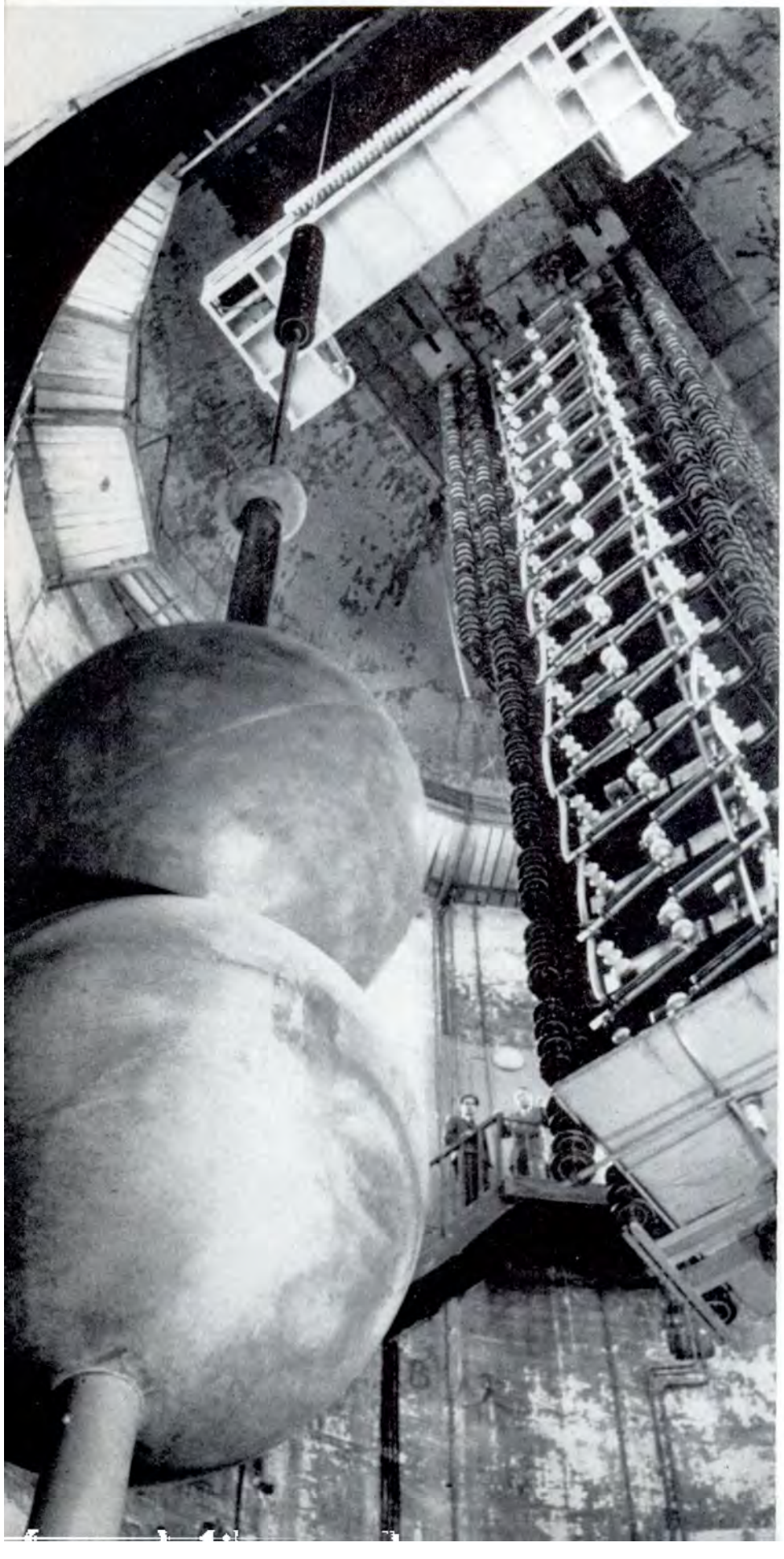
LENIN DEDICATING THE FIRST RURAL POWER STATION IN THE VILLAGE OF KASHINO. ELECTRIFICATION PLAYED A MAJOR ROLE IN THE COUNTRY'S ECONOMIC PLANS.



# THE USSR ACADEMY

By **NORAIR SISAKYAN**
*Assistant Chief Academic Secretary,*
*Presidium of the USSR Academy of Sciences*

IN ONE OF THE LABORATORIES OF THE ACADEMY'S POWER INSTITUTE.



THE quantity and quality of research in mathematics, mechanics, physics, chemistry, biology, electronics, automation and in the many other fields of science and technology go far to explain the rapid rate of Soviet economic growth. This has been true ever since the first five-year plan for the country's development was drafted in the late twenties. It is immeasurably truer today when scientific personnel and equipment are available in infinitely larger quantities.

The present seven-year plan for 1959-1965 outlines what is unquestionably the most all-embracing quest for scientific knowledge ever to be undertaken, whether in terms of funds to be spent, people to be trained or research facilities to be built.

The USSR Academy of Sciences is the country's central headquarters for research in all fields of study. It is not merely an honorific learned body. It supervises a widely branching number of scientific institutions, unifies and coordinates research, and lays out new areas for investigation.

In the past forty years the number of institutes, laboratories and experimental stations guided by the Academy has grown fivefold, the number of its scientists 230 times over and the funds budgeted to the Academy by the government have increased by 800 times.

Pre-Soviet Russia had a total of 10,200 trained scientists. By the prewar year 1940 the number had grown to 98,300. Today there are more than 270,000 men and women carrying on research in industrial and agricultural enterprises, in scientific institutions, in colleges and universities. They have all possibilities for putting the most daring ideas into practice, and their creative work is an important contribution to the efforts of the entire nation in shaping the future of the country.

Significant, too, is the change in the research scientists themselves. Now they are, for the most part, sons and daughters of workers and farmers educated in a socialist environment. They consider their studies not only as laboratory problems but also in terms of their social utility. Many of these scientists belong to national groups who for centuries were denied even an elementary education, let alone access to the large body of knowledge required for scientific rsearch.

## Structure of the Academy

The highest authority in the USSR Academy of Sciences is the general membership meeting. The membership elects the permanent Presidium which functions between meetings. The Academy has eight divisions each covering a specific field of study:

physics and mathematics;
the chemical sciences;
geology and geography;
the biological sciences;
the technical sciences;
history;
economics, philosophy and law;
literature and linguistics.

Each division directs the work of the institutes conducting research in its field and besides has under its jurisdiction independent laboratories, experimental stations, museums and libraries. The area of activity of the division is very extensive both with regard to allocation of funds and personnel and in organizing research. Projects for investigation are initially considered by the division membership. If approved, they are recommended to the Presidium of the Academy for authorization.

Guiding the work of each division is its own board elected by the membership. Directors of the institutes and laboratories are elected by the Academy's general membership meeting.

Ranking with the divisions is the Academy's Council for Study of the Productive Forces. With the help of the institutes and local Academy branches the Council organizes research work in different parts of the

# OF SCIENCES

country. It has been responsible for the discovery of many rich mineral deposits.

The Academy has its own publishing house for monographs, journals and books. The volume of publications issued has increased six times over since the prewar years. In one year now the Academy puts out about 1,000 monographs and books and some 600 issues of scientific magazines. The Academy publishes 74 journals, and most of them are issued in translation in foreign countries.

Besides the USSR Academy publications, there is a growing body of literature issued by the Academies of the Union Republics and other scientific institutions of the country.

The institutes of the USSR Academy are centered mainly in Moscow although there are many research centers and experimental stations in widely distant parts of the country. The network of scientific institutions outside the capital has been rapidly expanding in recent years.

There is, for instance, the Siberian Branch of the Academy, set up in 1957 in Novosibirsk, which now has a widespread group of its own regional research institutes. This new scientific center is studying the vast natural wealth and productive possibilities of a territory that extends from the Ural Mountains to the Pacific Ocean.

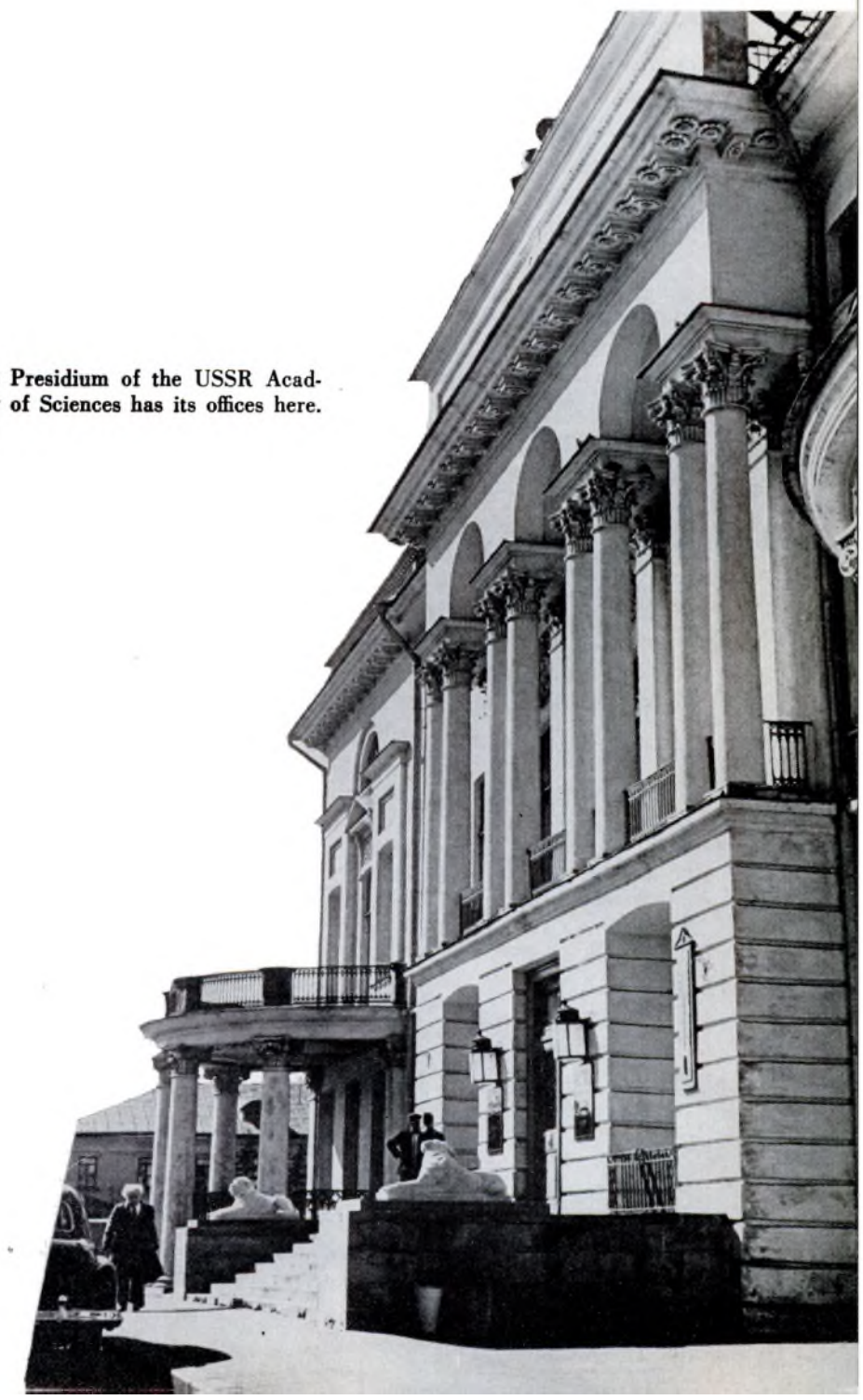
Academy branches have been established in different zones of the country. They give major attention to natural resources study, with each branch specializing in one or another field. Thus, the Bashkirian Branch concentrates on oil geology and chemistry and the Kazan Branch, in Tataria, on the chemistry of phosphoro-organic compounds. Many branches are also doing theoretical research in natural and technical sciences and in the humanities.

### Academies in the Union Republics

Most of the Academies that exist now in the Union Republics grew out of branch centers of the USSR Academy. The Kazakh Academy of Sciences is a good example. It was set up originally in 1932 as a small scientific station with a staff of only eleven botanists, zoologists and chemists. As Kazakhstan's economy developed, education spread and



The Academy's staff personnel is among the total of 270,000 scientists of the country engaged in research.



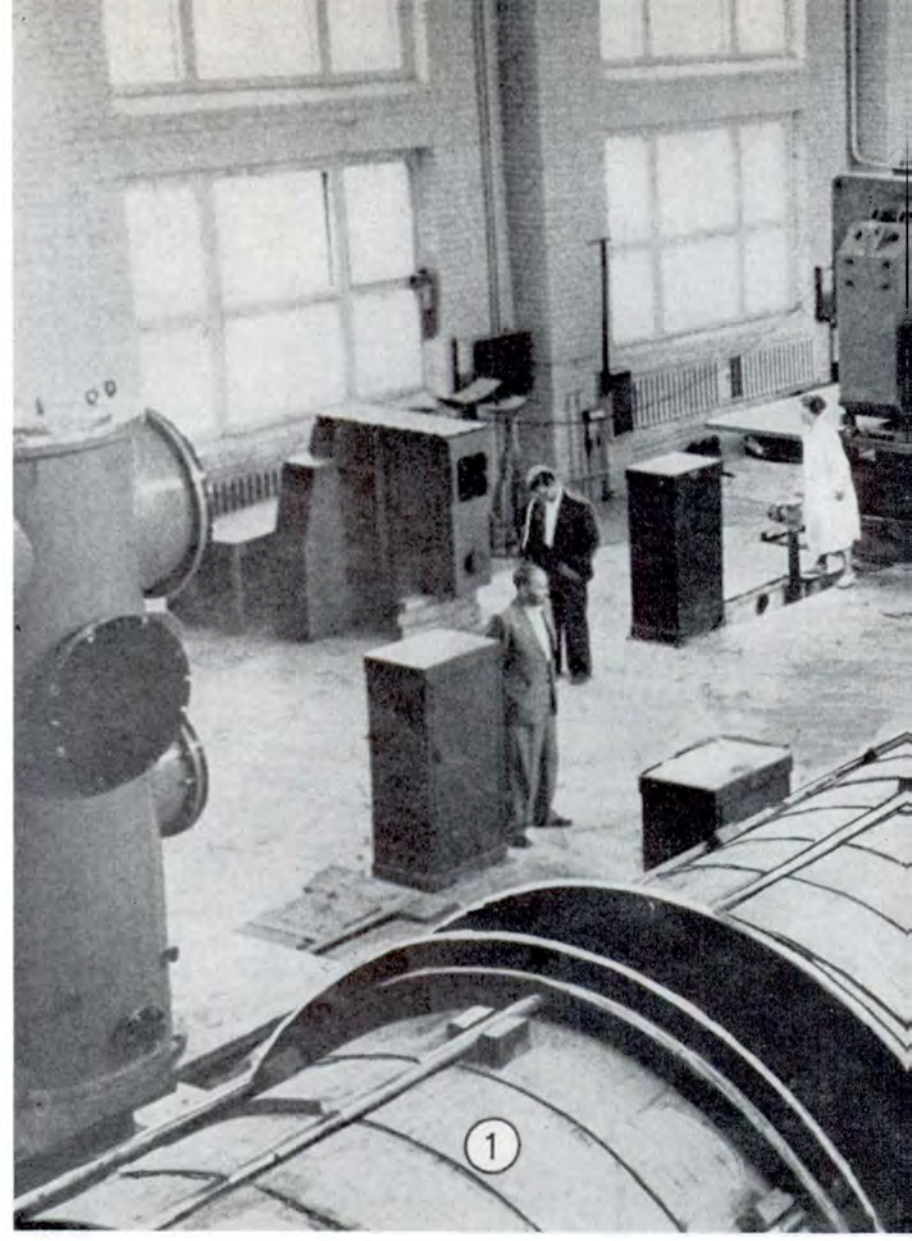
The Presidium of the USSR Academy of Sciences has its offices here.

ALEXANDER NESMEYANOV, PRESIDENT OF THE ACADEMY (LEFT), AND HIS COLLEAGUES.





CONTROL BOARD OF A GENERAL PURPOSE ELECTRONIC COMPUTER AT THE ACADEMY.




# THE USSR ACADEMY OF SCIENCES

native scientists were trained, the staff of this local research center expanded to include specialists in geology, soil science, genetics, geography, history, linguistics and other fields.

In 1938 the Kazakh Branch of the USSR Academy was founded. It united 16 specialized research institutes, 50 laboratories, a botanical garden and several other scientific centers. In 1946 this Branch, with thousands of scientists conducting investigations into most varied fields of study, was reorganized to become the Academy of Sciences of the Kazakh Republic.

### Specialized Research Centers

Besides the USSR Academy and the republican academies, there are specialized academies—in the fields of agriculture, medicine, education, and architecture and construction. The structure of both the specialized and republican academies duplicates that of the USSR Academy of Sciences.

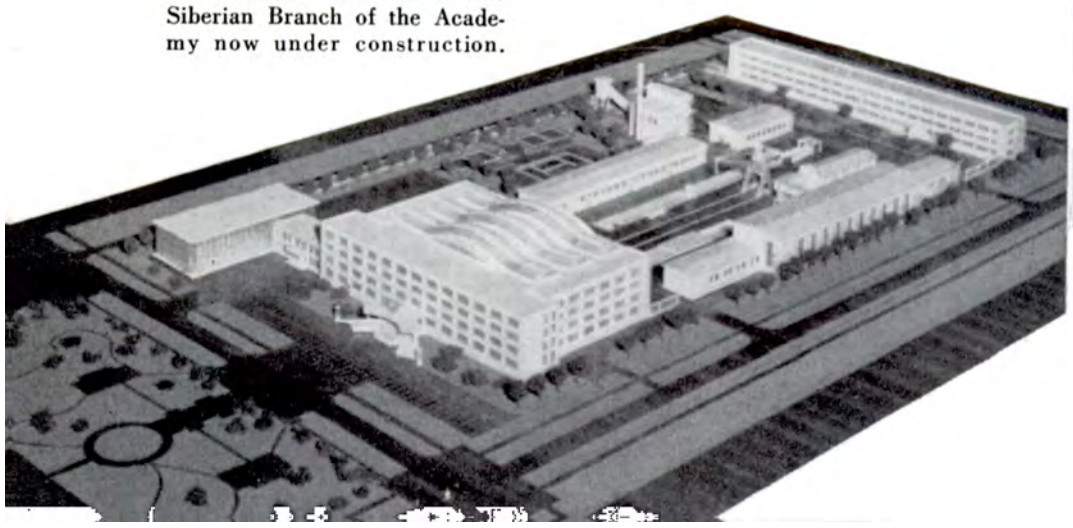
The national system of scientific institutions also includes a large group of research centers attached to various industries and some to divisions of an industry. Typical is the Nonferrous Metals Research Institute. There are similar institutes in the food industries, aircraft construction, transport, and many other fields of national endeavor.

There are, besides, a large number of laboratories in the colleges and universities where research most basic to the country's scientific, economic and cultural progress goes on unceasingly. More and more of this investigation is being coordinated with the work of the USSR Academy and the Academies of the Union Republics.

### Planning Research

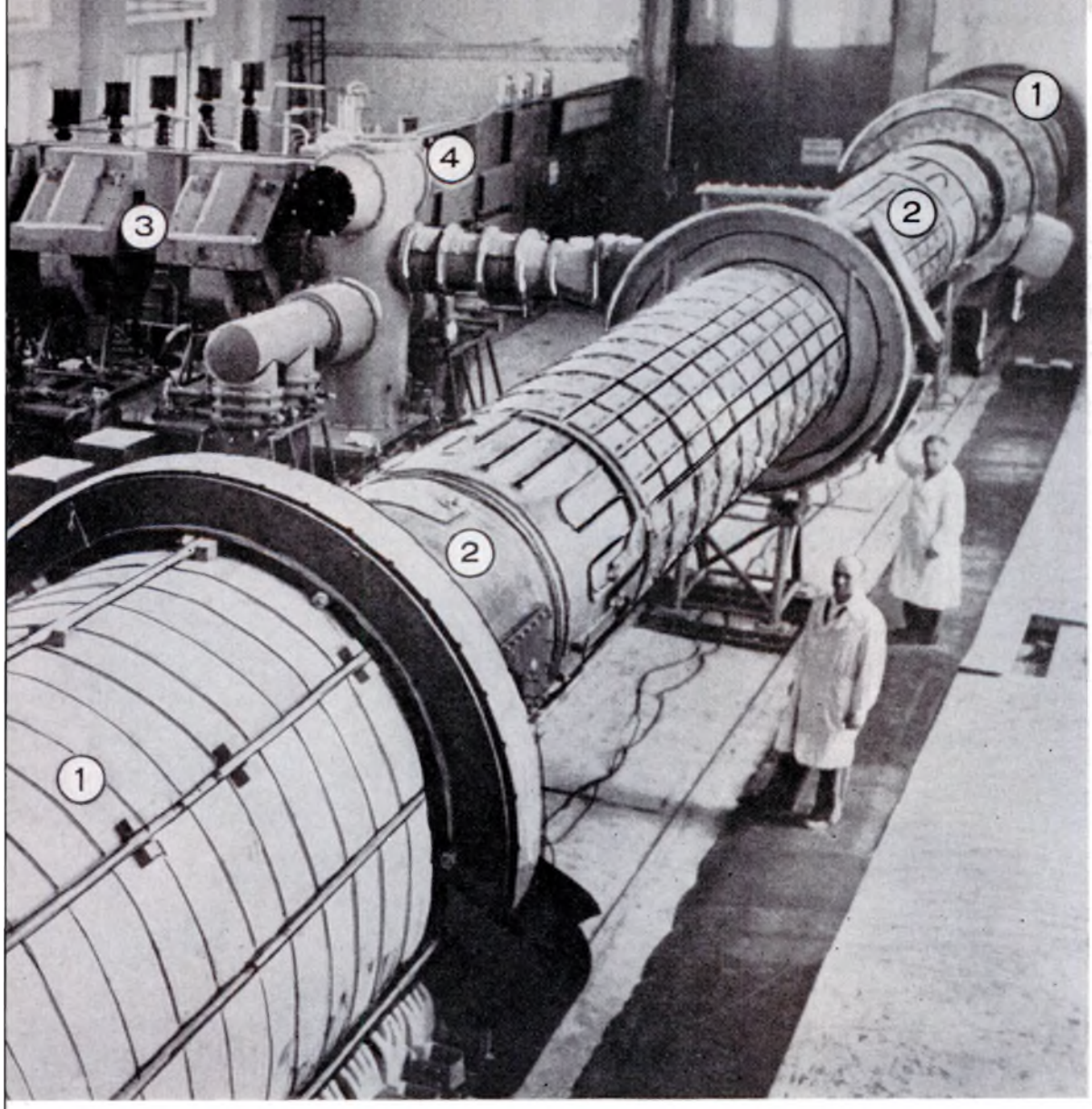
Soviet scientists think of their work as an interrelated segment of the country's economic and cultural life. Theoretical research programs

The scale model shows one of the research institutes of the Siberian Branch of the Academy now under construction.





Mikhail Lavrentyev, director of the Academy's Siberian Branch at Novosibirsk, is a noted mathematician and aerohydromechanics researcher.




Soviet scientists are working continually on research in the peaceful uses of atomic energy. One part of this research is being done at the Atomic Energy Institute of the USSR Academy of Sciences on the *Ogra* installation. It was designed and built under the direction of Professor Igor Golovin, 1958 Lenin Prize winner. The figures in this photograph show:

1—solenoids;
2—vacuum chambers;
3—injector;
4—power source of injector.

are therefore closely tied in with the current seven-year plan and with the plans for the years to come after that.

In working out its long-range research goals the USSR Academy of Sciences calls on the most eminent specialists in each field to outline major problem areas and chart the major directions for investigation. Long-range plans for specific scientific problems, and then for whole fields of study, are coordinated into the Academy's over-all plan for research. After approval by the USSR Council of Ministers, this plan is allocated budgetary funds in the amounts required to finance the research projects of all the Academy's institutions.

Research in many fields is planned with the cooperation of staff members of scientific institutions outside the Academy, and of scientists at colleges and universities. Ever increasing contributions are made by specialists working in industry, agriculture and other branches of the country's economy. Scientific councils and commissions on specific problems direct all kinds of research on a national scale. Conferences convened to discuss the results of the investigations in each of these problems are becoming an important means of coordinating the work done by different groups and are promoting closer contact between scientists.

This type of integrated planning has proved to be by far the most effective way of relating scientific research to national needs, both present and future. Personnel and equipment can thus be more heavily concentrated on the most pressingly important problems, whether theoretical or applied.

## Cooperative Research

It has become regular practice in the Soviet Union for groups made up of researchers in different fields to work together on the solution of scientific problems. Such major projects as the unified hydroelectric development of the Volga River, the construction of atomic power plants or the development of the space research rockets were all worked out collectively.

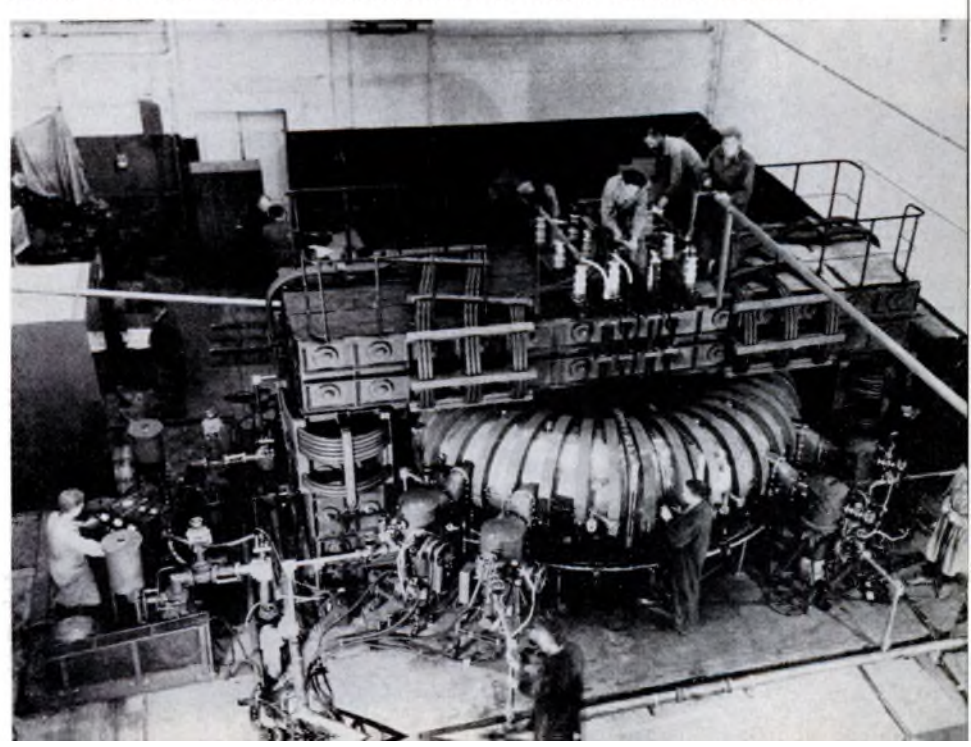
An over-all approach to a problem of large scope is particularly necessary in modern research because of the increasing specialization which advancing knowledge makes necessary on the one hand, and the overlapping of these specialties on the other.

Close contact is maintained by the USSR Academy with the academies of the various republics in order to ensure this type of coordinated investigation and pooling of knowledge. The same close contact is maintained with the colleges and universities. This is facilitated by the fact that most Academy members teach at one or another school.

## "Pure" and Applied Science

The old distinction between "pure" and applied science has long ceased to have any real working significance except as convenient terms for classification. That is sufficiently evident if one brings to mind the

**SETTING UP A TEST ON THE *ALPHA*, A NEW SOVIET ATOMIC RESEARCH ASSEMBLY.**





Alexander Mikulin (left), a pioneer designer of Soviet aircraft engines and one of the first scientists to employ gas turbines, confers with Boris Stechkin, founder of the theory of air-jet engines.



Pyotr Kapitsa won fame by discovering the super-fluidity of Helium 2 in 1938.

# THE USSR ACADEMY OF SCIENCES

very practical developments which have resulted from theoretical studies in the structure of the atom. Or consider the infinite number of theoretical studies involved in the construction and launching of the space rockets, the basic investigations in many sciences in their overlapping relations that were required.

In the mathematical sciences, basic studies in calculus are responsible for the very practical developments in automation engineering and electronics. Theoretical studies in chemistry have made possible the synthetic materials which we now weave into the clothes we wear and process into thousands of articles for daily use. One can cite such examples in every field of study.

Over-all planning of scientific research permits a closer working relationship in overlapping scientific areas. The newer findings in physics and chemistry, for example, are vitally important to such present-day studies in biology as the use of nuclear radiation to produce new varieties of cultivated plants. Researchers in biochemistry, biophysics, agrochemistry, microbiology, genetics and other interrelated fields are working on hundreds of studies which cross over from one science to another.

All these considerations—the present needs of the country as envisioned by the current economic plan, the major research directions, the groundwork studies for future development, the training of tomorrow's scientists—enter into the national plan for research developed by the USSR Academy of Sciences.

## Academicians

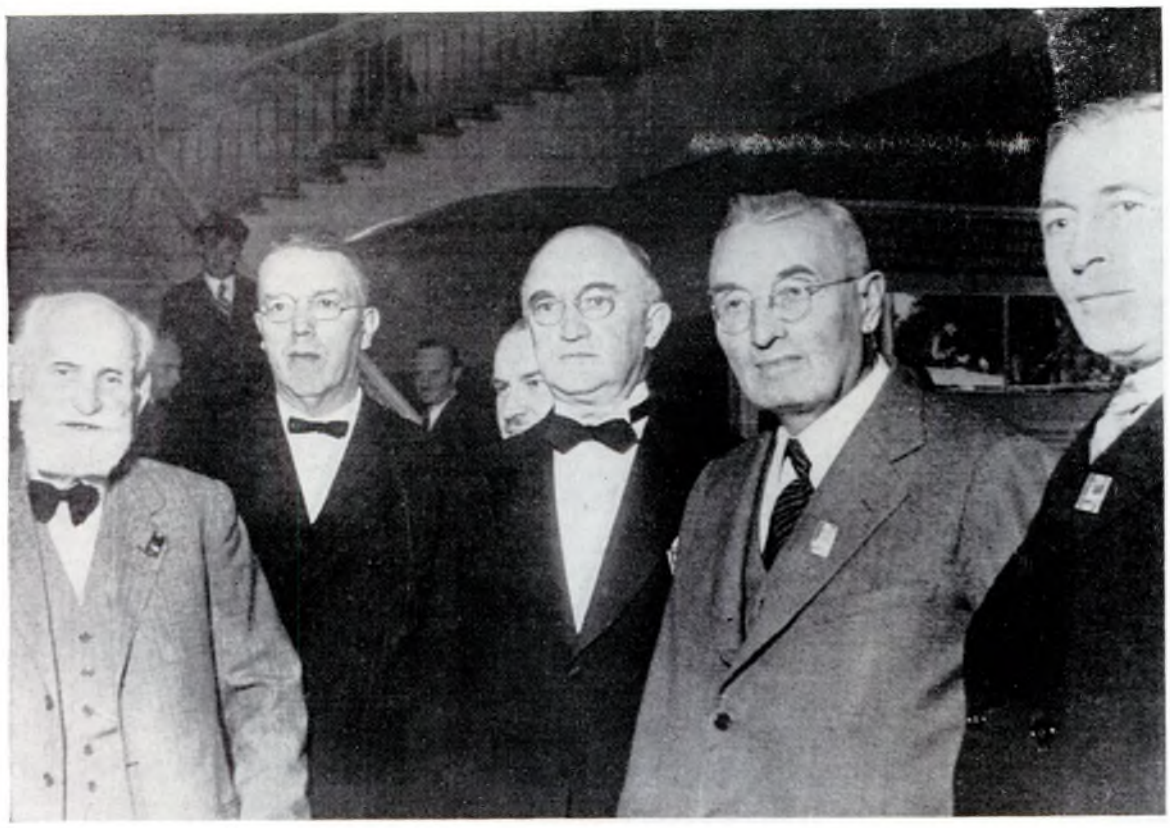
Academician is the most distinguished title a Soviet scientist can be awarded. Members of the Academy are elected by secret ballot at the

Credit for high-yielding Soviet wheat varieties goes to Nikolai Tsitsin who is now working on remote plant hybridization.



Academy Vice-President Ivan Bardin, iron and steel specialist, won a 1958 Lenin Prize for working out a commercial continuous steel-pouring installation.





International contacts of Soviet scientists run back many years. This 1934 photo from the International Physiological Congress held in Moscow shows the famous Academician Ivan Pavlov (at the left) with some of his American colleagues at a session.

Soviet Academicians K. Ostrovityanov and V. Vinogradov; A. Mason (France); M. Fasner (West Germany); A. Belic (Yugoslavia); B. Gavranek (Czechoslovakia) at the International Congress of Slavists in Moscow.



general membership meetings. They are men and women who have made major contributions in their fields of study.

Announcements of Academy vacancies to be filled are published in the press at least two months before the membership meeting at which elections are held. Scientific institutions and public organizations at that time nominate the most eminent of their workers for membership.

Commissions are then elected by each division of the Academy to consider the nominees and evaluate the contributions they have made to studies in their fields. Each commission reports its conclusions to a full meeting of the division. Candidates approved by the division are then recommended for election to the Academy at its general meeting.

The USSR Academy of Sciences has at present 167 members and 361 corresponding members. In 1957 25 new members and 54 corresponding members were elected from a large group of nominees.

At one of the last general meetings of the Academy 32 eminent scientists—American, British, French, Swedish, Belgian, Japanese, Italian, Polish, Indian and those from other countries—were elected to membership. The American Academicians are Dr. Detlev Bronk, President of the

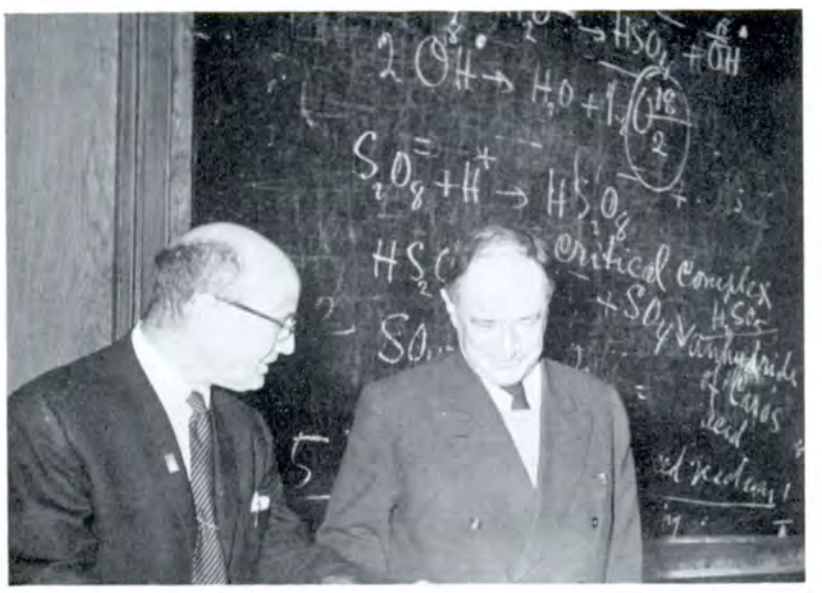


Professor E. E. Salpeter of Cornell University addressing a seminar at the Nuclear Research Institute in Dubna. His audience included a number of outstanding foreign scientists as well as many Soviet experts.

# THE USSR ACADEMY OF SCIENCES



U.S. Nobel prize winner Linus Pauling, Soviet biochemist Alexander Oparin, Prof. Wendell Stanley of California and Prof. Sidney W. Fox of Ames, Iowa.



Soviet Academician Alexander Frumkin (right) is shown here with Prof. Izaak M. Kolthoff of the School of Chemistry of the University of Minnesota.

Many delegations of foreign scientists visit the various institutes of the Soviet Academy annually to review the advances in their own fields.



United States National Academy of Sciences, and Nobel Prize winner Dr. Linus Pauling.

### Exchanges With Foreign Scientists

The USSR Academy of Sciences spares no effort in establishing the closest scientific contact with scientists abroad for the exchange of ideas and comparison of approaches so necessary for progress in any field of study.

Exchanges of scientific monographs and journals are supplemented by papers read at international scientific congresses. Soviet scientists keep their laboratory doors wide open for visiting foreign scientists and welcome invitations from their colleagues in other countries.

As compared with the previous period, three times as many Academy members have visited abroad in the past three years and a far larger number of foreign scientists have visited the Academy laboratories and institutes. Many foreign scientists attend the frequent international scientific conferences convened in the Soviet Union.

Academy scientists have lectured in the United States, Britain, France, Belgium, Italy, China, Poland, India and other countries. In turn scientists from many foreign countries including the United States have read lectures in the Soviet Union in these past years.

Many hundreds of foreign scientists are now working in laboratories of the Academy on joint researches. In exchange, Soviet scientists are working in research institutions in Britain, France, India, Denmark, China, the United Arab Republic and elsewhere. Foreign students in large numbers are doing graduate study and research in Academy institutes.

A new and promising development in international scientific contact is represented by the agreements on research cooperation concluded between the USSR Academy and the academies of other countries. Many endeavors have been carried through by joint work of Chinese, Polish, Czechoslovak and Soviet scientists. Reciprocal exchanges of scientists and lecturers between the USSR Academy and the British Royal Society have also developed out of this kind of agreement, as well as broader scientific contact between French and Soviet researchers.

Still greater extension of international exchanges is essential in the interests of scientific progress. New sources of ideas and theories are born of constant contact between the scholars of the world.



Dr. Jesse Greenstein (left) of California's Mt. Wilson Observatory and Prof. Boris Vorontsov-Volyaminov at Byurakan Observatory in Armenia.

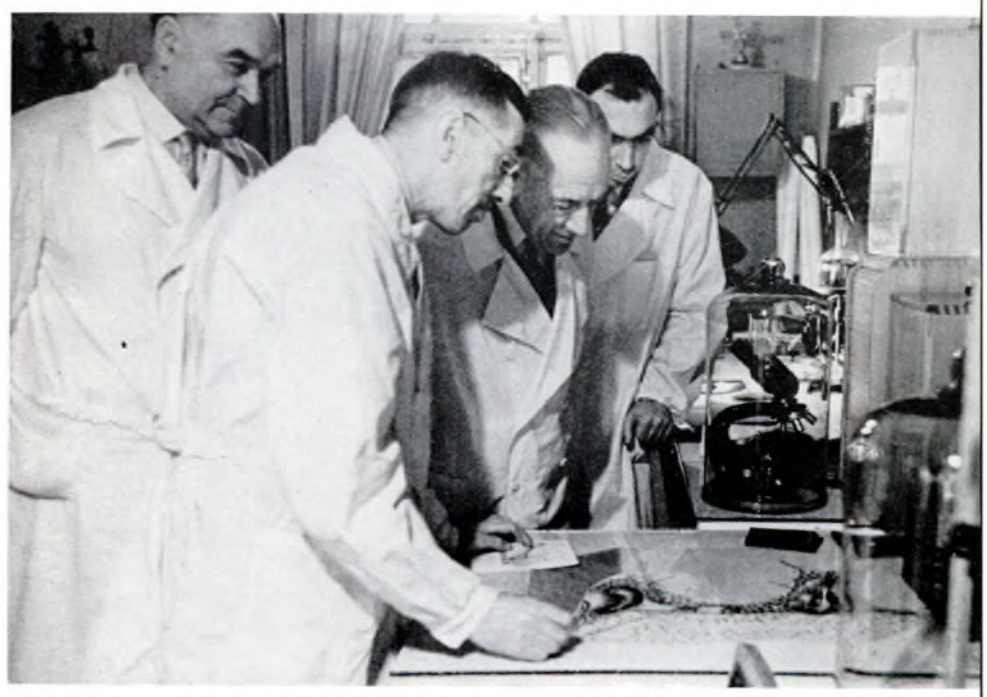


Soviet and American scientists meet to draft their agreement on exchanges of information and lecturers during 1959-1960. Final approval of the program is to be made by the two Academy boards.



Professor Pasynsky of the Biochemisty Institute (at the right) greets Dr. Detlev Bronk.

# President of the U.S. National Academy of Sciences Meets Soviet Scientists



Dr. Detlev Bronk (second from right) in a laboratory of the Moscow Neurosurgery Institute of the USSR Academy of Medical Sciences.

DR. DETLEV W. BRONK, president of the National Academy of Sciences in Washington and the Rockefeller Institute for Medical Research in New York, visited the Soviet Union at the end of last year at the invitation of the USSR Academy of Sciences. He arrived in Moscow accompanied by Dr. Wallace Brode, associate director of the National Bureau of Standards and also a member of the U.S. National Academy of Sciences.

During the conferences in Moscow, the American scientists met with their Soviet colleagues Alexander Nesmeyanov, president of the USSR Academy of Sciences, Alexander Topchiev, its vice-president, and Academician Vladimir Engelhardt.

The talks, which progressed in an atmosphere of friendship and full understanding, were devoted to spelling out the details of a draft agreement on scientific exchange between the two countries. The protocol which was signed calls for the draft to be delivered to the boards of the two Academies for final consideration.

The draft envisions an exchange of scientists in 1959 and 1960 between the USSR Academy of Sciences and the U.S. National Academy of Sciences to read lectures and conduct seminars on various problems of science and technology. It also provides for mutual information on scientific research work in both countries.

Referring to his conferences with Soviet scientists, Dr. Bronk said: "The talks have been very satisfactory and have been conducted on a very friendly basis. The general proposals which I shall take back to the Council of the National Academy of Sciences will, I am sure, be of great benefit to our two countries, because we have a common interest in furthering the welfare of mankind."

Dr. Detlev Bronk confers with Academician Vladimir Engelhardt (at the left) in the Biochemistry Institute of the USSR Academy of Sciences.







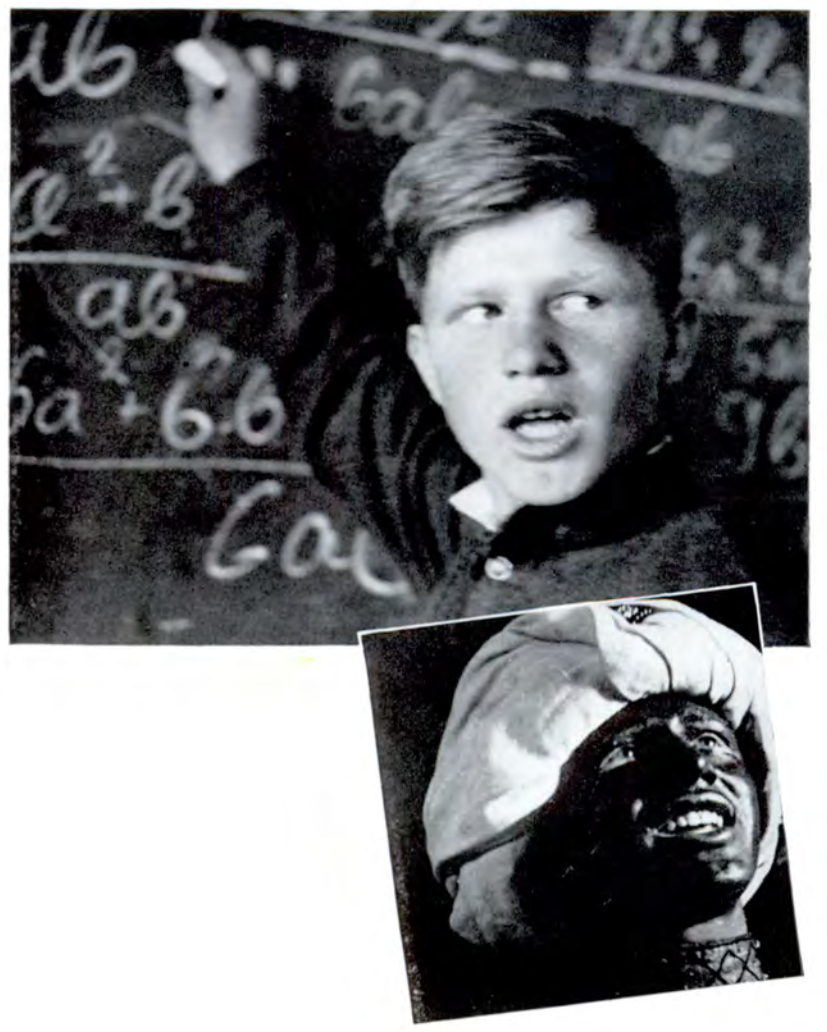
PYOTR TURCHINSKY, ASSISTANT DOCTOR AT THE HOSPITAL, PLAYS THE COUNSELOR TO THE SULTAN SELIKH-AGA.

# Workers' Club Stages an Opera

By Boris Yurin



VASILI CHURAYEV IS AS GOOD AT ALGEBRA AS HE IS IN HIS BLACKAMOOR ROLE.

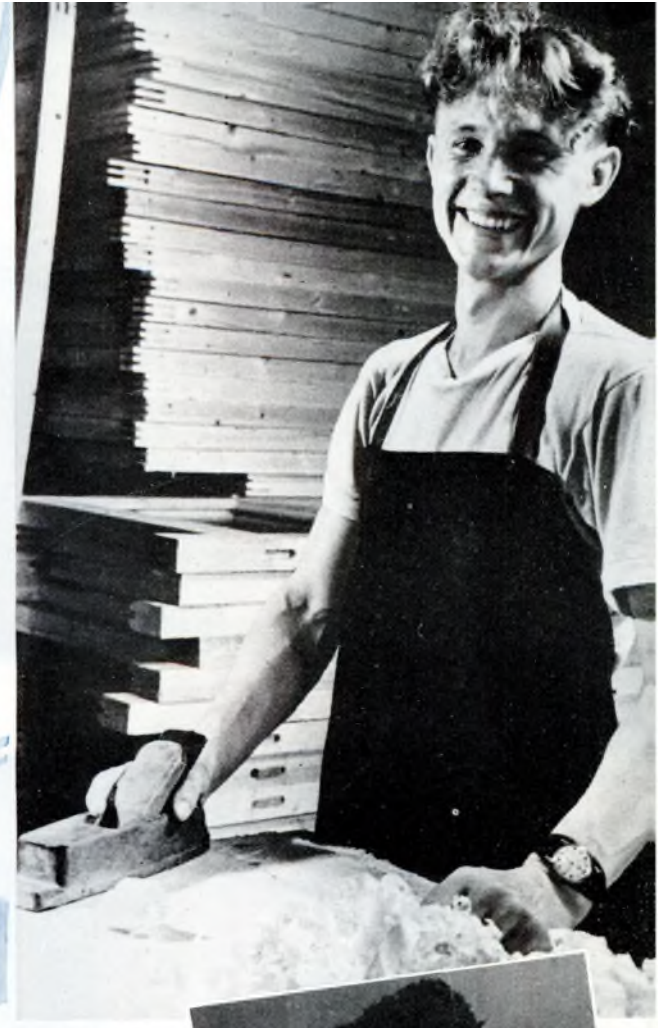


PLASTERED all over the billboards around the neighborhood of the Stalin Water Pumping Station near Moscow some months ago were placards announcing a new production of the opera *The Zaporozhets Beyond the Danube* by the Ukrainian composer Semyon Gulak-Artemovsky.

This was a somewhat unusual production. The leading part, Zaporozhye Cossack Ivan Karas, was played by an electrician who works at the station, Boris Khmelnitsky. Mechanic Anatoli Aksyonov sang the part of Andrei Nechai, another leading role in the opera. The main women's parts, Karas' wife Odarka and their adopted daughter Oksana, were rendered by two friends, Valya Lavrentyeva and Tonya Morozova.

Carpenter Yuri Kozyrev played the part of the Old Man and, incidentally, made the sabers and lances which the Cossacks carried. Artist Vladimir Bykov, who lives in the neighborhood, designed the costumes and scenery. Boris Skaryatin, who works in the station's experimental shop, did the lighting.

All-told some 85 neighborhood people took part in the opera. It was staged at the water pumping station workers' club and grew out of the chorus, one of the older and very popular plant activities. The club has long had its own band, string orchestra, dance ensemble and dramatic studio. So that all the basic ingredients were available when the idea of staging an opera cropped up at one of the chorus rehearsals.



Carpenter Yuri Kozyrev who plays a bit part in the opera built most of the sets and props.





Secretary Tonya Morozova plays the part of Oksana, one of the main roles.



Store clerk Irina Ostrikova speaks individually to buyers but sings in the opera's mass chorus.





# Workers' Club Stages an Opera

THE LEAD PART OF IVAN KARAS, A ZAPOROZHYE COSSACK, IS SUNG BY ELECTRICIAN BORIS KHMELNITSKY.











VALYA LAVRENTYEVA (LEFT) AND TONYA MOROZOVA SINGING THEIR DUET.



SCENE FROM THE LAST ACT OF THE OPERA WHICH HAD A CAST OF 85 AMATEURS.

*The Zaporozhets Beyond the Danube* was chosen because it is light, gay opera. Its Ukrainian songs and dances, everyone felt, would have a wide appeal. And so it did. A minute after the overture ended and the curtain went up on Cossack Ivan Karas cavorting on the stage—Ivan has been out on a spree and he's dancing merrily down the road—the audience was won over thoroughly and completely.

All the talent was local. The singers, dancers and musicians worked over the libretto and score, built the sets and the stage props. The cost of the whole production was a modest 2,800 rubles which mostly went to pay for hired costumes. The money was contributed by the trade union organization at the water pumping station.

Mikhail Nakhimovsky, teacher of music at the neighborhood school, conducted the club's amateur orchestra with genuine artistry. The leads and the chorus all did a superb job and the folk dancing was superlative. On this everyone was agreed. The judgments, say the singers, musicians and stagehands, are perhaps a little partisan but if the audience had half as much fun as they did, it must have been a pretty good production.

THE CLERK PROKOP (STUDENT SASHA OSIN) IS BRIBED BY THE COUNSELOR.





# WINTER is a Gala Season

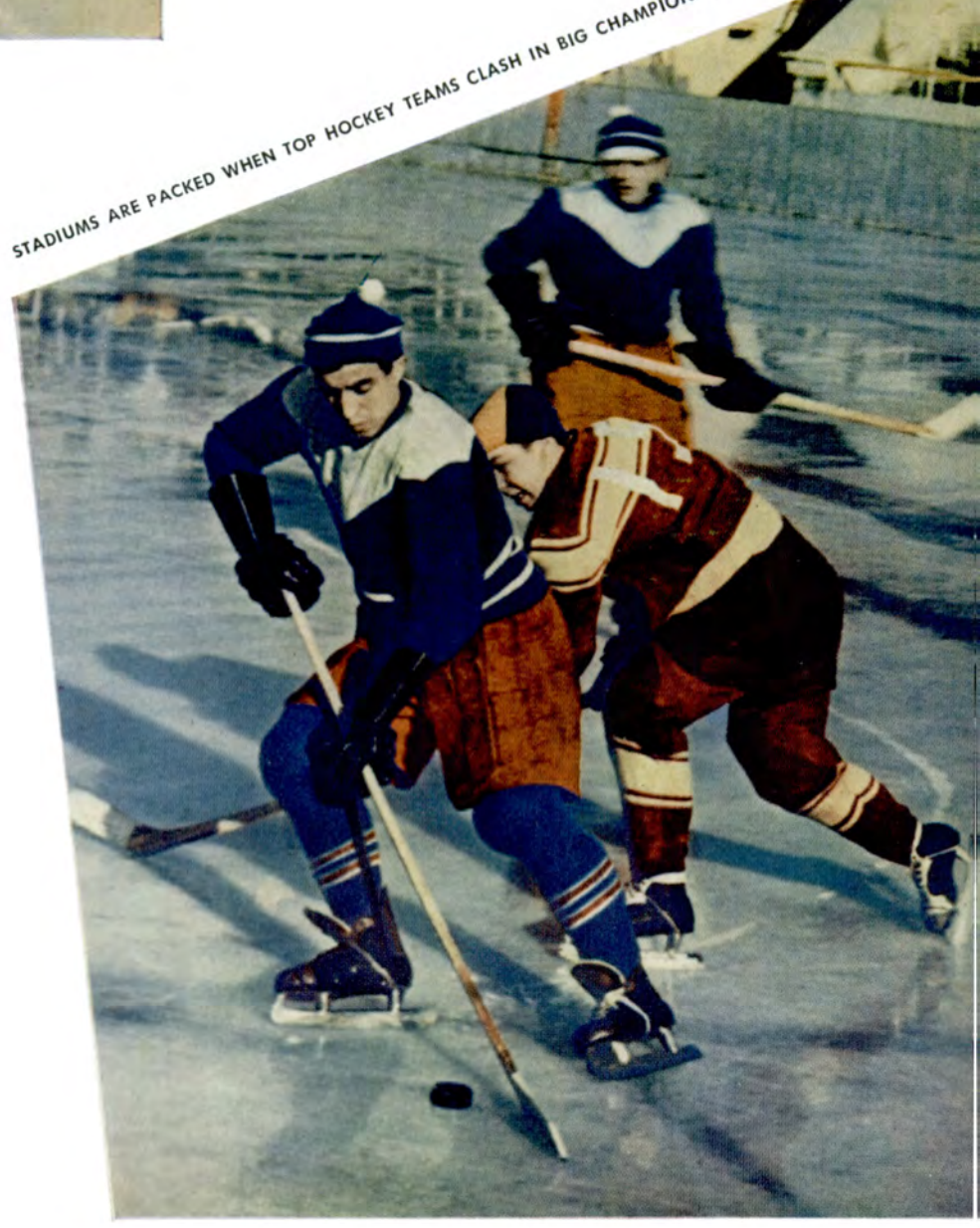
ALTHOUGH February finds winter far advanced in the Soviet land, there is much more to come. The decorated fir trees are still up in city squares and village centers, bringing back memories of the gay New Year's festivities and parties.

Parks and stadiums are crowded and lively spots. There are many more contests ahead for the ice hockey teams of the various leagues before the titles are won. The theater season is now in full swing, and many new exhibits have opened in galleries and museums.

Ice skaters crowd the rinks everywhere and the ski-trails are filled to capacity with sports-minded men and women bound for a weekend in the open.

Wintertime is extremely popular with everybody in the country, and young and old unite in their support of the old proverb, "Russian cold is good for the Russians' health."

STADIUMS ARE PACKED WHEN TOP HOCKEY TEAMS CLASH IN BIG CHAMPIONSHIP GAMES.



FRESHLY FALLEN SNOW LURES SMALL FRY WITH SLEDS OUT-OF-DOORS.





CONFIRMED SWIMMERS WON'T LET WINTER'S CHILL HALT A FAVORITE VICE.



IT'S NOT A BIT HARD COMING DOWN A SKI TRAIL PROVIDING YOU KNOW HOW . . .



. . . IT'S CLIMBING UP THAT'S TEDIOUS.

# Students on Vacation

VACATIONS for the elementary and high school set came to an end January 11, but the youngsters still reflect on the fun. College and university students, however, have their winter holidays late in January and early in February.

Lecture halls and libraries are emptied for two weeks. The anxious moments of examinations are replaced with exciting plans for hikes and excursions, visits to concerts and museums. Carnivals and sports contests are widespread attractions.



THERE'S PLENTY OF TIME DURING THE HOLIDAYS FOR GOSSIPING, AND THESE TWO AREN'T WASTING A MINUTE.

It is a season for gaiety and mirth—of reunions with one's family and old friends. But this is also a time for making new friends. Inter-city exchanges of student groups bring the young people of the big country closer. All in all, winter vacation is one of the loveliest times of the year.

Special performances are scheduled by the theaters. Ski-stations, skating rinks, gymnasiums and indoor swimming pools are all at the disposal of the college set.

Dances and parties are a regular thing at this time for collegians. They include big costume and dress balls as well as smaller affairs.

During these festive occasions the students themselves put on skits and a variety of amateur performances. College basketball and hockey teams schedule all kinds of competitions for the holiday period, and fans turn out in great numbers to back their stars.

The fortnight's holiday seems all too brief for the students, but when it ends they return to their classrooms ready to settle down to serious work again.



Putting on an act is great fun for the youngsters, and they do it rather well.



Technical exhibits help our space-age juveniles keep up their zest to learn.



WHEREVER STUDENTS GATHER, YOU'LL FIND THEM SINGING GAY COLLEGE TUNES OR SOME LYRICAL FOLK SONGS.

NATURALLY FOND OF MERRYMAKING, STUDENTS PRESENT MANY FUNNY SKITS.




A HOPEFUL YOUNG BACHELOR WAS AWARDED A CHILD'S ROCKET AUTOMOBILE.





COSTUMED GROUPS OF GAY YOUNG FOLKS ENTERTAIN THE HOLIDAY CROWDS.



SCULPTORS EMPLOY SNOW AND ICE TO DRESS UP CHILDREN'S SLIDES IN PARKWAYS.

THE JOVIAL MOOD OF THE SEASON PUTS GROWNUPS ON SLEDS AGAIN.



THE COURTYARDS OF LARGE APARTMENT HOUSE PROJECTS MAKE GOOD SKATING RINKS.

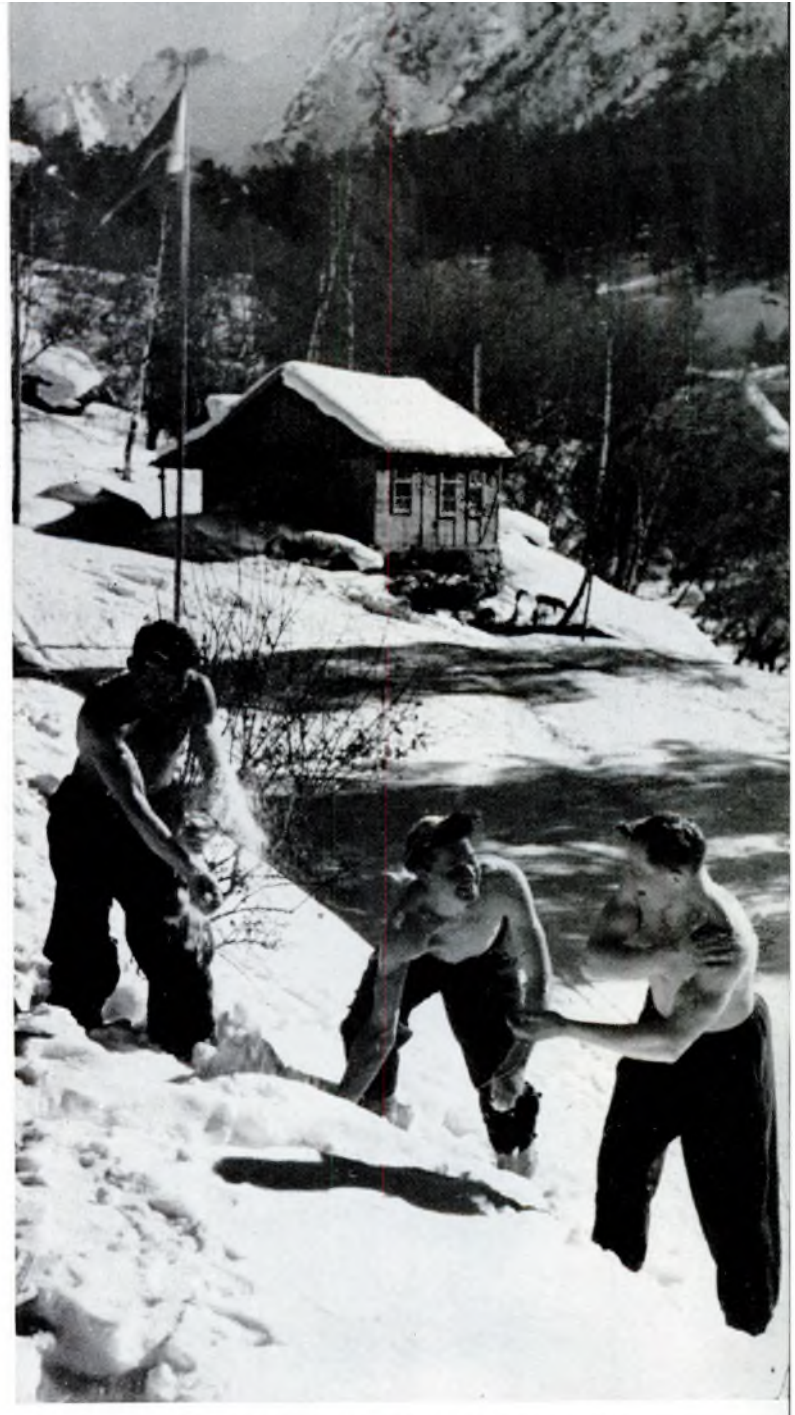




CHILDREN IN THE VILLAGES HAVE QUITE AS MUCH FUN IN THE SNOW AS THEIR CITY COUSINS.



SKATING WITH YOUR BEST GIRL OR BEAU IS A SPORT THAT INTERESTS STUDENTS OF ALL AGES.



CAMPING HAS ITS TRYING MOMENTS, BUT THEY SEEM TO LIKE IT.

# Holiday of the Russian Winter

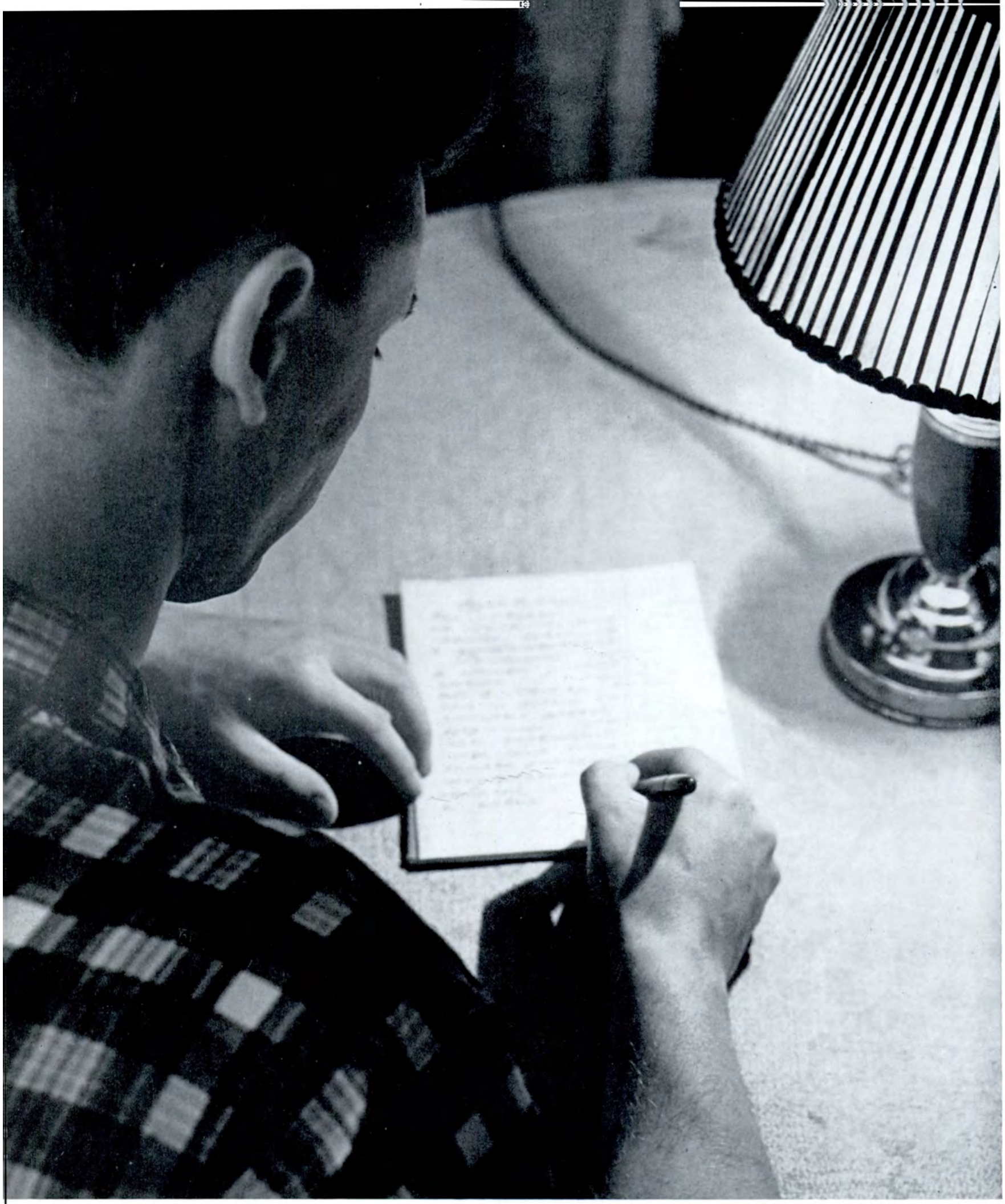


THERE are many old traditional folk holidays celebrated in each of the Soviet Republics. One of the gayest in the Russian Federation comes with February. Known as the "Holiday of the Russian Winter," it features great mass festivities in a general carnival-like atmosphere.

The merrymakers carry horns and other noisemakers. Colored balloons bob in the chill winter air. In the parks colorful booths provide hot pancakes and doughnuts, meat dumplings and other goodies that are downed with hot tea.

Ice skaters and skiers throng the parks. The younger celebrants crowd aboard the sleds on a winter merry-go-round, ride on a sleigh train pulled about the grounds or take an exciting trip on a troika, a traditional Russian three-horse sleigh.

Toboggan teams run down prepared raceways, while in the suburban areas and in villages, autos and motorcycles pull strings of sleds with tinkling bells over the hard snow. Races by dog sled teams or harnessed reindeer provide more fun for both participants and spectators in this merry holiday whose history goes so far back into the past.



Photos by Igor Vinogradov and Adolph Antonov

# *Changes in My Life Since I Completed My Army Service*

**By Boris Muratov**

IT IS both difficult and easy to comply with the *USSR* editors' request to tell what's been happening to me since I completed my army service. Difficult—because I don't often pick up a pen to write, and besides, writing about myself for a magazine is something entirely new. Easy—because quite a few changes indeed have taken place in my life since I returned home from the army. I mean, I have something to say, but before I do, I would like to mention a few words about my army experience. After all, I served 1,000 days in uniform. . . .

# BACK TO CIVILIAN LIFE



. . . This picture is very dear to me. It was taken shortly before I returned home. You see me (on the left) with my buddies, Pyotr Krasnov (center) and Ivan Fyodorov. The following day we boarded trains and were on our way home—Pyotr to Saratov, Ivan to Rostov-on-Don, and I to Moscow. We had become close friends in our three years of service, sharing the difficulties and joys of army life. At first we were homesick, but we gradually got over it. We tried to adjust to our new professions as quickly and as well as possible. I received training as a radio technician. One gains tremendous practical experience in the army. A fellow has a wonderful chance to discover his talents, develop his aptitudes and test his abilities during his period of service. . . .



. . . The day finally came when I returned to civilian life. First I had to find a job I liked. At the district military office where I registered after demobilization as a reserve private, some men in civilian clothes came up to me. They were representatives of Moscow factories and offered me, like all other demobilized soldiers, jobs at their respective enterprises. I liked the offer of the Electric Bulb Factory best and started work there. The first thing a recruit does when he joins the army is to put on a soldier's uniform. The procedure upon returning to civilian life is just the opposite: he puts on a civilian suit. I bought one I liked in a ready-to-wear clothing store. . . .



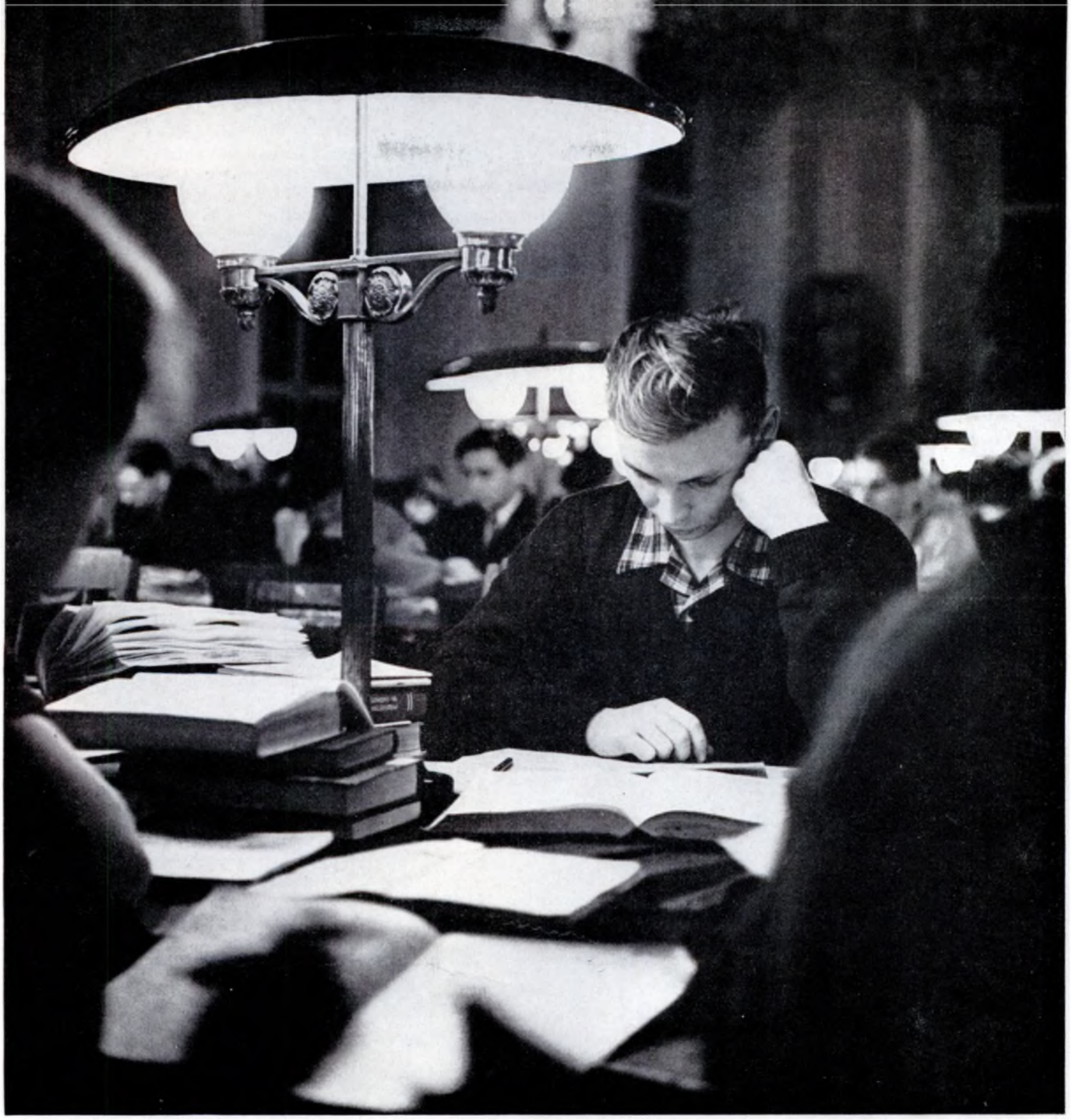
. . . One doesn't forget army habits so soon. I can still hear the voice of the sergeant singing out at exactly six in the morning: "Rise and shine!" And to this day I get out of bed at the same hour and do my setting-up exercises. It helps me start the day feeling fresh and cheerful. . . .

. . . I was given a friendly welcome when I reported at the plant for the first time. I soon struck up a fast friendship with many of my shopmates. The work was interesting. I started off as a technician with a monthly salary of 1,000 rubles. I met other fellows at the factory who had also come from the army. Most of them wanted to raise their qualifications and were attending evening schools and colleges. The factory administration encourages the workers to continue their education. . . .

# BACK TO CIVILIAN LIFE



. . . Ivan Petrov, whom you see in this picture (he is also shown on the front cover), is an old pal of mine. We went to school together and were recruited into the army on the same day, but we served in different places. Ivan and I were demobilized almost simultaneously. Years pass, roads part, but old friendships remain dear. I sometimes go over to the Krasnaya Roza Textile Mill where Ivan is a maintenance mechanic. . . .



. . . While in the army I made up my mind to get a technical education and become an engineer. So, as soon as I got back home I started taking college preparatory courses. Last summer I passed my entrance exams and became a freshman at the Moscow Electrical Engineering Institute. Now I attend classes four nights a week. I spend a lot of time in the Lenin Public Library. This picture of me was taken there. I really want to be a good engineer, and I will be, no matter how much time and effort it takes. . . .






. . . I met Nina Orekhova when she was a student at a technical school. I promised to write to her when I left for the army, and there's no need to say that every time a letter arrived from Nina, my day was made. When I returned home, we spent almost every evening together. I would wait for her at the entrance to the Automobile Engineering Institute—she was a freshman. We would go to the movies or occasionally to the theater. Sometimes we would go out to dinner. Soon we were married. Both of us have jobs and go to evening school. She's a sophomore now. . . .

# BACK TO CIVILIAN LIFE

. . . I'm a father! Nina gave birth to the most beautiful baby last autumn. We named our daughter Irina. Of course we have more responsibilities now, but we love them. To tell you the truth, though, my mother helps a lot. She waited so long to become a grandmother that she just can't tear herself away from her first granddaughter. She really takes good care of our baby. . . .



. . . I spend practically all day Sunday with my first-born. We both enjoy our walks on Tverskoy Boulevard where we live. Nina gets lunch ready while we're out. After we've eaten the three of us have a gay time. Irina is beginning to make those delightful baby noises that precede talking, and she really notices everything around her. She grabs for things and even tries to turn over by herself. . . .

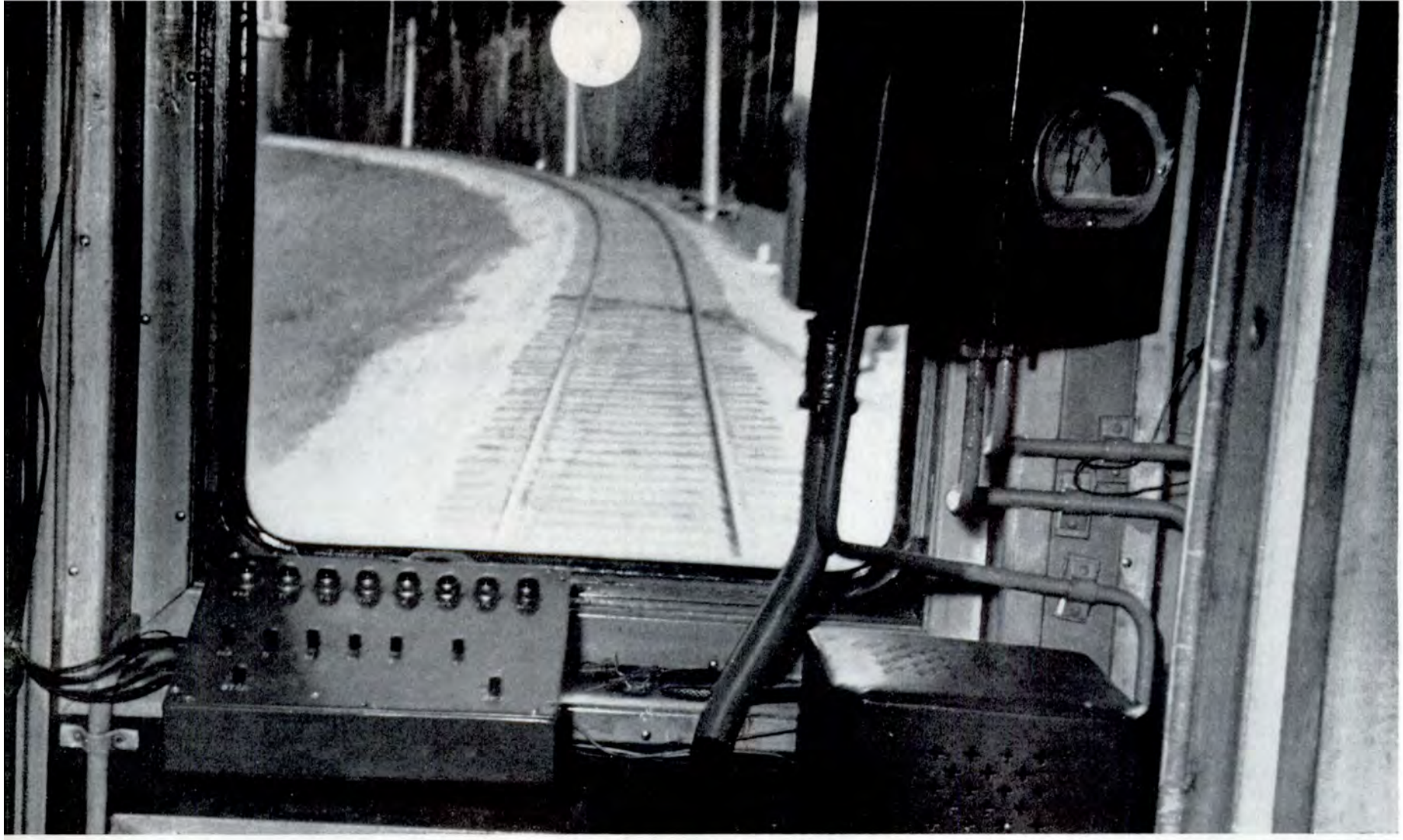




. . . It's winter now, but I'm waiting impatiently for summer. You see, I've bought a Java motorcycle, a popular Czechoslovak model. When the last bit of snow has melted, Nina and I will take trips to the country on Sundays. In the meantime, all I can do is fuss around the machine, check the parts, and caress its shining surface. . . .

This is what my life has been like since demobilization. There's nothing special about it. I'm sure it's been about the same for the other men who returned to civilian life. We all received good schooling in the army, went back home, found suitable employment and arranged our personal affairs. Each one of us has his own dreams and plans for the future. They'll all become reality one day, I'm sure.





ACS (AUTOMATIC CONTROL SYSTEM) DRIVES THIS TRAIN. THE ROBOT CAN DO 2,000 MATHEMATICAL OPERATIONS IN A SPLIT SECOND AND HAS AN INFALLIBLE MEMORY.

# ROBOT LOCOMOTIVE ENGINEER

By Ivan Frolov

WE board the three-car train at the Kuntsevo station near Moscow. Nikolai Nikolayev, chief of the special design office of ACS—the initial letters of Automatic Control System—takes us through the train. Superficially, it looks much like the usual electric train with this one startling difference—it is not driven by a human engineer. ACS is doing the engineer's job on this test run.

The front end of the first car looks like a laboratory with its control instruments and switches. Yevgeni Alexeyev, an electrical engineer who is one of the men testing the train, sits facing an electronic oscilograph screen. He watches the shifting green lines, writes down some figures, compares them with a mathematical table.

AN OSCILOGRAPH SCREEN SHOWS DATA REGISTERED BY THE CONTROL INSTRUMENTS.



Nikolai Nikolayev explains: "All the data registered by the control instruments are reproduced on the oscilograph screen. And the instruments here," he points to metal cabinets, "drive the train. This one holds a computing machine which solves the complex differential equation of the train's movements. And in this one is a 'memory block' with coded information on the grade of the track, length of the line and other such data. The automatic driver receives its information about the actual speed of the train and the distance it travels from special transmitting elements in the wheel axles."

We hear the characteristic hum of a working generator. Lev Motavkin, head of the laboratory of data processing machines, announces: "We're ready to move," and the robot train pulls smoothly out of Kuntsevo station and speeds along past fields and houses.

Nikolayev pats one of the cabinets. "It's almost human," he smiles, "or super-human would be a better way of putting it. Super-intelligent and a never-failing memory—that's a combination hard to beat. When a human engineer drives a train, he has to make his decisions by choosing from one of a number of possibilities. Maybe he picks the best, maybe he doesn't. But our robot here decides instantaneously and makes the best possible decision. In a split second it can do two thousand mathematical operations."

As we travel along we can almost imagine we hear the automatic engine driver making calculations, adding and subtracting the thousands of electrical impulses that control the run.

"Our engineer," says Nikolayev, "takes everything into account—the grade, brakes, weight of train and load, timetable—everything."

The train picked up speed to climb a steep grade and then leveled down to an exact 50 miles an hour. Approaching Usovo, the end of the test run, we felt the brakes being applied by our invisible engineer as the train rolled smoothly into the station.

# VLADIMIR DIVIN veteran railroad worker

**By Yakov Mikhailov**

VLADIMIR DIVIN is a locomotive engineer on the Moscow section of the Northern Railway. He's been a railroad man going on thirty years now and he says if he had to pick his trade all over again, chances are he'd pick the same one—which says a good deal for a trade. It pays well, the hours are good and he has plenty of time for his favorite avocation, gardening.

Divin leaves his home at 7:30 every morning. For the six minutes it takes the electric train to bring him to the engine shed where he's been working for twenty years now, he's a passenger, a somewhat critical one if his watch clocks too many seconds more than the six minutes the run should take.

At the shed he puts on his work clothes and carefully checks the time again. Like every good railroad man, he's a clock-watcher—one of the few trades where that is a virtue.

With his assistant he readies his electric locomotive for the day's run. At 9 o'clock he gets the dispatcher's orders by radio. "Hitch your engine to the Moscow-Khabarovsk passenger train. It leaves at 9:30."

Divin starts his locomotive smoothly and listens a second or two. It sounds all right, and he gets the train rolling. His engine is scheduled for Alexandrov, where a diesel locomotive will take over. Divin will then shift his engine to a train coming into Moscow. By 3:45 he will be back in the engine shed and his workday is over.

For every hour of work Divin gets a basic 9 rubles 20 kopecks. In addition, he gets a monthly bonus if he runs strictly according to schedule and if he manages any saving on electric power. This bonus averages 400 rubles a month—an additional 2 rubles 50 kopecks for every hour of work. Besides that, as an engineer of the first category—a level he reached because of his thirty years of railroad experience and technical study he did—he gets another 2 rubles 60 kopecks for every hour of work he puts in.

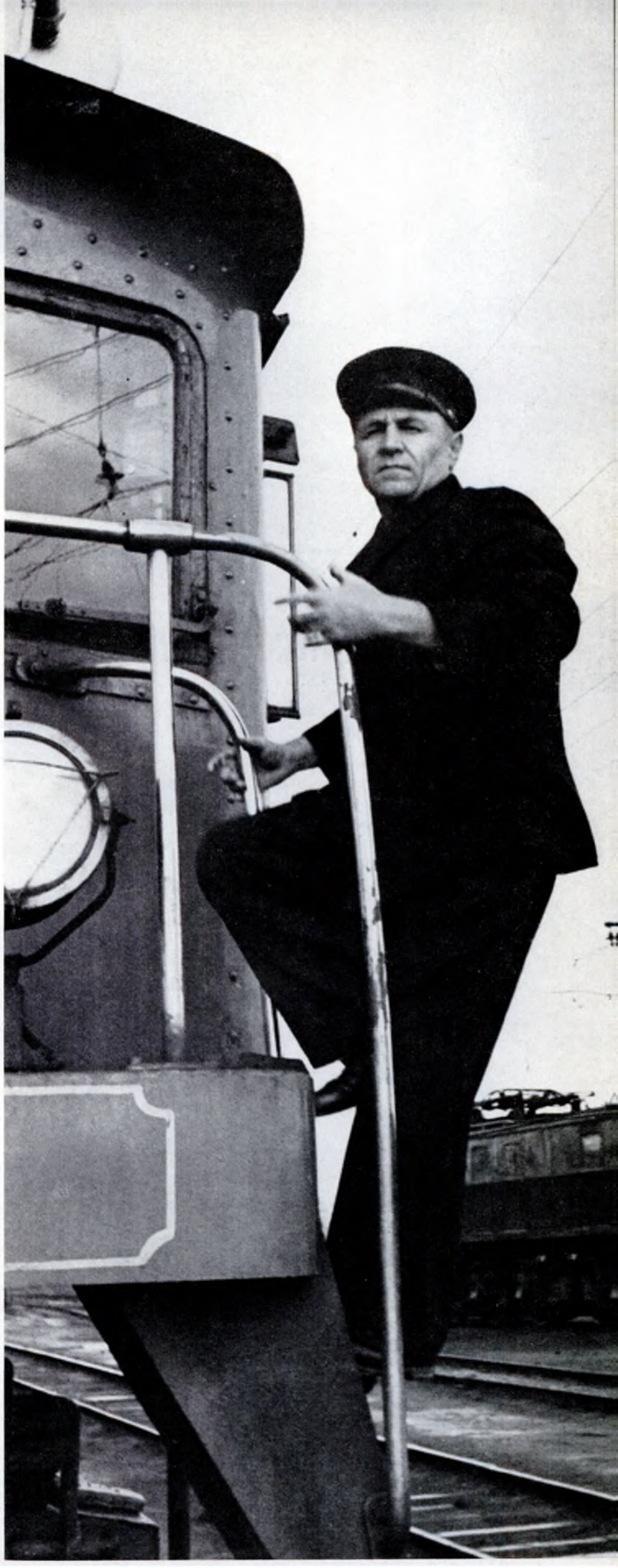
His total hourly wage then is 14 rubles 30 kopecks. The last monthly entry in Divin's pay book—and it is rather typical—showed that he received 2,288 rubles for the 160 hours he put in that month.

During the winter his monthly earnings for the same number of hours of work are higher since locomotive engineers get more money for driving in bad weather. To keep the trains running during the Russian winter is no job for an amateur. So that for the winter of last year, for example, Divin's earnings ran better than 3,000 rubles a month.

On his way home, a passenger once again, Divin's commuter train passes Moscow's suburban cottage communities—Los, Perlovskaya and Taininskaya. He knows a lot of the people who get on and off the train, they are old friends and neighbors. He was born in this part of the region 53 years ago. He went to grade school here and then, after the Revolution, to the Northern Railway School.

His father was a railwayman who worked as a fitter all his life. Vladimir had more chance than his father had to move ahead, more education and more opportunity. When he was 26 years old, he became a locomotive engineer and seven years later drove his first electric locomotive.

"The Moscow section of our Northern Railway," says Divin, "wasn't electrified until 1927. Now all ten railways that tie in Moscow to the rest of the country have been electrified over large stretches."



EVERY MORNING ENGINEER VLADIMIR DIVIN BOARDS HIS LOCOMOTIVE IN MOSCOW.



# VETERAN RAILROAD WORKER

Whenever Divin talks about the railroad, he uses the possessive—*our* Northern Railway. He's pretty partisan to his particular road, like many railroad men, and to railroading in general. Asked whether increased automobile travel and haulage has cut into railway traffic, as it has in some countries, he answers with an emphatic negative. "It will be a long time before that happens here—if ever. Our country is growing so fast, it can use much more of every kind of transportation."

Divin thought that his eldest son, Yevgeni, would go into railroading. He did some gentle pushing in that direction. But Yevgeni had other ideas, he wanted to become a power engineer. Three years ago he graduated from the Moscow Power Institute and now works at one of the suburban plants. His wife Lyuba—he first met her at the college—also works there. Two years ago the young couple presented Vladimir Divin with his first grandson.

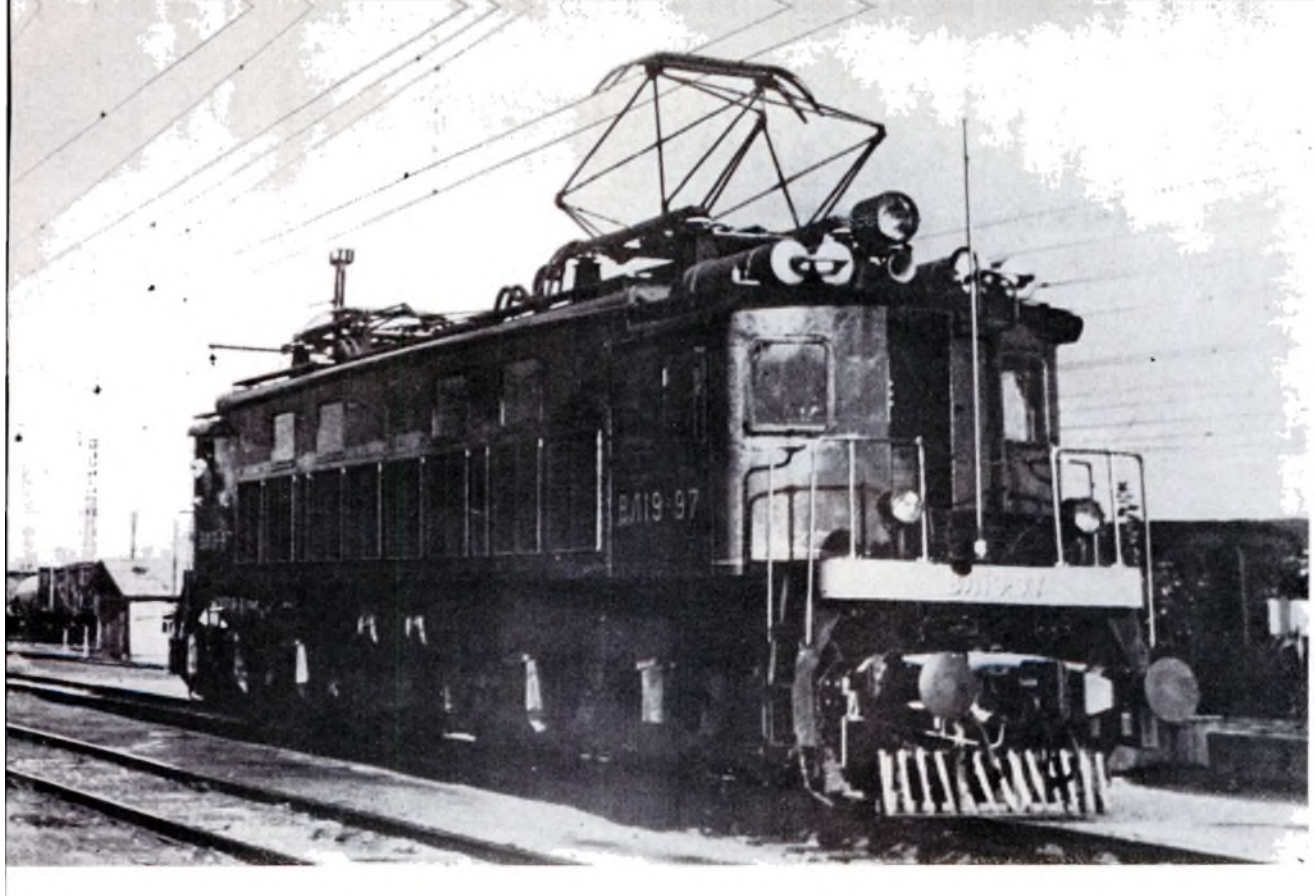
But Vladimir is pleased that his younger son, 13-year-old Gennadi, spends most of his spare time at the engine shed. Gennadi knows his father's locomotive from top to bottom. "I think the boy could take the engine apart and put it together again," says his father. "He's got the makings of a railroad man."

LITTLE LYONYA DIVIN LOVES TO VISIT HIS GRANDMA AND GRANDPA.






When Vladimir Divin pulls the Peking Express into Moscow's Northern Station, it's quite safe to set your watch.




All ten railways that connect Moscow with the rest of the country have been electrified over large stretches.

**DIVIN'S 13-YEAR-OLD SON GENNADI SPENDS ALL HIS SPARE TIME AT THE ENGINE SHED AND KNOWS HIS FATHER'S LOCOMOTIVE FROM TOP TO BOTTOM.**





# OLD ZHURBIN'S SECRET

**Vsevolod Kochetov, popular contemporary Soviet writer, is the editor of the *Literary Gazette*. He was born in 1912 and is an agronomist by training. His career in journalism began in 1938. During the Second World War he served as front-line correspondent.**

**Kochetov's first major work, the novel *On the Plains of the Neva* (1946), tells the story of the heroism of wartime Leningrad volunteers. His subsequent books won Kochetov an eager reading public, for he is a man with very definite and original opinions, and his books ably express his views.**

**Two of his most popular novels, *The Zhurbins* (1952) and *The Brothers Yershov* (1958), trace the histories of two workers' families. In describing the lives of his characters, Kochetov brings them up to our own times, skillfully weaving into the story the changes brought about by the new social relations which are a product of Soviet society.**

**The excerpt published here is taken from *The Zhurbins*. The novel's setting is a large shipbuilding plant. Ilya Matveyevich Zhurbin, head of the family and a veteran worker at the plant, is one of the main characters. His elder son Anton, a ship designer, has introduced new production methods to expedite ship assembly which necessitates the retraining of the plant's workers.**

**Faced with the choice of learning a new trade or quitting his job, old Zhurbin, who has a wealth of experience but no formal schooling, decides to begin a course of study. He wants to keep it a secret from his family and goes to the young engineer Zina Ivanova for help.**

**By Vsevolod Kochetov**

HE FOUND her in the technical information office. A meeting had just ended, and the room was full of smoke. Zina was opening the windows. Ilya Matveyevich began examining an unfamiliar piece of welding apparatus that was lying on the table.

"It's the very latest," said Zina. "We received it a day or two ago. I got the foremen together and told them about it. They seemed pleased. They say it's a good one. Please take a seat, Ilya Matveyevich."

"I've no time for sitting down. I just dropped in for a minute." He hadn't thought it would be so difficult to get the conversation going. "The matter I wanted to talk to you about . . . what's the best way of putting it? . . . Well, who am I from the point of view of science?"

Zina's eyes widened in surprise under their golden lashes.

"Yes, that's a strange question," continued Ilya Matveyevich. "Put it a different way. I never managed to get in any study at school. I did my studying on the stocks. That knowledge is sound stuff, but it's one-sided—it doesn't give you the whole picture. I'm working on my own, of course, I'm having a little chew at it, but I can't chew it all, there's too much of it . . ."

And again he couldn't get the main thing said, his reason for coming.

"Do you want me to help you?" asked Zina, incredulously; her eyes had opened even wider.

"Why not? Can't you manage it?"

"It's not that . . . I don't know . . ." Zina was confused. "Can I do it? A man like you! . . ."

"We can have a try. Do you feel up to it?"

"Oh, of course. I'd be so glad! But I'm afraid you won't be satisfied."

"So it's a deal? When shall I come?"

"Come where? I'll come to you."

"No, that won't do. I'm the pupil, I must come to you. That's the only way, Zina. . . ." Ilya Matveyevich faltered, then added in some embarrassment: "There's one condition, by the way . . . no one must know about this, not a soul. Neither my family nor strangers. Just as if I wasn't taking any lessons. I'm ashamed to be studying at my age."

"Ashamed to be studying? You're wrong, Ilya Matveyevich!"

"Wrong or right, I'm ashamed—and that's all there is to it."

They agreed to work two evenings a week, and fixed the days. Ilya Matveyevich left. Zina was worried. Whom had she undertaken to teach and was she a suitable teacher for Ilya Matveyevich? Should she have refused? But how could she have? To refuse such a request would have been out of the question. No, she would try; she would try to do everything she could for Ilya Matveyevich. Amazing things were happening here on the Lada! You were an engineer, you had a diploma, but you weren't entrusted with serious independent work, they said you needed experience. And then a man with experience, life-long experience, came to you to learn things they taught at school. Perhaps it was like that not only on the Lada, but everywhere in life? Zina still did not know much about life.

The lessons went quite differently from what Zina had imagined. It was difficult work. They started with physics. Ilya Matveyevich knew practically nothing about gases and very little about electricity. They had to take everything from the beginning. On the other hand his practical knowledge of mechanics would have been the envy of any graduating student at the institute.

Zina worked with Ilya Matveyevich, showing extraordinary patience. She even read several pamphlets on teaching. But that didn't help. What was good for children wasn't much good for Ilya Matveyevich. There was no need to force him or egg him on; all he needed was to have things explained. A simple matter? Not so simple. You would explain one thing; he would insist that he couldn't understand. Then you began to explain something else, not a bit less complicated, and he'd say: "Why waste time going over all that stuff? It's clear without any explanation." And he would get offended, too.

It was hard for Zina, very hard, and yet she never once regretted giving Ilya Matveyevich lessons. The results were too obvious for that.

Stubborn in everything, Ilya Matveyevich was stubborn in study, too. Steadily and unhurriedly, but with amazing thoroughness, he accumulated knowledge; he seemed to be constructing a house, laying the stones firmly together, without any cracks, and only when he had finished one row would he tackle another. "That's how he builds ships, too," thought Zina, as she watched him.

Ilya Matveyevich took lessons with Zina all through May. He came to her on Mondays and Thursdays. At home he would say he was attending a foremen's course, going to the baths or fishing. When he told them he was going to the baths, he would come to Zina's with a brief case holding a towel; when it was "fishing," with rods and a can of worms.

Agafya Karpovna, his wife, was surprised at how long he took at the baths. "Dozed off in the steam—lovely!" he would announce cheerfully when he got home. "You'll doze off one of these days and not get up, if you don't look out," fussed Agafya Karpovna. "You're no chicken, you know, to go steaming your heart out." The family was surprised, too, that the fish suddenly seemed to have stopped biting. Wherever Ilya Matveyevich went, or said he went—to the Lada or the Veryazhka—he would either come back empty-handed or carrying a dozen little fish which he bought from the boys on the bridge.

One Thursday Ilya Matveyevich missed a lesson. There was a Party meeting and it ended late, past ten. So he went to Zina on Friday—on the off-chance. He didn't want to waste precious time. You couldn't go out on Saturday, you had to sit at home with the guests; on Sunday you would have to hang around as usual. Wait till Monday, then? Too long. He arrived with his fishing rods.

Zina was at home, but for some reason blushed furiously when she opend the door. "Hope I haven't bumped into her boyfriend," thought Ilya Matveyevich when he saw how confused she was. "This is a rum do!" He marked time for a bit in the foyer and glanced into the living-room. Well, I'm blowed! At the table sat Alexei, his son. So this is where you come—you do get around, don't you, my boy!

They glanced suspiciously at each other: Alexei swept something off the table on to his knees:

"Dad!"

"Yes, it's me." Ilya Matveyevich came into the room.

"What are you doing here?"

"Just called."

"Just called? So we both just called. I've got to talk to Zina about the technical information service. What's that you're hiding under the table, eh?"

Zina did not know what to do: she was thoroughly upset. Suppose Ilya Matveyevich had a row with Alexei? How awful!

"Under the table?" answered Alexei. "A book. Here it is!" He threw a physics book on the table.

Ilya Matveyevich saw that it was his own; he glanced at Zina indignantly. Had she given the secret away? And to Alexei of all people. Now it would get around!

"What did you take it for?" he asked.

"Just to have a look. Why, wasn't I supposed to?"

"Why shouldn't you? It's not mine. Look at it if you like."

"Dad," said Alexei with a smile. "This book is yours." He opened the textbook. On the fly-leaf was written: I. Zhurbin.

Ilya Matveyevich muttered something under his breath.

"Dad," said Alexei again. "Don't make a mystery of things."

"What mystery? I'll be giving you 'mystery' on the back of your head in a moment!"

"Go ahead, I don't mind. Only don't make a mystery of things. Why, I see you every Monday and Thursday from my window, coming to Zina's. What did you bring today, your brief case or your fishing rod?"

Taken aback, Ilya Matveyevich tugged hard at his eyebrow and frowned.

"My fishing rod," he answered, and there was a merry gleam in his eye. "And what do you bring?"

"Nothing. I've got nothing to hide. I just slip across from one entrance to the next and here I am. So you came for a lesson, did you, Dad? Maybe you'd like me to go?"

Old Zhurbin could not help giving his son credit for the way he had acted. He had known, the young rascal, but he hadn't blabbed about it.

"Stay where you are," he said, "we'll go home together. Well, shall we begin, Zina?"

"What are you on now, Dad?"

"Study with me and you'll find out. It'll do you good."

Zina was relieved; the crisis had passed. The Zhurbins had not quarreled.

While Ilya Matveyevich had his lesson, Alexei sat and listened. When it was over he said:

"I'm beating you, Dad!"

"How do you mean?"

"Got ahead of you, gone further through the textbook."

"Where've you got to, son?"

Ilya Matveyevich began examining his son, his son paid him back in the same coin. "Come on, solve this!" one of them would say, pointing to a problem. The other would solve it and then insist: "Now you just try this one!" They were more exacting with each other than the strictest teacher.

"Where are you studying?" asked Ilya Matveyevich.

"At evening school, in the tenth grade. Like Anton did. Why don't you go there, too? I expect Zina is finding it difficult. She used to coach me; now she's coaching you. We're exploiting her!"

Zina protested that they weren't.

It was time to go. When he saw the fishing rods in the hall, Alexei laughed:

"You're a queer fisherman, Dad!"

"Pick 'em up, you can carry them home for me."

They said good-by to Zina and left. On the road Ilya Matveyevich asked:

"How about you? Are you just studying out of general interest, or is it with a purpose?"

"With a purpose. I want to get an engineering degree.

"That's right; that's the idea. Where're you going to put in for?"

"Where Anton studied, of course at the institute. I've made inquiries: they have evening courses."

"Go ahead, boy, keep it up. If it gets too hard, you can give up your job."

"No, Dad, I won't give up working. I couldn't get along without the job."

"How do you mean, you couldn't get along? Your father can feed you, I hope."

"I'm not talking about food. You know what they say: work is a natural need of man."

"I see what you mean. And here's one other little question for you. You're not romancing there with Zina, are you? Don't get angry, it's just a fatherly inquiry."

"You're imagining things!"

"No. I'm not. She's a nice right-thinking kind of girl, any man would be lucky to have such a wife."

Ilya Matveyevich kept silent all the way to Anchor Street. At the gate he said:

"Keep quiet about you and me being school kids. Understand?"

"I understand."

"Come in and have some supper. What shall we say? No fish again."



# EXCHANGE PROGRAM IN PROGRESS




THE Soviet Union has a total of 90 exchange agreements with foreign countries. They were negotiated by the contracting governments in recognition of the fact that contacts between different nations, irrespective of their social systems, pay rich dividends in understanding and friendship and that they make substantial contributions to world peace.

February sees the Soviet-American exchange agreement in the fourteenth month of its two-year term. During this time there was hardly a week when some delegation or group has not been visiting in one country or the other. There were, for example, exchanges of delegations of power engineers, of steel and mining specialists and of experts from the plastics and chemical industries. These were the groups specifically mentioned in the agreement.

Among the "bonus" exchanges over and above the program were reciprocal visits of automation specialists, radio and electronics engineers, construction and building experts. There were also delegations attending various technical and scientific conferences held in both countries, groups visiting exhibitions or fairs.

## POWER



During the meeting with Alexei Pavlenko, Minister of Power Stations, the guests received all information they wanted.

A DELEGATION of power engineers from the United States was the first foreign group to go through the newly completed Lenin Hydropower Plant on the Volga River near Kuibyshev. The delegation was headed by Walker L. Cisler, president of Detroit Edison, and included representatives of General Electric, Westinghouse, Allis-Chalmers and other big companies.

The American guests received all the information they wanted on the planning of the Soviet Union's electrification, on various problems of power engineering, methods of the construction and exploitation of power plants and on Soviet types of power equipment. Talks at the USSR Ministry of Electric Power Stations and research institutes in Moscow were followed by a 2,500-mile tour that covered ten cities, the largest power plants and construction projects.

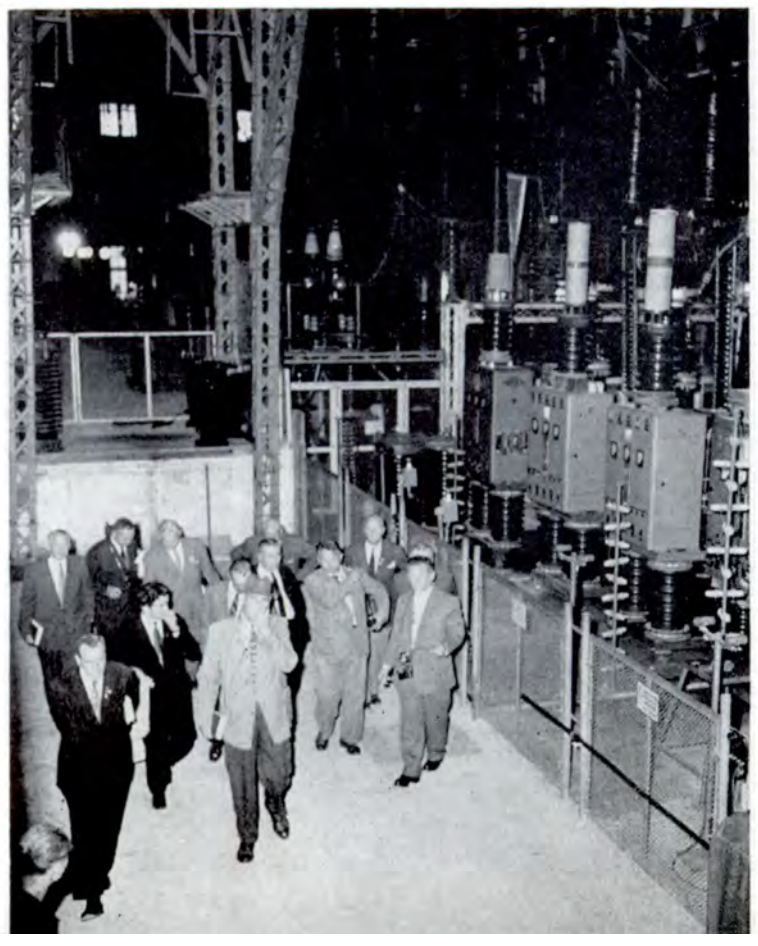
Visiting the Lenin Plant, the world's largest hydroelectric project, the American engineers were generous in their praise of the designers and builders of this giant constructed in a record-breaking seven years. During their 16-day stay in the Soviet Union the guests also saw an even larger hydropower plant under construction on the Volga's lower reaches near Stalingrad.

In the Ukraine they went through the Dnieper Hydropower Plant and

The American engineers were the first foreign visitors to inspect the new Lenin Hydroelectric Station on the Volga River.



On a tour of the Kashira Station, a large power plant using local peat for fuel.





Experiment with super-heated steam in this installation caught all eyes.

# ENGINEERS

a number of major thermal plants. They visited related industrial plants in Leningrad, Zaporozhye and Lugansk, and inspected the experimental atomic installations and the Atomic Power Station near Kaluga.

Armed with a background of facts and figures acquired in visits to scientific centers and government agencies, the visitors were able to observe for themselves Soviet power engineering in practice today and the great sweep of its future that could be sketched from the construction work proceeding across the land.

There was much that was instructive, the Americans commented, much they had learned that could be profitably introduced in their own work at home. The general Soviet practice of prefabricating large sections at manufacturing plants, they noted, was a considerable saving in cost and construction time. They found most impressive the large scale on which power projects were being planned and built.

At the close of the tour Mr. Cisler expressed the thanks of the entire delegation for the very friendly reception they had met. American and Soviet power engineers, he thought, had aims that were so common and problems that were so related that he was glad to see them coming together in such exchanges of ideas and information as this mutually instructive visit.

Indicators on the control board are closely watched when the load exceeds the 115,000-kilowatt mark.





This Soviet-made turbogenerator unit was explained in full detail.

# GUEST ARCHITECT



EDWARD DURELL STONE, eminent American architect who designed the U.S. Pavilion at the Brussels World's Fair, is shown above (at the left) with his wife during their tour of the Soviet Union. Among the places they visited was the USSR Academy of Construction and Architecture where this picture was taken.

Mr. Stone made his trip outside the formal agreement on exchanges, at the invitation of the Soviet Architects' Union. He said he was very impressed by the scope of construction planned for the next seven years and he felt that the program offered Soviet architects tremendous creative opportunities.



Clad in their national dress, Lithuanian farm girls visiting an exhibition in Moscow were pleased to exchange views with the American youth group.

EXCHANGE PROGRAM
IN PROGRESS

# STUDENT CONTACTS

APART from occasional international gatherings such as the World Youth Festival held in the summer of 1957 in Moscow, there had been practically no contact between Soviet and American youth and student groups up to the signing of the exchange agreement.

To implement the agreement's provisions in this field, the American Council on Student Travel and the Committee of USSR Youth Organizations worked out the details and as a result there were reciprocal visits of large student groups to both countries and an exchange of delegations of editors of student and youth publications.

Shown on these pages are pictures of an American delegation of 41 students taken during their 40-day tour of the Soviet Union. Divided into groups they traveled to many parts of the country and reported an exciting and memorable round of visits to colleges and universities, factories and farms, clubs and theaters. There were endless talk-fests with the Soviet young people, exchanges of ideas, souvenirs, mementos and friendships.

A wonderful first visit, let's make it one of many—this was the parting comment of the young Americans. Said Richard Roll: "Wherever we went our hosts did their best to meet our requests. We were all deeply touched by the friendliness with which we were met everywhere and by the interest in our way of living." Ann Kern was most impressed by the serious approach of Soviet young people to their studies and the opportunities for education open to every citizen.

One of the Americans aptly described this first visit as a good rehearsal for the future. To be friends, people from different countries must meet more often—this is the opinion of American students who visited the Soviet Union.



# UNIVERSITIES trade STUDENTS

DAVID MACKENZIE, shown here, is one of 20 American students enrolled in Soviet universities. He is a graduate of Columbia University and is now working on his doctorate in history at the University of Moscow.

The American students came to the Soviet Union under a provision of the exchange agreement. A group of 20 Soviet students is enrolled in American universities. Arrangements for this exchange were made by the Inter-University Committee on Travel Grants on the American side, and the Ministry of Higher Education for the Soviet Union. The Americans chose the Universities of Moscow and Leningrad and the Soviet students, the Universities of Chicago, Washington and California as well as Harvard and Columbia.

All of the American and Soviet young people participating in the project are studying at the expense of the host country. They are paid monthly stipends and are provided room and board in student dormitories. The students of both countries for the most part are doing graduate work and are specializing in their chosen subjects that cover various fields of the humanities, science and technology.



Everywhere they went, the Americans swapped souvenirs or tokens with their Soviet friends.



The American students visited many factories besides touring the schools.

Young people of both countries had a keen mutual interest in getting autographs from each other.



Meetings at colleges and universities were well attended even though the guests arrived during the summer vacation.





Many of the visiting Americans used their cameras to record displays such as a full size model of Sputnik II.



An eagerness to talk and make friends was noted by the visitors at each stop during their tour of the country.



"Seeing the sights" during a break between business visits, meetings and conferences.

AGRICULTURE, which plays such an important role in both the Soviet Union and the United States, has had a big part in the Soviet-American exchange program. During 1958 there were six delegations from each country and their interests covered nearly every phase of farm activity.

For the Americans, the groups covered agricultural economics, farm crops, soil and water uses, veterinary and mechanization. The Soviet delegations were those on mechanization, livestock, veterinary, soil and water uses, cotton, rural electrification and construction.

All delegations toured farms of many types, agricultural exhibitions, experimental stations, research centers and agricultural colleges as well as food processing and packing plants.

The photographs on this page show some of the American farmers during their visits to the Soviet Union.

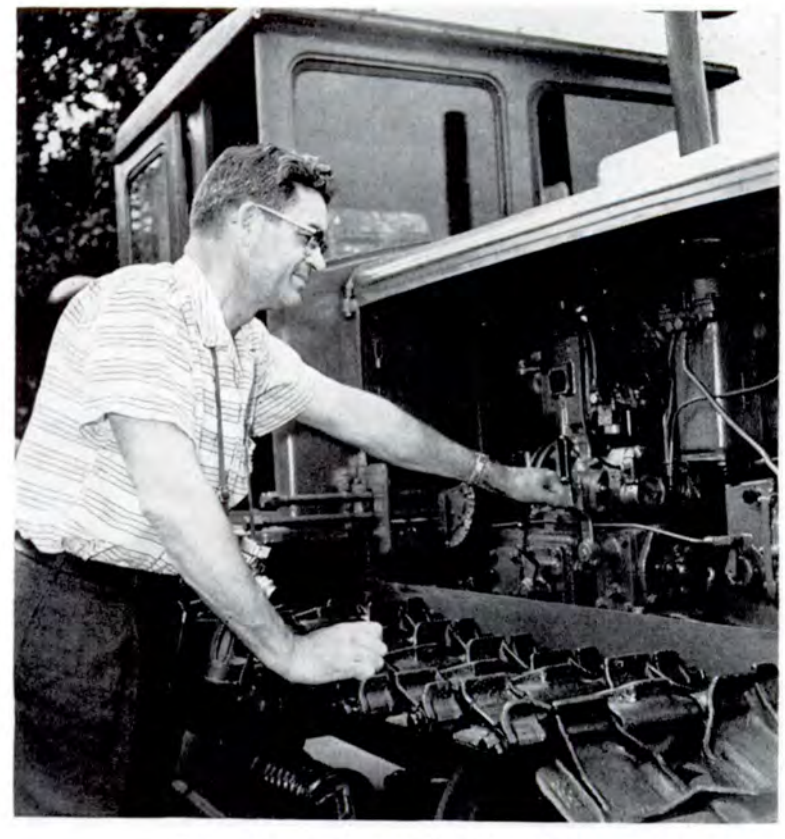
# AGRICULTURAL SPECIALISTS




## EXCHANGE PROGRAM IN PROGRESS



Viewing displays at the Ukraine's Pavilion of the USSR Agricultural Exhibition in Moscow.



Various types of agricultural machinery and equipment were closely inspected both at exhibitions and on farms.



The language barrier was no obstacle for the exchange of opinions.

# Progress Report to Oklahoma Farmers

By LEONID MANKO

*Chairman, Michurin Collective Farm*

IT WAS some three years ago that our collective farm here in Kazakhstan was visited by a group of Oklahoma farmers, but we still have very warm memories of all the talk we exchanged. We haven't forgotten the very helpful suggestions they gave us on feeding rations and the care of livestock.

All of us here think that William Lambert, who headed the delegation, and the other Oklahomans would be interested in a progress report, what's been happening on our farm in the three years since they saw it.

We hadn't much to boast of at the time the American guests were here, even though Mr. Lambert congratulated us on the rich milk our cows gave. But the picture is much different now. We keep only high-yield cows of the Alatousskaya breed evolved by Soviet stock-breeding stations. With this purebred livestock our milk yield has tripled over the 1955 level. Our cows give milk with a 4 per cent butterfat content.

Our barns are now fully mechanized, all the way from automatic preparation and delivery of feed to milking. Our main feed is corn and we've expanded acreage under fodder crops so that we have plenty to go around. That's for our dairy.

Mr. Lambert would see big changes in our grain crop and in our fruit production, too. We've sown more acreage in wheat and have extended our orchards and vineyards.

Last spring a national law was passed to reorganize the country's machine and tractor stations into maintenance depots. We bought from our local station 1,500,000 rubles' worth of various farm machinery.

We had the money to invest since our stock farm now gives us double the income it did at the time the Oklahoma farmers were here. The total income of our farm for 1958 was 20 million rubles.

With farm income larger, the amount of income that is divided among our members is larger too, of course. The Americans would, I think, be surprised at the way our village has changed in the past three years because of the number of new houses that have been built. We have plans now for a new community center, a restaurant, a hotel and several retail shops.

We told the Oklahoma farmers when they visited three years ago that we hoped to overtake American per-capita production of meat and milk in the next couple of years. Well, we'd like to tell them now that these next couple of years we talked about are just about over. By the end of this year, we expect our hopes will have become reality.

1956 — OKLAHOMA FARMERS GREETED AT THE MICHURIN COLLECTIVE FARM WITH TRADITIONAL BREAD AND SALT.



# A TOUR BY CAR

DURING last summer some Americans who visited the Soviet Union decided to tour the country in their own cars. Among these tourists were the Keratt brothers, Chris, a professor at the University of Florida, and James, a physician.

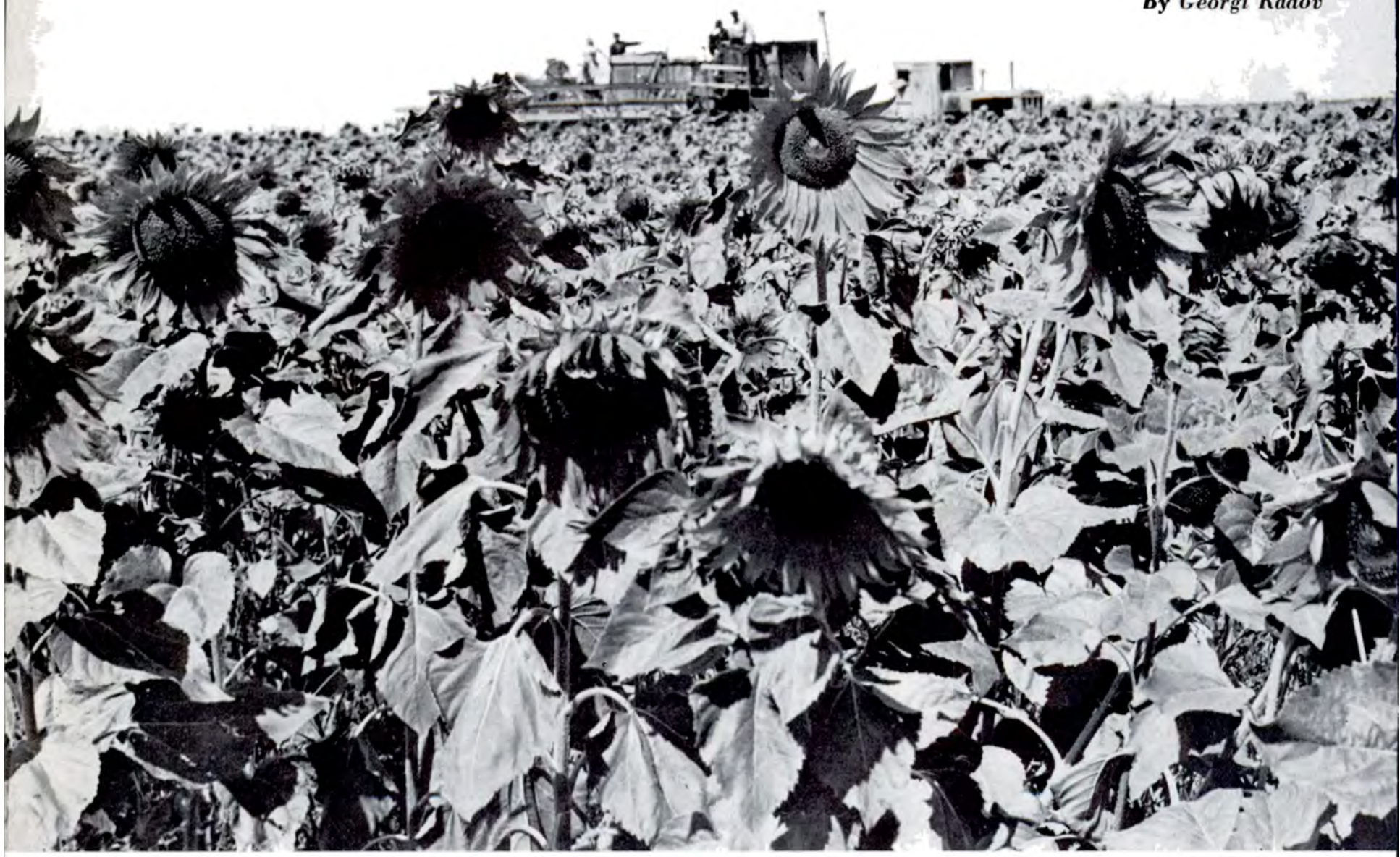
En route to the Crimea, they stopped off to see the Kursk Magnetic Anomaly, site of the world's largest iron ore deposits. Engineers Alexander Orlov and Oleg Zore showed them around the works and described the special drilling operations that are conducted there.

The Florida brothers also stopped over at one of the collective farms just off the Moscow-Simferopol highway. They got an excellent view of the fields from atop a grain combine.



# He Changed The Nature Of The Sunflower

**By *Georgi Radov***



NEW VARIETIES COMBINE HIGH OIL CONTENT WITH A HIGH YIELD. THE FARMERS NOW GET 4-6 TIMES MORE SUNFLOWER SEED OIL PER ACRE THAN FIFTY YEARS AGO.

VASILI PUSTOVOIT's forty-five years of experimental selection with the sunflower plant is a tribute to the stubborn and unyielding patience of a man who would not put up with nature's inadequacies.

The sunflower, with its big dark disk and radiant yellow petals, is more than a handsome plant. In Russia, America and elsewhere it has long been grown as a money crop. The seeds of the disk give a yellow oil with a rich flavor considered by many to be the equal of olive oil for table use. Compressed, they make an oilcake widely used for stock and poultry feeding.

The sunflower is native to America. It was brought to Russia early in the eighteenth century. Grown at first as an ornamental flower. the plant soon after began to be cultivated for its seeds. It was some unknown peasant, without benefit of theoretical background but with the keen eye of practical experience, who must have seen that the flower could be converted from a branching plant into one with a single large seed basket.

This unknown pragmatic selectionist and those who experimented after him based their selections on the color of the seed bags, on size, yield and ripening time. They improved the plant and found ways of extracting oil from the seed.

Once in successful crop cultivation, the sunflower crossed the ocean again to its native habitat in America. Its Russian history is still reflected in the names of such present-day American varieties as the Russian Mammoth or the Russian Giant.

### Nature's Limitation

But there was the one important limitation that nature had set. It seemed to have permanently fixed the quantity of oil that could be extracted from each plant species. Thus, for the castor oil plant the limit seemed to have been fixed at 50 pounds per hundredweight of seed, for long staple flax at 40 and for the sunflower at somewhere between 25 and 28—no more. And all the efforts of growers, both Russian and foreign, to extract more oil had been altogether fruitless.

When Vasili Pustovoit began to work on the problem forty-five years ago, a long list of failures had already been recorded. Other selectionists therefore concentrated on boosting the crop yields per acre emphasizing early ripening types, larger size of plants, improvements in growing methods and the use of fertilizers. Pustovoit, however, devoted all his attention to the kernel. His idea was to get extra oil from the same crop and with the same investments.

Pustovoit chose 1,500 seed samples and with his wife as solitary assistant tried an endless number of crossings. He worked under handicaps and without support for years, the czarist authorities were not particularly receptive to new approaches. Many of his crossings were superior. They gave high yields, were resistant to pests and disease but he was notably unsuccessful in increasing the oil content of the sunflower seeds.

A less determined man than Pustovoit would have dropped the search, moved on to more rewarding fields of experiment. But he was plagued by the notion that if he tried enough seed samplings there might be one that would turn the trick. It was not until the Soviet period that he was able to experiment on the



VASILI PUSTOVOIT IS OVER SEVENTY, AND AFTER A HALF CENTURY OF EXPERIMENTING IS STILL ACTIVE.

wide scale necessary. It was then that he was provided with funds, laboratory and assistants at the USSR Research Institute for Oil-Bearing Plants.

Seeds were sent to his laboratory from all over the country and he began the long process of sorting, growing, crossing. In a package which came from Andreyevka Village, near the Sea of Azov, Pustovoit found what he had been searching for. The seeds from this package grew coarse plants with a low susceptibility to disease but they gave two per cent more oil than any other sunflower he had handled in fifteen previous years.

### Altering Nature

Now began the slow work of altering this seed so that it would be serviceable. It had to be given new character, changed into a hardy, disease-resistant seed that would yield bumper crops, quite aside from increasing oil content much beyond the additional two per cent.

Pustovoit developed, after much labor, a seed with a high oil content, but the first plants were almost completely strangled by broom-rape, an old enemy of the sunflower. He thought he had given his plants an immunity to this pest. And he had—to the Saratov variety of broom-rape but not to another variety aptly called "the ill-natured Don type," which was little known at the time.

To immunize his plants, Pustovoit took a step which everyone thought extreme. With his next sewing, he dropped broom-rape seeds into the rows. He knew that most of his plants would die but he knew, too, that a few would survive and these would breed hardier plants in the next generation. And this is what happened. The surviving plants produced a hardy enduring plant with high oil content.

Sunflower varieties developed by Pustovoit are now grown in the Soviet Union on more than four million acres of collective and state farms. The oil content of their seeds runs between 47 and 49 per cent. New varieties which Pustovoit has been growing experimentally and which are now ready for general planting give 52.2 per cent.

Many of the new varieties combine a high oil content with a high yield. The farmers now get as much as 1,300-1,400 kilograms of oil per hectare. Fifty years ago the average obtained in the Kuban area where Pustovoit lives and works was only 250 kilograms per hectare.

His experimental plots at the USSR Research Institute for Oil-Bearing Plants have been bringing visiting farmers from distant parts of the country and from abroad. A group of American growers were among last year's visitors to the Institute to congratulate Vasili Pustovoit on his achievement. As Dr. Herbert Cramer, a member of the delegation, put it, the eminent selectionist had "changed the nature of the sunflower."

In appreciation of his work Pustovoit on his 70th birthday was awarded the Order of Lenin and was elected a member of the USSR Academy of Agricultural Sciences.



These sunflowers live up to such names as Russian Mammoth or Russian Giant.

THE INSTITUTE WHERE THE SELECTIONIST WORKS OFTEN RECEIVES SOVIET AND FOREIGN VISITORS.





MEMBERS OF AN AMERICAN AGRICULTURAL DELEGATION AT AN EXPERIMENTAL PLOT ON THE KHARKOV SELECTION CENTER.

# American Corn on Soviet Soil

By ILYA YEMELYANOV

*Deputy Chief, Administration for Scientific and Technical Cooperation, USSR Ministry of Agriculture*

IN STUDYING the history of agricultural development in the Soviet Union and the United States, one finds that their achievements have been successfully and fruitfully utilized by each other.

Quite a number of varieties of Russian wheat, Byelorussian oats and Ukrainian alfalfa are grown in the United States. American varieties of corn, brought to Russia at the beginning of the century, are well known in the Soviet Union. They became particularly popular within the past thirty years.

Tests of American corn varieties during 1924-28 and through the subsequent period demonstrated that many of them were particularly suitable for the Ukraine and the North Caucasus. The favorite varieties were Minnesota 23, Ivory King, Brown County, Leeming, Sterling and Minnesota 13 Extra. In the Central Black Soil Belt and the arid zone along the Volga, North Dakota, Falconer. Burly County and Ivory King were among the most extensively cultivated varieties.

Using American experience in corn selection developed at Illinois and Ohio experimental stations (mass selection in the fields according to type and the method of selection by progeny), Russian selectionists cut the maturing time of Brown County by seven days. Actually two varieties were obtained from Sterling: one with the ear located low—on the first and second nodes, and the other higher—on the sixth or eighth nodes.

In 1956, Mr. Matnys, vice president of the Minneapolis seed house Northrop King & Co., was surprised to find that one of the Sterling varieties his firm sold to Russia forty years ago is still extensively grown.

Soviet selectionists working with American corn obtained good results in early maturity combined with resistance to draught and frost, while getting high yields. The Sterling variety has proved to be among the best American types for silage in the tremendous expansion of corn as a fodder crop during recent years. Looming, another American type, has also shown up well there.

Beginning in the thirties, a number of Soviet scientific institutes and especially the USSR Institute of Plant Physiology, have worked on inbred and doublecross corn hybrids. Employing both their own and American experience, they produced dozens of hybrids that are now being introduced on Soviet farms.

In 1956 about five million acres were sown to hybrid corn and in 1958 nearly 90 per cent of the acreage sown to corn for grain. Some of these hybrids were from American inbred lines.

The Soviet Union bought hybrid seed during 1956 from such firms as the Pioneer Hi-Bred Corn Co., Garst and Thomas, and Northrop King & Co. These seed were sown for grain and silage over 250,000 acres.

Comparisons of American and Soviet hybrids have been made in all corn-growing zones both under field conditions and on experimental plots for a two-year period. Several Pioneer hybrids of the Pioneer Hi-Bred Co. and of Garst and Thomas Co. proved to have greater yields than Soviet varieties, but they were somewhat later in maturing.

During the past year additional tests of American varieties were conducted to recheck on which would prove most suitable.

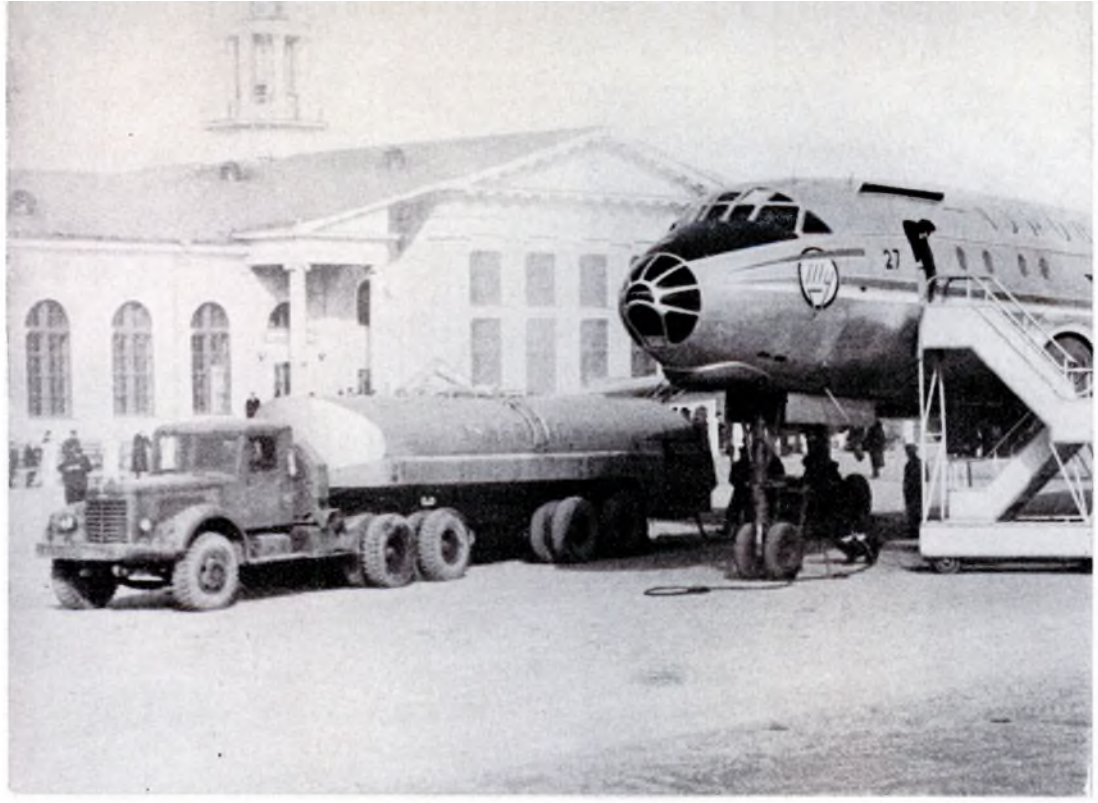
Equipment for drying and calibrating hybrid corn seed was purchased by Soviet organizations from Campbell & Fine. When it was installed, it proved to be very effective.

In 1956 we presented American scientists with several of our corn varieties and several grasses. According to Professor N. P. Neal, the fast-maturing Russian varieties are of great interest. At his request, we have sent him more than a dozen Soviet corn varieties and strains.

Closer cooperation between Soviet and American scientists in selecting corn will undoubtedly lead to advantageous results for both countries.

Soviet corn is not only highly prolific, but may match Iowa's bid to where it is tallest.





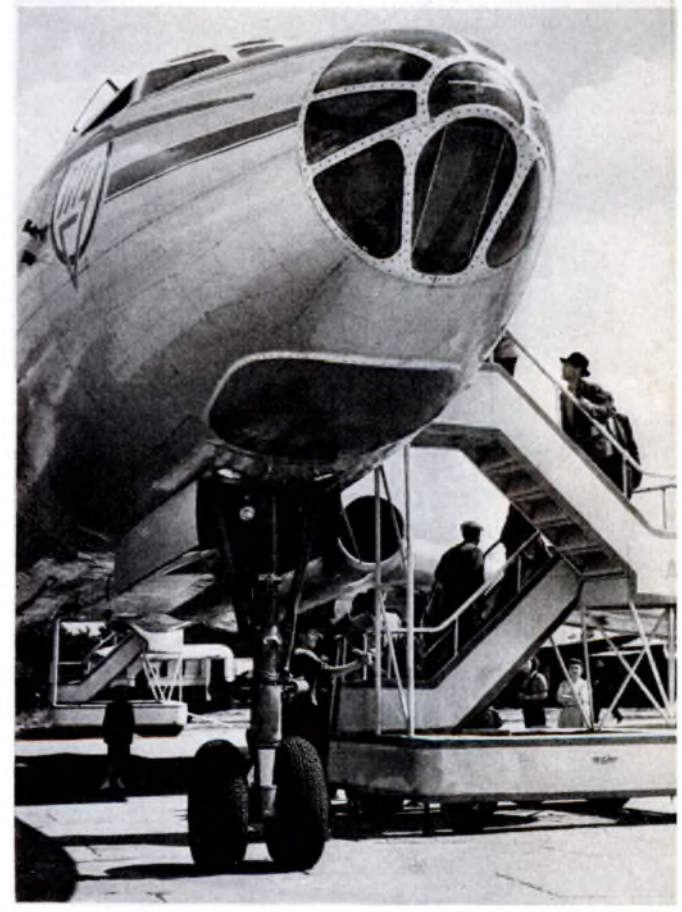
KHABAROVSK IN THE FAR EAST IS 5,000 MILES FROM MOSCOW AND ITS AIRPORT HANDLES ALL TYPES OF PLANES.

# A ROUTINE FLIGHT

THE Vnukovo Airport, just about twenty miles from downtown Moscow, is one of the busiest air terminals serving the metropolitan area of the capital. Most visiting Americans and other foreign guests arriving by plane first set foot on Soviet soil at Vnukovo. The airport has been enlarged quite recently to take care of its increased traffic, and its runways have been lengthened to accommodate new turbojet and turboprop transports.

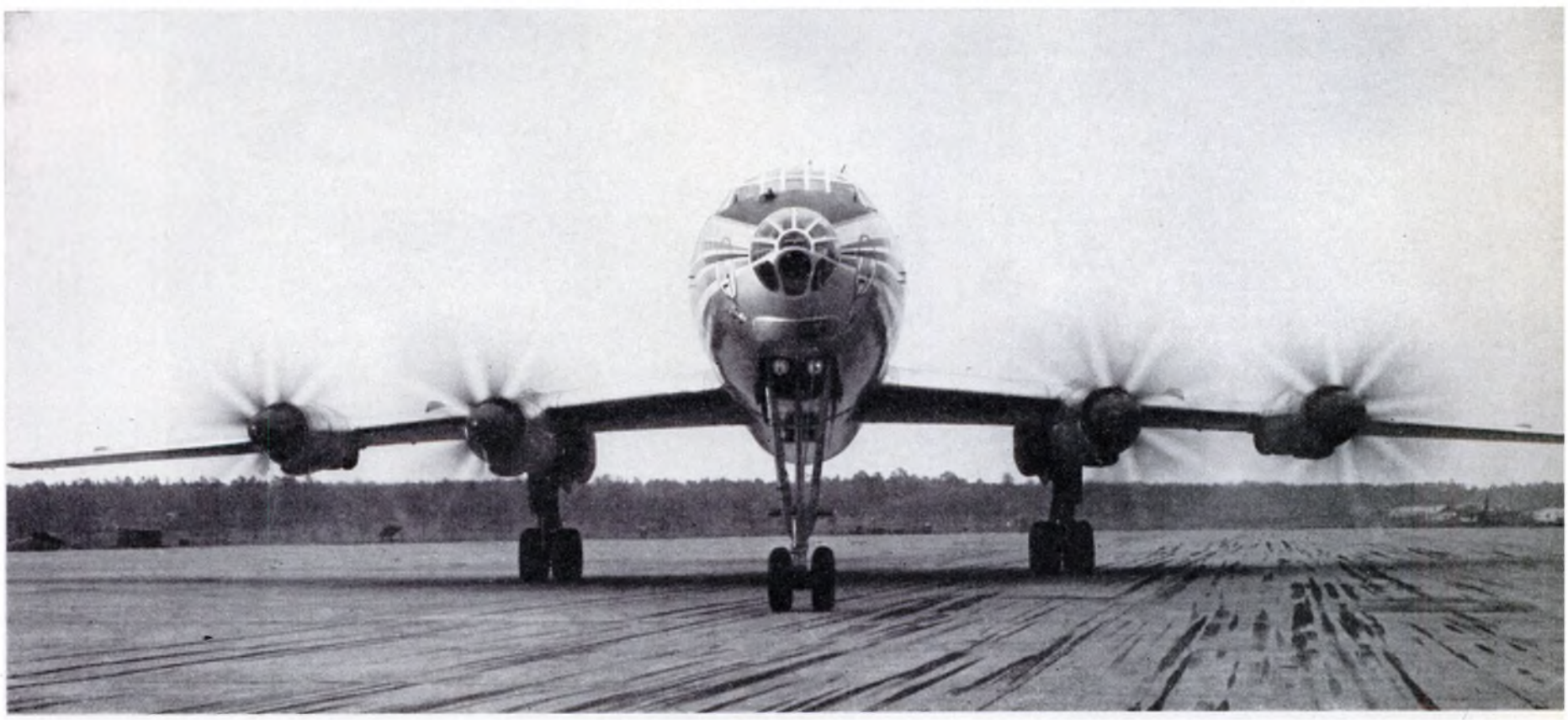
Among the many Aeroflot (Civil Air Fleet) passenger planes taking off from Vnukovo on a daily schedule is the TU-104A jet airliner that departs promptly at 5:30 each evening with its manifest listing Khabarovsk as its destination.

The trip to this Far Eastern city, which takes nine days on the railroad and approximately 38 hours in ordinary aircraft, is made in 11 hours and 35 minutes by the TU-104A's schedule. The air distance is 5,000 miles and the jet, cruising at the speed of about 600 miles an hour, makes only two stops. The first is at Omsk in Western Siberia and the second at Irkutsk in Eastern Siberia. All seventy seats in each of the TU-104A airliners are usually booked to capacity long in advance both at Moscow where the flights originate and at Khabarovsk for the return trips.



After moving from stand-by status to confirmed space, the passengers hurry aboard.

FARES ON TURBOJET AND TURBOPROP PLANES RUN ONLY SLIGHTLY ABOVE THE FIRST CLASS RAILROAD RATES AND THE SAVING IN TIME MAKES THEM A BETTER BARGAIN.





# A ROUTINE FLIGHT

Pilots of the TU-104A jet airliners traveling on a 5,000-mile route between Moscow and Khabarovsk very seldom deviate from the scheduled time of 11 hours and 35 minutes.

Radio officers aboard are busy with weather, air traffic and other information that helps ensure the safety of every flight.





A pleasant stewardess serves piping hot meals that are quite welcome for the long distance travelers.

TU-104A transcontinental airliners have their own chefs who prepare individual servings.





Comfortable reclining seats are as conductive to a sound nap as letter writing or reading.



This little tot makes friends with everyone aboard for himself and that big new teddybear.



The smooth-riding plane has baby asleep in no time, but when he wakes the stewardess will aid mother.




Vladimir Kuzin, holder of the 1958 USSR championship for the 15-kilometer run.

THE BEST of the world's skiers are to converge on Squaw Valley, California, in February for an international match that will provide coaches and public alike with a realistic preview of the 1960 Winter Olympic Games scheduled over the runs of the newly-completed American center.

Offering a varied program of contests including flat-racing, the Nordic combination, jumping and slalom events, the Squaw Valley meet will find Soviet skiers among the challengers in this highlight of the current winter season.

Because of the adoption of improved styles and training methods along with more strenuous workouts and practice techniques, the times scored in ski events over the past few years are getting better.

Soviet entries will participate in all of the scheduled events, and the variety offered for each of the classes will provide a wonderful opportunity for both the fans and experts to make some definite conclusions concerning the strength, skill and form of all contestants.

The Soviet Union will field a squad of well-conditioned, all-round skiers. For instance, there is Vladimir Kuzin, who won the world title in 1954 and also triumphed in the 1956 Winter Olympic Games. Then there will be Pavel Kolchin, winner of the 1958 international meet at Holmenkollen who also took a championship in the last Olympics. The Soviet squad includes Anatoli Shelyukhin, the USSR champion of 1957: Olympic champions Nikolai Anikin and Fyodor Terentiev; plus a batch of promising youngsters and, of course, a full team of entries in the women's division.

# SOVIET SK

**By Venedict Kamensky**
***Coach, USSR Ski Team***




Fyodor Terentiev placed second in the 4 × 10-kilometer relay for the 1958 world title.

Soviet skiers started training much earlier this season in preparation for the meet at Squaw Valley. All the leading skiers participated in the inaugural races last November in which Pavel Kolchin and his wife Alevtina took most of the laurels. Pavel won the 20-kilometer race in 1 hour, 8 minutes and 3 seconds, while his wife negotiated the 5-kilometer run in 18 minutes and 46 seconds, which was considered good time for so early in the season.

Since making their international debut in 1954 at Falun, Sweden, Soviet skiers have had their share of successes and a few disappointments. At last year's world championships in Lahti, Finland, the main contest was between the Soviet, Finnish and Swedish teams. At first glance it seemed that there was little difference in the styles of the Soviet and Finnish skiing techniques. The general movements seemed to be the same in almost all phases. But there were differences in detail, and probably the main point was that the Finns executed their movements more freely and easily than the Soviet entries. Thus they were able to conserve strength.

But the style of Pavel Kolchin is regarded as exemplary in the Soviet Union. And there are no obvious or serious faults in the skiing styles of Nikolai Anikin, Vladimir Kuzin, Nikolai Galiev or Fyodor Terentiev. But why, then, have Soviet athletes not made better records?

There is the possibility of excess tension. The speedsters form the dominant body of skiers and consequently pay little attention to relaxing themselves. And many athletes try to avoid races over 50 kilometers long on the eve of important matches, believing that it would hurt their

# PROSPECTS




Rosa Yeroshina is the 1958 world champion in the 3 × 5-kilometer relay and the 1957 USSR champion.




Alexander Filatov holds the 1958 USSR titles in the grand slalom and also in the triathlon.




Alevtina Kolchina won two world championships in 1958—in the 10-kilometer run and in the 3 × 5-kilometer relay.




Pavel Kolchin was the 1957 USSR champion for the 30-kilometer race and won the Holmenkollen events in 15 and 50 kilometers.

# Soviet Ski Prospects

speed and lead to fatigue. But the experience of last winter proves that just the opposite is true. The Finnish stylist Hakulinen, who appears in marathon races more often than our skiers, won the 15-kilometer run in Lahti.

As in every other sport, it is not only the top-notchers who score in international competitions. There are many young skiers in the Soviet Union with a promising future. They are priming themselves for the Winter Olympics and are not afraid to take on the champions.

At the last Winter Olympics we found many of our young jumpers were making excellent distances—82 to 83.5 meters. But their inability to stay on their feet at the finish sent them to last place. There was the case of Tsakadze, whom the *New York Times* called the world's greatest jumper until he comes within 10 feet of landing. The *Times* gives him two years to learn how to land properly and then predicts he will be unsurpassed.

Our speedsters were no more successful than the jumpers. First of all our squad was chosen to run before all their main rivals. As a result the rival squads could adjust their pace to exceed that of the Soviet runners.

At the start of the men's relay race, Fyodor Terentiev was accidentally struck in the eye. Then Pavel Kolchin broke his stick while running. Despite these mishaps, four Soviet skiers were among the six best performers in the 30-kilometer race and the Soviet team won the 4 × 10-kilometer relay—the most important race of the games.

Members of the winning quartet were Fyodor Terentiev, Pavel Kolchin, Nikolai Anikin and Vladimir Kuzin. In the women's division, Lyubov Kozyreva won the crown and the world title for the second time in the 10-kilometer run.

We shall attempt no forecast here for future events. But this is certain: there will be many new names on the honor roll in the downhill racing contests in Austria, on the level courses in Finland and at Squaw Valley.



SUNDAY IN MOSCOW'S LENIN HILLS. *See picture story on page 32*



THE SKI JUMP ON LENIN HILLS IN MOSCOW IS ONE OF THE FAVORITE GATHERING PLACES FOR BOTH PARTICIPANTS OF THIS POPULAR WINTER SPORT AND SPECTATORS.

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# USSR

## COMMUNIST PARTY CONGRESS LAUNCHES SEVEN-YEAR PLAN

No. 3 (30)—20 Cents

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THE SUCCESSFUL LAUNCHING OF A COSMIC ROCKET OPENS A NEW ERA IN MAN'S EXPLORATION OF SPACE.
*See story on page 14.*


# USSR

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3

*The Soviet Union enters a new historical stage in its progress toward communism*



Nikita Khrushchev presenting the target figures for the country's development in 1959-1965 to the Communist Party Congress.

# TWENTY-FIRST CONGRESS *ADOPTS SEVEN-YEAR PLAN*

MARKING a new important stage in the nation's swift progress, the Twenty-First Congress of the Communist Party of the Soviet Union met in Moscow from January 27 through February 5 to chart the country's course for the next seven years.

Assembled in the great vaulted hall of the Kremlin were 1,375 delegates from every part of the country and numerous guests from abroad.

The major report, given by Nikita S. Khrushchev, First Secretary of the Party's Central Committee and chairman of the USSR Council of Ministers, presented the new economic plan for 1959-1965, a development program without precedent in history for sweep and magnitude.

To the applause of the delegates, N. S. Khrushchev indicated that in the three years since the Twentieth Party Congress the Soviet Union had continued its steady progress toward communism at home and had enhanced its international prestige abroad by its advocacy of peace and friendship among all nations. The socialist world now is exerting a decisive influence on the entire course of world development. On behalf of the Soviet people and the party the First Secretary greeted the delegations from seventy Communist and Workers' Parties who were guests of the Congress.

N. S. Khrushchev stressed the guiding role in the country's progress of the Communist Party and of its Central Committee, led for many years by Joseph V. Stalin. From an economically backward country, the Soviet Union has grown into a great industrial and agricultural socialist power that leads Europe, and is second only to the top industrial producer in the world.

Foreign economists and political figures predicted that the Soviet Union would be compelled to slow down its rate of progress drastically after having rehabilitated the enormous damage to the economy caused by the Second World War. These predictions were erroneous, N. S. Khrushchev noted, the rapid rate of economic advance continues without interruption.

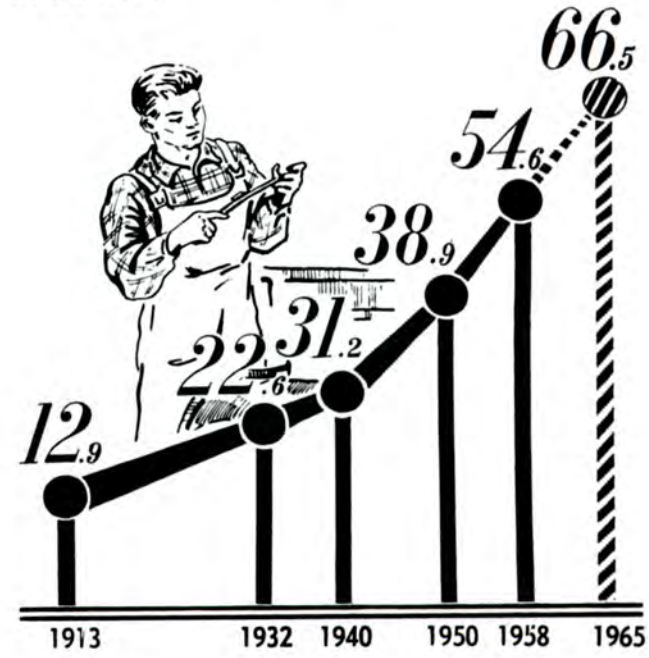
A major factor in accelerating the development of the Soviet economy was the step taken to reorganize industrial management. New form of industrial control through regional economic councils has proved itself in greater efficiency, more effective use of natural resources and industrial potential, increased initiative on the part of workers and engineers

**STATE CAPITAL INVESTMENTS IN NATIONAL ECONOMY**
*in billion rubles*




*3000 billion—including construction financed by non-centralized funds and by collective farms and housing construction by individual citizens.

**NUMBER OF INDUSTRIAL AND OFFICE WORKERS**
*in millions*




# Twenty-First Congress *adopts seven-year plan*

### Economic and Cultural Achievements

and larger output of goods. An outstanding success was achieved in building up agricultural production during the past five years.

With the general upsurge of the country's economy and increased productivity in factory and farm the welfare of the Soviet people has been advanced uninterruptedly. In 1958 the real wages of factory and office workers were almost double the 1940 figure while the farmers' income increased more than one hundred per cent.

At work now are nearly 7.5 million specialists with secondary technical or college training, 39 times as many as in 1913. The Soviet college enrollment is nearly four times greater than that of Britain, France, West Germany and Italy combined. Technical schools graduate three times as many engineers as do American schools.

N. S. Khrushchev made special mention in his report of the brilliant work of the country's scientists, designers, engineers, and technicians in launching the world's first artificial satellites and the first cosmic rocket now orbitting the sun. By reaching out into the cosmos the Soviet Union has opened a new era in the progress of all mankind, thus demonstrating to the whole world the unlimited creative forces of the socialist system.

Once backward national republics of the Soviet Union now possess well-developed, modern industries and up-to-date agriculture. Their own scientific institutions and extensive systems of education have trained numerous specialists experienced in all fields of economy, science and culture.

With each passing year, the voluntary union of socialist nations forming the USSR has grown stronger. Recently, to mark further democratic progress, the rights of the Union Republics were enlarged to permit each of them to develop its economy and culture at a still faster pace.

In outlining the major goals of the seven-year plan, N. S. Khrushchev pointed out that with these far-reaching changes in all areas of economic, cultural, and political life the Soviet Union is now entering a new period in its development, the period of extensive building of communism.

### Nationwide Discussion of Plan

Before presenting the figures for the new economic plan for 1959-1965, N. S. Khrushchev cited the numbers of people who had taken part in the nationwide discussions that preceded the Congress. Seventy million people participated in the discussion of the draft plan, more than 4½ million persons offered suggestions, criticisms and additions. There were 650,000 letters sent to newspapers, magazines, radio and TV stations. Many of the suggestions, some of which he detailed in the report presented to the Congress, will be carried out.

The seven-year plan envisages a faster rate of development and a large increase in all spheres of economic effort, particularly in heavy industry. The plan requires an 80 per cent greater industrial output for 1965 over 1958 figures. In Group A (output of the means of production) there is to be an increase of 85-88 per cent, and in Group B (output of consumer goods) 62-65 per cent. The growth of industrial output in the next seven years will equal the total increase of the past twenty years.

### Major Increase in Industrial Output

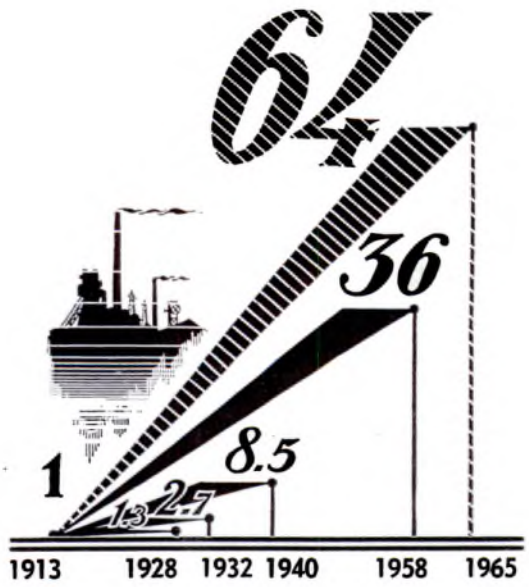
The 1965 target figures call for 65-70 million tons** of pig iron, 86-91 millions tons of steel and 65-70 million tons of rolled stock. The output of nonferrous and rare metals is to rise several times over. A larger sum of money than was spent in the past thirty years has been earmarked for the construction and rebuilding of ferrous and nonferrous metals enterprises. No less than 67 per cent of the capital investments in the ferrous metals industry and about 60 per cent of the appropriations for the nonferrous metals industry will be used to expand or rebuild existing enterprises which are to produce more than three-fourths of the planned increase in the output of pig iron, steel and rolled stock.

Contemplated is a particularly rapid development of the chemical industry, an increase of almost threefold in the seven years, with a considerable share going to consumer goods production. The output of mineral fertilizer is to rise to 35 million tons in 1965 as against 12 million tons in 1958. This increase is required to boost crop yields to the new levels planned.

In the fuel industry priority is given to oil and gas extraction and refining. By 1965 the production of oil is to rise to 230-240 million tons, or more than twofold, and the output of gas is to increase by approximately five times, to an annual 150 billion cubic meters. The share of oil and gas in the total fuel output of the country will grow from 31 to 51 per cent, while that of coal will shrink correspondingly from 60 to 43 per cent. This approach in the fuel industry will provide a better economic balance.

**Metric ton (2,204 pounds) used throughout this issue.

**TOTAL INDUSTRIAL PRODUCTION**
*1913 = 1*




**GROWTH OF AGRICULTURAL PRODUCTION**
*in per cent*




### Electric Power Capacities to Double

Toward the close of the seven-year period, electric power output is to rise to 500-520 billion kilowatt-hours a year, while the rated capacity of power stations will be more than doubled. To save time and to use capital investments most effectively, the seven-year plan calls for priority construction of thermal power stations operating on natural gas, fuel oil and cheap coal. Parallel with the building of thermal power stations, huge hydropower stations will be built in Bratsk, Stalingrad, Krasnoyarsk, Kremenchug, Bukhtarma, Votkinsk and elsewhere. Several atomic power stations with different kinds of reactors will also be put into operation.

All branches of the engineering industry, primarily heavy machine building, instrument making and the production of automatic and electronic devices, will grow at an accelerated pace. The emphasis is on designing and producing the most up to date machines utilizing the latest achievements of science and engineering, particularly in radio-electronics, semiconductors, ultrasound and radioactive isotopes.

The seven-year plan calls for the elimination of arduous manual labor by completing mechanization of production processes in industry, agriculture, construction, transport, loading and unloading work, and in public utilities.

### Greater Automation to Be Introduced

Thoroughgoing mechanization will be accompanied by greater automation to facilitate physical labor, improve working conditions and to raise productivity. In a socialist society with no unemployment, automation not only has economic value but social value as well, and it changes the character of labor profoundly. It demands a higher level of education and more technical knowledge from the worker and, by virtue of this, provides the basis for breaking down the barriers between physical and mental labor.

Railway freightage in 1965 will be some 40 per cent heavier than in 1958. There will be a fundamental reconstruction of the basic modes of transport, particularly railways, with steam engines replaced by economical electric and diesel locomotives. Toward the end of the seven-year period main trunk lines, totaling 60,000 miles in length, will be converted to electric and diesel traction.

The high production level to be reached by heavy industry and agriculture will make possible a substantial increase in the output of foodstuffs and consumer goods. During the next seven years gross output of light industry will increase by approximately 50 per cent and of the food industry by 70 per cent.

### 70% Boost in Agricultural Production

The prime target in agriculture, Khrushchev noted, was to reach a level of production that would satisfy the food requirements of the population and the raw material requirements of industry. Between 1959 and 1965 the gross output of agriculture will rise by 70 per cent, with the average annual increase in output amounting to 8 per cent.

For the next few years the major direction of crop farming will continue to be expansion of grain growing as the basic crop. By 1965 grain production will reach 164-180 million tons. Production of other crops will also be increased—cotton to 5.7-6.1 million tons, sugar beet to 76-84 million tons, potatoes to 147 million tons. One of the most important tasks proposed for agriculture is a rise in labor productivity and a decrease in production costs. To achieve this Soviet farmers are to be supplied with more than a million tractors, about 400,000 harvester combines and other equipment in the next seven years.

In animal husbandry the aim is to increase output of meat, milk, eggs and wool. The production of meat will be no less than 16 million tons, milk—100-105 million tons, eggs—37 billion, wool—548,000 tons.

The Soviet Union has moved to first place in the world in total output of milk and butter. Within the next few years it will not only overtake but will surpass the United States in the per capita output of these products.

### Three Trillion for Capital Construction

Turning to questions of capital construction, Khrushchev stated that in the next seven years state capital investments would approximate two trillion rubles. Add to this the construction financed by non-centralized funds, the capital investments of the collective farms and housing construction by individual citizens, and the total capital investments will reach three trillion rubles. This means, Khrushchev emphasized, that in seven years as much money will be invested as in the preceding four decades, that is, since the beginning of the Soviet state.

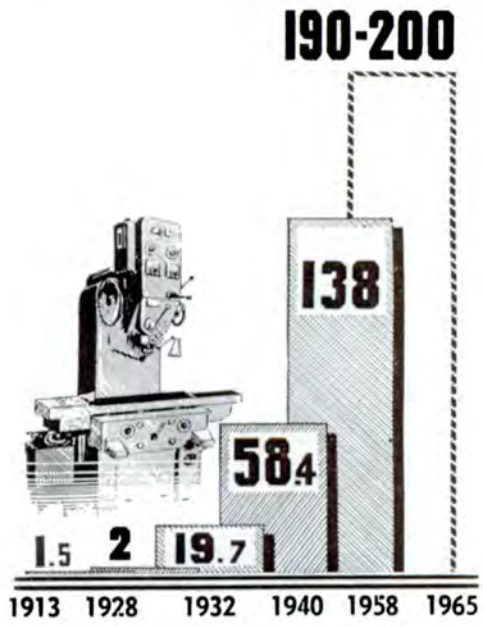
Capital investments in industry will be almost one hundred per cent greater than in the previous seven years, and investments in agriculture will be nearly five hundred billion rubles, that is, double the investments of the preceding seven years.

From 375 to 380 billion rubles of state funds alone will be invested in housing and public buildings as against 214 billion rubles for the preceding seven years, 80 billion rubles to be spent for construction of schools, hospitals and other public and medical institutions.

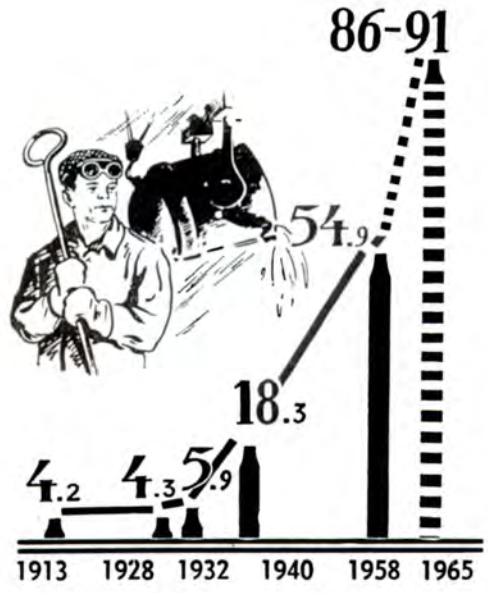
### Development of East Emphasized

Speaking of the distribution of the country's productive forces, N. S. Khruschev said that

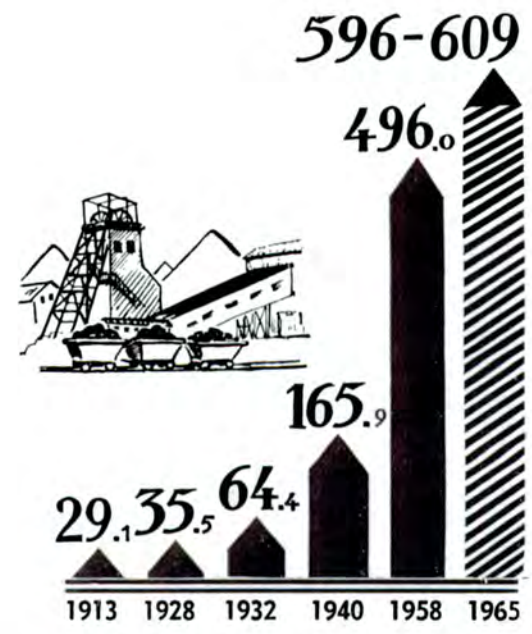
**MACHINE TOOLS**
*in thousands*




**STEEL PRODUCTION**
*in million metric tons*




**COAL PRODUCTION**
*in million metric tons*




# Twenty-First Congress *adopts seven-year plan*

more than 40 per cent of capital investments are to be used to develop the natural resources of the eastern regions. By 1965 the East's contribution to the national output of coal will have risen to 50 per cent, steel to 48 per cent, refined copper to 88 per cent, aluminum to 71 per cent, cement to 42 per cent and electric power to 46 per cent.

The creation of a new grain-growing area in the East has made it possible to start a radical reconstruction of agriculture in a number of republics and regions, and to use more rationally the rich natural and economic resources for expanding output of field crops and livestock products. Regions of the country like the northwest part of the Russian Federation, the Baltic Republics and parts of Byelorussia and the Ukraine will now stress production of milk, bacon and industrial crops which they are more suited to grow.

### Considerable Growth in National Income

The plan forecasts a marked growth in national income and a corresponding growth in real wages; a shorter working day and work week; consumer goods produced in much larger quantities and of better quality; large-scale housing construction; and a considerable improvement and expansion of public services.

The number of workers employed in the national economy will increase by another 12 million to a national total of 66.5 million.

The national income will rise by 62-65 per cent as compared with 1958 and will be sixfold that of 1940. Real incomes of industrial and office workers will rise by 40 per cent through both increase in wages and benefits and reduction of consumer prices. Real incomes of collective farmers will be up by not less than 40 per cent.

The present low individual taxes which account for only 7.8 per cent of the national budget's revenue will, within the next few years, be discontinued entirely.

### Marked Rise in Living Standards

More than 215 billion rubles were spent by the government in 1958 for social insurance benefits, allowances, pensions, stipends to students, free education, medical services, vacation payments, maintenance of boarding schools, kindergartens, nurseries, sanatoria, vacation resorts, homes for the aged and other payments and benefits. The seven-year plan stipulates that expenses under this head are to grow to 360 billion rubles.

Thus these expenditures financed by the national budget will mean 3,800 rubles a year of services provided annually for every working person. Additional government expenditures for housing and for building schools, hospitals, etc., will come to more than 800 rubles a year per worker.

Only a socialist state, N. S. Khrushchev noted, can allocate such funds for social services to promote the welfare of its citizens.

Fifteen million new apartments are scheduled for construction in urban areas, more than all the housing built since the 1917 Socialist Revolution.

The Communist Party has always had as one of its major objectives the reduction in the workday. Under the seven-year plan the workday will be reduced to 6-7 hours for a five-day week.

### Less Working Hours and More Pay

The shift to a shorter workday and work week will be accompanied not by a reduction in wages but rather by a substantial increase in income. People in the Soviet Union will have the shortest workday and work week in the world with a simultaneous rise in living standards.

The First Secretary of the Central Committee of the CPSU said that what is needed for the transition to communism is not only a developed material and technical base but also a highly conscious attitude on the part of all members of society.

The ethical principles of socialism, said N. S. Khrushchev, are characterized by a concern for the common good of all people, by mutual assistance and friendship, by cooperation and collective effort. They make for the rounded development of the individual personality within the framework of a collective in which antagonism between men is eliminated and the brotherhood of man is created.

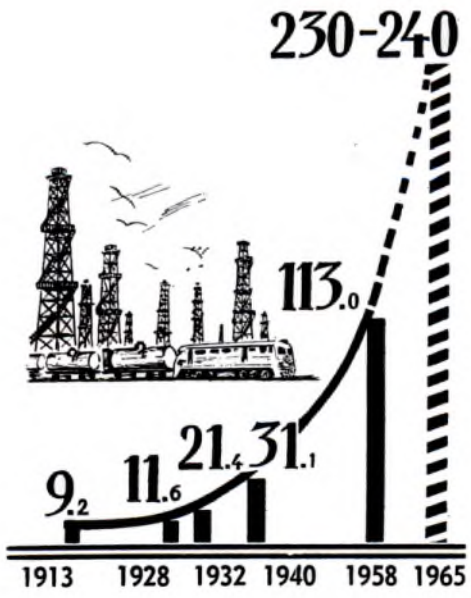
### A Common Goal

In a socialist society each individual feels that the whole of society, the state, is concerned with his welfare. The Soviet man reciprocates by concern for the society of which he is a part. To contribute to that society, to create new wealth for the benefit of all its members, becomes his ultimate goal.

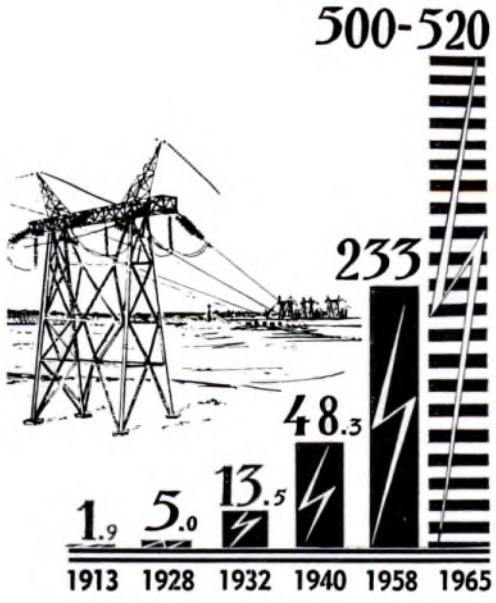
When Soviet people leave their homes to work in distant parts of the country, it is not to enrich themselves personally, but to build new factories, to plow new acres, to create new cities for their children, for all of society. They build for the future, for communism.

Turning to education, Nikita Khrushchev spoke of the importance the Communist Party attaches to the training of the generation that will be the administrators of tomorrow. The

**OIL PRODUCTION**
*in million metric tons*




**ELECTRIC POWER**
*in billion kilowatt-hours*




Soviet school system, he indicated, is being reorganized not because we are short of labor but because we want to improve our education, to bring our school closer to life. Proposed by the plan is a large program of school construction to accommodate an increasing number of students on all levels, from the nursery through the university. The number of children to be accommodated in kindergartens will be growing from 2.28 million to 4.2 million in the next seven years. Boarding schools will be required for no fewer than 2.5 million pupils. Institutes and colleges will be graduating 2.3 million specialists as compared with the 1.7 million for the previous seven-year period. By 1965 the total number of specialists with a higher education will exceed 4.5 million, an increase of 50 per cent over 1958.

### Mapping Scientific Progress

In his report to the Congress N. S. Khrushchev outlined goals for Soviet science for the next seven years. Scientists will be working on controlled thermonuclear reactions to obtain a practically unlimited source of energy; on the extensive application of nuclear energy for power and transportation; on synthetics; on nuclear fission products and radioisotopes; on over-all automation using the latest achievements in the field of physics, radioelectronics and computer techniques.

The building of communism presupposes not only an unprecedented development of the economy, science and culture; it offers unusual scope for the fullest development of all the creative potentials and talents of man. Writers, theater people, composers, sculptors and painters must raise the content and artistic level of their works still higher.

The seven-year plan envisages still more favorable conditions for ideological work—the press, radio and television, motion picture and cultural and educational media are to be greatly expanded. The circulation of newspapers and magazines and the printing of books will be increased substantially.

### Peaceful Competition with USA

With the seven-year plan completed the decisive step will have been made toward overtaking and surpassing the most advanced capitalist countries in per capita output. The present volume of Soviet industrial output is about half that of the United States; farm output is about 20 to 25 per cent less. American industrial output per capita is more than double that of the Soviet Union and farm output about 40 per cent higher. The plan forecasts an average annual growth of Soviet industrial output of 8.6 per cent as compared with a probable 2 per cent for the United States for the next few years.

In the past eight years the USSR's absolute volume of growth for a number of key industries has exceeded America's. Thus, the Soviet Union leads both in annual rates and in annual absolute growth of production. Soviet and U.S. rates of industrial growth being what they are, the Soviet Union will, after fulfilling the plan, surpass the United States in bulk output in some key industries and approach America's present level of output in others. By 1965 the output of major agricultural products in the Soviet Union, both absolute and per capita, will exceed the present U.S. level. It will probably take another five years after the seven-year plan to meet and then surpass the United States in per capita industrial output. At that time, or perhaps sooner, the Soviet Union will advance to first place in the world both in the absolute volume of industrial output and in per capita production. This will mark the history-making victory of socialism in peaceful competition with capitalism in the world arena.

Economists estimate that with the present high rates of economic growth of the People's Democracies the socialist system will account for more than half the world's industrial output after the Soviet Union fulfills and overfulfills the seven-year plan.

### A Peace Plan

In the West, Khrushchev declared, they say that we have made our "challenge." But it is a challenge to compete in the peaceful development of our economies and in raising the people's living standards. We want to compete in the production of industrial goods, meat, butter, milk, clothing, footwear and other consumer goods rather than in the arms race and in the production of A- and H-bombs and rockets. Khrushchev stressed that the seven-year plan is added evidence of the Leninist peaceful policy of the Soviet Union. It will play a large part in solving the major problem of our time—the preservation of world peace.

The importance of the plan lies in its being imbued wtih the spirit of peace. A state which undertakes a giant program of building new factories, plants, power stations, mines and other enterprises, which allocates nearly four hundred billion rubles for housing and public building, and sets the task of substantially raising the living standards of its people—that state seeks peace, not war.

In its foreign policy, the Soviet Union adheres to the principle that relations between countries with different social systems must be based on peaceful coexistence. We, said Khrushchev, and the ruling circles of the capitalist countries differ in our views and our ideology. We shall never give up our views, and we do not think that our opponents will change their ideology, but this does not mean that we need go to war because of those differences in views. The people of each country determine their own destiny and choose their own road of development. The Soviet Union does not wish to impose upon others the road it has chosen for itself.

Would it not be better, Khrushchev asked, if the leaders of countries with different social systems agree to live in peace on our planet? We must learn how to solve questions that are in dispute by peaceful negotiations.

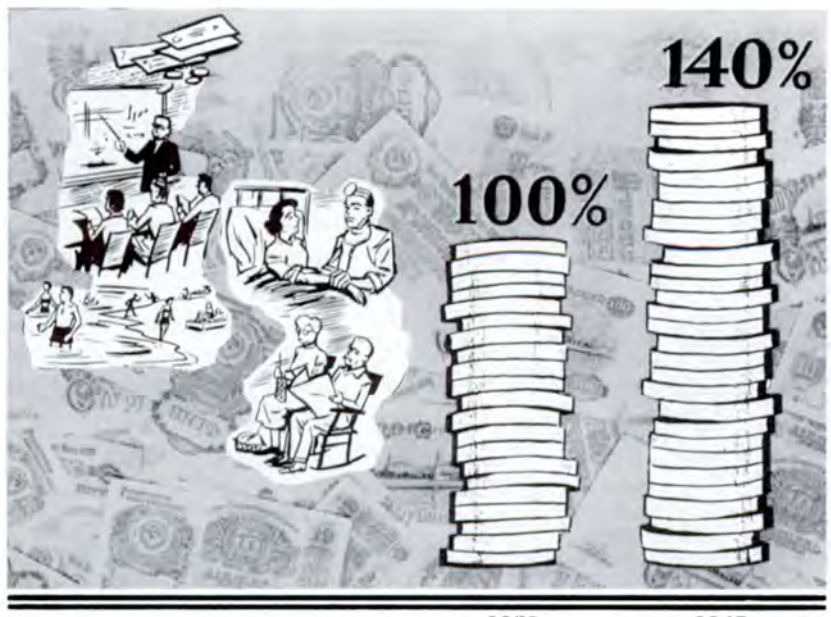
### Better Soviet-American Relations

Khrushchev spoke of the Soviet Union's sincere desire to normalize its relations with the United States and noted the great sympathy of the Soviet people for the American people, whose industrial genius and efficiency are known to the whole world. Anastas Mikoyan's visit to the United States, he noted, demonstrated the friendly feelings of the American people for the people of the Soviet Union.

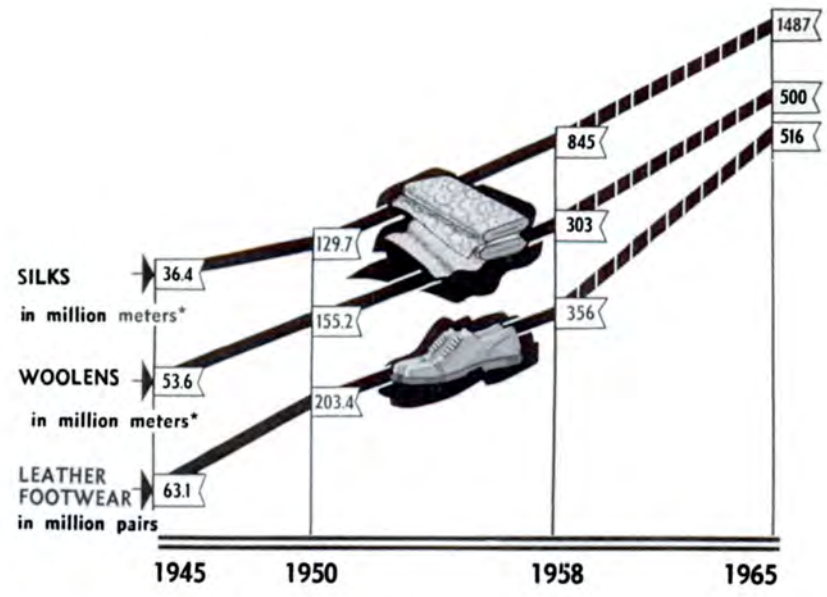
We welcome, said Khrushchev, the efforts of all Americans who strive to end the "cold war," who work for peaceful coexistence and cooperation between all countries.

Stressing the development of world trade as one important means for lessening international tensions and strengthening mutual trust, Khrushchev said the seven-year program of peaceful construction holds great possibilities

**REAL INCOME OF THE POPULATION**




**PRODUCTION OF CONSUMER GOODS**




*One meter = 1.09 yards

# Twenty-First Congress *adopts seven-year plan*

for foreign trade. The present volume of Soviet foreign trade can at least be doubled during the course of the seven-year period.

We offer the capitalist countries, Khrushchev pointed out, peaceful competition, and our offer goes beyond the time of the seven-year plan. We are drawing up a long-term development plan for the next 15 years. This plan, too, is built upon the principle of peaceful development and peaceful economic competition. Our plans are plans of peaceful construction.

### Building Foundation for Communism

The country's fundamental task today, Khrushchev said, is to build up the material and technical base of communist society, secure a further powerful expansion of the socialist productive forces.

The present level of socialist production does not as yet enable us to create the abundance of material and cultural values necessary for the growing requirements of the people. Without this communism is impossible.

It would be an oversimplification, Khrushchev said, to believe that when we overtake the world top producer in the economic sphere, it will signify the completion of communist construction. When we win this economic competition, we shall have completed only the initial stage of the construction of communism. The economic level reached in this phase will not be the end of our road but merely a midway station from which we will continue to move forward.

Khrushchev spoke about the growth of the Communist Party of the Soviet Union and the consolidation of its ranks. The Party has 8,239,000 members and candidate members, or 1,023,000 more than at the time of the Twentieth Congress.

The implementation of the party's general line was fought by the anti-Party group of Malenkov, Kaganovich, Molotov, Bulganin and Shepilov who resorted to factional struggle and splitting tactics in an attempt to undermine unity, disrupt fulfillment of the decisions of the Twentieth Congress and divert the Party and the country from the Leninist path. They opposed the very measures which have made possible the country's great advances in developing industry and agriculture and in raising the living standards of the people and tried to obstruct our foreign policy directed at lessening international tension and strengthening peace. Now everyone can see how right the Party and its Central Committee were in resolutely condemning and administering a stern rebuff to this group of factionalists.

Khrushchev declared that the time was ripe for introducing certain amendments and addenda to the Constitution of the USSR. All the sweeping changes in the life of the country and in the international situation should be incorporated into the Constitution.

### New Era in Country's History

In building socialism the Soviet people have displayed miracles of labor heroism. And there can be no doubt whatever that the seven-year plan will engender a new wave of labor enthusiasm and will give rise to new forms in the socialist competition movement for preschedule fulfillment of the great program of communist construction.

The seven-year period we have now entered, Khrushchev concluded, is a new and important—it might even be called a decisive—height on our path in history. The Communist Party and all our people are fully confident that this height will be scaled.

"Long live world peace!" With these words the First Secretary of the Central Committee ended his report.

### Delegates Discuss Plan

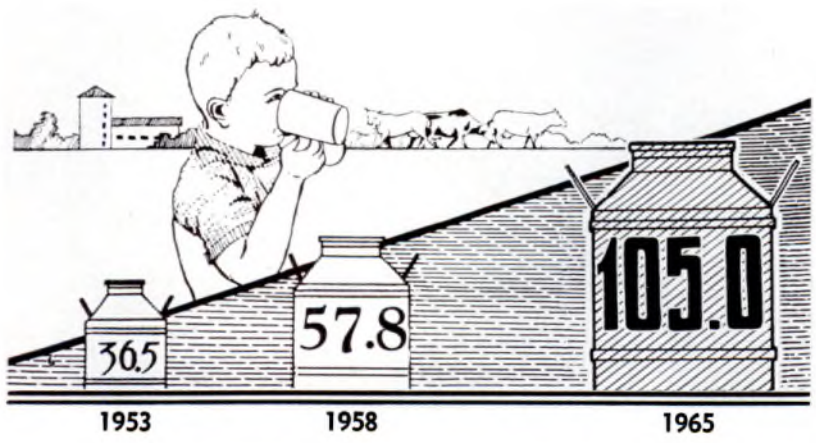
Following N. S. Khrushchev's report the delegates—men and women invested with the confidence of eight million members of the Communist Party of the Soviet Union and representing the wishes and desires of the whole population—spoke in discussion. From the rostrum delegates from all over the country dealt with the plan as a whole and the specific tasks it outlined. Some speakers submitted new proposals, others outlined additional resources that could be tapped or cited local experience that could be used productively elsewhere.

Altogether 86 delegates took the floor to convey the sentiments of the population of their respective regions and to put before the Congress the views and suggestions voiced at the numerous conferences and meetings which preceded the Congress.

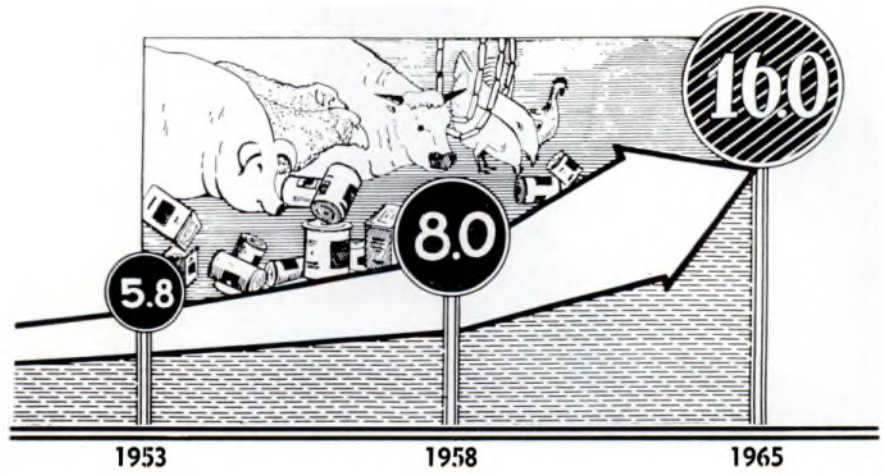
### Seven-Year Plan Approved

On February 5 the Twenty-First Congress ended its work by passing a resolution unanimously approving the target figures for the economic development of the Soviet Union for 1959-1965 presented in N. S. Khrushchev's report. The Congress stressed the great importance of the wishes and suggestions expressed during the nationwide discussion of the draft of the report as well as in the speeches at the Congress itself. These will be

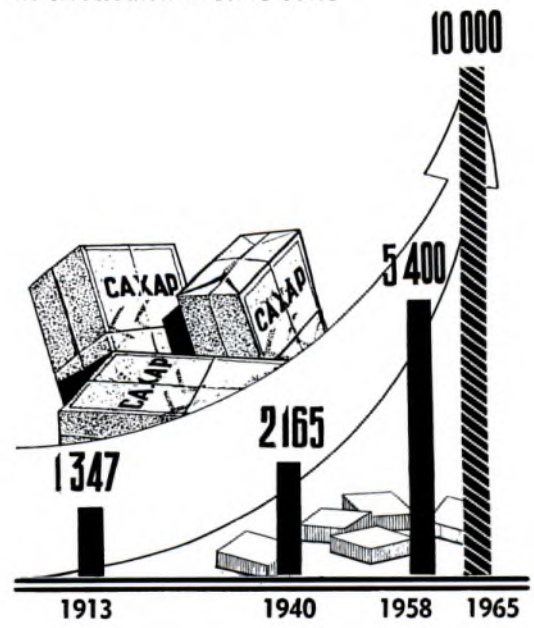
**PRODUCTION OF MILK**
*in million metric tons*



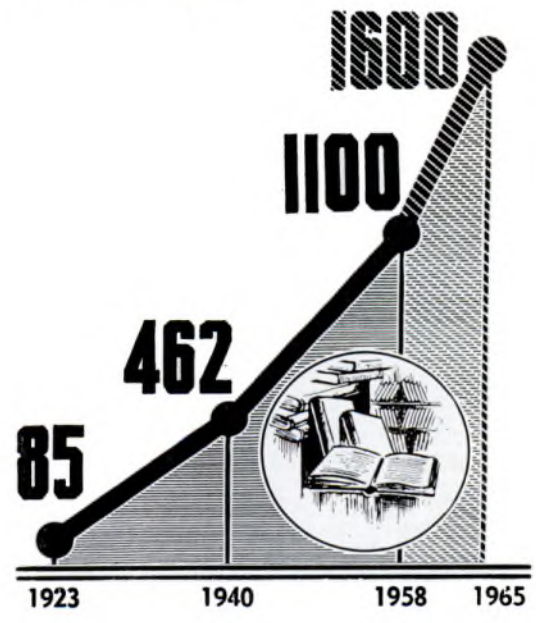

**PRODUCTION OF MEAT**
*in million metric tons*




**PRODUCTION OF SUGAR**
*in thousand metric tons*




**BOOK PUBLICATION**
*in million copies*




referred to the proper government bodies for incorporation in the seven-year program.

The Congress wholly approved the activities of the Central Committee of the party and the important measures carried out after the Twentieth Congress both in domestic affairs and foreign policy. In its resolution the Congress emphasized that in the Soviet Union, which blazed mankind's trail to socialism, a level of productive forces and cultural advance has now been attained which makes it possible to launch in the coming seven years an all-out program for building a communist society.

The resolution approved the great program outlined in N. S. Khrushchev's report and set the concrete tasks to be carried out in industry and agriculture, in further raising the population's living standards and in the development of education and science.

The Congress emphasized that at this point in the development of socialist society in the Soviet Union material values will continue to be distributed in keeping with the principle: From each according to his ability, to each according to his work. The transition to the communist principle of distribution based on individual requirements will be effected gradually as the productive forces develop, when an abundance of prime necessities is achieved and when all people will work to the best of their ability, conscious that this contributes to the common good.

In Soviet socialist society a considerable and ever-growing part of material and cultural values is already being distributed free, in the form of services and benefits, according to need. This share of the national wealth, forming the social fund of consumption, will steadily increase, which is an important prerequisite for the gradual transition to the communist principle of distribution.

The delegates stressed in their resolution that the principal trend in the development of socialist government is the utmost extension of democracy, the drawing of all citizens into the management of the country's economic and cultural affairs and the administration of public affairs.

The Congress pointed out in its resolution that many functions now exercised by government agencies must gradually be taken over by public organizations.

Touching upon the problem of peaceful competition with the United States, the Congress set the goal of overtaking and surpassing the United States both in total and per capita production.

### Building for Peace and Plenty

The Congress expressed the indomitable will of the Soviet people for peace and instructed the Central Committee of the Communist Party and the Soviet Government to carry on their persistent struggle for world peace and international security. Guided by the principle of peaceful coexistence put forward by the founder of the Soviet state, Vladimir Lenin, the Soviet Union will continue to strive for cooperation in every area with all countries in the world.

The seven-year plan adopted by the Twenty-First Congress is hailed by the country generally as a great and historic landmark in the progress of the Soviet people. There is every reason to call this Congress the Congress of the Builders of Communism, marking, as it does, the beginning of the period of extensive building of a communist society in the Soviet Union.

Amid nationwide enthusiasm expressed in the press, over the radio and on TV, the Soviet people have set out to fulfill the challenging tasks of the seven-year program the success of which will bring each family greater prosperity, cultural progress and a life of peace.

# ANASTAS MIKOYAN visits



Anastas Mikoyan talks with President Eisenhower and Secretary Dulles at the White House. Also present were Mikhail Menshikov (center), Soviet Ambassador, and US Ambassador to the USSR, Llewellyn Thompson.

LET'S move step by step to eliminate mistrust in our relations. Let's compete in peaceful production for the benefit of our peoples. Let's work together to preserve and strengthen peace. These words by Anastas I. Mikoyan, First Vice Chairman of the USSR Council of Ministers, are a concise summation of his message to American audiences during his two-week tour of the United States.

Anastas Mikoyan arrived at Idlewild International Airport on January 4 as the guest of Soviet Ambassador Mikhail Menshikov to spend a portion of his vacation here.

Mikoyan's first words on American soil were his wish for the happiness of the American people in the New Year and for world peace. He also conveyed personally Nikita S. Khrushchev's message to the American people wishing them health, happiness and peace.

In explaining his reasons for coming, Anastas Mikoyan stressed his desire to see the changes that have occurred in the United States during the twenty-two years since his first trip here. At that time he traveled about the country for two months, obtaining a first-hand impression of American life, economic activity and trade, and meeting business and political figures as well as the man on the street.

Mikoyan said he would be happy to renew old acquaintances and to establish new contacts. And from the first hour of his arrival he demonstrated he was bent on fulfilling his desire to get fully acquainted with the present situation in the United States and meet representatives of broad sections of the population.

Soon after leaving the airport by car for Washington, Mikoyan and his party stopped at a Howard Johnson restaurant in Yardley on the New Jersey Turnpike to have breakfast. While there he carefully inspected the kitchen and its equipment, asked many questions about the restaurant's operations and displayed interest in the vending machines.

The party stopped a second time to permit the Soviet visitor to inspect the Oakcrest Motel at Perrysville, owned by Sharpe D. Karper, who showed him around.

This intense interest in minute details of American life, ranging from popcorn vending machines to the complex operation of automatic production lines in giant industrial establishments, was repeated wherever Mikoyan appeared. He was eager to listen to people—whether they were salesmen or bankers, workers or famous industrialists.

Anastas Mikoyan spent January 4 through 6 in Washington and had conversations there with Vice President Richard Nixon and Secretary of State John Foster Dulles, exchanging views and opinions on international questions, some touching on Soviet-American relations. He also met with numerous representatives of official and business circles in the capital, including many members of Congress and State Department officials.

A formal dinner in his honor was given by Eric Johnston, president of the Motion Picture Association of America, Inc.

Another highlight of his Washington stay was a luncheon given by American trade union leaders at the headquarters of the International Union of Electrical Workers, with its president, James B. Carey, as host. Mr. Carey, who is also a vice president of the AFL-CIO,

# :he United States

## Finds American people as eager for peace as the Soviet people

In Chicago, where Mikoyan addressed a private club's dinner meeting, he engaged Adlai Stevenson in an animated conversation. Stevenson toured the Soviet Union last year.





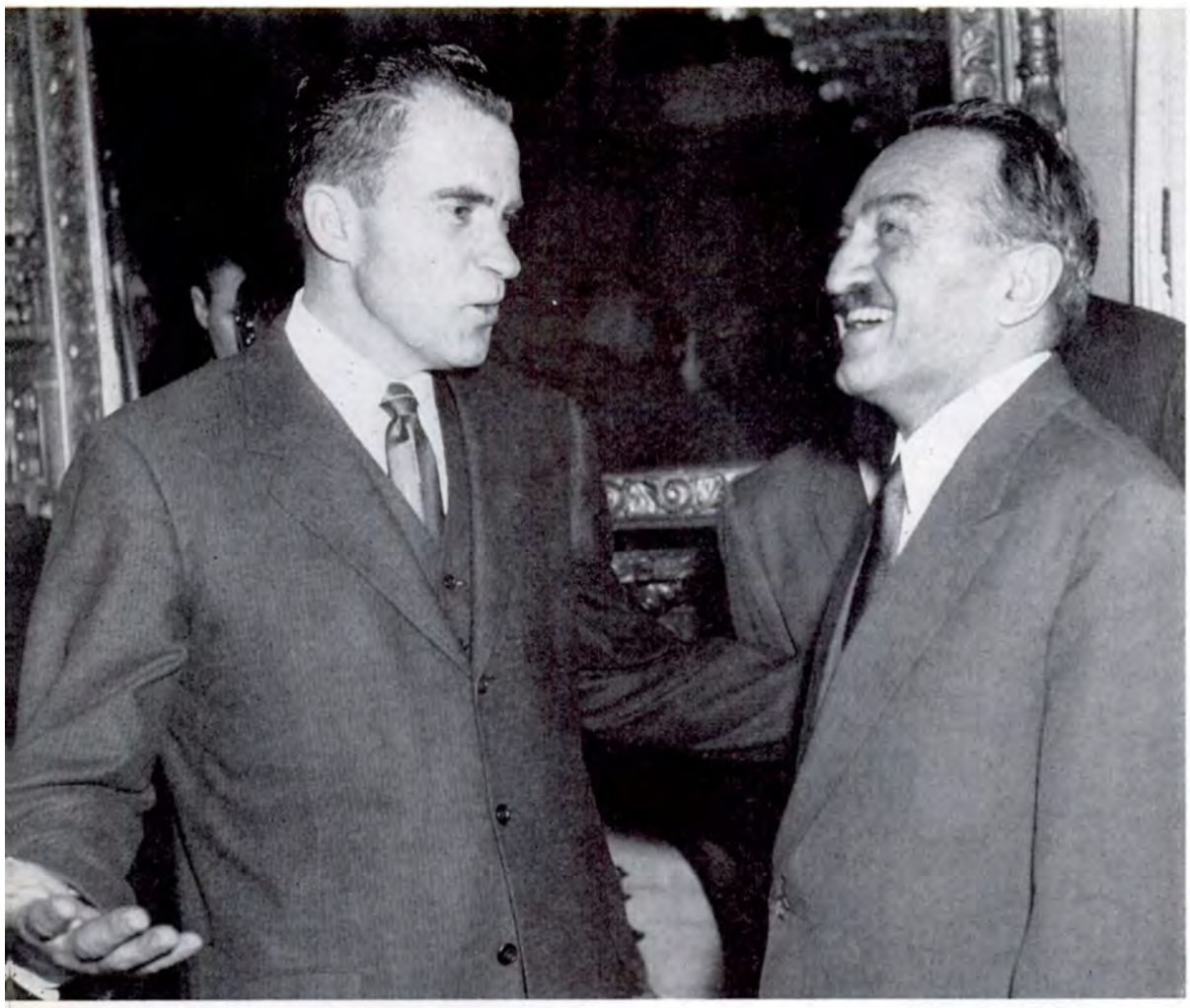
On his coast-to-coast trip Mikoyan met many American workers as well as industrialists and political figures. While touring the Lincoln Electric Co. plant in Cleveland, he talked to factory worker Glen Hershaw. Mikoyan showed an interest in the plant's machinery.

Welcome to Cleveland. The Soviet Deputy Premier shakes hands with Mrs. Cyrus Eaton, wife of the Ohio industrialist, at the airport as her husband looks on with smiling approval. Ambassador Menshikov stands at the rear right.





Reporters crowd about Anastas Mikoyan after his two-hour meeting with Secretary of State Dulles. Mikoyan said they had exchanged views on questions of mutual interest to their two countries.



Anastas Mikoyan is received by Vice President Richard Nixon in his office on Capitol Hill. The Soviet visitor also met a number of Congressmen.

# ANASTAS MIKOYAN visits the United States

During a chilly weather stroll in Washington, Mikoyan picked up a following of children. One lad, Johnny Drury, had his cold nose tweaked.



had invited a number of his fellow officers, including President Walter Reuther of the United Automobile Workers and Joseph A. Beirne, President of the Communication Workers of America. The luncheon meeting included a frank exchange of opinions.

Between his many appointments and official meetings, Mikoyan found time to see points of historical interest in and around Washington as well as to visit some art galleries. He made a point of not missing such characteristic features of American city life as the great supermarkets, stopping off to go through one in the Washington suburb of White Oaks, Maryland. He examined the prepackaged goods, vegetable displays, fresh meat counters and shopping carts. The people in the store interested him, and he spent a few moments chatting with a young father shopping for groceries with his son.

On the morning of January 7, Mikoyan started his westward trip, making his first stop at Cleveland where he was met at the airport by Cyrus Eaton, chairman of the board of the Chesapeake & Ohio Railroad, and Mrs. Eaton. In his welcoming speech, Eaton told Mikoyan that his arrival was an opportunity to show him Ohio's hospitality and friendliness. The industrialist recalled that on his recent trip to the Soviet Union he had been impressed by the feeling of friendship manifested by everyone, from school children to government leaders. Eaton closed with a call for mutually advantageous trade between the two countries in the interest of friendship.

Replying, Anastas Mikoyan said that Eaton's visit to the Soviet Union had helped bring about a better understanding between the USA and the USSR. Mikoyan added that Eaton's remarks were added proof that people repre-




Stopping off to learn how a supermarket operates, Mikoyan toured the new Giant store at White Oaks, Md., and bought a load of groceries.

senting different social systems can have good-neighborly relations and be good friends under conditions of peaceful coexistence. "Although your ideology differs from ours, we are united in our common desire to live in peace," Mikoyan said.

At a reception and luncheon given in Mikoyan's honor at Cleveland's Union Club, many leading figures of Ohio's business world were in attendance, including heads of the largest trade and transportation corporations, newspaper publishers, professional men and important public figures.

All of the speakers, including Cyrus Eaton, Board Chairman James Lincoln of the Lincoln Electric Co., Grand Chief Engineer Guy Brown of the Brotherhood of Locomotive Engineers and Dr. Charles Higgins, chairman of the board of governors of the American Board of Surgeons, stressed the importance of contacts and exchanges in all fields, at all levels, for the advancement of mutual understanding and friendship between nations.

In his response, Anastas Mikoyan declared that no idea is more sublime morally than that of friendship between peoples and that peace is especially important in our day.

Mikoyan told his audience of the great peaceful construction going on in the Soviet Union, with the rapid development of industry and agriculture proceeding to raise the living standards of the people. "Our objective," he said, "is to catch up with and overtake America in per capita production."

International trade, Mikoyan said, can be of great significance in bringing about a peaceful atmosphere and strengthening peace. The Soviet Union wants to trade on a mutually advantageous, commercial basis; we want to trade in earnest, he said.

While in Cleveland the Soviet visitor inspected the Lincoln Electric Company plant and not only studied its equipment and products but manifested great interest in working conditions and the life of its employees. He invited several Lincoln workers to come to the Soviet Union and see for themselves how Soviet workers live.

Anastas Mikoyan asked Richard Folette, a worker of East Lakewood, Ohio, his attitude toward Soviet workers. Folette replied: "I am a working man and I am for the working man everywhere." Mikoyan then asked Folette's opinion on peace and the reply was: "All working men are against war because we are the ones who would have to fight."

At Mr. Eaton's farm outside Cleveland, Mr. Mikoyan formally presented the industrialist with a Russian troika—a carriage and team of three white horses—as a gift from the Soviet Government.

The following day, January 8, saw the Soviet statesman en route to Detroit, where he told his welcomers that the Soviet people are well acquainted with the Motor City as one of America's largest industrial centers, as a stronghold of organized labor and as a city of efficient business leaders.

At a dinner in the Detroit Club given by leading citizens of the community, as well as at a luncheon given by Henry Ford II and other auto industry leaders, Mikoyan reiterated his call for a reduction of tensions between the Soviet Union and the United States. He also continued his policy of frank answers to all questions, whether appearing before a formal audience or strolling through the Ford plant at River Rouge and chatting with workers. All the workers he talked to spoke for peace and understanding.

Anastas Mikoyan said he found many impressive changes in Detroit since his visit of twenty years ago, but that the friendly and hospitable receptions were unchanged. He recalled that in the early days of the Soviet automobile industry, the Detroit car manufacturers were especially helpful and cooperative.

While Mikoyan was speaking with Detroit industrialists, he mentioned that although the Ford Motor Company and General Motors compete intensely and spoil each other's blood, they do not spill it. "The same sort of competition should exist between the Soviet Union and the United States," he said. "We can spoil each other's blood but we should by all means avoid spilling it."

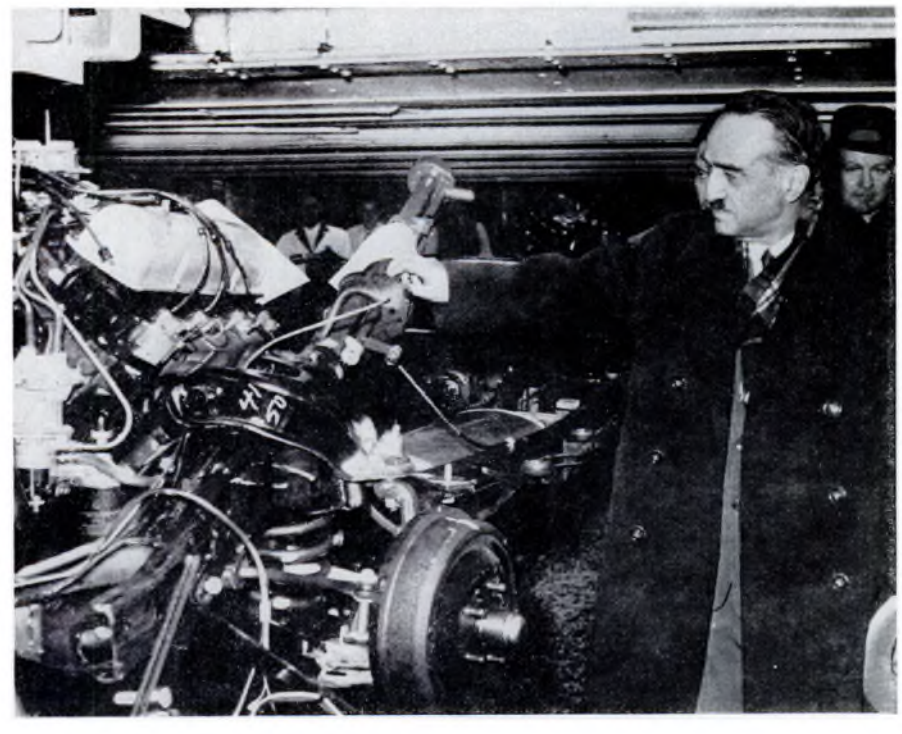
Stopping next at Chicago, Mikoyan told members of the city's club that the business community could play an important role in a *rapprochement* between the Soviet Union and the United States. He reminded his listeners that long prior to the establishment of diplomatic relations, American business firms had developed an intensive trade with the Soviet Union, exporting tractors, industrial equipment and manufactured goods.

During his stay in the Windy City, Mikoyan accepted the invitation of Joseph Po-



For his tour of the great River Rouge auto plant, Mikoyan was met by Henry Ford II. The Soviet visitor recalled his trip of 22 years ago when Henry Ford, Sr. showed him around.

Viewing an automobile assembly line at River Rouge, Mikoyan examines a partially assembled Ford during a stop on his tour. The Soviet guest also visited other Detroit factories.






"Our Russian bear looks more friendly," Anastas Mikoyan told Gov. Edmund G. Brown of California as he examined the state flag. Afterward Mikoyan dropped in on Hollywood movie sets, saw films made and talked to the stars.

# ANASTAS MIKOYAN visits the United States

lowsky, a Chicago bus driver, to visit his home and to hobnob with a typical American family. A World War II veteran, Polowsky was with the U.S. troops that met Soviet forces at the German river Elbe. At the Polowsky apartment, Mikoyan played with the couple's children. I hope, he said, that your children and my grandchildren will live in peace.

January 10 found the Soviet visitor on the Pacific coast. His first stop was San Francisco, where he was a guest of the Press Club and met with correspondents. Answering questions there, he stressed the importance of the cultural exchange agreement signed a year ago and said he found it marked a heartening stage in Soviet-American relations.

Asked what problem should be solved first to improve relations, Mikoyan responded that peace was the vital issue and we should end the cold war, avoid tensions and treat one another as equals without any effort to impose the will of one upon the other. Then, he continued, we can easily find a common language which will help us reach a peaceful solution of all disputed problems.

During his stay beside the Golden Gate, Anastas Mikoyan won an ovation from the World Trade Association when he told his listeners of the need to make the two countries trade together for their mutual benefit. Mikoyan said the volume of Soviet exports has reached about 4.5 billion dollars and about 1.5 billion of this covers goods the U. S. has to import. He stressed that the seven-year plan for developing Soviet economy calls for an 80 per cent boost in industrial output and holds great



Ford worker Ashot Kazarian (left), an Armenian-American, got an autograph from Anastas Mikoyan after addressing the Soviet guest in his native tongue during the River Rouge tour.

Mikoyan holds Irene, baby daughter of Joe Polowsky, American veteran of the Elbe river link-up with Soviet troops, at his Chicago apartment.



possibilities for Soviet-American trade.

The visitor said the Soviet Union had reached a high level of industrial development and not only could purchase American goods, but could also sell the United States the most modern machinery. "The artificial earth satellites we call sputniks and our cosmic rocket are not just isolated achievements or accidents, but rather evidence of the generally high scientific and technological development of my country," Mikoyan said.

Before leaving San Francisco, Mikoyan was received by Governor Edmund G. Brown and they enjoyed a cordial conversation in which the California Governor suggested that the next Soviet-American conference be held under the state's "great and ageless redwoods."

The next stop was Los Angeles, where Mikoyan conferred with business leaders of Southern California and representatives of a cross section of the sprawling city's population. He reiterated his feeling that the Soviet Union and the United States must stop distrusting and misunderstanding each other.

Anastas Mikoyan was honor guest at a dinner attended by a large number of the leading representatives of the film industry.

In Hollywood, Mikoyan toured the movie capital's studios, met with producers, famous stars and technicians. Before bringing his West Coast visit to a close the visitor stopped over at the University of California in Los Angeles and met in a very warm and friendly atmosphere with the students and faculty. He told them he could feel the real interest of American intellectuals in the Soviet Union and felt this was natural because of the vast changes that had occurred there since 1917.

Turning back east, Mikoyan reached New York City where he spent a busy time. First he went through Macy's department store on Herald Square where he was met by store executives. Starting in the bargain basement, they went through the ten floors, examining consumer goods and merchandise of all types. Mikoyan frequently stopped to handle goods that particularly interested him. He next lunched with a group of Wall Street financiers in a private dining room of the First National City Bank of New York, met a cross section of men prominent in the economy and public life of the country at the home of former New York Governor Averell Harriman, and concluded his day with an appearance as guest of honor at a huge banquet sponsored by the Economic Club of New York.

Some 1,100 American business leaders heard Anastas Mikoyan call for an end to *nyet, nyet, nyet* (no, no, no) in Soviet-American relations, and the substitution of *da, da, da* (yes, yes, yes). Applause greeted the speaker as he called for more support for peace, for consultation and negotiation, for peaceful competition and coexistence.

"We have less than you have now," Mikoyan went on. "Does it represent a threat to you if the Soviet Union eats as much as you do? Or drinks as much milk? Or if our people have as much consumer goods as the Americans? Would that constitute a danger to you?"

Afterward Mikoyan returned to Washington, where he had an appointment with President Eisenhower and Secretary Dulles.



Anastas Mikoyan paid a visit to U.S. Secretary of Commerce Lewis Strauss in Washington. In his speeches Mikoyan stressed the Soviet Union's desire to develop mutually advantageous trade with the United States.

On January 19 a luncheon in honor of Mikoyan was given at the National Press Club attended by some 500 newspapermen and observers.

On January 20 Anastas Mikoyan left the United States after making a statement in Washington thanking the American people for their hospitality and expressing his wish for them to live in peace and friendship with the Soviet Union.

Soon after Mikoyan arrived home he held a press conference in the Kremlin. He told the foreign and Soviet journalists gathered there that the Soviet Government considered his visit a contribution to the improvement of Soviet-American relations and felt that it would help to lessen international tension.

Mikoyan said that the representatives of business circles he had met in New York and other American cities had stated outright that they thought relations between the two countries should be normalized and that if the Soviet Union and the United States would draw closer to each other, it would help to strengthen world peace. These businessmen, Mikoyan said, want to develop business relations and trading contacts with the Soviet Union on the basis of respect for mutual interests.

Mikoyan expressed his sincere appreciation to President Eisenhower, Vice President Nixon, Secretary of State Dulles and to all the organizations and individuals in the United States that had received him so hospitably.

He was truly grateful, he said, for the warm sentiments the American people had evinced toward the Soviet people. Mikoyan conveyed greetings from the workers of the Ford, Chrysler, General Motors and Lincoln plants and the students of the University of California in Los Angeles. He said that these people and many others he had met had asked him to carry back the message that the American people want to live in peace and friendship with the Soviet people. This in itself is proof that the joint efforts of the Soviet Union and the United States along with other countries could create the conditions for a peaceful and tranquil life for all people.

Speaking before the Twenty-First Congress of the Communist Party in January, Anastas Mikoyan said that the average Americans and the industrialists with whom he had talked had met him as an envoy from the Soviet Union, although his visit had been an unofficial one. They gave me a very friendly welcome, Mikoyan pointed out, and I could see they were most anxious to find out what the Soviet people want and what we are trying to accomplish. Some of the questions I was asked showed that there are wrong conceptions of our country and of our policy. The explanations we gave them were thoroughly grasped and one could feel that the Americans really wanted to understand us. They also did their best to let me see their point of view.

I listened attentively to the questions they put to me and, without any evasions, I answered them to the best of my ability. I also paid careful attention to what they said. One could feel, concluded Mikoyan, that the American people and most of the businessmen are hungering for peace, want a genuine peace for the world, and stable and peaceful relations between the USSR and the United States.



# THE FIRST ROCKET IN THE COSMOS

ON JANUARY 2, 1959, a cosmic rocket was launched in the direction of the moon—with this matter of fact statement Soviet science and technology announced that interplanetary flight was on the order of the day. The Soviet Union had built and shot into space man's first artificial planet, a rocket whose last stage had exceeded a speed of seven miles a second—what scientists term second cosmic velocity—enough to escape the gravitational pull of the earth and to place the rocket into a great orbit around the sun.

The last stage was a controlled rocket. Control was effected through an automatic system which stabilized the position of the rocket along the preset trajectory and ensured the precalculated velocity after the engine was switched off.

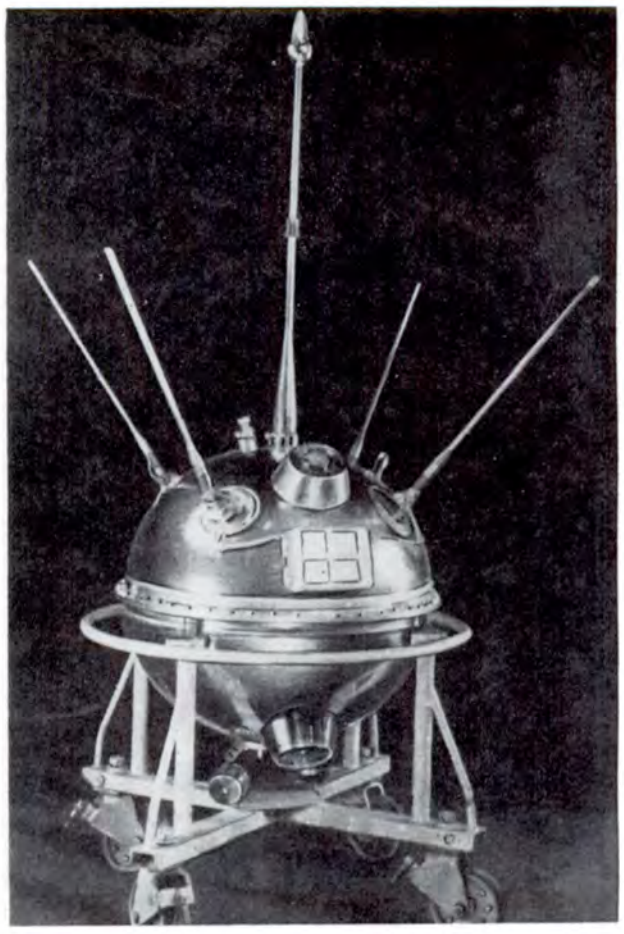
The last stage of the rocket after its stock of fuel had been consumed weighed 3,244 pounds. Besides the devices which assured normal flight, it carried a 796-pound separable container with scientific and radio equipment, as well as a cosmic ray counter, two transmitters to relay research data, a radio system to determine the rocket's trajectory and forecast its further movement, and equipment for creating an artificial sodium comet.

## Second Cosmic Speed

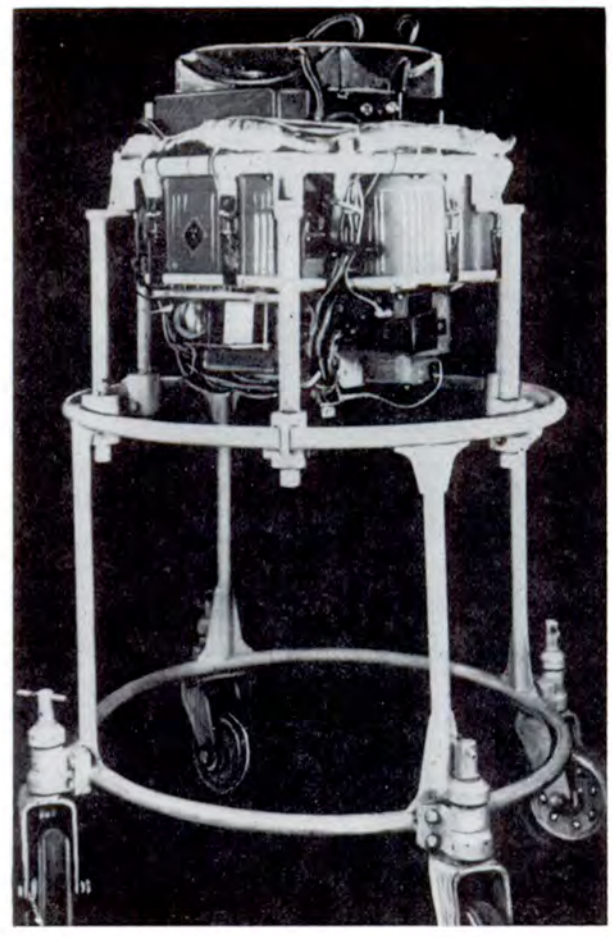
The rocket took off from the ground vertically. Then its trajectory was gradually veered away from the vertical by an automatic control system. When the rocket's last stage exceeded the second cosmic velocity, the control system switched off the engine and detached the container with a load of scientific instruments. Both the container and the last stage raced on in the cosmos along the prescribed trajectory separately, quite near each other.

After the engine of the last stage was switched off, the motion of the rocket, until it approached the moon, was influenced mainly by the

The rocket's separable container with scientific and measuring equipment shown on an assembly carriage.



The instrument frame of the container with its equipment and power sources shown on an assembly carriage.



earth's gravitational pull. Consistent with the laws of celestial mechanics, the trajectory of the rocket approximated a hyperbola. It was most askew near the earth. But the farther the rocket moved, the weaker was the earth's attraction, and at a great distance the trajectory became almost a straight line.

The speed of the rocket, very significant in the beginning of its hyperbolic trajectory, then slowed down because of the earth's attraction. Thus, at an altitude of 1,000 miles the rocket's speed in relation to the earth was a bit more than six miles a second. At an altitude of 60,000 miles it was only two miles a second.

The time of flight to the moon's orbit depends on the increment by which a rocket's initial speed exceeds the second cosmic speed. The larger the increment, the shorter the time of flight.

In the case of the Soviet rocket a choice of the magnitude of this increment was made so that the passage near the moon could be observed by radio in the Soviet Union and elsewhere in Europe, Africa and the larger part of Asia.

It took the rocket 34 hours to reach the point in its flight closest to the moon. At this point they were only 3,100-3,700 miles apart—approximately one and a half diameters of the lunar body. The rocket moved in the celestial sphere approximately five times more slowly than the moon.

When the rocket approached to within several tens of thousands of miles from the moon, the lunar force of gravity began to exert a noticeable influence. The moon was below the rocket and the direction of the rocket's flight declined downward. The moon's attraction also made for a localized increase in speed which reached its maximum when the moon and the rocket were nearest each other.

### Orbit Around the Sun

After passing near the moon, the rocket's speed in relation to the earth diminished to approximately 1.2 miles a second. At a distance of one million miles and more away from the earth, the effect of the earth's gravitational pull was so weak that the rocket could be practically considered to be moving only under the influence of the sun's attraction.




Ensigns carried inside the rocket's container—a sphere symbolizing the artificial planet, and a thin metal ribbon with the inscription "Union of Soviet Socialist Republics" on one side and "January—1959—January" between two Soviet state emblems, on the other side. Engraved on the sphere's pentagonal elements of rustless steel are the words "USSR—January—1959" and the Soviet state emblem with the inscription "USSR."

Around January 7 or 8, the rocket entered an orbit of its own around the sun. It thus became the sun's satellite, the first man-made planet in the solar system.

During this period, the velocity of the rocket in relation to the earth was headed roughly in the same direction as the velocity of the earth in its revolution around the sun. Since the earth moves with a speed of 18.6 miles per second and the speed of the rocket in relation to the earth was 1.2 miles per second, the speed of the rocket's motion as a planet around the sun was roughly 20 miles a second.

# New Advance in Space Exploration

## Utmost Accuracy Essential for the Rocket's Launching

**By V. Ivanchenko**
*Doctor of Science (Tech.)*

IN THIS AGE of cosmic travel, we must know a great deal more about the properties of space than the information supplied by the earth's artificial satellites. In much the same way as reliable charts are needed for the navigation of the seas or airways, more detailed cosmic exploration is necessary to chart safe routes for future manned flights to the other planets of our solar system.

The list of instruments aboard the Soviet cosmic rocket shows that its purpose was to make an extensive study of regions of the universe far beyond the earth. The rocket's trajectory was chosen so that it could pass close to the moon to obtain what might be termed a "bonus" of additional information.

Scientists and engineers working out the trajectory had a tremendously difficult task. First of all, equipment had to be designed that would allow for the gradual built-up of speed in one stage of the rocket after the other. The rocket's last stage had to achieve a definite precalculated speed. Had this velocity been either too little or even slightly excessive, the rocket would have veered sharply away from the neighborhood of the moon and taken quite a different path.

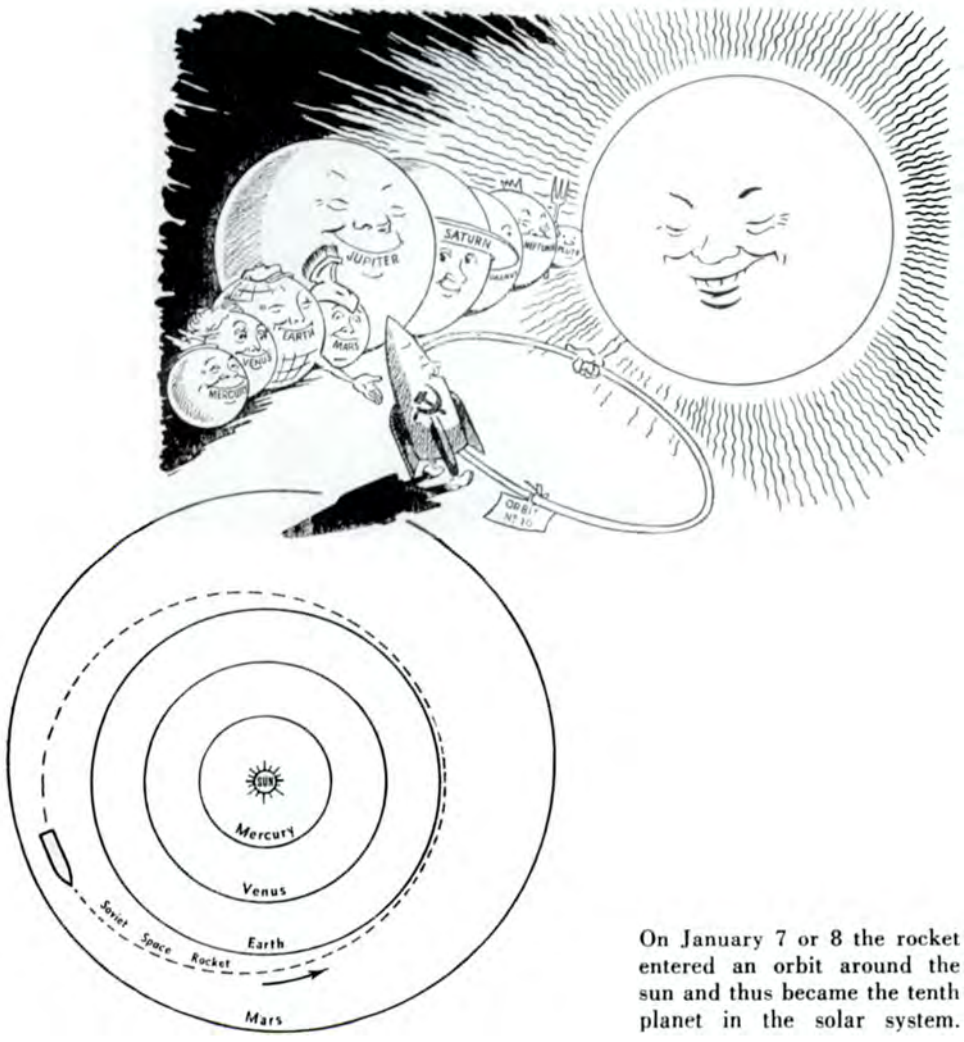
Another feature demanding the utmost accuracy was the angle of ascent in the rocket's last stage. Here again, even the slightest deviation from the precalculated angle would have made the rocket miss the moon which—we should remember—was also traveling very fast.

When the rocket blasted off from the earth, the moon was far from the point where it was to have its rendezvous with the rocket. Therefore it was not only necessary to direct the rocket exactly to this point, but to get it off the earth at the exactly correct moment. The slightest hitch in the count-down would have caused the rocket to miss the moon by far, even if its automatic pilot followed the preplotted course exactly.

The extreme precision with which the rocket followed its prescribed trajectory is one of the most amazing features of this feat of science and technological collaboration.



## The First Rocket in the Cosmos




On January 7 or 8 the rocket entered an orbit around the sun and thus became the tenth planet in the solar system.

By applying the laws of celestial mechanics, we can predict the movement of the rocket as a new planet of the solar system. The inclination of its orbit to the earth's orbital plane is about one degree. The closest the new planet will get to the sun will be about 90 million miles. This is slightly less than the distance between the earth and the sun, which averages 93 million miles. The farthest the new planet will get away from the sun will be about 122 million miles. At this point in its orbit it will be about 29 million miles farther away from the sun than the earth.

The new planet's period of revolution around the sun will be about 450 days, or some 15 months. It is longer than the earth's year because the radius of the rocket's orbit, and consequently the length of its path around the sun, is greater. The rocket first reached the point closest to the sun in the middle of last January, and will reach the point farthest away early in September of this year.

As the rocket and the earth move around the sun the distance between them will alter—grow larger, then smaller. The greatest distance may reach something like 185 to 215 million miles; the shortest may be in the neighborhood of 620,000 miles.

### Container with Scientific Equipment

The spherical container with scientific equipment was housed in the upper part of the rocket's last stage. For protection from heating during passage through the dense layers of the atmosphere the container was shielded by a cone which later was discarded. The container housed the following instruments:

1. Radio equipment to verify the trajectory of the rocket's movement—a transmitter operating at a frequency of 183.6 megacycles and a block of receivers;
2. A telemetric block for radio transmission of scientific measurements as well as temperature and pressure measurements inside the container;
3. A radio transmitter with a frequency of 19.993 megacycles to relay instrument readings;
4. Instruments for the study of the gas components of interplanetary matter and the corpuscular radiation of the sun;
5. Instruments for measuring the magnetic field of the earth and detecting the magnetic field of the moon;
6. Instruments for the study of meteor particles;
7. Instruments to record the heavy nuclei in primary cosmic radiation;
8. Instruments to record intensity of cosmic rays and to record photons in cosmic radiation;
9. Silver-zinc and oxidized-mercury batteries to power the radio instruments and scientific equipment.

Fastened to the outer shell of the container were the four antennae of the 183.6 megacycles frequency transmitter. The rods were placed

# Manned Space Rockets Within the Life Span of Our Generation

**By A. Dorodnitsin**

*Member,*
*USSR Academy of Sciences*

THE creation of man's first artificial planet demonstrates that Soviet rocket engineering is well on the way to conquering the cosmos. And this was made possible by a high level of metallurgy, machine building, radio engineering, instrument making and automation. It is these branches of technology that to a great extent determine the country's economic potential.

A high level of Soviet rocket engineering is also a result of scientific achievements. The space rocket could not have been created without highly advanced aerodynamics, thermodynamics, mathematics, physics, chemistry, electronics and computing techniques.

From the time of the first sputnik Soviet specialists have devoted much attention to increasing the weight of research rockets. This is not only because heavier payload is essential to obtain a maximum of scientific data from flying space laboratories. The larger size of rockets is also necessary for future manned flights in space.

Of course, there is still a lot of difficult work ahead before this task is completed. But we can say that the work has already passed from the realm of quests of untrodden paths into the stage of technical design. There is no doubt that within the life span of our generation man will set foot on the planets of our solar system and, first of all, on the moon, of course.

Mankind is on the threshold of great discoveries. There is a possibility, for example, of utilizing various rare elements which may be found in greater quantities on other planets. Their delivery to the earth may prove to be quite profitable.

At this time we don't even dare to predict what new discoveries are ahead in our exploration of the planets. But we can be quite sure that whatever the discoveries, they will be used for the benefit of man.

symmetrically around a hollow aluminum pin with a magnetometer at the end. The antennae were folded and fastened onto the pin until the protective cone was discarded, and then they opened up. Also on the shell were two proton traps for detecting the gas components of interplanetary matter and two piezo-electric gauges for the study of meteor particles.

The container was hermetically sealed and filled with gas at a pressure of 1.3 atmospheres. Circulated by a ventilator, the gas drew off the heat from the instruments and passed it on to the container's shell, which served as a kind of radiator. The temperature of the gas was maintained within the preset limits—about 20 degrees centigrade (68 degrees Fahrenheit).

To maintain the required temperature regime inside the container, it was detached from the rocket after the engine of the last stage finished working. Special treatment of the container's outer shell ensured the necessary balance between the heat radiated from the inside and the heat received by the shell from the sun.

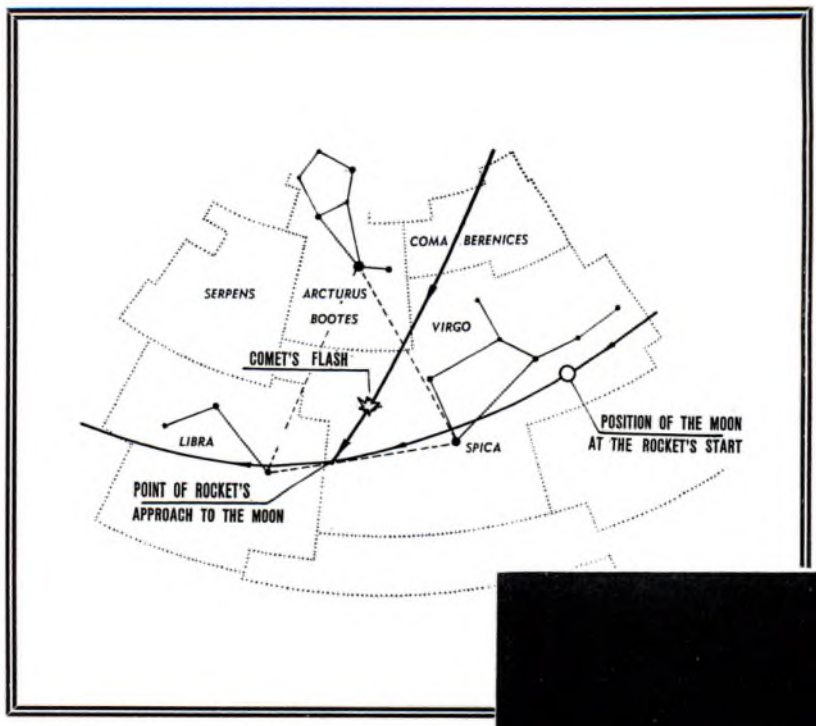
Separating off the container also ensured the normal regime of work for the antennae and the magnetometer fastened to the outer shell. Whatever undesirable magnetic influences might be exerted by the metal structure of the rocket on the readings of the magnetometer were thus eliminated.

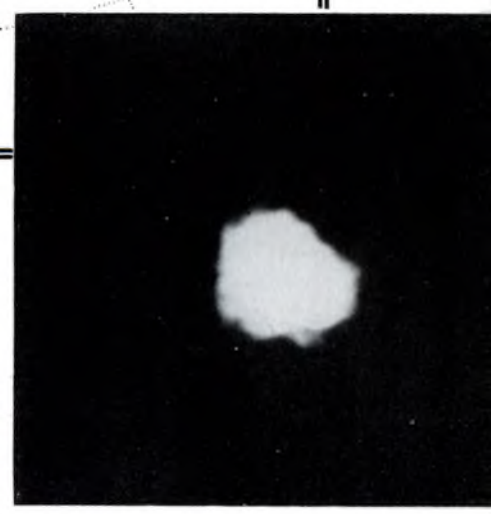
### Two Ensigns

To mark the launching of the first cosmic rocket which became the first artificial planet of the solar system, the container carries two ensigns with the state emblem of the Soviet Union.

One ensign is a thin metal ribbon which has the inscription "Union of Soviet Socialist Republics" on one side, and the inscription "January—1959—January" between two Soviet state emblems on the other side. Both the inscriptions and emblems are fixed for permanence by a special photochemical process.

The second ensign is a sphere to symbolize the artificial planet. Its surface is covered with pentagonal elements which are made of special rustless steel. Engraved on one side of each element is "USSR—January—1959," and on the other side the state emblem of the Soviet Union and "USSR."



Constellation map shows the rocket's path toward the moon. At the right is an actual photograph of the flash of the artificial comet formed by the rocket on January 3 at the distance of 70,000 miles from the earth.

### Cosmic Ray Study

One of the principal research objectives of the Soviet space rocket is the study of cosmic rays.

Until now data on cosmic rays was obtained by measuring them near the earth. The composition and properties of cosmic radiation near the earth, however, differ markedly in character from virginal cosmic ray particles that come to us from outer space.

When high-altitude rockets and especially artificial satellites are used for the study, the amount of matter interfering between the virginal cosmic rays and the measuring instrument is no longer significant. However, the earth is "enveloped" by a magnetic field which partially reflects back the cosmic rays. On the other hand, the same magnetic field acts as a sort of trap for the cosmic rays. Once a cosmic ray particle is caught in this trap, it will wander about there for quite a long time.

As a result, vast amounts of cosmic ray particles accumulate near the earth. We know that at altitudes of 600 miles only a negligible num-

# Next Step— Flight Beyond the Solar System

**By A. Ilyushin**

*Corresponding Member*
*USSR Academy of Sciences*

SPUTNIKS travel with the first cosmic velocity of five miles per second, and they are unable to completely free themselves from the earth's gravitational pull. The Soviet rocket exceeded the second cosmic velocity of seven miles per second, and it thus escaped this attraction forever.

The magnitude of these speeds, which are respectively 27 and 38 times greater than the speed of sound, testifies to the complexity of the problem solved by Soviet rocketry specialists. Combine the velocity of the space rocket with its enormous weight, and you can conclude that a new advance has been scored in the creation of cosmic vehicles.

The successful launching of Sputnik III, weighing in excess of 2,900 pounds, foretold the coming of the cosmic rocket which is still heavier. But its creators had to solve such complex problems as building an engine with more thrust and power. They had to work out the system of the multistage vehicle, to find a high calorific fuel and to produce an effective launching device. They also had to develop strong but light alloys for the rocket and heat-resistant alloys for its engines. On top of all this, the success of the flight of the cosmic rocket hinged on the precision of its guidance and control system.

The attainment of success by the rocket, whose 3,244-pound last stage is now in orbit around the sun, prove that Soviet science and technology have the necessary prerequisites for the next step ahead. Even at the present stage of development lighter rockets can be sent beyond the sphere of the sun's attraction.

Once having crossed the so-called third cosmic barrier, they will be traveling in interstellar space. These flights are no longer a fiction writer's fancy but can be regarded as the assignment of the day for science and technology.



# The First Rocket in the Cosmos

ber of these particles—about 0.1 per cent—come directly from outer space. The remaining 99.9 per cent apparently come from the disintegration of the neutrons emitted by the earth—or rather by the top layers of its atmosphere. These neutrons in turn are produced by the cosmic rays bombarding the earth.

Only when we place the instrument measuring cosmic radiation outside the earth's atmosphere as well as out of reach of the earth's magnetic field, as the Soviet space rocket is able to do, can we properly study the nature and origin of cosmic rays.

The rocket carries various instruments to record data on cosmic rays in interplanetary space. Cosmic radiation intensity is registered by two counters of charged particles. They give impulses to so-called recounting circuits that send a radio signal to earth when a definite number of particles are counted off.

The composition of cosmic radiation is investigated by means of two photomultipliers joined to crystals. They record the flashes of light produced in the crystals when cosmic ray particles pass through them. The value of the impulse at the output end of the photomultiplier is, within certain limits, directly proportionate to the amount of light radiated inside the crystal when the cosmic ray particle passes through. This last value, in turn, is directly proportionate to the energy spent by a cosmic ray particle on ionization in the crystal.

By detecting the impulses whose value is greater than one or another level we can study the composition of cosmic radiation. The counting of the number of impulses in the rocket's gauge is done by means of recounting circuits similar to those used to count the number of charged particles.

Apart from measurement of the number of impulses, the total ionization produced in the crystal by all categories of radiations is determined by means of a circuit consisting of a neon bulb, a condenser and resistors. This circuit makes it possible, by counting the number of times the neon bulb flashes, to measure the total current flowing through the photomultiplier and thereby to gauge the total ionization produced in the crystal.

### Interplanetary Gas and Corpuscular Radiation

Until recently it was supposed that the concentration of gas in interplanetary space is fairly low and contains only a few particles per cubic centimeter. But some astrophysical observations within recent years have tended to alter this viewpoint. These observations together with certain assumptions favor the existence of interplanetary gas with densities in a range of one thousand particles per cubic centimeter. Nevertheless the inferences concerning the existence of such a dense gaseous medium in interplanetary space are not conclusive.

At the present state of astrophysical research, the concentration of interplanetary gas cannot be verified by observations made from the surface of the earth. This problem—greatly important for elucidating the processes of gas exchange between the interplanetary medium and the upper layers of the earth's atmosphere and for studying the conditions of distribution of the sun's corpuscular radiation—can be solved by instruments which are installed in rockets moving in outer space proper.

The Soviet space rocket is supposed to carry on the first stage of such investigations. Its instruments were designed for direct detection in interplanetary space between the earth and the moon of stationary gas and corpuscular streams—if they both exist there jointly—and for rough appraisal of the concentration of charged particles in this area. The research was done by means of four proton traps. The proton current, created in the traps by stationary ionized gas and/or corpuscular streams, was amplified and then registered through a radiotelemetric system.

### Meteor Particles

Apart from the planets and their satellites, asteroids and comets, the solar system has a large number of small solid particles. They move, in relation to the earth, at speeds ranging between 7 and 45 miles a second. Taken together, these particles are called the meteor substance.

Analysis of the meteor substance is of great scientific value for geophysics and astronomy, and for the study of the origin and evolution of planetary systems. In our age of space travel the study of the meteor substance has assumed very practical importance.

Meteors striking a space rocket may destroy it altogether or puncture the shell so that the cabin is no longer airtight. Micrometeor particles striking the rocket over a long period may cause undesirable changes in its surface. Optical devices may lose their original transparency and become opaque.

We know that the likelihood of a collision between a space rocket and meteor particles that could damage it is slight. But the possibility does exit and to insure safety of future flights it is important that the danger be properly evaluated.

So far most of the knowledge we have of the meteor substance plunging into the earth's atmosphere from interplanetary space has been obtained through astronomical observation and through radar. But a single micrometeor particle can be studied only by means of instruments carried by artificial earth satellites or high-altitude and space rockets.

To study the meteor substance in interplanetary space, the Soviet cosmic rocket has two ballistic piezo-electric gauges of ammonium phosphate that convert the mechanical energy of striking particles into electric energy. The value of this electric energy depends on the mass and velocity of each meteor particle, and the number of impulses is equal to the number of particles that strike the gauge's exposed surface.

The electric impulses—brief fading oscillations—are fed to the input end of an amplifying transformer, which classes them in three ranges, according to their amplitude, and counts the number of impulses in each amplitude range.

### Magnetic Measurements

An analysis of many observations conducted in the past years to detect the magnetic fields of the planets and the moon by their possible effect on the configuration of corpuscular currents ejected by the sun has yielded no definite conclusions. An attempt to establish a general connection between the mechanical moments of cosmic bodies, known for most planets of the solar system, and their possible magnetic moments could not be proven experimentally although a number of ground investigations were carried through on the basis of this hypothesis.

The assumption that the regular currents flowing in the liquid conductive core of the earth are responsible for creating its basic magnetic field is used most frequently now in various hypotheses. The revolution of the earth around its axis is drawn upon to account for peculiarities of the field.

We know very little about the physical state of the moon's inner layers. Until recently it was assumed that even if the lunar mountains and craters were of volcanic origin, the moon's volcanic activity had long ceased and it is unlikely that the moon has a liquid core. From this point of view it ought to be assumed that the moon has no magnetic field if the hypothesis of the origin of the earth's magnetic field is correct. If the volcanic activity continues, however, there is a possibility of the moon's heterogeneous magnetism and even general uniform magnetism.

Cosmic rockets make it possible to measure magnetic fields of planets directly or to detect them through their possible influence on the intensity of cosmic radiation in the space surrounding the planets. The flight of the Soviet cosmic rocket is the first such experiment. Its magnetometer was designed to measure the earth's magnetic field and the possible fields of current systems in the space within the orbit of the moon, and to detect the magnetic field on the moon.

## Artificial Comet

The artificial comet formed by the Soviet space rocket was a cloud of sodium vapor in an elemental state. The atoms of sodium dispersed sunlight in a narrow range of frequencies, within the yellow band of the solar spectrum. Since the light dispersed by the sodium cloud was monochromatic, it was possible, during observation of the comet, to considerably tone down the interfering background of the sky with the use of special light filters.

The principal unit of the rocket's installation to form the comet was a sodium evaporator. It was designed to evaporate 2.2 pounds of sodium within five to seven seconds and to discharge the sodium cloud under conditions of weightlessness and the vacuum of outer space. The signal that switched the evaporator on exactly at the preset moment was given by a small electronic device whose main unit was a quartz clock.

Calculations show that the brilliancy of a cloud containing 2.2 pounds of sodium discharged 70,000 miles away from the earth should be approximately equal to the sixth stellar magnitude. This is on the borderline of unaided vision. For the sake of comparison, it can be noted that the brilliancy of the Soviet space rocket itself at this distance was equal to the fourth stellar magnitude.

The purpose of forming the artificial comet was to provide optical confirmation of the fact that the rocket was passing through a given section of its trajectory. The time and the place in the sky for the comet's flash was predesigned so that it could be seen by the largest possible number of observation stations in the Soviet Union. With all this in view the sodium comet was formed at 3:57 A.M., Moscow time, on January 3, at a distance of 70,000 miles from the earth.

## Tracking from the Earth

The artificial comet could be observed for several minutes from Central Asia, the Caucasus, the Middle East, Africa and India. The flash was photographed by specially designed optical apparatus at the southern astronomic observatories of the Soviet Union. In addition to the light filters that were used to strengthen tone contrasts in the photographs, a number of installations were equipped with electronic optical transformers to increase the sensitivity of photographic equipment.

To observe the rocket's flight and to record its instrument readings, a widely-branched network of tracking stations throughout the entire territory of the Soviet Union was used. It comprised:

Automated radar installations for accurate determination of the elements of the initial section of the orbit;

Radio telemetric stations to register scientific information relayed from aboard the rocket;

A radio system to measure the elements of the rocket's trajectory at great distances from the earth;

Radio stations to receive the rocket's signals at frequencies of 19.997, 19.995 and 19.993 megacycles;

Optical installations for observing and photographing the artificial comet which was created by the rocket.

Coordination of all tracking installations and collation of the measurements with astronomical time was accomplished with uniform time apparatus and a radio system. An analysis of the trajectory measurements received from the local stations, a determination of the elements of the orbit and the issuing of the "orders" to the tracking installations was carried through by a coordination center using electronic computers.

The telemetric ground stations registered the scientific information from the rocket on film and magnetic tape. Data on cosmic rays were relayed at frequencies of 19.997 and 19.995 megacycles by changing the type of performance. Basic scientific information was relayed by the transmitter operating at a frequency of 19.993 megacycles by changing the interval between telegraph messages.

The verification of the rocket's orbit at distances up to 300,000 miles and measurements of the elements of its trajectory were carried through with a special radio system operating at a frequency of 183.6 megacycles. The use of powerful ground transmitters and ultrasensitive receivers ensured reliable measurement of the trajectory and prediction of the rocket's movement in space.

Information transmitted by the first Soviet space rocket shows that its scientific equipment functioned normally. The instrument readings radioed from aboard the rocket are now being analyzed by scientists working in various fields. Even preliminary analysis shows that the results of this research are of great scientific importance.

The voluminous data gathered on the trajectory measurements and the experience acquired in automated processing of these measurements with electronic computers will be invaluable for launching future space rockets.

It is a safe prediction that the day is not far off when cosmic ships will fly to the farthest points of the solar system along routes pioneered by the first space rocket.



Lectures on astronomy and space flights attract ever growing audiences.



After the launching of the cosmic rocket many new members joined the science clubs in schools and colleges.

# March 8th Observed

MARCH 8 every year is observed in most countries as International Women's Day. It was first celebrated almost fifty years ago, in 1910, when the Second Conference of Socialist Women, meeting in Copenhagen, resolved to establish a day to commemorate the struggle of women for equal rights.

In prerevolutionary Russia, Women's Day was first observed on the eve of the First World War, in 1913. Its guiding slogan called on women to support the people's fight for freedom. Only four years later the Socialist Revolution of 1917 won complete equality—social, political and economic—for Russia's women. The young Soviet Republic urged the women to take an active part in building the country.

In the four decades since, Soviet women have indeed taken a most inspiring part in creating the new pattern of life. They have worked and fought shoulder to shoulder with brothers, fathers, husbands and sons. During the Second World War they reinforced the valiant defense of the country. To the arduous labors of peacetime reconstruction, they brought their tireless energy and abundant talents. The fruits of women's emancipation are evident in every sphere of Soviet life—in industry, science, education, art, public administration. This is the socialist solution to the age-old problem of women's rights.

## The Woman in Soviet Life

**By Maria Ovsyannikova**
Editor-in-Chief, Magazine *Soviet Woman*,
Member of Presidium, Committee of Soviet Women

THERE is no area of national effort to which Soviet women have not made their contribution. Some months ago we were host to Mrs. Eaton, wife of the Cleveland industrialist. Mrs. Eaton told us she had been deeply impressed with the large and creative role that Soviet women play in all spheres of the country's life. "I grew fond of many of them," she said, "and I am going to tell the women at home about them."

Maria Ovsyannikova (right) is shown here with Mrs. Cyrus Eaton, wife of the Cleveland industrialist who visited the Soviet Union last year.



Women's role in Soviet life is really many-faceted. We can find women holding down almost every kind of job, even those which were once considered man's special domain. However, our labor laws are very rigid and no management is allowed to employ women on jobs which might endanger their health. As for all other types of work, women have the same opportunity as men and they get equal pay for equal work. At the same time labor legislation gives them certain privileges safeguarding their specific interests.

### She Built a Piece of the Country

A good example of a woman who has made her way in a man's field is Marfa Shubina. She heads a team of plasterers on the construction site of the Lenin Hydroelectric Station on the Volga River. The kind of worker she is can be judged from her gold medal of Hero of Socialist Labor which she recently received along with other workers on this project. Besides being an expert at her trade, she also happens to be the mother of four fine children.

Both she and her husband, driller Yegor Shubin, are very proud to have helped build the biggest power station in the world. When they first came to the construction site, there was nothing but wasteland. Now the plant is generating power and around it has grown the new town of Komsomolsk with its avenues of new apartment houses, schools, nurseries, libraries and stores. There is a piece of her work in all of that, says Marfa Shubina proudly, a piece of the country she has helped build.

Another woman who has been building her particular "piece of the country," although in a different sphere, is Yevgenia Andreyeva, chairman of a collective farm in Tambov Region. It was Yevgenia who in 1956 pledged that her farm would raise its meat and milk yield high enough to overtake American standards. She was one of the first in the movement, now spread all over the country, to challenge the world leadership of the United States in per capita farm production.

Last December Yevgenia Andreyeva was invited to speak at a plenary session of the Central Committee of the Communist Party. She reported that in 1958 her collective farm had produced 12 tons of meat for each 250 acres of farmland. And only a few years ago it was considered an achievement when an average collective farm produced somewhere between two and three tons. Yevgenia said at the session she had no doubt that by 1960 the target of 17 tons would be reached.

Yevgenia was elected chairman of her collective farm in 1953. Before that she had worked as an agronomist at one of the machine and tractor stations. At both of the USSR Agricultural Exhibitions in which her collective farm participated, she was awarded gold medals for outstanding achievement.

### Housework vs. Career

There are innumerable Soviet women like Yevgenia Andreyeva and Marfa Shubina who are helping to build their particular "piece of the country" and who find the work they are doing personally and socially rewarding.

One of the questions our foreign visitors frequently ask is why the majority of Soviet women work. Do they have to?

Maria Materikova, a worker in a spinning and weaving mill in Leningrad, answered the question this way: "What's so unusual about the fact that so many of us prefer to work?

# as Women's Day

Traditionally, on March 8, the Central Committee of the Communist Party publishes an address to Soviet women, lauding their contributions and accomplishments. Numerous meetings are held throughout the country, and parties, concerts and special theater performances are arranged to honor women.

But even more than a national holiday, March 8 is a family holiday. On the eve of the eighth, the shops are full of men buying last-minute gifts. Concentration points are the perfume and jewelry counters in department stores, and the florist's and confectioner's shops. Besides the shopping jam, there is usually a last-minute rush with telegrams and greeting cards. And at home, children work madly to put the finishing touches on homemade gifts for mother and grandma.

March 8 is get-together day in millions of Soviet homes around dinners of special holiday proportions. The first toast is to the guests of honor—wives, mothers, sisters and daughters.

And this year it will be a day of unusual significance because this is the first year of the seven-year plan. It will be a period of new advances in all spheres of the country's life, and women—whether they are scientists or physicians, engineers or teachers, farmers or artists—will make their contributions to the accomplishments of the entire nation.

I'd be miserably bored and unhappy without this feeling I have that I'm useful, that I'm part of a big group of people working together, that my work is contributing something to building the country and to raising living standards for everybody. I can't imagine myself without social work, even for a short time."

Many Soviet women do not find housework and a family enough of a career by itself. In answer to the question of a French visitor who wanted to know whether she would leave her job when her second child was born—she was on maternity leave then—Engineer Anna Kovalenko, assistant superintendent of the heat-treating shop in the Kharkov Tractor Plant, answered: "There is a creative satisfaction I get from my job. As much as I like raising a family I find it hard to think of it as a full time job that would take all my interest and attention. I think that a job, far from interfering with family duties and responsibilities, makes for a happier and fuller family relationship. A woman then is not only a wife but also her husband's comrade."

A great deal is being done in our country to free women from household chores and simplify the problem of caring for children. The number of nurseries and kindergartens have steadily increased, and more boarding schools are being opened all the time. The numbers of public catering, laundering and other such work-reducing enterprises are rapidly growing to give women not only the right but the real possibility of a career outside the home.

### In Every Field of Endeavor

A woman in our country can find employment in any field for which she has the training and inclination. We have women tool-makers and milling machine operators, women technologists, engineers and designers. There is no end to the trades and professions at which women are working.

There are about 700,000 women engineers and technicians now employed. More than 40 per cent of farm specialists with advanced secondary or college training are women. Women are especially numerous in such fields as education and medicine. Seventy-six per cent of our doctors are women.

This, by the way, is an interesting fact. Of the estimated 1,236,000 doctors in the world, more than a quarter practice in our country which has only a thirteenth of the world's population.

Soviet women are prominent in the sciences. Our 100,000 women researchers work in all the science fields. They were active in the international geophysical congresses and contributed to building and launching the space satellites.

In literature and the arts Soviet women also stand well up in the front rank. Ballerina Galina Ulanova is acclaimed in the many countries where she has danced as a ballet star of the first magnitude. The talented women dancers of Igor Moiseyev's group and the Beryozka dancers led by Nadezhda Nadezhdina won the applause of both critics and public when they performed in various parts of the world, including the United States.

As for the housewives—and there are many women whose major interest is home and family—they too manage to make time for study and for participation in the country's life.

In recent years women's councils have grown up in many places. They include as members both housewives and women retired from jobs and on pension. The wives and daughters of steelworkers in the Ural town of Alapayevsk formed such a council. One of their aims was to transform the town into a garden spot, and they have already planted some tens of thousands of trees and flowering shrubs. Their functions are now quite varied. They hold forums on current events and on scientific and literary topics, help teachers in nurseries and kindergartens, and organize all kinds of activities for the children of working mothers.

### Women's Rights

Women's rights have long been part and parcel of Soviet living. Legislation granting women full equality with men and protecting the interests of mother and child were adopted as far back as 1917. But needless to say, equality was not achieved merely by passing a law.

From old Russia we inherited a dark background of discrimination and injustice. Our mothers and grandmothers well remember the hopeless position of most women in those days. More than half the working women in czarist Russia were servants, another quarter toiled for the landowners and rich farmers, 13 per cent worked in industry, mostly in textile mills and clothing factories. Women were, of course, paid much lower wages than men for the same work.

All this is now so much ancient history. Except for those jobs which require considerable physical strength, women find their places alongside men in all vocations and are paid the same wages.

The rights of Soviet workers, whether men or women, are protected by the trade unions, many of them headed by women. Of the 51 million trade union members in our country, half are women. The trade union sees to it that proper work and safety conditions are adhered to and that women are not taxed with work beyond their strength. It defends the rights of the working woman when there is a dispute with the management.

The trade unions in our country administer the national fund of social security, and out of this fund they pay the working woman maternity benefits and see that she is provided for in the event of illness or temporary disability. The working woman comes to her trade union for a nursery or kindergarten for her child, for vacation accommodations at a holiday or health resort.

The trade union helps the working woman to improve her skills. It is the rare woman in our country these days who is not taking one or another of the refresher courses given by

# The Woman in Soviet Life

practically all factories and larger offices.

On the collective farms, where women do much the same work as men, both their rights and the men's are defined by the rules of the farm cooperative. Enjoying equal rights, women at the same time are granted certain privileges as, for example, paid maternity leave.

### Women in Public Affairs

The Soviet woman is active in public affairs. More than half a million women presently hold public office as deputies to local Soviets—the village, town, city and regional councils; and 348 are deputies to the national legislature—the USSR Supreme Soviet.

Among the most important of the national women's magazines are *Rabotnitsa* (Working Woman) and *Krestyanka* (Farm Woman). They are published in millions of copies and give a many-sided picture of women's activities. Every republic also has its own magazine directed to women and published in the national language.

Our magazine *Soviet Woman* is published in Russian, Chinese, English, German, Spanish, Japanese, Korean, Hindi and Urdu and has a large circulation not only in the Soviet Union but also in many foreign countries, including the United States. Then there is the magazine *The Woman of Our Day* published in French.

Both magazines are issued jointly by the USSR Council of Trade Unions and the Committee of Soviet Women. In addition to material by Soviet writers, these magazines carry many articles by journalists and public figures of other countries.

### Committee of Soviet Women

The Committee of Soviet Women, a national organization, works to establish friendly relations with the women of other countries. Its large membership includes such women as Marfa Shubina and Yevgenia Andreyeva of whom we spoke; the members of the woman's council of Alapayevsk; all the women deputies to the Supreme Soviet; our women

# Statue to a Woman Farmer

By Andrei Levko

IN the Ukrainian village of Losyatin you can find a statue erected in a public square with a legend engraved in the pedestal: "To Stepanida Vishtak, Hero of Socialist Labor, for Raising Bumper Crops of Grain and Sugar Beet."

The Soviet people thus honor not only their eminent statesmen, scientists and artists, but their distinguished workers and farmers. And not only their dead heroes, but their living ones as well.

Stepanida Vishtak is a collective farm woman, born and raised in Losyatin. During the war, in 1943, just after she had graduated from school, she was shipped to Leipzig by the fascist invaders to do slave labor together with thousands of other Soviet men and women. For two long years she was forced to work for the enemy. After the war, a disabled consumptive, she returned to her native Losyatin.

The bracing air of her native Ukraine, medical care and the solicitude of people around soon put her back on her feet. She worked with other collective farmers to rebuild the houses and the school burnt by the fascists. Then she studied agrotechnics and in 1947 organized a group of the collective farm girls around a project to raise bumper crops of sugar beet and corn.

With the experience of the best of the country's collective farms as guide and Stepanida's enthusiasm as spur, the group very quickly began to get extraordinary crop results. They were the first farmers in the Ukraine to sow highly effective single-shoot sugar beet seeds and, with less work, to get heavier beets with greater sugar content.

Last year an average 20,000 pounds of sugar beet was raised on each acre in the Ukraine. Stepanida Vishtak had begun to get more than twice that yield as far back as 1948. At that time she was awarded for her work with the gold medal of Hero of Socialist Labor. Since 1948, she has been getting successively larger yields.

Last year, after she got a yield of 65,000 pounds of sugar beet and almost 10,000 pounds of corn per acre, she was honored for the second time with the title of the Hero of Socialist Labor and was awarded the second gold medal. Her sculptured portrait in bronze was mounted on a marble pedestal in the village square.

At the unveiling the village played host to five thousand guests. Besides immediate neighbors there were farmers from all over the Ukraine, scientists and writers from Kiev and delegations from Moscow, Latvia and far-off Khirghizia.

Stepanida is consulted by beet growers from distant parts of the country. Soviet newspapers and farm periodicals follow the progress of her work closely and agronomists study the growing methods she uses. The farm has its own school now for training farm specialists. Locally, they call it "Stepanida Vishtak Academy."

Before the war, there was only one person in the village with a degree from an agricultural college; now there are some 70 college graduates working on the Losyatin collective farm. And Stepanida's group of girls, who began working with her twelve years ago, are now leading groups of young beet growers themselves. It may be that some of them will sooner or later have their statues standing alongside Stepanida's in the village square.

Stepanida Vishtak's statue in her native village of Losyatin in the Ukraine. She is pictured below with Nikita Khrushchev at a recent conference in Moscow.





Ministers; Yekaterina Furtseva, the woman member of the Presidium of the Central Committee of the Communist Party; women farmers and industrial workers and housewives.

The Committee has its headquarters at 23 Pushkin Street in Moscow and is headed by Nina Popova. It was founded during the war, in 1941, and was then called the Soviet Women's Anti-Fascist Committee. Although its name was later changed, its principal function remains unaltered—to work with women throughout the world for peace.

The Committee, which cooperates with all women's organization of whatever persuasion so long as they work for peace and international friendship, is affiliated with the Women's International Democratic Federation.

The Committee conducts a voluminous correspondence with its many thousands of friends abroad. Its members in every Soviet city act as hosts to visiting women tourists. In 1958, at the invitation of the Committee, women's delegations from 35 countries visited the Soviet Union.

The Committee was host to an American delegation of women doctors and to a group of American women who were members of the League for Peace and Freedom. We hope this year to be able to greet many more of our American women friends.

### Thoughts of a Woman

I have at home a reproduction of a drawing *Humming Bird and Hawk*. The artist, Vasili Basov, picked up the idea for it from a letter which came from Mrs. Vivian Hallinan of Marin County, California. She is the mother of six children, and the artist sent his drawing as a gift to her family.

I think Mrs. Hallinan wouldn't mind my quoting from her letter, since it shows that the thoughts of women the world over are pretty much the same. She wrote:

"Outside our porch a pair of humming birds had built their home. We knew when the fledglings had hatched by the activity of their parents.

"One day I saw an amazing sight near the nest. A great hawk was turning and twisting in the air, striking and clawing at some invisible enemy. Then I saw it—the tiny, iridescent body of the mother humming bird—suspended above the bird of prey, darting in and striking at its head with her rapier bill. Presently the hawk turned and flew off, pursued by its tiny foe. Finally it disappeared over the trees and the little heroine returned to her brood.

"For a long time I stood thinking about what I had just seen. Then I went back into the house and rolled up my sleeves and prepared to do what I could to drive the warhawk from my nest . . ."

# A Woman of the New Tajikistan

By Akram Yakubov

FOR Sarajan Yusupova, Women's Day is a very memorable holiday. She is an eminent geologist, member of the Tajik Academy of Sciences, professor at the Tajik State University and the first Tajik woman to win the degree of Doctor of Science.

Sarajan Yusupova is one of the Soviet Union's 100,000 women who are doing research in various sciences. Her studies in geology have won her national renown.



Tajikistan is a small Soviet Republic in Central Asia with a population of two million. There was a time when this mountain region was a miserably backward leftover of feudalism, its women denied the most elementary human rights. Although the equality of women was declared the law of the land after the Socialist Revolution in 1917, it was a long time before it could be translated into fact. Armed feudal bands fought bitterly against any move of the people toward social progress.

Dr. Yusupova, who will be 49 in May, is one of the new generation of Tajik women. Her father was a migrant worker who processed the raw silk of the silkworm cocoon for rural weavers. Sarajan, as a child, wandered with him from one mountain village to another in search of work. She was only eleven when he was killed by bandits.

After graduating from secondary school, Sarajan was accepted at Moscow University. The gifted girl studied under two of the noted Russian geologists of the period, Academicians Alexander Fersman and Dmitri Belyankin. It was her dream, as her Tajik folk tales put it, "to search out what was hidden in the hills."

She took her degree in chemistry and then did graduate work in geology and mineralogy at the USSR Academy of Sciences. Her dissertation on the colloidal properties of Central Asian clays was highly praised by authorities in the field.

In 1948 she was awarded her doctorate in science for a research study on roentgenometric analysis of Ferghana clays. The Soviet press reported the event with articles hailing "The First Tajik Woman Doctor of Science."

By this time education was no longer a rarity for Tajik women. The law passed in Soviet Central Asia in 1926 protecting the rights of women had long since broken down the traditional barriers. Girls, as a matter of course, were studying side by side with boys. When Sarajan began her studies, there were only 110 girls in all the Tajik secondary schools. At present nearly 10,000 Tajik women are working as schoolteachers, doctors, engineers and architects. Over sixty Tajik women hold degrees in science. There are 4,000 Tajik women who hold public office.

From her home in Stalinabad Sarajan returns to her native mountains periodically with geological expeditions to prospect for gold, copper, tin, molybdenum, iron ore, tin and other minerals. She has written some fifty monographs in her field. This is not her sole creative work. She is a folklorist of note with several books of folk tales much beloved by Tajik children to her credit.

# LETTER TO UNKNOWN AMERICAN FRIENDS

## from Valentina Degilevich

### *"Let's exchange letters, visits and friendship"*

—suggests Moscow housewife



DEAR FRIENDS:

I am writing this letter to you, women of the United States. I am a Russian woman, a mother and wife. I have wanted to write to you for a long time, and I thought this would be a fitting occasion since the eighth of March is celebrated in our country as Women's Day. I spoke to my friends about it and then asked *USSR* magazine if they would publish this open letter to you, my unknown friends overseas.

I am a Muscovite. Being born eight years after the Soviet state was formed I have lived all my life in a Soviet country. My father was a mechanic and my mother a factory worker.

When the Nazis attacked our country I was sixteen and I was going to school. I left school to work in a munitions plant. It is no pleasure to recall those hard years. Both my father and my brother fought at the front. My father was reported missing in action and my brother was wounded several times and was left an invalid for life.

After the war I worked as a secretary and typist and met my husband Pyotr. He drives an ambulance. We have two children —Galya is seven and Alyosha four. My husband is on call for a 24-hour stretch and then he has two days off. He spends a lot of time with the children, he likes making toys for them. He's a good father and a good husband. He's an active man and doesn't like to sit around. In his spare time he grows flowers—he's very fond of gardening—does amateur photography, studies German, and goes hunting every once in a while.

As for me, the children take up most of my time. I stopped



# Profile of a

MARCH 8 is Women's Day for everybody in the Soviet Union, but for Galina Kudryavtseva, a young schoolteacher from Moscow, it's also the day three years ago she taught her first class.

Women's Day is traditionally observed with meetings and rallies to honor the contributions made by women in all spheres of activity. There are appropriate greetings and articles in magazines and newspapers, special

Galina Kudryavtseva is a teacher of history in a Moscow school. Women comprise 67 per cent of all personnel in educational system.

working after my first baby was born and now I'm glad to have all my time to devote to my family and to bringing up the children. I don't mind housework and the daily chores, cooking, cleaning and sewing, and I like playing with the children and helping Galya with her first lessons.

Ours is a close-knit family, not too much different from millions of other families in the country. I'm happy with my family and often I ask myself what makes up this happiness. It's true that we live comfortably. We have a pleasant apartment in the southwest district of Moscow and a summer cottage in the suburbs, about fifteen miles out. My husband makes a good living and we have no trouble getting along.

But it's more than that. Happiness, it seems to me, is not just comfort and security today, it's also a good future for my children. I suppose every mother feels the same way I do about those near and dear to her.

I want to make sure my children will be happy. I don't want them to have to go through the horrors of a war. I want my Galya not to have to leave school the way I did to make munitions. I want her to learn to play the piano—she has just begun, and Alyosha to have the chance to be like his father when he grows up—he says he wants to be a driver, perhaps not of an ambulance but of a space vehicle.

What I want most of all is a peaceful future for my children and for your children and for the children of mothers everywhere.

My husband was in the army during the war and saw no end of suffering and bloodshed. "I try not to forget those inhuman horrors of war," he often says. "I want the children to know about them, too, when they are older so they'll know enough to make sure that it's not going to happen again."

Why am I telling you all this? And what made me write this letter to you? Because I feel that you and I and all of us have to make sure that war doesn't happen again. I cannot help feeling terribly worried when I hear of H-bomb tests and long-range missiles, as if it were all beginning again. And then I read about exchanges between your country and mine of students, dancers, teachers, scientists and tourists and I listen to your pianist Van Cliburn on a TV broadcast and I feel better. I feel that we are beginning to be friends.

We are people who live in different countries and we have different ideas but, if for nothing more than our children's sake, we must understand each other. An old Russian proverb of ours says, "Good will and fair deal are worth more than wealth and weal." And so I often think: how can we get rid of all this mistrust and suspicion?

We must get to know each other better. We Soviet and American women can do that by writing each other and by visiting with each other. I like having guests and it would be a great pleasure for me to welcome an American woman to my home, to sit down and get to know her and to become friends. This is not only my feeling, I am sure, but that of all Soviet women. Let's exchange letters, visits and friendship.

With kindest regards,

Valentina Degilevich

Apartment 350
14 Lomonosov Prospect
Moscow, V-269, USSR



One more picture for the family album — Valentina Degilevich with her husband Pyotr and children, Galya and Alyosha.

# Young Schoolteacher

By Boris Dmitriev

radio and television broadcasts to honor distinguished women.

Galina's class has its own particular tradition. Every March 8 they present their teacher with a gift—last year it was a box of candy—"on behalf of the pupils of the fifth grade." And Galina gets a little misty-eyed, as she did last March 8, when she thanks the children and tries to say how fond she is of them all.

Galina was born in the southern town of Yeisk on the shore of the Azov Sea. Her father fell in the Second World War and her mother still lives in Yeisk. Galina graduated from the town's ten-year school and then moved to Moscow, where some relatives lived, to study at a teacher's training college.

She specialized in history, a field she liked and had always made high grades in. Her teacher's degree entitled her to teach the subject in any school in the country. She had a number of teaching offers when she graduated and chose School 209 in Moscow.

Like every beginning teacher, Galina had the usual problems of translating pedagogical theory into actual classroom performance. Her practice-teaching as a student was, of course, very helpful, but it was very much different from being on your own. But she likes children and she likes teaching.

With the help of older and more experienced colleagues and the school administration she very quickly gained confidence. Now, after three years of teaching, she feels like an old hand and is often called on to advise new teachers. Not long ago she was awarded an honorary citation and bonus for the fine progress her classes make.

In great part, her excellent teaching derives from the relationship she establishes with the children. She works hard to understand them and to bring their abilities and talents to light. She takes the time to make friends with her students, very frequently goes with them to school sport matches or to the children's theater or to see a new film. On her own initiative she takes them on trips to museums to relate the history she teaches to the painting and sculpture of particular periods in the development of art.

All in all, what with parents' meetings, home visits and extra-class coaching, her day is crammed chockful. She manages a busy personal life.

Galina is something of a gymnast and won a sports rating while she was still at school. She tries to put in a couple of hours a week at the gym. Then she's a music lover and with her husband—she married while she was still at college—rarely misses a major concert. He is a lathe operator at one of the Moscow machine-building plants.

Many evenings Galina spends studying at home or at the library. She is working on her thesis on the French Revolution for a master's degree. This kind of research has been an old dream dating back to her college years.

# PLANNING THE WORLD'S HIGHEST LIVING STANDARDS

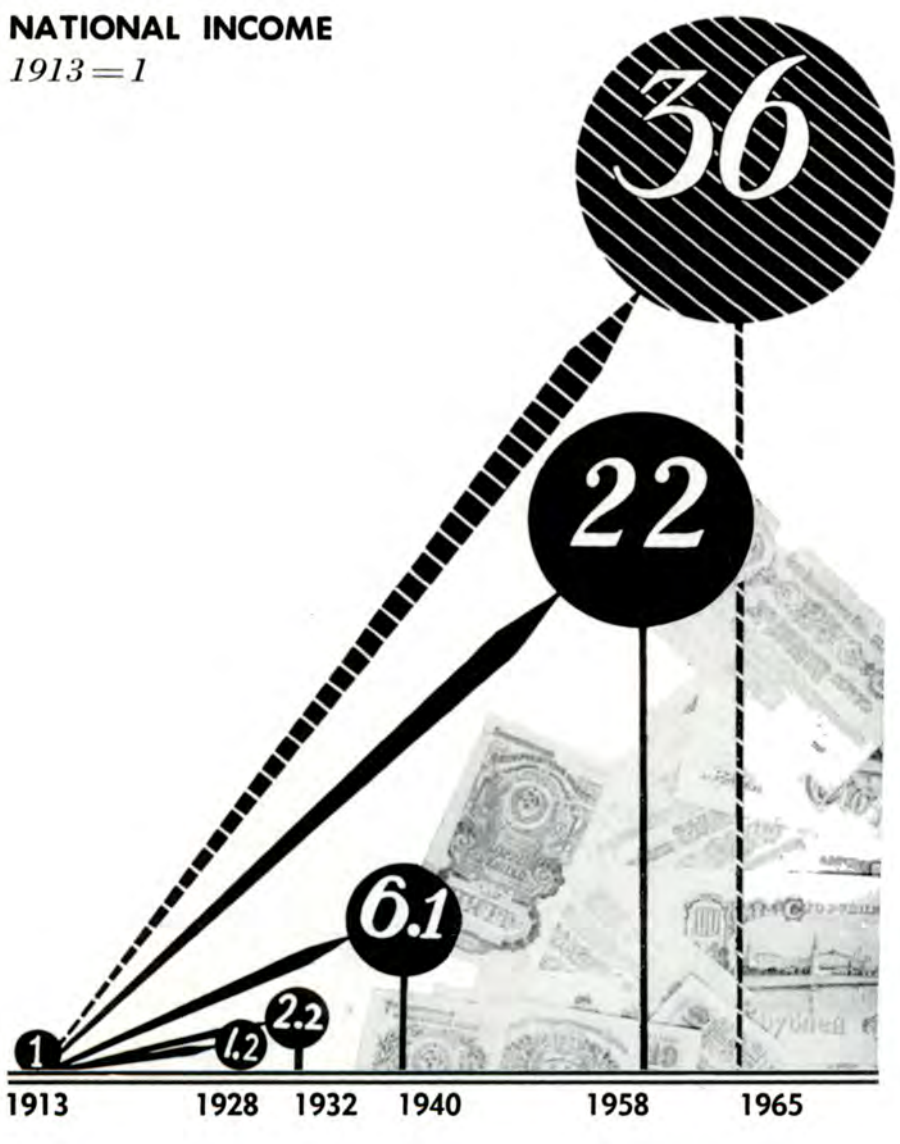
*By Iona Andronov*

EVERY figure and detail in the new seven-year plan for the Soviet economy, whether it pertains to production of steel or of household appliances, aims at a single objective, a higher living standard for the Soviet population.

Each of the previous economic plans improved living conditions for Soviet workers and farmers by a marked degree. With public ownership of land and factories, every step in the process of developing the country's industry and mechanizing its agriculture has meant increased family purchasing power.

In spite of large-scale automation there is no unemployment in the Soviet Union, nor has there been since the thirties. Jobs are to be had for the asking, there are more open today than men to fill them. The number of factory and office workers—at present there are 54.6 million—will increase by almost 12 million between 1959 and 1965. A liberal pension system has ended the threat of insecurity in old age. Wages have gone up with each step forward in the country's economic growth.

These wage rises have been real. They were not accompanied by higher prices which offset any gains and often even depress purchasing power. Prices in the Soviet Union are fixed by the government and do not fluctuate with market conditions. They are determined, as a rule, by the cost of production.




### Taxes To Be Eliminated

Systematic tax cuts have also increased purchasing power. Only a small part of government revenue, less than 8 per cent, comes from taxes from the population; the much greater part is derived from industry and state farms. Many millions of Soviet citizens are tax exempt, while others have had their taxes lowered in the past two years by legislative action. The prospect within the next few years is to discontinue individual taxes altogether.

There is still another important factor that has served to increase purchasing power—augmented social insurance and welfare services. Last year the government spent 215 billion rubles to pay social insurance, old age and disability pensions, grants-in-aid to mothers, stipends to students, and for educational and medical facilities. By 1965 the figure will rise to 360 billion rubles.

### Retail Trade Turnover Goes Up

The increased purchasing power of the Soviet consumer can be measured by the steadily rising retail trade turnover; by increased consumption of meat, dairy products, fruit and sugar; and by individual banked savings, which rose from 7.3 billion rubles in 1941 to 87 billion in 1958.

Evidence of a higher living standard is the enormous volume of housing constructed within recent years—a million apartments in 1956, a million and a half apartments and 700,000 individual homes in farm regions in 1958.

The most undeniable proof of a rising living standard, however, is shown by medical statistics. The Soviet Union now has the lowest mortality rate in the world and its birth rate is higher than that of most countries. The average longevity now is a high 67 years, more than double the prerevolutionary span of life and one and a half times that for 30 years ago.

In a socialist economy, more national wealth is another way of saying higher standard of living since the national revenue is distributed equitably either in wages or in social services to those who produce it.

### National Wealth Equally Distributed

In pre-Soviet Russia the workers and peasants who made up 84 per cent of the population received only 25 per cent of the national revenue, all of which they and they alone produced. The owners of large landed estates and factories, who made up 16 per cent of the population, appropriated 75 per cent of the national income.

In the Soviet Union today all of the national income is used to raise the living standards of the people and to expand production for the benefit of all.

The very large part of this national wealth, as much as 75 per cent, goes back to the people in the form of wages for work done and in expenditures for public education, health, social insurance, etc. The new seven-year plan calls for an increase of 60 to 63 per cent between the years 1959 and 1965 in the portion of the national income which is consumed directly by the people.

The remaining 25 per cent of the national revenue, which also belongs to the working people, is used to expand production in industry and agriculture. Thus the total national income is spent on behalf of the whole of the population. In Soviet times national income per capita has increased fifteen-fold.

By 1958 real wages of workers and office employees nearly doubled compared with 1940 and the real income of farmers more than doubled.

### Forty Per Cent Rise in Real Wages

By 1965, Nikita Khrushchev reported at the Twenty-First Congress of the CPSU in Moscow last January, the national income will have risen by 62 to 65 per cent over today's figure. What will this growth of the nation's wealth mean to the individual citizen and the average family budget? How will it affect employment, wages and hours, prices and social services?

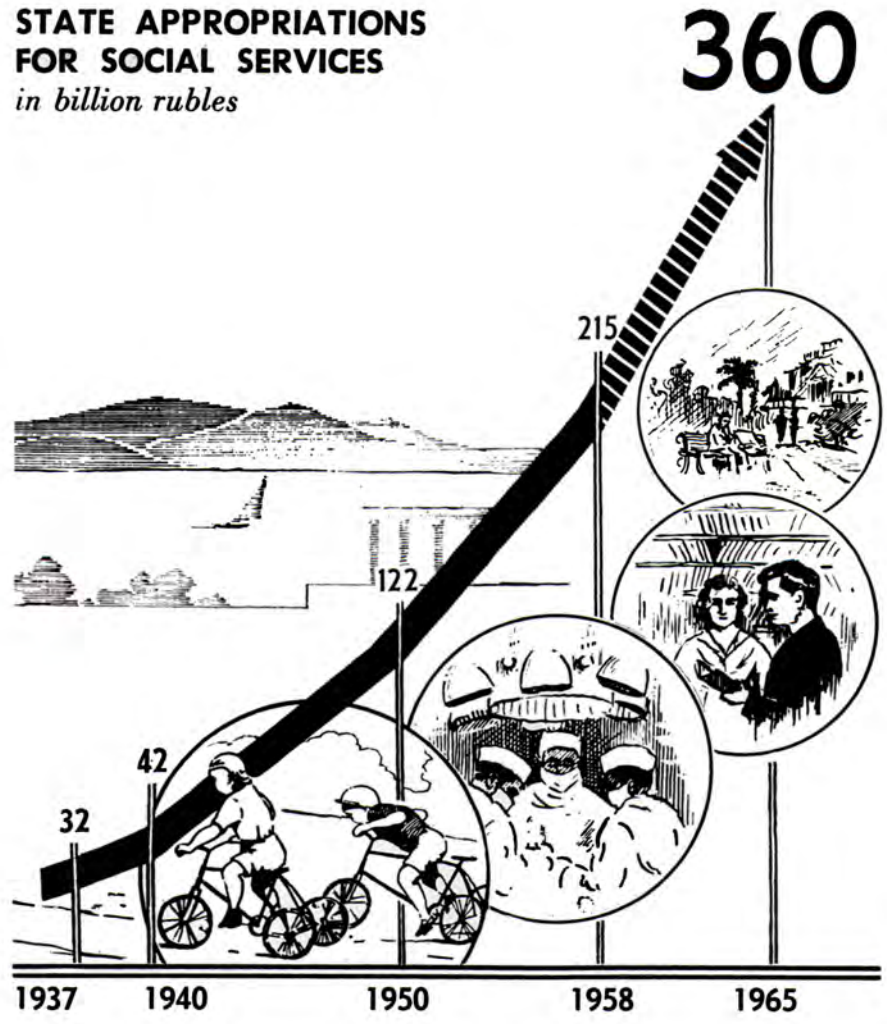
The real income of the industrial and office worker and of the collective farmer is expected to rise by 40 per cent during the next seven years. For workers, the boost will come from higher wages, lower prices and larger pension benefits. For the collective farmer it will come from greater earnings from bigger and better crop and stock yields.

Wages, on the average, will rise by 26 per cent between 1959 and 1965, with much larger increases for those at the lower end of the wage scale. These lower paid workers received a wage increase in January 1957. Other increases scheduled between 1959 and 1965 will boost their wages by as much as 85 per cent. The wages of workers in the middle brackets will also be raised to bring them more closely in line with the more highly paid groups.

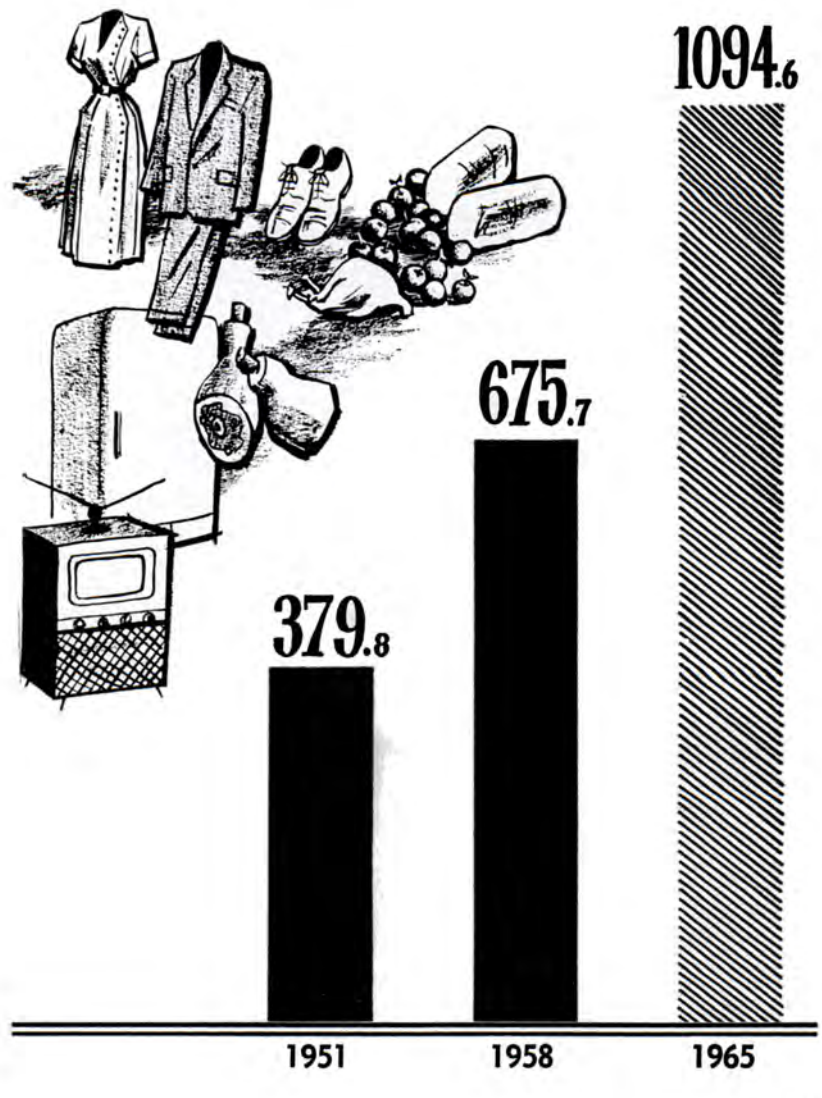
### Price of Meals Reduced

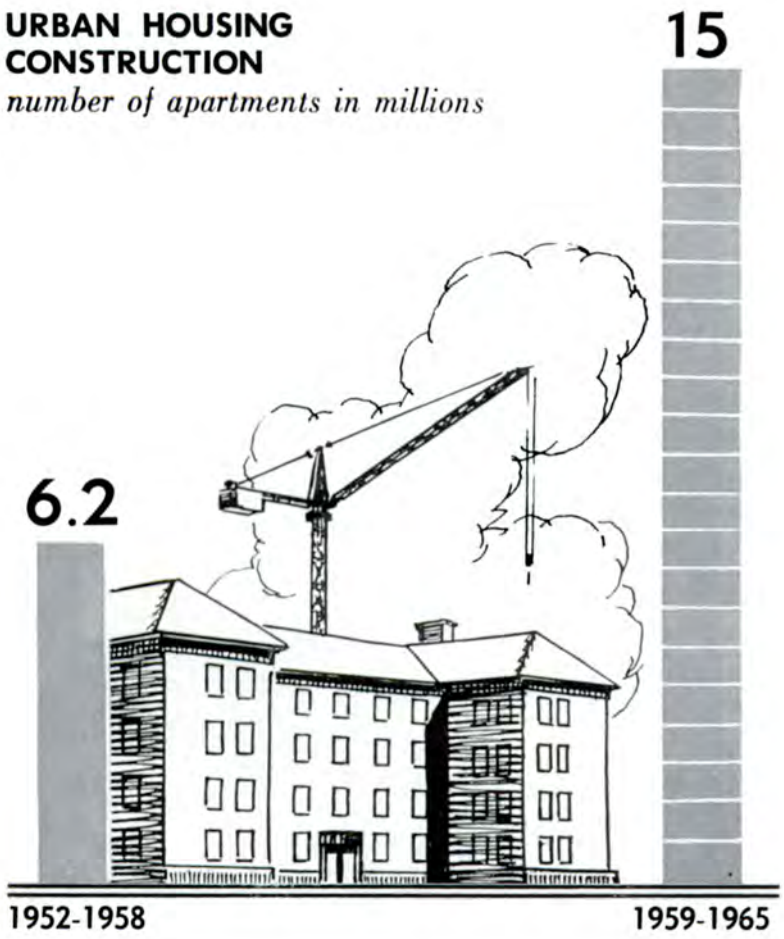
As to living costs, many of the items which elsewhere take a large chunk of the worker's pay envelope are either supplied free or are very modestly priced. Rent, for example, is an average four or five per cent of family income, far below the maintenance cost. Util-

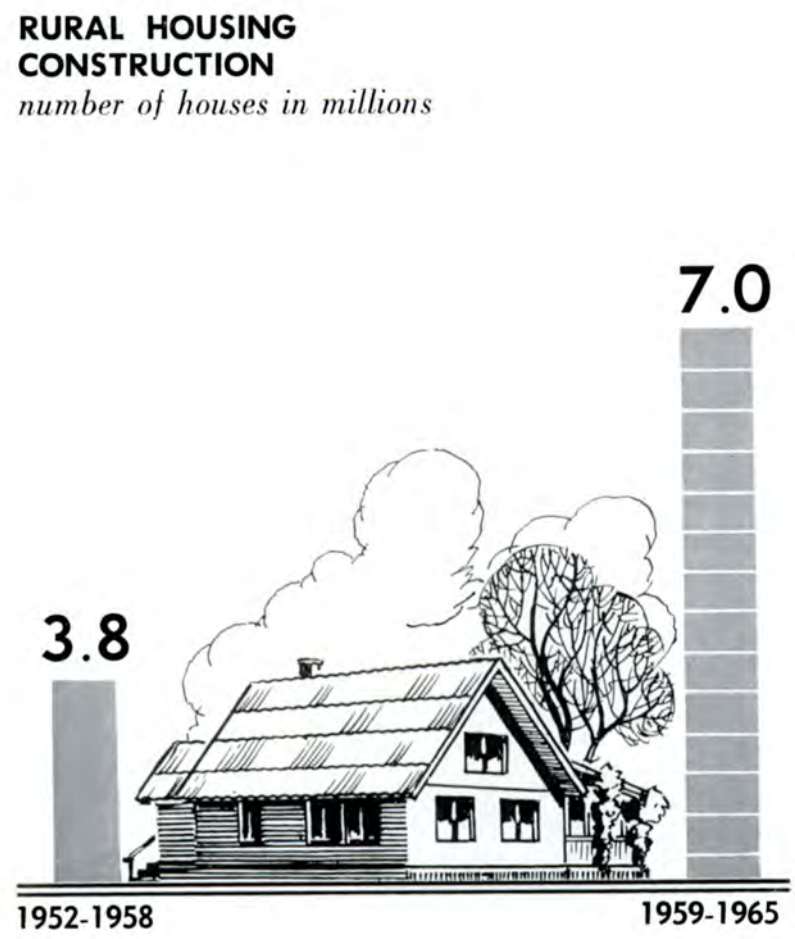
**STATE APPROPRIATIONS FOR SOCIAL SERVICES**
*in billion rubles*




**RETAIL TRADE IN STATE AND COOPERATIVE STORES**
*in billion rubles*






# PLANNING THE WORLD'S HIGHEST LIVING STANDARDS

ities are cheap. Basic foods are low priced and so are children's goods. All these major necessities are well within the income of every worker.

Scheduled very shortly is a reduction in the price of meals served in restaurants and cafeterias. During the next seven years the output of these public catering establishments is to double to make further savings possible for the many millions who have lunches and dinners out.

### Services for Every Citizen

There are many free social services and benefits which every Soviet citizen receives as a matter of course. Free medical service, sick leave with pay, old-age pensions, allowances for families with many children, free education from elementary school through college and stipends for students—these and other social services are guaranteed him by Soviet law, regardless of the work he does or the wages he earns. The facilities to provide these services are being constantly expanded and the share of national income which pays for them is greater each year.

This tendency toward an ever-increasing amount of benefits and free services on the basis of need is characteristic of a society moving toward communism. The eventual goal is an abundance of goods and services sufficient to satisfy everyone's needs.

The seven-year plan projects a greatly augmented medical program. Capital investments to build new hospitals and related facilities between 1959 and 1965 will total 25.4 billion rubles, an 80 per cent increase over the preceding seven years. By 1965 the country will have half a million practicing physicians.

### Twenty Million Pensioners

There are 20 million pensioners in the Soviet Union, almost 25 per cent of the total working population, men who have reached the age of 60 and women who have reached the age of 55. In a number of trades the retirement age is still lower: 50 for women and 55 for men. The entire pension system was overhauled a few years back and most pension payments were raised, particularly for those in the lower brackets. These minimum pensions are to be increased again within the next seven years by some 60 per cent.

As for younger people, those born since the 1917 Socialist Revolution, whatever their trade or profession, they have been educated at government expense. If they studied at technical high schools, colleges and professional schools, they received monthly stipends for maintenance in addition to free tuition and an annual vacation paid for by the government.

If these items had to be paid for out of family income they would come to a very considerable sum. Soviet economists estimate that they now constitute about 33 per cent of the average family budget. By 1965 the amount of government allocations for these free services will have been augmented by more than 60 per cent.

### More Housing, More Consumer Goods

The systematic growth in individual income and purchasing power has made for better housing, better food, better dress. With a 40 per cent increase in real income forecast during the next seven years, retail trade turnover is expected to grow by 62 per cent. Ninety thousand new stores will be opened by 1965. The increased consumer demand will be met by larger production of foodstuffs and manufactured goods.

Thus, while total output of foodstuffs between 1959 and 1965 will show a 70 per cent gain, production of meat and milk products will be doubled and production of sugar will be raised by 76-90 per cent. In per capita production of the basic foodstuffs Soviet farmers will lead the world.

Light industry is expected by 1965 to meet the full consumer demand for textiles, clothing and footwear of better quality. The rate of production increase planned will bring the

Soviet Union very close to United States per capita production figures for these and other goods. The manufacture of household refrigerators, washing machines and television sets is to be stepped up. Furniture production by 1965 will be 2.4 times that for 1958. In line with this the seven-year plan provides for the construction of more than 1,600 new consumer goods factories.

About 15 million apartments will go up in urban areas between now and 1965, 2.5 times the housing built in the previous seven years. Seven million houses will be built in the rural areas.

There will also be seven times as many prefabricated houses built by the government for sale to citizens at low prices. State capital investment in housing and public utilities during 1959-1965 will total about 380 billion rubles as compared with 214 billion for the preceding seven-year period.

### A Shorter Workday with Higher Pay

One of the very fundamental achievements of the growing Soviet economy has been the reduction of the workday without cuts in wages. As a matter of fact, it has been accompanied by an increase in real wages and purchasing power. Introduced in February 1956 after the Twentieth Communist Party Congress, the shorter workday has been put into effect in one industry after another. By 1960 the change-over to a 40-hour week will be complete and every worker in the country will be on a seven-hour working day, with certain groups like miners working a six-hour day.

Other working time changes that have been made in the past few years in the Soviet Union include a two-hour cut on Saturdays and the eve of holidays, a reduced workday in a number of the heavier industries, and a reduction in the workday of juveniles to six or four hours. All of this too was done with an increase in wages.

A further reduction in the work week is planned for 1964—from 40 to 35-30 hours. Workers employed underground or in hazardous occupations will work a 30-hour week others will have a 35-hour week. It will probably be carried through by a gradual introduction of the five-day week.

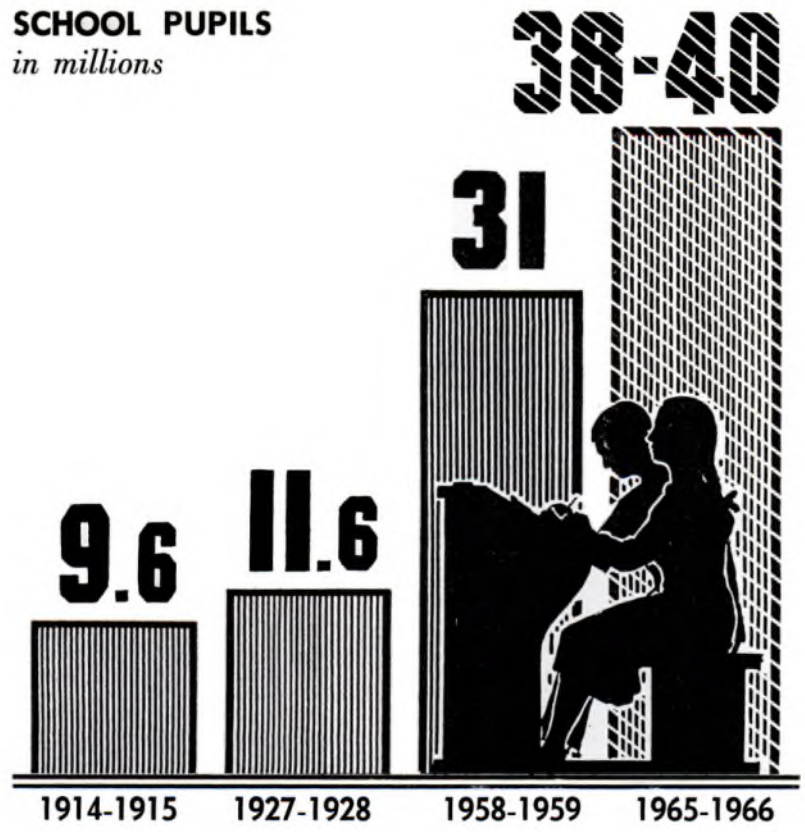
When the change-over is completed the Soviet Union will have the shortest workday and work week in the world with a simultaneous rise in the people's living standards. Thus, new and unlimited possibilities will be created for recreation and study.

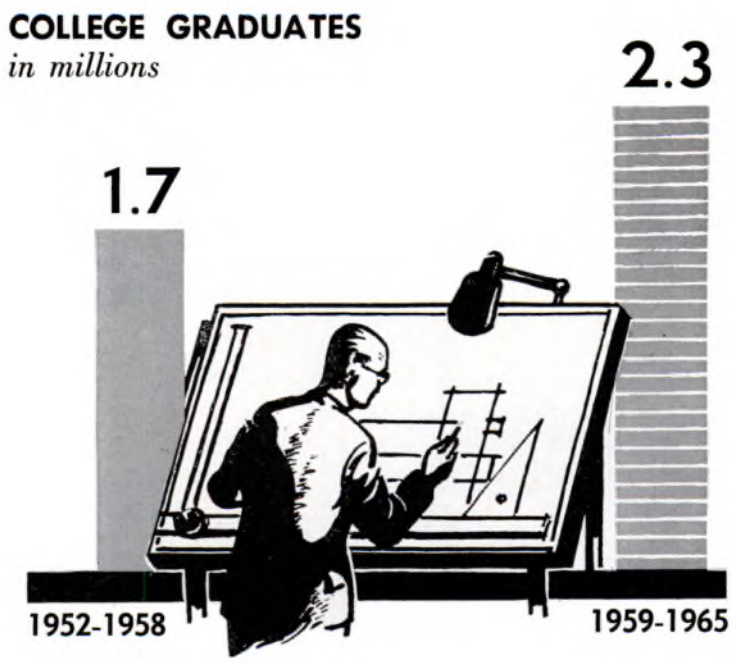
### A Better Educated Citizenry

To provide the Soviet citizen, both present and future, with a larger background of skills and culture so that he may use both his work and leisure hours more profitably, public education is to be expanded within the coming seven years. At present there are 31 million children enrolled in the Soviet schools; by 1965 there will be 38 to 40 million. From 1952 through 1958 the colleges and universities graduated 1.7 million students; the number of graduates between 1959 and 1965 will rise to 2.3 million. An annual one billion books are printed in the Soviet Union now; by 1965 600 million more will be published each year.

To provide more comprehensive elementary schooling, the present seven years of compulsory schooling will be extended to eight. New types of secondary schools are being set up to combine with work in factories or special shops. These new schools will give a complete high school and polytechnical education as well as vocational training.

College study is also being re-examined to bring it closer to production. A prerequisite for admission to schools of higher education will be some years of actual work at a job. Larger numbers of evening and correspondence schools are to be opened for the increasing numbers of adult workers who wish to do advanced study.




### Guarantee of the Nation's Prosperity

This gigantic program for the development of the country's economy will have far-reaching effects on the life of every citizen and will be felt in the material and cultural benefits that will accrue to each family.

The country has set itself the task of achieving the highest living standard in the world. The seven-year plan adopted by the Twenty-First Party Congress with the approval of the entire nation is the guarantee that this task will be accomplished successfully, giving the Soviet citizen prosperity unequaled anywhere in the world.

# Theatrical Art of



# Kazakhstan

KAZAKHSTAN, one of the fifteen republics which make up the Soviet Union, is located in the southwestern part of the country's Central Asian region and extends from the lower Volga to the Chinese frontier. This big republic plays an important part in the country's economic life, with its huge tracts of virgin land being brought under cultivation and its busy factories turning out goods needed by the entire nation.

But all of this is new. It would have been hard to visualize it as recently as forty years ago, when this was a country of illiterate nomads.

While the economic development of Kazakhstan since the Socialist Revolution has been tremendous, its cultural progress has been equally great. Like so many of the downtrodden peoples under the czar, the Kazakhs had a rich folk heritage but no written language by which to preserve it. Handed down from father to son through the ages by word of mouth, it has now been incorporated into the national art. The Kazakh theater—drama, opera and ballet—while relatively young, has already won nationwide acclaim. Kazakh composers are writing operas, ballets, symphonies, chamber music and songs, inspired by the songs and ballads for which their peo-



KAZAKH SONG AND DANCE ENSEMBLE PRESENTS A COLORFUL FOLK DANCE FOR A MOSCOW AUDIENCE.

THE STORY OF ABAI, GREAT CLASSICAL KAZAKH POET AND LITERARY FIGURE, IS TOLD IN ONE OF THE FIRST OPERAS TO BE WRITTEN, PRODUCED AND SUNG BY NATIVE TALENT.





A SYMBOLIC DANCE SUITE BY A KAZAKH ENSEMBLE DEPICTS THE BUMPER HARVEST FESTIVAL ON NEW VIRGIN LANDS.

# Art of Kazakhstan

ple have long been famous and which only recently have been transcribed into written form.

Whereas in the old nomad days the presentation of historical ballads and folk songs was largely an individual performance by singers accompanying themselves on native instruments such as the dombra, the republic now has its own full symphony orchestras, ensembles and choral groups. The content of the music has also changed. Instead of relating local events or expressing the dreams and hopes of a people isolated from the world, it has broadened to combine a florescent native art with the best of Soviet and world art.

Some twenty-two years have passed since the first festival of Kazakh art and literature was held in Moscow. Last December the second such festival was brought to the Soviet capital, affording Muscovites and the whole country an opportunity to witness the achievements of the theatrical, musical and fine arts of the republic.

"A national theater, like academies, universities and museums, is a sign of a nation's well-being," said Alexander Ostrovsky, a great Russian playwright. Kazakhstan, which formerly had no professional art and not a single theater of its own, now has twenty-three theaters with permanent companies and orchestra. The leading one is the State Opera and Ballet Theater. Originally it was merely a musical drama company which presented operas in the form of arias intermingled with recitations. Today, when dusk falls on Alma-Ata, the republic's capital, bright floodlights illuminate the beautifully designed opera house where audiences enjoy Kazakh or classical opera and ballet every evening.

The collaboration of Russian and Kazakh artists was a valuable contribution to the rapid development of the republic's culture, helping to bridge the gap between backwardness and progress. It was with the aid of Russian artists that the centuries-old oral songs were transcribed into modern "written" music. The most gifted music students of Kazakhstan were sent to Moscow for their training in the early days and soon Kazakh companies were offering their own productions.

One of the first was a musical comedy, *Alman Sholpan*, based on Kazakh folk melodies. An exciting event was the production of

KAZAKH OPERA SINGER ERMEK SERKEMBAYEV WAS ACCLAIMED FOR HIS FIGARO IN ROSSINI'S *BARBER OF SEVILLE*.





*THE FOUNTAIN OF BAKHCHISARAI* IS ONE OF THE CLASSICAL BALLETS WHICH ALONG WITH NATIONAL DANCES FORM THE REPERTOIRE OF KAZAKH GROUPS.

the opera *Abai*, woven around the life of the famous Kazakh poet who played a major role in the nation's literature. The music, libretto and production were all created by Kazakhs. Another great success for Kazakh opera was the production of *Birzhan and Sara*, which tells the story of the struggle waged by the poet Birzhan for his people's freedom. It is singularly popular with Kazakh audiences, who never tire of its thrilling theme.

The musicians of Kazakhstan have become expert not only in performing their own national compositions but in interpreting the world's greatest composers. Kazakhs regularly sing the title roles of *Aida*, *Rigoletto* and *Prince Igor*, and render with deep understanding and feeling the most difficult arias of operas by Tchaikovsky, Glinka and Rossini.

The Kazakh ballet is creating its own national dances and mastering the classical forms. Its varied repertoire includes the ballets *Friendship Road* by Tlendeyev and Nanayev, Tchaikovsky's *Swan Lake*, Glazunov's *Raymonda* and Asafyev's *The Fountain of Bakhchisarai*. The dancers are graduates of the republic's ballet schools.

Fairs were always immensely popular in Kazakhstan for their folk improvisors, singers and dancers. In the twenties the outstanding performers joined to form the first drama theater. During the festival of art and literature last year this young theater presented three Kazakh plays plus Shakespeare's *The Taming of the Shrew*.

Artists of the Kazakh State Philharmonic Society are frequently on the road, performing for the livestock breeders of the Caspian steppes, the farmers of the newly cultivated virgin lands of Central Kazakhstan, and the miners of the Altai region. The Society includes a number of ensembles, choirs and orchestras. Its folk instrument orchestra, which won a prize at the Fourth World Youth Festival, is as popular with sophisticated city-dwellers as it is with the people who live in the most remote regions of the country. An *a cappella* choir was recently formed whose singing is an entirely new form of art in Kazakhstan. The song and dance group is also only a few years old.

The infant in Kazakhstan's growing family

# Art of Kazakhstan

of art is its film industry. The members of the film studios of Moscow and Leningrad who worked in Kazakhstan during the years of the Second World War were a major factor in its rapid development. The feature and documentary films released by the Alma-Ata studios in recent years include a number of outstanding productions demonstrating that Kazakhstan's film industry has come of age.

Modern Kazakh literature is the natural continuation of the well-developed oral folklore of prerevolutionary days. It follows the traditions of the classical poet Abai Kunanbayev, the brilliant publicist Chokan Valikhanov, and the writer and philosopher Ibrai Altynsarin, all of whom brought progressive ideas to the people. It is represented by the epic *Abai* by Mukhtar Auezov, the novels of Sabit Mukanov and of Gabit Musrepov, and the prose and poetry of a whole generation of younger writers who have leaped into prominence within the past ten or fifteen years.

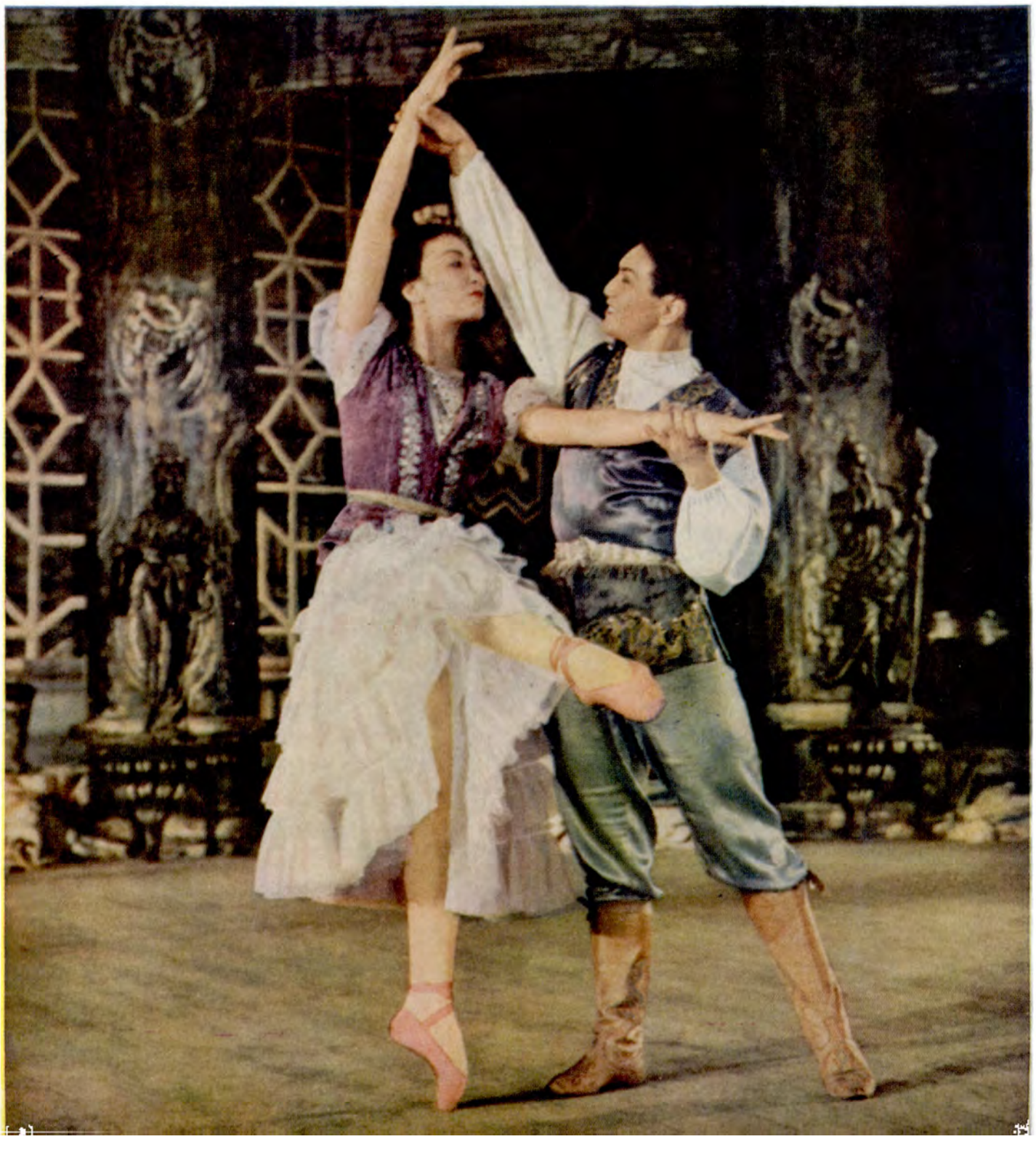
Whereas some twenty years ago the native literature consisted of poetry alone, it now includes historical and biographical works, novels about workers, students and scientists, and books on the events of the Second World War and the Socialist Revolution. In the past two years more than three hundred Kazakh books have been published. Many of them have been translated into other languages and are read throughout the country.

Twenty years ago the Kazakh people had never had an art exhibition of their own. Now the works of 100 painters, sculptors and graphic artists tell the story of the development of the graphic arts in the republic. The exhibit at the festival in Moscow included the canvases of twelve young artists recently graduated from the art academies of Moscow and Leningrad, in addition to the works of older artists. Also on display were carpets, embroidered objects and pottery, for all of which the Kazakhs have long been famous.

Not too many years ago the famous Russian writer Maxim Gorky, speaking of the illiterate and oppressed peoples of czarist Russia, the Kazakhs included, wrote that their songs "are most original and splendid material for the Mozarts, Beethovens, Chopins, Moussorgskys and Griegs of the future. From all these people—the Zyrans, Buryats, Chuvashes and Maris—melodies of wondrous beauty pour out for the gifted musicians of the future. And when you hear the songs, you think not only of the music of the future but of the world of the future, where all the working people will have learned to respect one another and where the beauty amassed by them through the ages will have its fullest expression. It must and shall be done."

That Gorky's prophecy has become a reality is quite evident to everyone who visits Kazakhstan's theaters, sees its art exhibitions or reads the books written by Kazakh authors. The national art of Kazakhstan today is the embodiment of the best traditions of the past, sparked with the vitality, gaiety and color of a people creating their own new life.

ADAGIO FROM *FRIENDSHIP ROAD*, A NEW KAZAKH BALLET WHICH SKILLFULLY BLENDS CLASSICAL DANCE TRADITIONS WITH NATIVE COSTUMING.





ROZA BAGLANOVA'S VOICE IS RENOWN FAR BEYOND KAZAKHSTAN.



POPULAR BALLET ARTIST ZAURBEK RAIBAEV PERFORMS THE EXOTIC EAGLE DANCE OF INDIA.



Konstantin Shiyapov is hewing his future as a top craftsman.

# GRANARY of the EAST

By Georgi Aidinov

IT TOOK 30.7 BILLION RUBLES AND 200,000 TRACTORS TO TURN THE VIRGIN SOIL IN THE EASTERN REGIONS INTO FARMS THAT NOW SHOW HANDSOME PROFITS.

DEEP in the heart of the rolling steppe of Northern Kazakhstan lies the small community of Atbasar. Up to 1954 it had played such a minor part in the economy of the Kazakh Republic that its name was seldom found on general maps of the republic. Today this once inconspicuous town has become known throughout the republic as the "capital of the virgin lands."

Cultivation of the tremendous tracts of heretofore unplowed acreages surrounding Atbasar has transformed the district into one of the Soviet Union's major grain-producing areas within a period of five years. It now harvests an annual crop of up to half a million tons of marketable grain, and the yield continues to increase.

The rapid mushrooming of well-planned, large state farms across the face of the rich, dark-earth steppe has brought about a considerable increase in the population of this once obscure district.

By automobile, it is a little more than a 60-minute ride from Atbasar to the Samarsky State Farm, one of the 425 that have sprung up on the virgin lands since 1954. Our road took us through seemingly endless fields of ripening grain that rippled across the landscape as we drove.

Ivan Likhobaba, director of the Samarsky farm, who rode with us, pointed out the fields on both sides of our car and said: "I don't know about you writers, but as a farmer I just can't enjoy the sight of unreaped wheat. I'd rather look at it when it's piled safely into the grain elevators."

I had visited Samarsky a year earlier and, quite naturally, was eager to see the changes there. I have learned that in rapidly-growing places like Samarsky, a lot can happen in a year.

An extensive park had been laid out in the center of the state farm back in 1954 and judging from the dense foliage I noted as we neared, the trees had thrived quite well on the steppe. I also saw the familiar school, community center, restaurant, grocery store and tailor shop. But there were some buildings I hadn't seen before. The farm hospital was new and so were several machine shops and a large grain elevator.



Tanya Shosheva came to write a book on farm life.



Pyotr Alifirenko found his masonry in demand on the farm and he taught his trade to many youths.



Ida Gaivoronskaya, budding engineer, built a dining hall as her first project.



Aslyan Akhmetzyanov is a combine operator.



89 million acres of formerly unused land are swelling the country's grain output.



"What's new on Moskovskaya Street?" I inquired.

The settlers of Samarsky had given this name to an avenue on which some 50 houses had been built by the virgin-soil farmers with the aid of state loans. I was informed that another street of one family houses had gone up since I had been here last, and that the two were now known as the First and Second Moskovskaya streets.

### 89 Million Acres of New Land

Huge expanses of black loam and rich, chestnut soil lay in the eastern parts of the country: in Siberia, North Kazakhstan, and the Urals. During the first few decades of its



Youth and sports are synonymous and virgin land folks are young.



Tanya Belyakova, a true native, attends the state farm's kindergarten.



Nikolai Prikodin is an auto mechanic and keeps farm motors in good shape.



Sasha Rudenko's family came from the Ukraine.

# Granary of the East

existence, the Soviet state did not attempt to develop these lands because their cultivation necessitated a large expenditure of labor and material resources.

But the time came when the country had the equipment, men and funds to force the former idle land to yield bumper crops, to establish hundreds of real "grain factories"—our large-scale, grain-growing state farms. Eighty-nine million acres is double the area sown to grain crops in Britain, Italy and France combined. This former virgin land is now being cultivated by the most advanced methods of scientific agriculture. And the Soviet people are reaping rich rewards from the former waste-lands of the east.

There were some people who doubted that it would be worthwhile to invest so much money and effort in this undertaking. More than 200,000 tractors have been shipped east. And over a five-year period the country has invested 30.7 billion rubles in its cultivation.

The facts of reality soon dispelled the fears and doubts of the pessimists.

Let us consider one of the new farms in the same Atbasar District—the Dniepropetrovsky State Farm. It was established five years ago when its workers plowed up better than 96,000 acres of virgin soil. Today they have 2,000 head of cattle, 5,600 sheep, more than 1,200 hogs—what one would consider to be a pretty fair start for the livestock breeding section of a state farm.

As in the case of Samarsky, the central portion of Dniepropetrovsky is a real steppe town, with well appointed houses and all the conveniences of modern rural living.

During the five years of its existence, Dniepropetrovsky has delivered about 120 thousand tons of grain and its income comes to a total of 100 million rubles. Since the outlay in setting up the state farm and placing it in operation came to 28.4 million rubles, it is clear that its profit to date is a quite satisfactory figure of 74 million.

The figures for the entire virgin soil area are still more impressive. This area has brought the country's budget an additional 48.9 billion rubles of revenue from its produce, revenue from land that was idle and unproductive only five short years ago. And in that five-year period the Soviet Union has not only completely recovered its investment in the lands opened to the plow in Siberia, Kazakhstan and other areas, but has cleared in excess of 18 billion rubles above that figure.

Grain crops have proved to be exceptionally profitable on the virgin territories, and the profits will continue to mount since the entire area was not sown to crops immediately.

Cultivation of the new acreages has enabled Kazakhstan to increase its grain production 6.5 times, outstrip such large grain producing veterans as the Ukraine, and move into second place as a grain producing area in the Soviet Union. The Russian Federation's output is greater, and it includes some production from the virgin territories since approximately 37 million acres were put under cultivation there within the past few years. As a result the republic provided almost 33 million tons of grain in 1958, or about twice the figure for 1953.

## Still Higher Yields

While I was visiting the Samarsky State Farm, I had an interesting conversation with its chief agronomist, Yakov Zdorovtsev, a top-notch expert in his field.

"I've read in the papers," he said, "that some agricultural forecasters abroad believe that within a few years' time the virgin lands will cause us difficulties. They say that we've removed the top soil that accumulated through the centuries and that the steppe winds will blow away this fertile layer; that the hot sun will dry up the precious water and that within five or ten years' time we'll have nothing but a huge dust bowl. In other words, they're trying to show that the natural richness of our soil will be spent, its fertility will disappear, and the people will have to move out of this new territory."

"Well," I interposed, "the first five years of that time has passed and these gloomy predictions don't seem justified in any way."

Zdorovtsev answered: "The virgin lands have paid off completely and we don't have to worry about the future. The only thing to do is to follow the rules of science that call for the accumulation of more water in the soil, practice proper crop rotation, and combine all this with afforestation and the planting of gardens. Since we're doing this on a wide scale, we're sure that our land will become more fertile, certainly not less."

This confidence is shared by all the people engaged in cultivating the expanses of the virgin lands to the extent that the seven-year plan calls for still higher yields. By 1965 the country will be producing from 164 to 180 million tons of grain, or twice the amount obtained in 1953, prior to the cultivation of the virgin lands.

The Soviet Union is already nearing that target figure. In 1958 the gross grain harvest equaled 140 million tons and the state and collective farms intend to reap even larger harvests by working for increased yields on every acre.

When I returned from Kazakhstan, there was a letter waiting for me from Grigori Gladchenko, chief engineer of the Samarsky State Farm. "We're receiving more of the latest type of farm equipment," he wrote. "That means we'll plant and harvest our grain crops faster in 1959. We'll sow only selected seed. We have a wonderful local variety called *Akmolinka*, upon which we pin fond hopes. In general, we figure on getting between 10 and 12 thousand—maybe even 16 thousand tons more grain than we did in 1958."

## Program for the Future

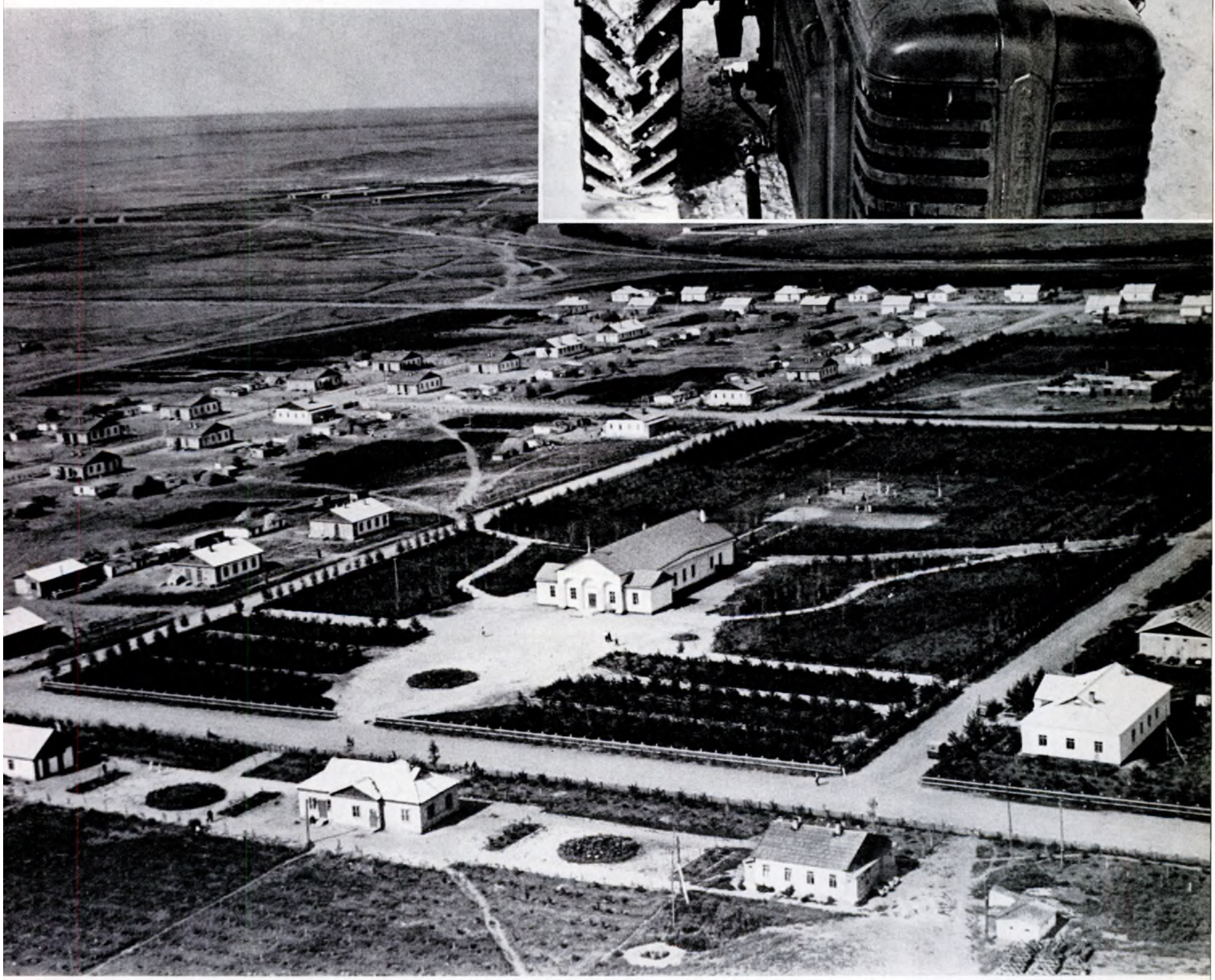
This new equipment is streaming to every state and collective farm in the country. Selected seed is being prepared everywhere for the coming season. But the principal thing is that Soviet farmers know their jobs. They know what the goal is and they're sure they can achieve the targets set by the Communist Party and the people. This is the best indication that the country will carry out the grain harvest program proposed in the seven-year plan, and that it will reap 180 million tons of grain in 1965, with the virgin lands playing a real part in this accomplishment.



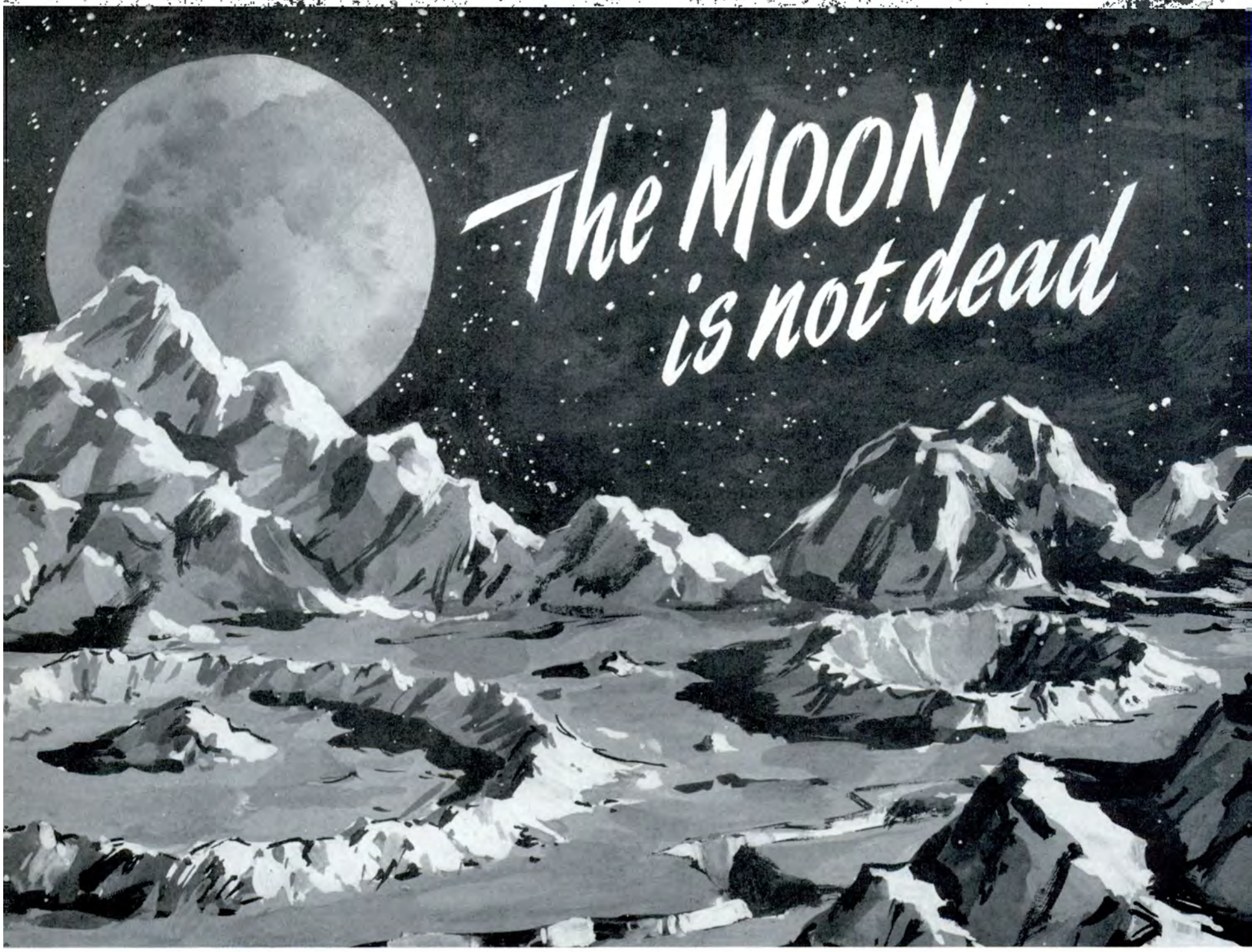
Every family has its own kitchen garden and flower beds.



Experienced tractor drivers teach groups of trainees how to run the machines and special course in mechanics is given in the schools.



A VIEW OF THE CENTRAL SECTION OF SVOBODNY STATE FARM VILLAGE, ONE OF 425 THAT HAVE SPRUNG UP ON THE NEW LANDS IN FIVE YEARS.




**The moon is not dead. Nikolai Kozyrev, Doctor of Physical-Mathematical Sciences and a staff member of the Pulkovo Observatory near Leningrad, came to this conclusion as a result of his observation carried on late last year at the Crimean Astrophysical Observatory. For his work he used a 50-inch reflector telescope, the largest in the Soviet Union.**

**In this article Dr. Kozyrev describes his observations, and two scientists comment on the importance of his research.**

# AN ACTIVE VOLCANO DISCOVERED

***By Nikolai Kozyrev***

***Doctor of Physical-Mathematical Sciences***

UNTIL recently is was thought that the moon is a dead celestial body on which no volcanic or other internal action occurs. In 1957, however, photographs of the surface of the moon taken by the American astronomer Alter at the Mount Wilson Observatory pointed to the possibility that gases were being evolved which veiled the details of the interior of the Alphonsus crater. This led me to examine this crater by the spectral method.

The Crimean Astrophysical Observatory offers the most favorable conditions for this type of work and there, over a three-week period, I took some twenty photographs of the Alphonsus crater. One was an unusual view of the central peak of the crater which appeared with a reddish hue, greatly dimmed in the violet rays. Then, during the next thirty minutes, the brilliance of the peak almost doubled its intensity. Simultaneously, bright lines of carbon and its compounds appeared in the spectrum. Subsequent photographs showed the crater in its usual state.

I made a detailed spectrophotometric analysis of the photographs. The measurements completely confirmed my belief that gases had been evolved from the central peak of the Alphonsus crater. That meant there had been a volcanic eruption. The complex heavy molecules emitted during the eruption break up into simpler ones under the influence of the solar radiation. It was their luminescence I had detected while examining the Alphonsus crater.

This phenomena had never previously been observed on the moon.

# NEW LUNAR GEOLOGY

*By Alexander Khabakov*

*Master of Science (Geology and Mineralogy)*

THE latest observations on lunar geology lead the way to an entirely fresh approach to this subject. They begin to form an answer to the question cosmic geologists have been asking themselves for a long time: Were all the twenty to thirty thousand craters visible on the side of the moon facing the earth really formed by the impact of meteors with the lunar surface?

In search of the answer, I began an analysis of the geological structure of the earth's satellite some years ago. From the seemingly chaotic accumulation of craters, it was possible to select out those which were unquestionably created by meteoric impact. These, however, proved to be very few in number. They were not big and it was evident from their heterogeneity and their contrast with the surrounding relief that they were formed accidentally.

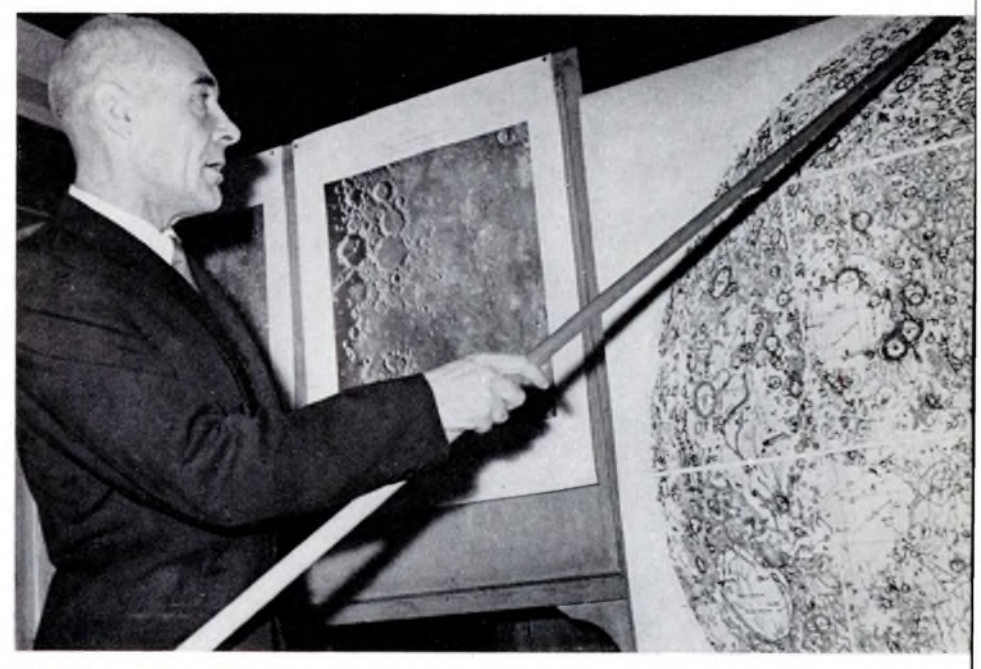
The majority of the lunar rings have been accounted for as volcanic craters. Regardless of whether or not they are extinct, their origin is related to the geological history of the surrounding area, the history of the fractures and defects and the rise and fall of the lunar crust.

The first confirmation of this conclusion that the greater part of the moon's surface consisted of matter of volcanic origin came from optical analysis of moonlight.

It is quite evident that the discovery of Nikolai Kozyrev opens broad vistas for the development of a new lunar geology.



ONE OF THE 20 PHOTOGRAPHS OF THE ALPHONSUS CRATER TAKEN BY KOZYREV.



NIKOLAI KOZYREV TELLS HIS COLLEAGUES ABOUT HIS LUNAR OBSERVATIONS.

# OLD CONCEPTS UPSET

*By Alexander Mikhailov*

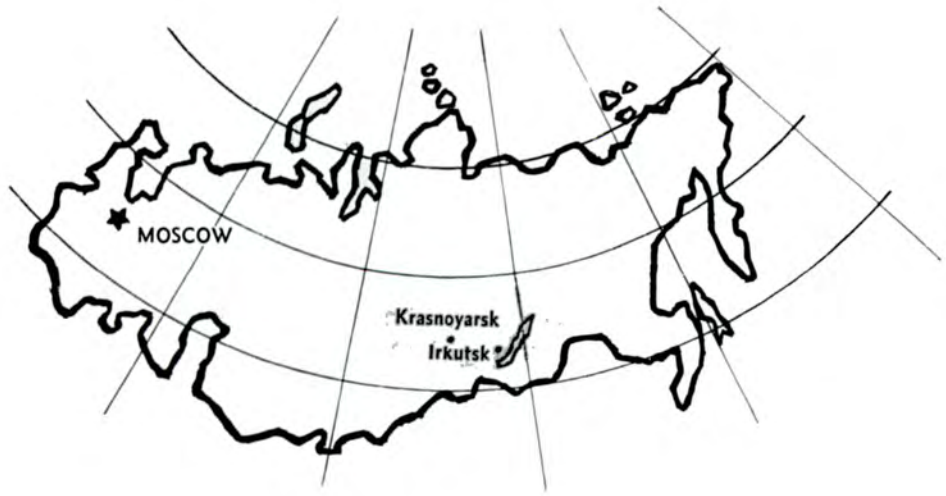
*Chairman, Astronomical Council, USSR Academy of Sciences*

NIKOLAI KOZYREV's discovery of lunar volcanic action completely upsets our age-old concept of the moon as a lifeless body. The evidence of volcanic eruptions shows that the moon, like the earth, is subject to orogenic processes which create its relief.

We now have every reason to believe as unfounded the idea that the chief features of lunar relief—circular mountains and volcanoes—are caused by the impact of meteorites.

The moon is a living cosmic body, not an absolutely congealed mass of stone on which volcanic processes cannot occur. It is true that these processes appear very rarely on the moon's surface because it has a much thicker crust than the earth, but Nikolai Kozyrev's very significant observation is indisputable evidence that they do occur.

A study of these processes is of great interest to science for determining the physical processes of the moon and the origin and development of celestial bodies. The findings will also have practical value for interplanetary travel in the rapidly nearing future.




*The heart of East Siberia's industrial region. Its tremendous economic potential will develop swiftly under the country's new seven-year plan.*



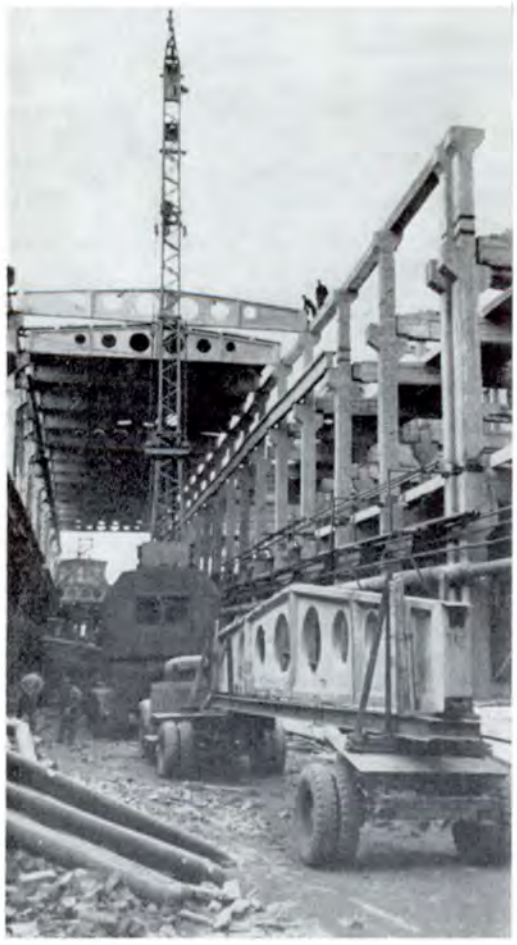
# EAST SIBERIA

## *Industrial Giant of the Future*

SOVIET science, industry and agriculture have been moving eastward. Under the new seven-year plan for 1959-1965 Siberia is the new concentration point for economic development, its great territory hums with activity. Everywhere one travels in Siberia there is the feel of growth and change. Workers and technicians in large numbers have moved to the booming towns and cities, and collective farm families have settled in the new villages. Siberia has been attracting eminent scientists and the best of the graduates of universities, institutes and research centers of the Soviet Union.

East Siberia is the great stretch of country surrounding Lake Baikal. It includes Krasnoyarsk Territory which stretches north from Central Asia; Irkutsk Region which borders Lake Baikal on the west; and Yakutia, Buryatia and Tuva which lie to the east and south of the lake.

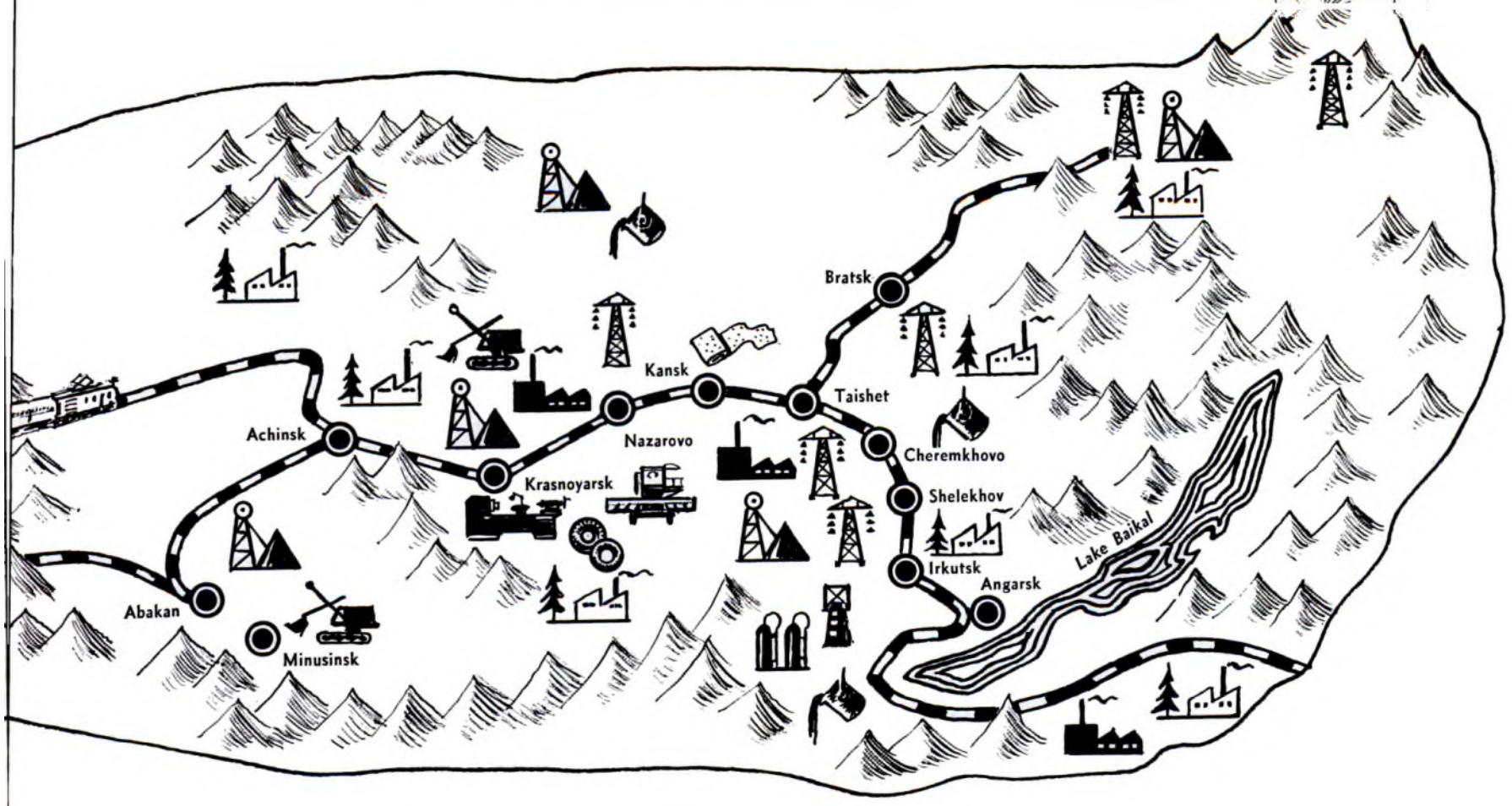
Extending 1,860 miles from west to east and 1,550 miles from north to south, East Siberia covers more land area than all the West European countries lumped together. Here is a region of unlimited opportunity for workers and farmers, for engineers and scientists. Here are boundless forests, mighty rivers with



A TIRE FACTORY IS GOING UP IN KRASNOYARSK.

THE CHEMICAL INDUSTRY IS DEVELOPING RAPIDLY. THIS IS A SHOP OF THE HYDROLYSIS PLANT IN KANSK.






By VASILI NEMCHINOV

*Chairman, Council for the study of Productive Forces, USSR Academy of Sciences*

colossal potential for power, towering mountains with incalculable mineral wealth, rich pastures for millions of head of livestock.

The climate is rigorous but its severity is allayed, more than in most other parts of the Soviet Union, by an abundance of cloudless days. East Siberia gets more sun than the southern regions of the Caucasus.

### Siberians, Old and New

Siberians, oldtimers and new settlers alike, are unusually hardy. They exude health and energy and have won an almost legendary reputation for overcoming difficulties that would discourage less courageous and determined people. One meets them in the older established cities like Irkutsk and Krasnoyarsk and newborn towns like Angarsk, Divnogorsk, Goryachegorsk and Zheleznogorsk.

These people are changing the Siberian landscape. They are building towns of sunny residential districts with schools, clinics and theaters. On the outskirts of these well-conceived towns tourist, sport and holiday resorts are mushrooming.

Siberians are very proud of Irkutsk. The city has spread to both banks of the Angara River and has become the center of a highly developed machine-building industry. It has its own university, 30 colleges and technical secondary schools and a branch of the USSR Academy of Sciences.

Around the city other industrial centers are springing up. The Irkutsk electric station on



VASILI KALACHALOV IS ONE OF MANY CONSTRUCTION WORKERS HELPING TO BUILD UP EAST SIBERIA.



The fast-flowing Siberian rivers are becoming important arteries of transportation.



Ivan Bardin (right), Vice President of the USSR Academy of Sciences, after a staff conference at the Academy's Siberian branch.



The use of prefabricated reinforced concrete sections accelerate construction.

# EAST SIBERIA

the upper Angara, the first big hydropower plant in East Siberia, has been supplying the region with power since 1957. A new aluminum plant is now being built north of the station.

Another hydropower station, Bratsk, scheduled to be one of the world's largest with a capacity of 3.6 million kilowatts, is now under construction in the middle reaches of the Angara.

A still larger hydropower station, with a capacity of more than 4 million kilowatts, the gigantic Krasnoyarsk project, is going up on the Yenisei River.

Hundreds of industrial plants, thermal electric stations, coal and ore mines, textile mills, shoe factories and food processing plants are being built everywhere in East Siberia.

An economically backward region before the Socialist Revolution, East Siberia is today a growing center for industry and farming. Its development even before the last war was a project of priority rating, and construction since has been substantial. By comparison with prerevolutionary times industrial production has almost quadrupled. The farm area has also been greatly expanded and rapid progress has been made in livestock breeding. The output of foodstuffs and other consumer goods has mounted with great rapidity.

It is hardly likely that there is a parallel in any country for the speed with which Siberia has developed its scientific research centers. The regional department of the USSR Academy of Sciences, founded only in May 1957, is the hub for a number of research institutes in the physical-mathematical and technical sciences. The number of staff researchers has grown from 232 to 1,780. And this is only for the one city of Novosibirsk. It does not take in the personnel of other branches of the Academy established elsewhere in Siberia.

The scientific centers have uncovered new and apparently inexhaustible supplies of raw material and electric power resources for any number of industries.

### Treasury of Natural Wealth

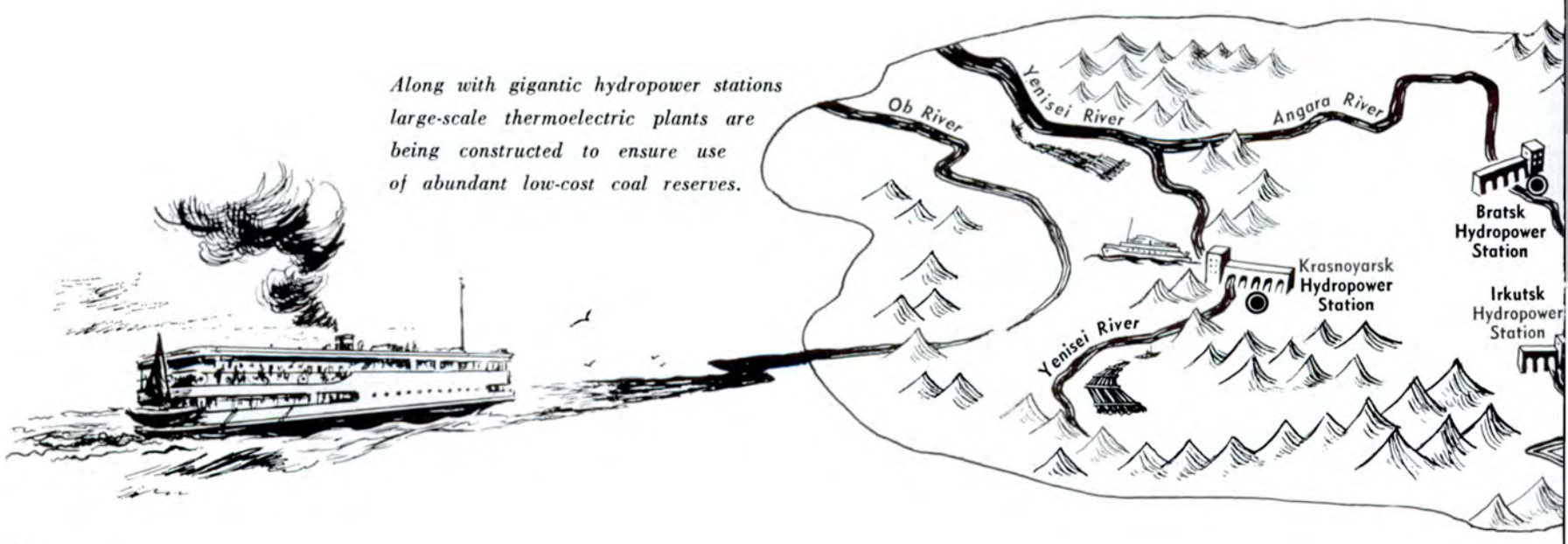
East Siberia now tops all other regions of the Soviet Union for diversity and abundance of basic mineral reserves. Iron ore deposits already surveyed indicate that they exceed 30 per cent of the country's available resources. The rich deposits of easily mined iron ore alone total some three billion tons. Vast amounts of raw aluminum have been found, as well as large deposits of copper, lead, nickel, tin, tungsten, molybdenum, gold, mica, asbestos, graphite and rare metals.

East Siberia's hydroelectric reserves make up more than 40 per cent of the nation's reserves. The fast-flowing Siberian rivers per-



ERECTING A HIGH-VOLTAGE LINE ACROSS THE ANGARA.

*Along with gigantic hydropower stations large-scale thermoelectric plants are being constructed to ensure use of abundant low-cost coal reserves.*







Harvester combines manufactured at the Krasnoyarsk farm machinery plant will be used on the vast tracts of virgin soil which have recently been cultivated in the eastern regions.



The residents of Siberia's new towns live in well-planned communities with all modern conveniences.



A SINGLE GRID WILL LINK SIBERIA'S POWER PLANTS.

mit construction of hydroelectric stations of enormous capacities—up to six million kilowatts—producing power at very low costs. Planned with these gigantic hydropower projects are large-scale thermoelectric plants which will use local fuel resources.

The latest estimate of coal reserves in East Siberia predict an astronomical seven trillion tons, four-fifths of the total resources of the Soviet Union. Mining costs in the region—coal is extracted in East Siberia chiefly by open-cast methods—are about one-tenth the average cost of pit mining, about a third the cost of producing oil and only a little higher than natural gas production. East Siberian coal obviously makes possible extremely cheap electric power.

More than half of the Soviet Union's timber wealth is located in East Siberia. Timber resources are great enough to meet the growing requirements of the country with sufficient quantities left over for large-scale export.

The timber and mineral reserves make possible the development on a large scale of the chemical industry, of nitrate and phosphate fertilizer and sulphuric acid plants, paper and pulp mills, and a host of other industrial enterprises.

### Planning Siberia's Development

In the past ten to twelve years, following on intensive surveys of the region's resources, Soviet scientists and economic planners have been discussing East Siberia's exploitation and development in relation to the national economy as a whole.

The Irkutsk conference was one such discussion. It was sponsored jointly by the USSR Academy of Sciences and the State Planning Commission of the USSR Council of Ministers. The Irkutsk meeting was preceded by regional conferences held in Krasnoyarsk, Chita, Ulan-Ude, Yakutsk and Kyzyl.

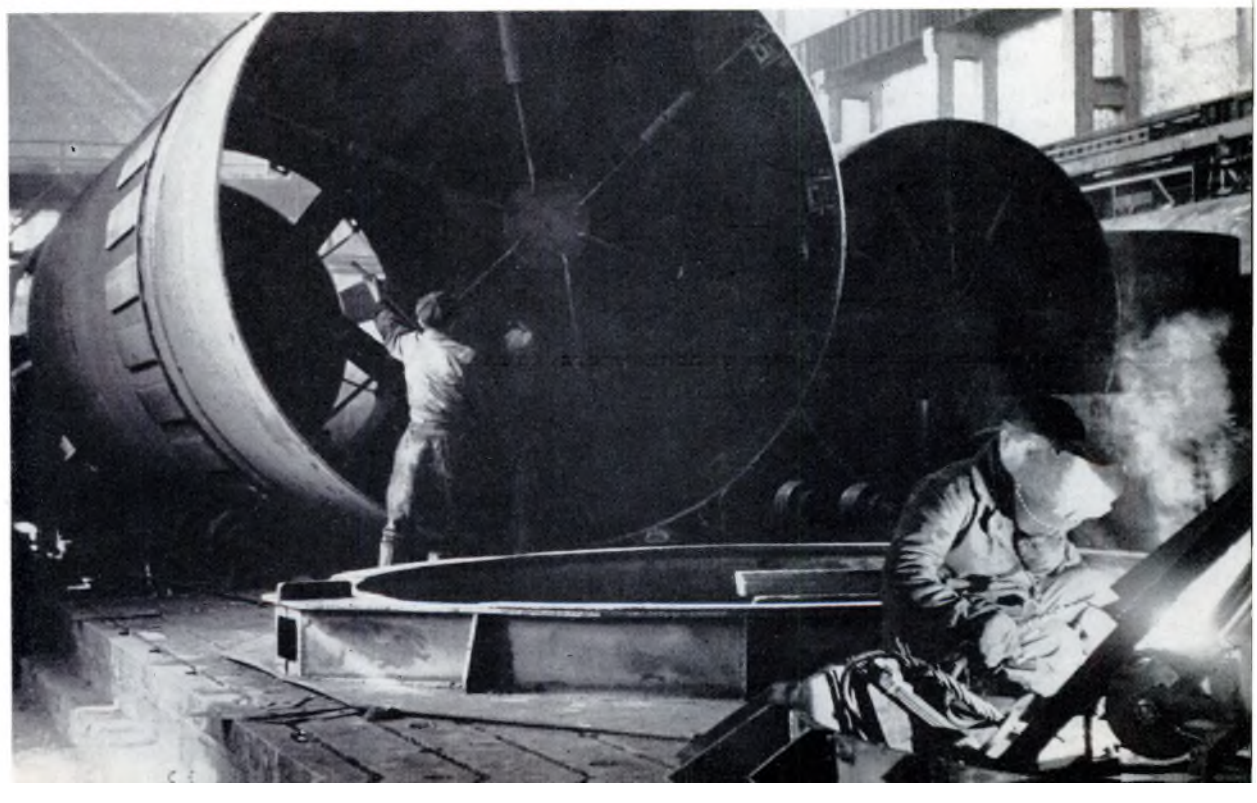
There were more than 8,000 delegates attending these conferences. The reports covered a wide range of economic and technical problems with some 1,500 researchers and representatives of industrial and economic organizations participating in discussion. Their proposals as well as those of participants at other conferences were the basis for the plan for all-round long-range development of East Siberia.

One of the development problems in process of solution is the comprehensive use of the complex-ore deposits of Krasnoyarsk Territory. These deposits contain, along with molybdenum and lead, such other valuable minerals as zinc, cobalt, sulphur and the rare metals. Krasnoyarsk Territory with its treasury of mineral wealth is growing rapidly as an industrial center.

Great iron ore and coal deposits lie so close to the surface that their cost of extraction is minimal, much lower than that of other regions. The variety of raw materials combined with low-cost electricity allow for development of industries that consume large quantities of heat and power. One of the Soviet Union's largest aluminum plants is to

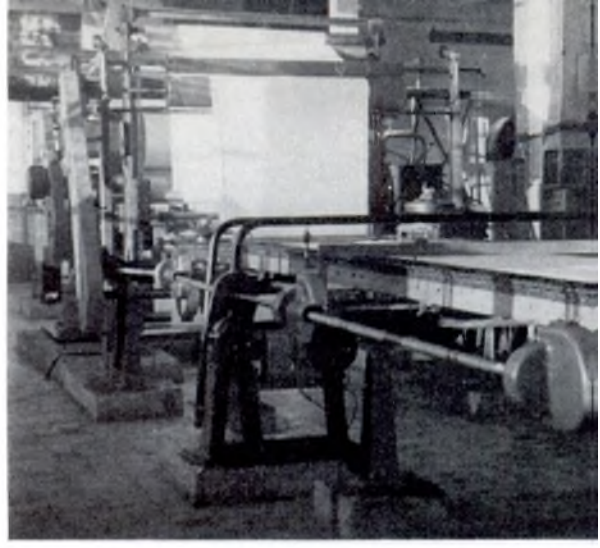



LOCAL PRODUCTION OF EQUIPMENT FOR CEMENT FACTORIES IS STEPPED UP TO KEEP PACE WITH CONSTRUCTION.





Like other new towns springing up all over East Siberia, Angarsk is a beehive of activity, with its department stores, sports grounds and recreation centers, schools, nurseries and hospitals.



A textile plant recently built supplies the local garment industry with silk fabrics.

# EAST SIBERIA

be built in the Krasnoyarsk Territory. Already operating are synthetic chemical plants, with many more slated for construction in the near future.

Cheap Krasnoyarsk coal, mined in the big open-cast Kansk-Achinsk basin, is being shipped to the larger thermal electric stations and to other plants in East Siberia that require large heat sources. By 1965, the end of the current seven-year plan, output of Kansk-Achinsk coal will be 23 million tons, just about triple the quantity mined in 1958. The rate of development of this coal basin will be faster than that of any other coal field in the country.

The building of large-scale hydropower and thermoelectric stations in East Siberia marks the beginning of a single power grid for the whole of Siberia to be linked subsequently to the power grids of the Urals and other regions. Cheap electric power and plentiful raw materials forecast production of aluminum, titanium and magnesium as well as numerous chemical products—plastics, synthetic rubber, artificial fiber, ferro-alloys, phosphorus and chlorine. The completion of the Trans-Siberian oil pipeline and the refining of oil on the spot will provide the chemical plants with the necessary raw hydrocarbons.

The town of Taishet, located closest to the iron ore and coal deposits, is slated to become a major iron and steel center. Its ore-dressing plants will supply the metallurgy centers of West Siberia. East Siberia will be the focus for the metal-processing and machine-building industries. Its transport connections with other parts of the country are now being extended.

The population of East Siberia is a growing consumer of food and other goods. All the industrial centers have been and are now in process of building factories for manufacture of textiles, shoes, furniture and other consumer goods. Foodstuff production is being expanded all the time.

### Development Eastward

The first stage of East Siberia's industrial development are the districts lying to the west of Lake Baikal. The new industrial centers being built there are linked to the power resources of the Angara and Yenisei Rivers and the local deposits of coal, iron ore, nonferrous metals and timber. With the exploitation of these resources on the way, industry will move further eastward, deeper into Siberia.

The work to be undertaken is manifold. It includes development of the districts lying east of Lake Baikal and of Buryatia, Yakutia and the Chita regions. New towns must be built and the natural wealth of these remote and sparsely-populated districts exploited. This is today's planning for the development of the whole of East Siberia within the next two decades ahead.

East Siberia is only one of many new industrial regions in the Soviet Union. There are others in both the European and Asian areas of the country—beyond the Volga River and the Ural Mountains, in the Far East and Central Asia.

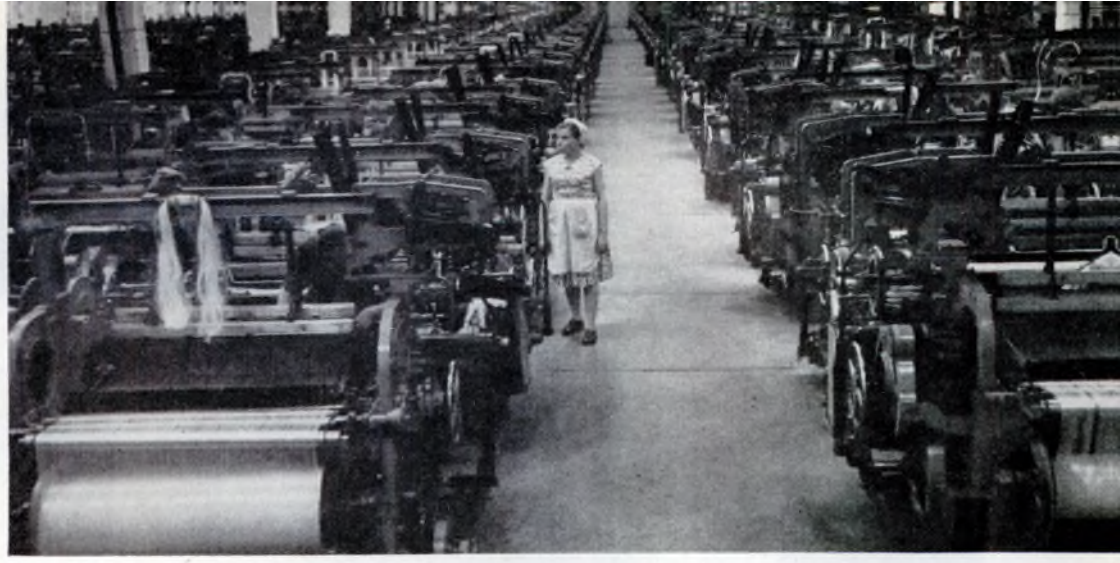
Between 1959 and 1965 more than 40 per cent of all capital investments are to be earmarked for the economic development of the eastern areas of the Soviet Union. The accelerated development of these regions is one of the major features of the seven-year economic plan. By 1965 the eastern area's share in the country's output of coal will rise to 50 per cent, steel to 48 per cent. electric power to 46 per cent, aluminum to 71 per cent, cement to 42 per cent, refined copper to 88 per cent. And East Siberia will account for much of the eastward shift of the Soviet Union's industrial potential.





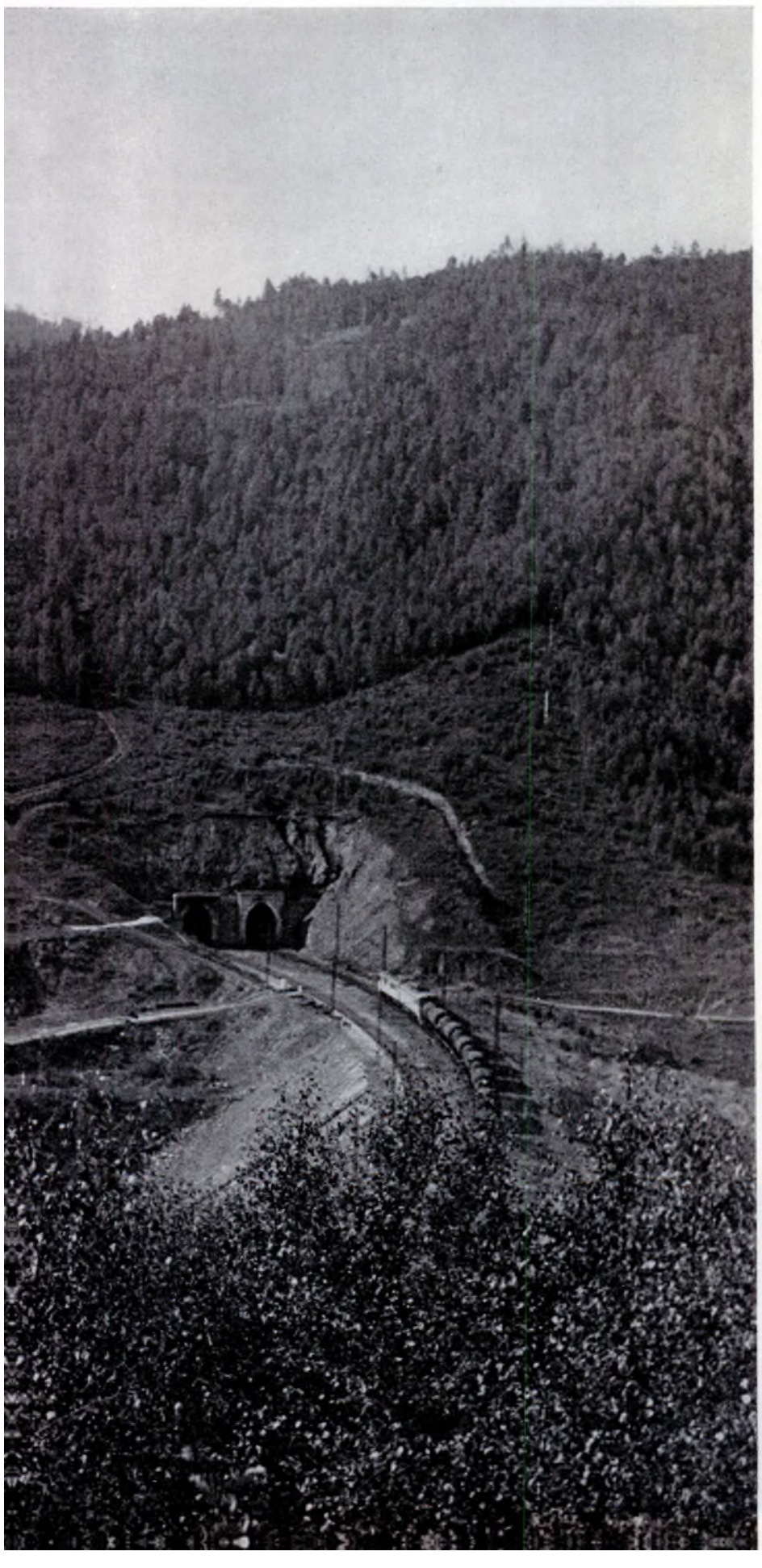


The picturesque health resort near Lake Baikal is one of the area's popular vacation spots.



Siberian mills are turning out cotton materials to supply the growing market. A number of new factories are being built to increase production of consumer goods of all kinds.

**SIBERIAN RAILROADS HANDLE INCREASING AMOUNTS OF FREIGHT.**



**GENNADI TODINOV PILOTS PLANES ON THE NEW LINES SERVING EAST SIBERIA.**





AT 24, SERGEI BAYEV HAS A GOOD JOB, GOES TO SCHOOL AND FINDS TIME TO GET AROUND SOCIALLY.

# *Biography of a Young Man*

**By Adolf Antonov**



MY EDITOR called me in and said: "Your assignment is to interview a typical young worker in an industrial enterprise."

People are never typical, that's one of the facts of life a reporter learns early. They're all very much individuals. I made that observation to the editor.

"Well," he said, "then interview a *typical individual* young worker."

Having no answer to that one, I tried to figure out where I'd find a proper subject. I had been to Kuibyshev several times and had made quite a few friends there. It's a bustling city on the Volga, about 600 miles from Moscow. The local bearing plant employs a large number of young workers, so I decided to hop a plane and try my luck.

It was lunch time when I arrived and I made my way through the plant cafeteria to an old acquaintance of mine, Oleg Dyba, secretary of the Young Communist League, and explained my problem.

He looked around the room, shrugged his shoulders and turned to the young man he had been talking to when I came in. "Well," he said, "here's Sergei Bayev. I suppose he's as typical as anyone else here."

I asked Sergei whether I could interview him. He was agreeable and we left the office together for some place where we could talk.

## Worker

I asked him, "What shop are you working in?"

"The experimental shop."

"Doing what?"

"I'm a machine setter."

"Like it?"

"Sure. If I didn't I'd be working at something else. I had a choice of jobs."

As we crossed the spacious grounds of the big plant we met groups of workers going to

TUNING AND ADJUSTING NEW MACHINE TOOLS IS HIS PROFESSION AND HE "PUTS HIS SOUL" INTO IT.



the plant cafeteria. Most of them were young people. I commented on the fact.

Sergei said, "It's true everywhere in the plant. The workers in my shop are practically all people my age or thereabouts."

How old was he, I asked.

He told me he was 24 and that he was living with his parents. His father, a carpenter by trade, is now retired on pension. His mother takes care of the house.

Sergei, after he graduated from the seven-year school, entered a specialized secondary school instead of continuing his general education at the regular high school. He wanted a technical education because he'd been interested in radio ever since his early teens. "Then, too," he added, "I wanted to get started earning money and help out at home, and I could do that soonest by learning a trade."

He graduated from the specialized school with very good marks, just short of an honor diploma, and was offered jobs in several nearby towns. Since his parents were getting on in years, he decided not to go elsewhere, although the offers were attractive, but to stay in Kuibyshev. He started work in the assembly department of a local factory as an assistant foreman and subsequently was advanced to foreman.

He was due for his army service in 1954, but under Soviet law the only son of aged parents who live on pension is exempt from military service. He transferred to his present job in the Kuibyshev Bearing Plant at about that time.

"How much do you make?" I asked him.

"An average of 850 to 900 rubles a month."

"How do you manage on that?"

"Not too badly. My father's pension is 600 a month, so we have 1,500 rubles for the three of us. We do all right on that."

### Inventor

The experimental shop where Sergei works as a machine setter was at the far end of the grounds. Surrounded by tall trees, it had the feeling of a building set in a park. Sergei showed me around and meanwhile told me about an invention he had worked out last year. As he talked, I could see how completely he was wrapped up in the project. He even forgot that I was very much the layman and went into technical details which I must confess were over my head. But I was as much interested in his enthusiasm and excitement as in the explanation, so that I didn't interrupt.

What I gathered was that he and another young man, Lev Samokhin, an engineer in the technology department, had worked out a way of washing precision bearings by ultra-sound.

The rings have to be rolled in a special device which holds a paste composed of chromium oxide, graphite and oil. The paste has a tendency to get stuck in the microgrooves in the metal and it was a hard job getting it cleaned out with cotton and gasoline, the usual method. What made the job harder was that the rings are small and the cleaning has to be done several times.

Bayev and his friend read all the literature they could find on solvents, experimented with many of them, and then, after a lot of time and usual large number of frustrating fail-



SERGEI GETS EXTRA VACATION TIME WITH PAY TO TAKE EXAMS AT THE ENGINEERING INSTITUTE.

TELEVISION IS AN OLD HOBBY AND SERGEI IS BUILDING A SET IN HIS SPARE TIME. "IT'S MUCH MORE INTERESTING TO MAKE A SET YOURSELF THAN BUY ONE," HE SAYS.

## *Biography of a Young Man*

CHOOSING THE TIME AND PROGRAM FOR A CONCERT.






HE GENERALLY TAKES HIS GIRL FRIEND GALYA TO THE MOVIES, BUT THEY OFTEN GO TO SEE A PLAY OR OPERA.



SERGEI AND A GROUP OF HIS FRIENDS GET TOGETHER MANY AN EVENING TO DISCUSS NEW BOOKS AND COMPARE EACH OTHER'S REACTIONS TO AN AUTHOR'S WORK.

GALYA AND SERGEI LIKE TO VISIT ART GALLERIES.



ures, hit on the idea of washing the bearings by ultra-sound. They designed a semi-automatic machine which was built right in the experimental shop and is now used on the job with excellent results and a big saving in time and energy.

The machine, Bayev told me, attracted a lot of attention, especially since other engineers had tried to work out something along the same lines and hadn't been successful. People from Moscow and elsewhere came to have a look at it and he and Samokhin were asked to make a report at the Conference for the Use of Ultra-Sound in Industry. Both scientists and representatives of plants throughout the country participated in the meeting.

### Student

Bayev has been going ahead with his technical studies at the USSR Engineering Correspondence Institute. He is now in his fourth year. This is one of the very large correspondence schools with branches in all the big industrial centers. Besides home study and written assignments the course requires laboratory work, preparation of reports and examinations. Bayev gets an extra month's vacation with pay each year to prepare for and take his exams.

There are about 300 young people at the plant, he told me, who are taking the Institute course by correspondence. "So many of the young people at the plant are studying," he said, "that those who don't feel very much out of things. To tell the truth, that's why I started myself. When I got through school, I thought I'd spent enough time studying. I was anxious to get down to work. However the trouble is that in order to do good work, you've got to be on your toes. There's so much that's new in our industry cropping up all the time that you've got to study to keep up to scratch. That's why I decided to get moving toward an engineering degree."

Bayev is now studying at the engineering technology department of the Institute but he's thinking of transferring to the new department that is being organized in precision instruments and remote control engineering since that is more immediately related to the work he's doing at the plant.

### Active YCL Member

Bayev told me that he was a member of the Young Communist League.

"That's a pretty full program," I said, "what with work and study. How do you ever get everything done?"

"It's a problem," he said, "no doubt about that. When you came in Oleg Dyba had just



SERGEI'S FATHER, A PENSIONED CARPENTER, DISCUSSES THE DAY'S NEWS WITH HIS SON.

## *Biography of a Young Man*

THE YOUNG COUPLE GO OUT TWO OR THREE TIMES A WEEK. SOMETIMES THEY STROLL ON THE VOLGA EMBANKMENT.



talked me into taking an assignment to lead a discussion for the tenants of the new residential district around the plant on the coming census. How I'm going to find the time for it, I don't know, but it will get itself done. It usually does. The League is more than a social organization, it's a collective with common aims and when I joined it was because I believed in the aims and wanted to work for them. One thing I learned fast was that League members take their responsibilities seriously and they expect their leaders to do the same. I was elected to the shop committee for four years running and I know.

"League members are active in one way or another in all sorts of things. For example, we YCL'ers led the drive to economize on the use of raw materials and our plant saved the country five million rubles this year. We see to it that the people we work with know what's going on in the world, encourage them to read more. We're talent scouts, too. When we find a budding young inventor struggling with a new idea, we make sure he's given the right kind of encouragement and help.

"Our organization has a rich cultural, educational and leisure time program. It arranges camping trips in the nearby Zhiguli Hills, visits to museums, theater parties, dances and a variety of other social activities.

"Our group at the plant is at present working with the management on an apartment house project for young married couples and on a landscaping project for a residential district newly completed near the plant. Leaguers make many such contributions to the general welfare."

Many of the young men and women at the plant, Bayev explained, are members of the League. The organization strives to develop attitudes of cooperative work and ethical values and social responsibilities that will contribute to the building of a communist society.

### Busy Social Life

Sergei Bayev, in spite of his busy work schedule, manages to find time for what seemed to me an equally busy social schedule. There's his girl, Galya Goldobina, who occupies a fairly large slice of his free time. She's nineteen and works as a nurse in one of the Kuibyshev hospitals. He met her at a dance given by the League.

They go out together two or three times a week, to the movies or the theater or just for a walk on the promenade on the Volga shore. They think alike about a great many things. They've been reading the same books recently to compare notes and reactions. They both want to travel and hope to before they are very much older. When I asked Sergei whether he was thinking of one of the apartments in the project for newly married couples for himself and Galya, he laughed and said, "Maybe."

I spent most of the afternoon talking to Sergei Bayev. Whether he's typical or not, I don't know. In many ways, I suppose, he is very much like young people anywhere in the Soviet Union—young people interested in work, ideas, civic duties, dances, books and everything else that goes to make up a young man's life.

# PEOPLE in the land of WHITE GOLD





UZBEKISTAN'S ONCE SHABBY VILLAGES ARE FAST BEING TRANSFORMED INTO MODERN COMMUNITIES.

*By Yuri Grafsky*

CENTRAL Asian Uzbekistan is cotton-growing country, mile on mile of greenish-brown fields alternate with great squares of white cotton spread in the sun like giant counterpanes. In Uzbekistan they call cotton white gold, it is the republic's principal crop.

All this country forty years ago was marginal, land and people both. Uzbekistan's cotton crop has increased more than five times in the Soviet period. With extensive irrigation, land reclamation and farm mechanization, the republic now grows more cotton than all the rest of the Soviet Union put together.

The cotton growers have changed too. Before the 1917 Socialist Revolution, a bare two per cent of the population was literate. There is no illiteracy now. No Uzbek village is without its school, no regional center without its college.

The best example of these changes is the Lenin Collective Farm, about 20 minutes' flight from Tashkent, the capital of the republic. The farm produces meat and wool, but its main source of revenue is cotton, about 12,500 acres of it.

## Six Hundred New Houses

Niyazbash, where the Lenin Collective farmers live, reproduces on a village scale the growth of the republic as a whole. The objective is to build a modern new house for every one of the 1,500 farm families. Six hundred have been built so far. Those farm-

ers who had accumulated savings paid cash for their houses, others built them on ten-year mortgage loans borrowed from the farm fund. They pay no interest on the loans.

Eshmirza Boimurzayev is now building a new brick house. His is a somewhat larger and more expensive house, but its estimated cost in relation to his income is fairly typical.

It will cost him 55,000 rubles. This year his own cash earnings, that is to say, his personal share of the farm income, was 11,000 rubles. Altogether, the Boimurzayev family earned almost 50,000 rubles. The house then represents a little over a year's work.

The plot of land around his house, one-third of an acre, is large enough for a garden. Like most of his neighbors Boimurzayev grows his own vegetables, grapes and melons.

### Seven Village Schools

Niyazbash, with 100 per cent illiteracy before the Socialist Revolution, now has seven schools for its 2,000 children—two elementary schools, four junior high schools and a secondary school built four years ago.

Many of the high school students take jobs on the farm after graduation, others go on to further study. The careers chosen by the four children in the Karamov family are representative. Fayil, just completing his high school course, wants to be a tractor driver. He became interested in machinery in one of his school courses. Fatima, his sister. is now doing pre-medical work at the Yangi-Yul Medical School. Zayid is a scientist, he holds a master's degree in the technical sciences. Faris majored in philology at the Uzbek University in Samarkand and is now teaching Uzbek literature at the collective farm high school.

Many of the village teachers are local people who got their education at one of the country's colleges and then returned to Niyazbash.

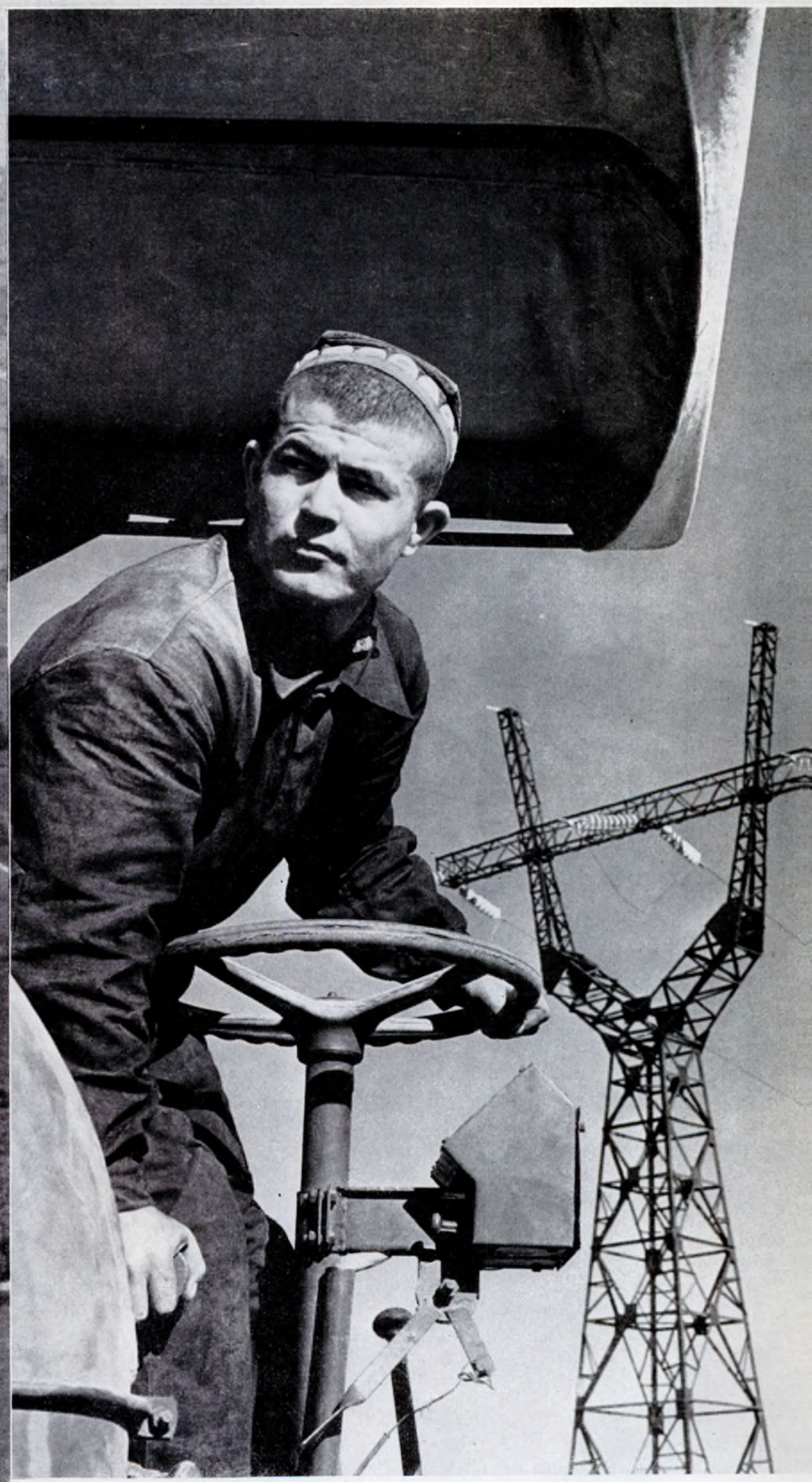
After picking, the cotton is laid out to dry in the sunny fields before being sent to the gin.



Mobile cotton pickers move into the fields. Practically all the old arduous work has been mechanized.



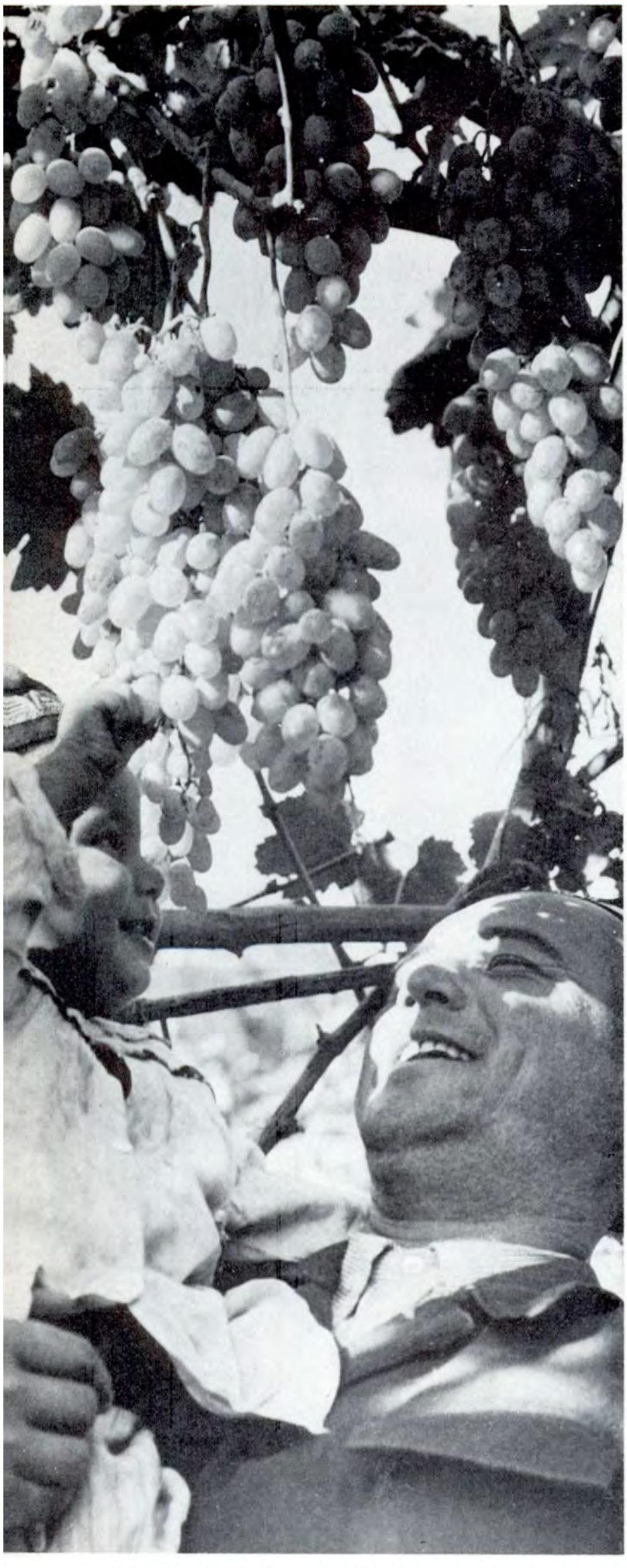




Recently the collective farm bought a million rubles' worth of new machinery which is now operated by experienced drivers like Askhad Rafikov.



12,500 acres of cotton provide the main income of the Lenin Collective Farm. Last year the personal share of its members totaled 14.5 million rubles besides payment in kind.



Father and son on a tour through the vineyards. While cotton is the main crop, Uzbekistan is also one of the country's big fruit producers.

# LAND OF WHITE GOLD

### Village Hospital, Stores, Library

The farm's polyclinic is an all-around fully-equipped diagnostic and therapy setup. It is headed by Nafisa Mukhitdinova, a very energetic woman who returned to her native village after graduating from Tashkent Medical College. In addition to the usual medical facilities the polyclinic has a dental unit and a special mother-and-child division. Like medical care throughout the country, the polyclinic's services are free.

For preschool training the farm has two nurseries and two kindergartens and spends half a million rubles annually to run them.

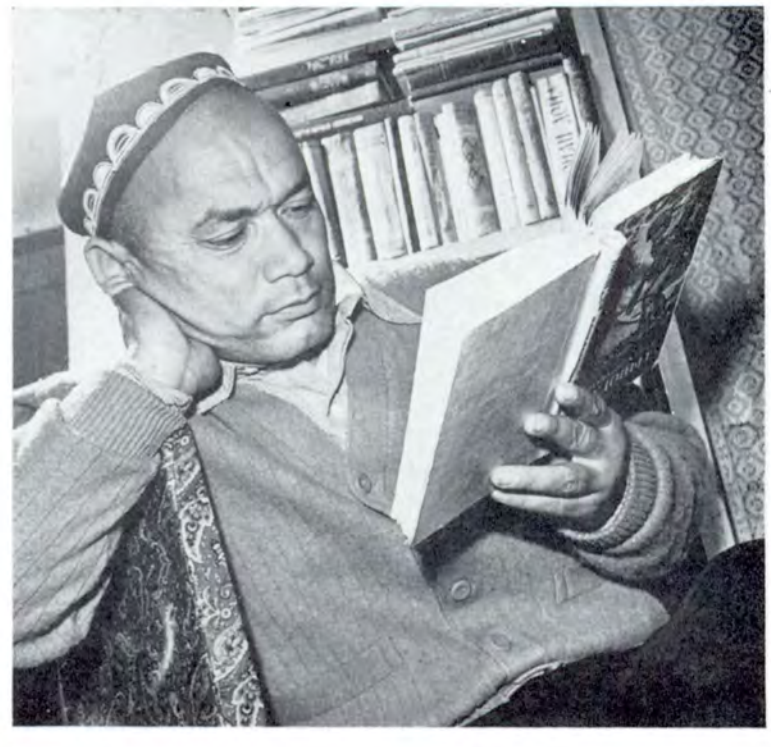
The village has seven retail stores selling a full range of consumer items, from clothing to television sets. Sales have trebled in the past year alone, with furniture, radios and cameras heading the list of items most wanted. About the only item a villager can't buy right at home is a car, and these are available in nearby Tashkent.

Books are much in demand in this once illiterate village. The collective farm library's 18,000 books are in constant circulation. They cover a wide variety of subjects ranging from cotton cultivation to science and the arts. The library arranges readers' conferences and discussions. A recent and very popular one dealt with Aibek's novel *Sacred Blood*, about the Socialist Revolution in Uzbekistan and World War I. Aibek is an Uzbek author whose books are read all over the Soviet Union. Most of the farmers have their own home libraries stocked with books in both the Uzbek and Russian languages.

### Planned Prosperity

The cotton grown by Uzbek farmers is bought by government procurement agencies. Previously the collective farmers were paid a

After completing a day's work on the farm, Djamal Tuichiyev likes to spend the evening reading a novel or the latest technical journal.



bonus for every additional pound of cotton raised over and above the amount contracted for by the government. These bonus payments were discontinued in 1958 and a uniform price system was adopted for the entire output with a price scale higher than the old one.

Those cotton farms whose production was average gained by the new scale, some of them by as much as 18 per cent. The top producers—the Lenin Farm is one of them—stood to lose with the bonuses cut out.

The farm had figured an income for 1958 of 28 million rubles. That was six million more than for 1957. About 2½ million was to have come from bonuses. The farm had also made a large capital investment during the year. It had bought a million rubles' worth of farm machinery from a disbanded machine and tractor station. The question was how to make up for this total of 3½ million rubles.

The members of the collective farm met and considered the problem and a number of very practical recommendations were forthcoming. What with the suggestions put into effect, the labor saved by the additional new machinery, and better cultivation, the 1958 crop was so large and quality so high that the farm more than recouped the bonus loss. Its income for the year reached the high mark of 30 million rubles.

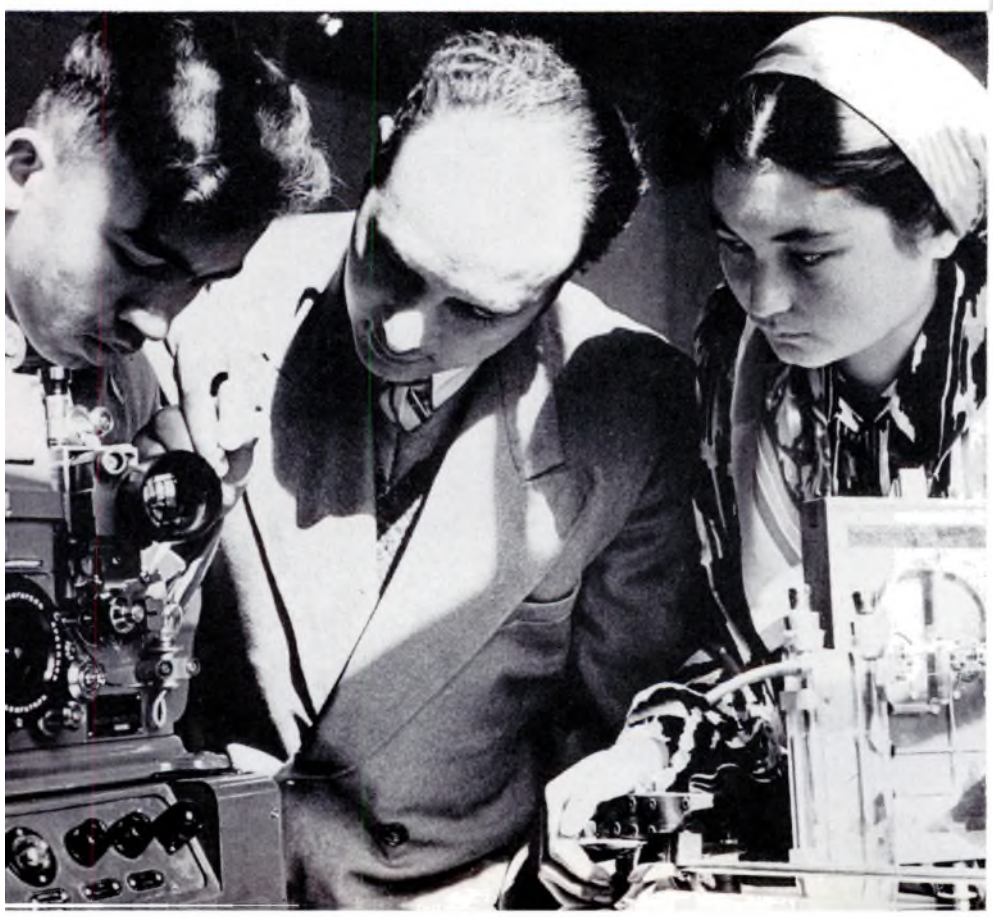
The income was budgeted, as it always is, at a meeting of the collective farmers. For payments to the individual members—14½ million rubles; for further expansion of the farm, new buildings, farm machinery purchase and maintenance—9 million; for housing construction—2,800,000; for a new village community center—1 million. The remainder went for the pension fund, maintenance of kindergartens and for taxes.

The average family of cotton growers at the Lenin Farm—with a standard of living that is spiraling upward—is a far cry indeed from the marginal peasant households of prerevolutionary times trying to tear a bare subsistence out of their small plots.



The farm spends half a million rubles annually running two nurseries and two kindergartens for its members' children.

Turgun Rashidov (center) was a member of his high school physics club. Now, a graduate of Central Asian University, he is in charge of the same group.



The most avid of the TV fans in the Inashamov family are 70-year-old Grandma Yadgar and her grandson Rashid.



# SOVIET SOCIAL SECURITY







Top — Discussing a new increase in pensions. Center — Retiring worker receives a send-off gift. Bottom — Home delivery of pension money.

## *AMERICAN DELEGATION SEES WELFARE SYSTEM IN OPERATION*

**By Dmitri Petrov**

TO THOSE unfamiliar with its generous provisions, the Soviet social security program presents something of a revelation and a challenge in national old age and disability systems.

An American delegation of social security experts on a recent visit, part of the exchange program, was afforded a close view of the Soviet Union's concern for its elderly citizens and those sick and disabled.

The delegation, led by Charles H. Schottland, Federal Social Security Administrator, included Victor Christgau and Arthur E. Hess, director and assistant director of the Bureau of Old-Age and Survivor's Insurance; Corinne H. Wolfe, who heads the Technical Training Division of the Bureau of Public Assistance; and Robert J. Myers, chief actuary of the Social Security Administration.

The Americans visited various social security agencies in Moscow, Kiev, Sochi, Leningrad, Tbilisi and Tashkent and interviewed agency heads, pensioners and disabled workers, from whom they received first-hand accounts of the day-to-day operation of the welfare program.

The right of the Soviet citizen to maintenance in case of illness or disability and in old age is guaranteed by the Constitution. The sum spent for social security has increased each year. In 1958 it was about 12 per cent of the total national budget—more than 88 billion rubles.

Every industrial and office worker is automatically covered by the social security program from the very first day of employment. The program is financed entirely by the enterprises, and the workers make no contribution whatsoever. The social security fund is channeled through the national budget to the trade unions and the ministries of social maintenance in each of the Soviet republics. The unions take care of people who are working, and the ministries, those who are retired. Collective farms have their own social security programs, each one for its own members financed from the common fund.

When the American guests went through a textile mill in Tashkent, capital of the Uzbek Republic, they were surprised at the large contributions management makes annually to the national social security fund. The amount paid by each enterprise varies with the size of the payroll—the larger the payroll, the larger the contribution. At the Tashkent mill the guests found out that over and above the usual payroll the management pays another 7 per cent to the social security fund. That percentage is not the highest. In some industries the rate runs as high as 9 per cent.

As to why there was no provision for unemployment insurance in the social security program—a question which the Americans asked—the answer was simple: There is no unemployment in the Soviet Union, nor has there been since the early thirties.

The guests spent much time learning about the work of the ministries of social maintenance in various republics and their local agencies. In each city and region these agencies are responsible to the city or regional Soviet. Their function is not confined to the payment of pensions and other benefits. They set up industrial training programs and find suitable jobs for the disabled, maintain homes for the aged and those incapacitated, provide accommodations at health and vacation resorts for these groups and give such other services as are necessary.

When the Americans visited the Black Sea coast, a health resort area in the southern part of the country, they talked to 70-year-old Vikenti Balonkin. He is one of 20 million Soviet citizens who receive pensions from the national fund. Balonkin worked as a carpenter and gardener




for close to 25 years. He retired 10 years ago and now lives with his wife in their own house near Sochi which has a garden and orchard. Balonkin's pension comes to 800 rubles a month. It is nontaxable income.

The law provides pensions for men who have reached the age of 60 and have worked 25 years and for women who have reached the age of 55 and worked 20 years. The amount ranges from 300 to 1,200 rubles a month. In each case the pension is figured on the basis of average earnings for five consecutive years of the applicant's last ten years of employment. Workers who have not completed the minimum 25 or 20 years the law requires are retired on somewhat lower pensions. Under the seven-year plan adopted by the Twenty-First Congress of the Communist Party all pensions in the lower categories will be increased considerably.

Certain categories of people are granted special pension privileges. Workers engaged in hazardous jobs, in hot shops and in mines fall in this group as well as mothers of large families. A woman who has reared five or more children, for example, will be pensioned at the age of 50 instead of 55.

The pension law also provides for families who have lost their breadwinner. Pensions are granted to dependents in such families who are unable to work, to children, brothers, sisters and even grandchildren who have not reached the age of 16 and to students who have not reached the age of 18. These pensions are allowed regardless of when the breadwinner died. A dependent husband or wife entitled to pension continues to receive it even upon remarriage.

The law provides pension security for all those crippled, chronically ill or otherwise incapacitated and whatever medical treatment is nec-



Anna Zagorina (in the background) mother of six children, receives her monthly state grant at a Sochi savings bank as the American visitors watch.



Nonna Muravyova, Social Maintenance Minister of Russian Federation, meets members of U.S. delegation studying Soviet care for aged citizens.



Dmitri Rezchikov, disabled war veteran now teaching school, shows the American guests how he uses various tools with his artificial hands.

Pensioners Anna and Vikenti Balonkin (left) greeted the Americans when they stopped off to see their home in the outskirts of Sochi.





The U.S. delegation's tour of inspection included the Research Institute for Mother and Child Care in Tbilisi, capital of the Georgian Republic.



An amputee demonstrates operation of his artificial limbs for the group at the Central Research Institute for Artificial Limb Design in Moscow.

The Americans met the patients at the institutions they inspected and had a chance to question them about their case histories and background.



# SOVIET SOCIAL SECURITY

essary. Those capable of limited functions can retrain for new jobs.

In case of long-continuing or permament loss of working capacity, invalid pensions are paid. The sum will vary with the length of previous employment and the degree of incapacity established by medical-labor examining commissions. In case of crippling or chronic illness resulting from work, invalid pension is granted regardless of length of employment.

In one of the Black Sea sanatoria the American delegation spoke with Vladimir Djugostransky, a young man of 26 who had been a train conductor on the Odessa Railroad and had lost a foot in a railroad accident.

His medical treatment and stay at a sanatorium where he learned to use his artificial leg were, of course, all taken care of. In addition he received full compensation for all days of his sick leave and then was granted an invalid pension. The railroad administration provided retraining for a new job as bookkeeper at the same pay he had earned previously. His total income at present, including job and pension, is 1,100 rubles a month.

There are permanent invalid homes maintained for those incapacitated or chronically ill who have no close relatives. They provide complete care and medical attention for about 150,000 people at present.



Among the health and vacation resorts visited by the Americans was the Metallurg Sanatorium, located near Sochi on the Black Sea.

The Americans visited two such homes in the suburbs of Leningrad and Moscow.

The social security agencies help partly incapacitated people to find such work as the state of their health will permit. The management of any enterprise is not only required to employ the semi-incapacitated person who applies for a job, but is also required by law to make whatever special working arrangements may be necessary—a shorter working day, perhaps, or providing special equipment. The Americans saw some of these semi-incapacitated people at work in a textile mill in Tashkent.

What seemed to have impressed the visitors most in their tour of factories and social security agencies was the very wide scope of the work being done in the Soviet Union to readjust and retrain those people who by reason of illness or accident have lost their earning capacities. The social security agencies, the trade unions and the medical institutions combine their efforts in this program.

The Americans spent some time at the Central Scientific Institute on the Organization of Labor For the Incapacitated. They talked with Dmitri Rezchikov who had lost both his hands in the war. Equipped with artificial hands designed for him by the Institute's prosthetics department, he now works as a mechanic and carpenter and teaches machine engineering in a Moscow school. Besides his salary he gets an invalid pension. Specially designed artificial limbs and a variety of prosthetic appliances are returning people like Dmitri Rezchikov back to normal life.

At a conference before the American guests' departure for home, Mr. Schottland said the delegation was amazed at the high level of training and ability of social security personnel in the Soviet Union. Every worker, from the rank-and-file employee to the highest ministry official, seemed to know his job so well and was always ready to come to the aid of anyone who applied for help. He noted how well the work of all the agencies is coordinated and how sympathetically the problems of the country's aged and infirmed are handled. The program, he concluded, effectively combines the merits of a unified national system with broad local initiative.



Victor Christgau and Corinne H. Wolfe, of the U.S. social security delegation, at a toy factory which provides jobs for partly disabled workers.

The Americans are welcomed by Klavdia Zaikina at a home for the aged near Leningrad (top picture). Pictured below are Yevgenia and Nikolai Mochalov. pensioners who live in the old people's home.





Mrs. Corinne H. Wolfe (second from left) learns of the work of a district social welfare department near Tashkent in Uzbekistan.





# SHOLOM ALEICHEM CENTENNIAL

***By Alexander Gleichman***

SHOLOM ALEICHEM was the pen name adopted by the renowned classic of Jewish literature whose birth centennial will be observed the world over this March. The name means "Peace be with you"—a traditional greeting among Jews, and it sums up the writer's attitude toward the people he lived with and toward the characters he created in his books and plays. All of Sholom Aleichem's works are permeated with a love for man and sympathy for his striving for happiness.

He was born Sholom Rabinovich, the son of an impoverished innkeeper in the little Ukrainian town of Pereyaslavl. As was customary at the time, he attended the Jewish religious school. Later he went to one of the general schools where he learned the Russian language.

The future writer read voluminously, and the humanism of the best of the Russian classics affected him profoundly. Merged with the influence of the enlightened Jewish secular literature of the period it gave Sholom Aleichem that compassionate understanding for the Jewish "little man" which was so uniquely characteristic of his writing.

It was for this commiseration for the weak and oppressed that Sholom Aleichem was persecuted in czarist Russia both as a Jew and as a writer. It is the same quality in his works that has won him so great a reading public in the Soviet Union.

There have been 489 Soviet editions of his books printed in a total of 5.5 million copies. Besides publication of a 15-volume Yiddish edition of his works, Sholom Aleichem has been translated into fifteen of the languages spoken in the Soviet Union. His plays and the dramatizations of his novels have been staged all over the country.

## A Life of Struggle

Sholom Aleichem began writing in Hebrew, the language of the Jewish intellectuals of his time. His first published effort was an article for the Hebrew newspaper *Hacafire* when he was twenty. In the eighties he began to write in Yiddish, the language spoken by the people, and he continued to write in that language until he died.

His life was not an easy one. He turned to a variety of occupations for a livelihood, salesman and teacher among them. In 1905, after living through the horrors of the anti-Jewish pogroms in Kiev, he emigrated to America. But Russia remained his home, and the people of Jewish communities in Russian cities and towns were his people.

Sholom Aleichem did not stay in America long. In 1908 he returned to Russia for a tour of the regions with large Jewish populations. By this time his books were known and loved by Jews everywhere and he was greeted by hosts of admiring readers.

But his life remained a struggle for a bare livelihood, aggravated by an incipient tuberculosis which made it necessary that he live in a warm climate. At the outbreak of the First World War he was staying at a German health resort. He was sent to Berlin together with other Russian citizens, but soon escaped to neutral Denmark and after months of illness and poverty, to the United States.

Sholom Aleichem died in New York in 1916 at the age of 57. Thousands of Jews and people of other nationalities came to his funeral to pay their last tribute.

## Unforgettable Characters

Sholom Aleichem's short stories, novels and plays are all touched with wistful humor, a humor which made it possible for him to reveal all the ludicrous aspects of the life he depicted. But his laughter was tinged with deep sorrow and profound sympathy for man. He showed that the people he laughed at could not help themselves for they were the victims of tragic fate.

Menachem-Mendel and Tevyeh the Milkman, the heroes of two cycles of his tragic-comic short stories, are unforgettable. These are the "little men" of tragic destiny. Sholom Aleichem first conceived them in the nineties and returned to them at frequent intervals.

Menachem-Mendel is the *luftmentsch*, the dreamer, so typical of Jewish life in old Russia. He is ever on the hunt for a living, a way out of poverty, ever busy with projects and plans to make money, each one more fantastic than the preceding. He tries his hand at everything—broker, insurance agent, dealer, businessman, writer—and fails at everything. He even takes a stab at matchmaking and finds he's been trying to arrange a marriage between two girls.

Sholom Aleichem says of these Menachem-Mendels without earth under their feet that they are "the rootless who must eventually wither and die." They are the Don Quixotes of the time with no comprehension of the great changes which were in process nor any ability to adapt themselves to new conditions.

Injustice and poverty bred men like Menachem-Mendel who spent their lives in a phantom chase after money and happiness—ludicrous but pathetic figures.

Tevyeh the Milkman is an altogether different type of man. He has worked hard all his life. His feet are planted strongly on earth but he has never lost the sure and certain sense of the possibility of a brighter, happier future. His ties are with working people everywhere, of whatever nationality or country.





Godl is one of Tevyeh's seven daughters. With her father's blessing she follows her husband, a revolutionist, into exile.

# *Tevyeh the Milkman*

**Staged by**
**the Ukrainian Drama Theater**
**of Kharkov**

Tevyeh cries out against injustice and poverty. Through Tevyeh, Sholom Aleichem created a poignant picture of the degrading lot of the Jew in a society which rejected him.



Although Tevyeh is rooted in the old ways, bound by prejudices and patriarchal traditions, without more than a dim understanding of the changes fermenting around him, he somehow accepts them instinctively. When his daughter follows her husband, a revolutionist, into exile, he takes her side. This is his way of protesting against social injustice. Tevyeh, the author is telling us, will find his way to understanding.

### Stage Productions

Sholom Aleichem is widely known as a dramatist. His small one-act plays are akin to his short stories. He is also the author of several full-length plays such as *Disorder* and *The Large Stake.*

The dramatic works of Sholom Aleichem follow the finest realistic traditions of the Yiddish literary classics, and at the same time show the influence of Chekhov and Gorky, both of whom he first met in 1904. His plays are contemporary in theme and reflect the life of his time. Their heroes are as vivid as those of his short stories and novels.

Soviet theatergoers know Sholom Aleichem not only by those of his works that were written specially for the stage. The stage versions of his highly dramatic novels *Wandering Stars* and *Tevyeh the Milkman* are no less popular than his plays.

### Maxim Gorky and Sholom Aleichem

Maxim Gorky was a great admirer of Sholom Aleichem's work. When *A Boy's Diary* was first translated from Yiddish into Russian in 1910, Gorky wrote him:

"Your book has been received, read, laughed and cried over—a wonderful book! It seems to me that the translation has been done skillfully and with love for the author, although in spots one feels that it was difficult to convey in the Russian the sad and warm humor of the original. I repeat—one feels this.

"The entire thing scintillates with tender, benign and wise love for the people, and this feeling is so rare in our day."

This tender love for the people is eloquently epitomized by this brief paragraph from Sholom Aleichem's will:

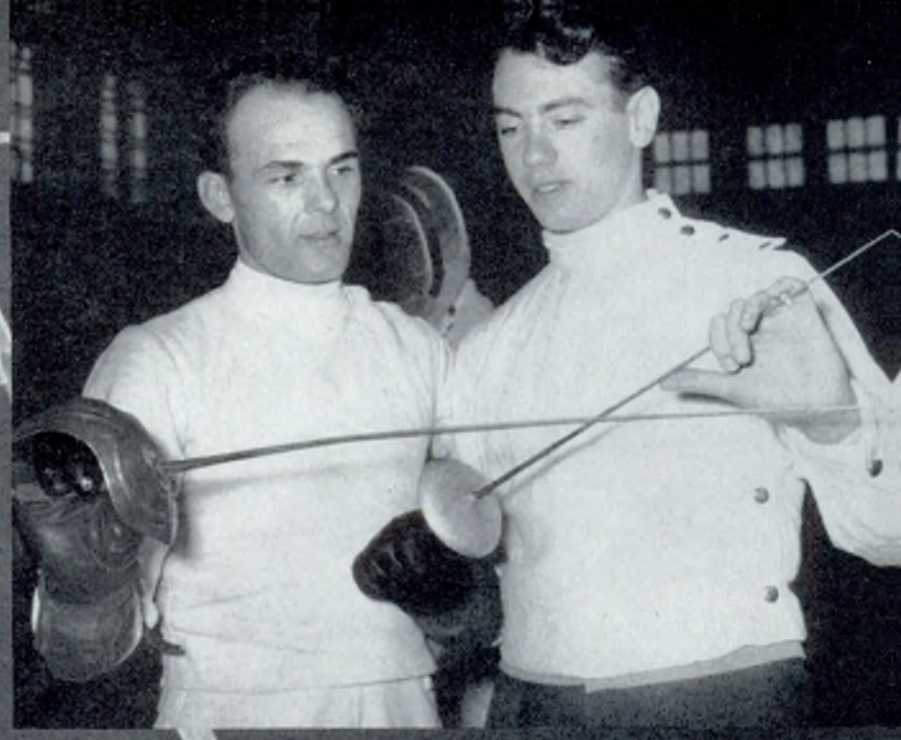
"No matter where I may die, I do not want to be buried among aristocrats, the nobles or wealthy, but among the common people. workmen, the people proper, so that the tombstone over my grave will beautify the simple graves around me, and the simple graves will serve as an ornament to my monument, just as the common, honest people have during my life adorned their popular writer."



The beautiful Beilka, Tevyeh's youngster daughter, fulfills her mother's dream by marrying the rich Pedotsura but she soon realizes that it is not the way to true happiness.



Although it creates a deep inner conflict, Tevyeh's inability to cause pain and suffering wins out over his piety and he accepts his daughter's marriage outside the faith.



Yakov Rylsky (left), 1958 world saber champion, and Yakov Midler who took second place.



Veteran Soviet fencing champion Ivan Manayenko has taught many champions his skills.

# Soviet Fencers

*By Ivan Manayenko*

FENCING, whose history goes back to the introduction of gunpowder, is one of the oldest of sports and is laden with tradition and science. It is deservedly popular with both men and women throughout the world.

The first Soviet fencers to enter international competition made their bow at the 1952 Olympic Games in Helsinki in team and individual events. This initial experience found only two Soviet sportsmen getting to the semi-finals, and the squad failed to win a single prize.

Since then the Soviet fencers have trained long and vigorously to polish their technique and general physical preparedness. There are fencing enthusiasts in sports clubs for teen-agers, in high schools, colleges and clubs. The Dynamo, Spartak, Trud, Locomotive and Burevestnik sports societies as well as Moscow University, the Power Institute and other colleges hold their own championships and take part in major national contests.

Last August in Philadelphia the 23rd World Fencing Championship was held at the University of Pennsylvania. The clang of swords kept up for a full 20 days.

Team and individual world titles in the men's three events—foils, epée and saber—and the women's foils were at stake. Soviet sportsmen won the over-all victory in both the team and individual events.

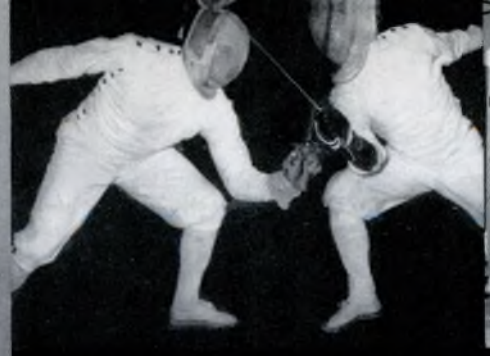
The women's squad, consisting of Valentina Kiseleva, Alexandra Zabelina, Emma Yefimova and Galina Gorokhova, recaptured the world title they had won for the first time in London in 1956 and had lost the following year in Paris. The men's team won silver medals for second place in the foils and saber.

Soviet fencers made out well in the individual events also. Valentina Kiseleva took the women's crown. Yakov Rylsky became the world's saber champion and the first Soviet fencer to hold the title.

This victory makes me feel that our fencers will make a pretty good showing in the national and international events of 1959 and in the 1960 Olympics.



Valentina Kiseleva (above), Russian teacher, won the 1958 world title in Philadelphia.



Match between champions: Yakov Rylsky (right) and Yuri Uralov.



Group of novices in training at the Dynamo Sports Club gym.

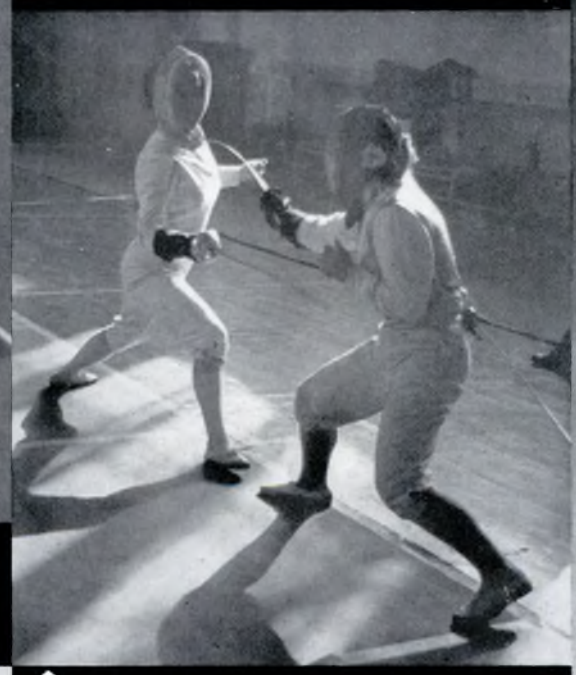




Schoolboys start to learn the old sport at an early age to acquire agility and poise.



During the 1957 International Youth Festival in Moscow, fencing competitions were staged.



Galina Gorokhova (right) was a member of the 1958 Soviet fencing squad at Philadelphia.



Pavel Rakitiansky, shown at the right, is a member of the USSR Pentathlon team.

Alexandra Zabelina held the world title in 1957 and the Soviet title in 1957 and 1958.

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*See story and pictures on Page 8.*


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**Front cover:** Lenin at the Third Congress of the Young Communist League in 1920. —*Painting by P. Byelousov*

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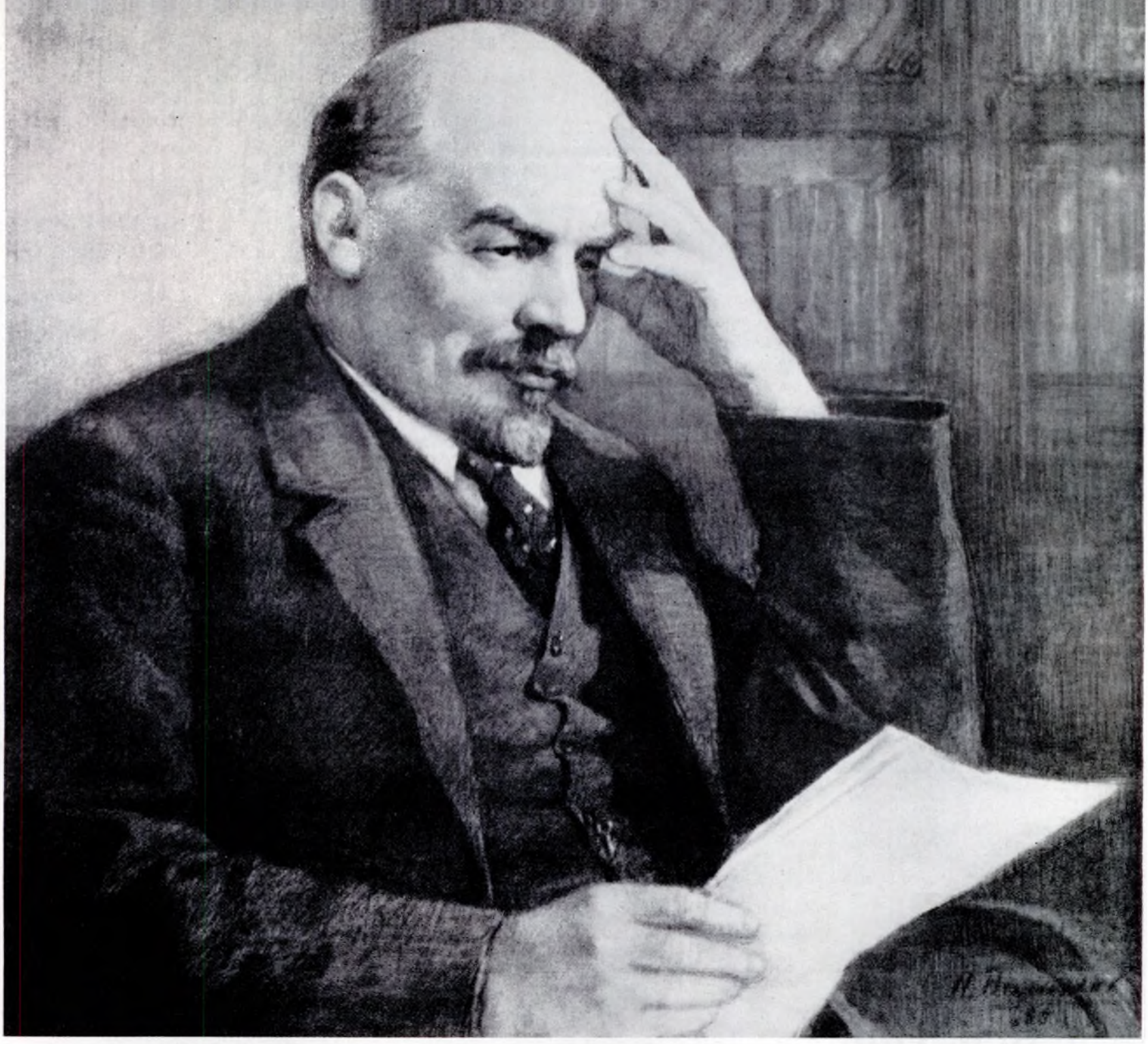
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# Lenin Is Always With Us

***By Yuri Libedinsky***

AS the years pass the people of my country have the feeling that we are coming closer and closer to Lenin. He is no longer with us, but we know that our life today is the embodiment of his ideas, a testimonial to his ability to see far into the future, past the hunger and poverty of czarist Russia. Lenin seems to be walking with us, and the wisdom with which he charted our road to progress is evident in all our achievements.

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*Yuri Libedinsky is a well-known novelist. His career as writer began almost with the founding of the Soviet Union as reporter for a local newspaper in the Urals. He has written four novels*—A Week, Mountains and People, The Glow *and* Dawn of the Soviets, *the last three making up a trilogy. All his books have as background the October Revolution and the early years of Soviet power.*

The first days of the Revolution are sharply etched in my mind. I remember them with the vividness that one remembers his youth. A few months before the October Revolution, in April 1917, I sailed from Ufa to Nizhni Novgorod—now called Gorky—along the great Russian rivers, the Belaya, Kama and Volga. It was spring and the rivers were in flood. In these endless waters, drifting ice, turbid whirlpools and inundated woodlands I saw a picture of our country, gripped for so many centuries in the frozen vise of czarist winter, beginning to thaw and stir.

The steamer passed villages where boats rode along the flooded streets, passed huge rafts tossed about by the turbulent rivers, passed other steamers and grimy tugs. From all of them fluttered the red flag. Everyone in these villages and river towns we steamed by wore a red ribbon. It seemed as though everything and everyone was afloat, everyone astir.

# Lenin Is Always With Us

### The People Choose Lenin

In these days of popular upheaval, among the many political figures talked about who had just returned from exile or prison, one name kept cropping up most often—Lenin. Why was Lenin's name repeated so persistently? How was it, that from among the many varied, contradictory and hostile social groupings, the masses of Russia, millions of workers and peasants, selected Lenin and his Bolshevik Party to lead them in October 1917?

What the people wanted was an end to the war. They had shed rivers of their blood to no purpose. The opposition to the useless butchery was universal. The prerevolutionary rulers of Russia had pushed the country into this unjust war and the Provisional Government which came to power after the February 1917 Revolution at once announced that it was determined to continue the bloodshed.

Lenin's Bolshevik Party was the only one pledged to end the war, to conclude a democratic peace. The people therefore rallied around Lenin and his party. It was the word "Peace" that made the Revolution.

Through the years of the war the people had starved. The czar's government did not dare to curb the speculators in food, nor did the Provisional Government which followed it take the necessary steps to get food for the workers of the hungry capital and the industrial cities. Lenin pledged the steps that would get food to the cities. So that it was the word "Bread," coupled with the word "Peace," that made the Revolution.

But it was the land from which came bread. And that was owned by the landlords and gentry. Only the Bolsheviks led by Lenin were pledged to give that land to the peasants who had tilled it for ages past. That pledge was redeemed immediately after the October Revolution. Soon afterward the forests and waters, the means of communication, the banks, mills and factories were all made the property of the people. Stripped of all rights in the past, now the working people became the country's masters.

### Peace, Bread, Land!

There was nothing mysterious or mystical about the influence which Lenin and his party won. The Bolshevik program was the one the people wanted—"Peace, Bread, Land."

Lenin had told the people time and again that they must take the government out of the hands of incompetent and exploiting rulers and place it in their own. He had mapped out a clear-cut, easily comprehended plan for the structure of a new type of state, based on revolutionary Soviets, to be created by the workers and peasants themselves,

# A New Film about Lenin

By Genadi Sibirtsev

ALTHOUGH Vladimir Ilyich Lenin has been portrayed on the Soviet screen innumerable times, the story of the man and his work seems inexhaustible. His life was so rich and many-sided, his humanity so embracing, that film-makers keep returning to the founder of the first socialist state for theme and inspiration.

Sergei Eisenstein's picture *October*, released in 1927, contained the first film portrait of Lenin. It was shown in the United States and elsewhere under the title *Ten Days*

LENIN WITH HIS WIFE NADEZHDA KRUPSKAYA AND HIS YOUNGER SISTER, MARIA ULYANOVA, AT BREAKFAST.



in which the many peoples of Russia could live together in equality and friendship. The people listened to Lenin, believed in his plan, fought for it and then built the country by it.

The first decree of the Soviet Government, signed by Lenin the day after the Revolution, called for peace. It was an appeal to the governments and the peoples of all belligerent countries to open immediate negotiations for a just peace without annexations or indemnities. Much has occurred in the years since, but this policy of peace with all nations that Lenin enunciated four decades ago immutably frames the Soviet Union's foreign relations.

The military intervention with which the foreign powers answered this appeal rallied the majority of the Russian people to Lenin and the Soviet Government he headed. And if the poorly-armed and hungry workers and farmers smashed the well-armed counter-Revolutionary forces and drove the armies of fourteen invading foreign countries off the soil of Russia, it was because of the trust and unreserved support they gave their government.

### His Guiding Hand

After getting through school in April 1918, I worked in Zlatoust, an important metallurgy center in the Urals. I was a newspaper reporter and so had ample opportunity to see the willingness and enthusiasm with which working men and women—young, middle-aged and old—tackled the job of reconstructing the country.

We were thousands of miles from the capital, yet we felt the fraternal guiding hand of Lenin, his sure faith in the creative potential of people. It was an ever-recurring wonder to see—in small village and big city—how the people formed local Soviets, how they administered factories, how they organized schools and hospitals. Lenin's belief in the creative ability of the people always has been, and will always remain, the guiding principle of Soviet life.

In the first few difficult years after the Revolution, he kept reminding the people about the need for developing the country's natural and human resources in order to overcome its economic and cultural backwardness. He talked of the Kursk Anomaly, a fabulous mineral deposit buried in one of the most impoverished regions of Russia. The "Kremlin dreamer," as H. G. Wells called Lenin when he visited Russia in 1920, dreamed of exploiting that mineral treasure, making it available for the country's industry.

And now these great Kursk ore deposits will be tapped in the next seven years and this "dream" of Lenin's will be realized as was that earlier one of electrifying the country, which Wells considered sheer fantasy when Lenin spoke of it.

A photograph taken during the talk shows Lenin, his hand to his cheek, listening attentively to Wells, but with a certain tolerance. It is almost a commentary on history, this photograph taken in the Kremlin in 1920 of two men debating two world viewpoints. It was a battle of ideologies which ended in a victory for Lenin when the Soviet Union took its leading place with the great industrial powers of the world. Wells, himself, had the grace and probity to acknowledge after Lenin died that he had lost the debate.

*that Shook the World* and was followed by the films *Lenin in October*, *The Man with the Gun*, *Lenin in 1918* and others which have been running for twenty years or more to audiences at home and abroad.

These films are epic in scope and show Lenin directing the course of that great social transformation generated by the October Revolution. A new film, *Stories of Lenin*, directed by Sergei Yutkevich, was recently screened. This is a more intimate portrait, based on recollections of Lenin's relatives and friends.

The film presents Lenin as the leader, thinker and philosopher, but more than that, it gives the dimensions of Lenin, the man—his boundless sympathy for people, his infectious enthusiasm for life, his unaffected simplicity. This is Lenin delighting in the fragrance of a new mown hayfield, skipping pebbles on the still surface of a lake like a schoolboy on holiday.

Lenin was, in truth, just such "a most human human," as the Soviet poet Mayakovsky called him. And the essence of that humanity is most persuasively characterized by Maxim Shtraukh, who plays the part.

*Stories of Lenin* is actually two film sequences. The action of the first, *The Feat of Soldier Mukhin*, takes place in the summer of 1917 shortly before the October uprising, when the counter-revolutionary Provisional Government held power in Petrograd and the political situation was explosive.

We are shown Lenin at home surrounded by his family. This is a warm, affectionate home, evident in the small details of living—in the way Lenin greets his wife and sister at breakfast, in the way they offer him the rolls he was so fond of.

In one scene the maid is sent out to buy a copy of the newspaper *Pravda*. She returns empty-handed. It is not being sold, she claims. Lenin chides her—how can that be, he himself left the *Pravda* offices at three in the morning when the first issue had gone to press. But it is soon apparent that the newspaper was confiscated early in the morning and that the police are hunting for him. It is imperative that he leave immediately to escape capture. But before he can leave he must go

**HOUNDED BY THE PROVISIONAL GOVERNMENT, LENIN HID IN RAZLIV AND CONTINUED TO WORK AND WRITE.**



# Lenin Is Always With Us

### His Writings

Thirty-five years after his death, we still turn to Lenin's writings for guidance in solving present-day problems. Most characteristic in his writing is his objective approach to history, his realistic point of view on economics—this in spite of the judgments of enemies and even of honest men like Wells who characterized Lenin as a dreamer and Utopian.

He began to study history and economics in his youth, continued during his years of revolutionary activity, in prison and exile. His study was not narrowed to the Russian scene but embraced the whole of the economic world. He devoted particularly close attention to the American economy and wrote several analyses of it.

In a series of articles written not long before he died, Lenin outlined the program for the transformation of Russia through development of heavy industry, electrification, reorganization of agriculture and mass education. This is the basic program which has built the Soviet Union of today.

### "Learn and Teach Others"

At the Third Young Communist League Congress in 1920, Lenin talked to the young people. "We are confronted with the task of regenerating the whole country," he said, "of rebuilding both agriculture and industry along modern lines, on a pattern based on modern science and technology, by electricity. You can understand perfectly well that illiteracy and electrification do not suit each other, that even the ability to read and write is insufficient. It is not enough to understand what electricity is, we must know how to use it for industry and farming. We must learn this ourselves and be able to teach it to the whole of the younger generation of workers."

And the Soviet people buckled down to the job of learning. They learned from everyone, including Americans. The first tractor plant to be assembled in Stalingrad was bought from the United States. American workers and engineers helped us to put the plant together and to operate the new machinery. Veterans of our tractor industry still recall that help with gratitude. Since then we have developed our own giant industry and have mechanized our agriculture. We have started the exploration of the cosmos. It is Lenin's urgent admonition that we keep in mind always to learn and to teach others.

I live in a part of Moscow where the university and many of the institutes are located. On my way home one day recently I stopped to listen to a group of young people. I thought then how pleased Lenin would have been to hear his grandchildren talk of higher mathematics, of atomic physics, of computer mechanisms.

# A New Film about Lenin

to the maid and apologize for scolding her.

We see him eluding the police of the Provisional Government at Razliv, near Petrograd. There he directs the preparations for the revolution and writes his book *State and Revolution*, with occasional moments stolen from his improvised desk to walk in the countryside he loved so well.

The police find his hiding place in Razliv. The detachment detailed to arrest him includes the soldier Mukhin, a peasant lad. Mukhin had talked to Lenin's relatives when their Petrograd apartment was being searched. He comes to the realization that the man he is hunting is not the enemy, but the man fighting for the happiness of just such other millions of Mukhins as himself.

He learns that Lenin is hiding in a hut and sets out to warn him. Lenin, in the meantime, has received information from other friends that the police are on his trail and Mukhin finds him gone. But this is no futile endeavor. In the process of tracking Lenin down, the simple peasant lad has discovered what side he belongs on.

The second sequence, *The Last Autumn*, shows Lenin in the final months of his life. Mortally ill, his dominant concern is the country's progress.

The scene is laid at Gorki, near Moscow, in the fall of 1923. Thanks to the devoted nursing of his wife Nadezhda, his sister Maria, and his nurse Sasha, Lenin's health is a bit improved. Although the doctors still forbid him to read, write or even listen to the radio, they allow him to walk in the park.

We see him walking with the young nurse. She tells him she is in love with a man in Moscow. But times are hard—how can they get married? Even with hard times, Lenin insists, she must marry the man she loves. He tells her of his own love and marriage, speaking to her with the kindliness and understanding of an older friend.

The doctors insist upon absolute rest. They

LENIN WAS ALWAYS CLOSE TO THE PEOPLE, LEARNING ABOUT THEIR LIVES, THEIR WORK AND THEIR WISHES.



## The Country Remembers

Lenin died in January 1924 when he was only 54, in the prime of life. It is hard for anyone who did not live through the period to imagine the grief which his death occasioned. No one could stay at home, people wanted to find consolation with friends and neighbors. Men and women flocked to their offices and factories, crowded the streets. Strangers talked together as if they were old friends—sorrow brought everyone closer.

People who had known Lenin wrote about him, described him to great audiences at memorial evenings. To hear and to read about Lenin was to assuage some of the grief of his loss. My friend, the poet Sergei Esenin, wrote of him:

*Shy, simple and dear,*
*He stood like a sphinx before me.*
*I know not what power he had*
*To shake the world,*
*But shake it he did.*

I remember the endless line filing by slowly to pay its last respects, an aged woman sobbing uncontrollably as she passed the coffin. But the note dominant was not death, it was "Lenin will live on," expressed everywhere and in every form, painted into pictures and written into verse and song.

When word of Lenin's death reached the factory where I was then employed, one of the workers, Sergei Manzulov, asked for an application for Communist Party membership, signed it and then silently turned it in. It was for Lenin. And it was Lenin's party he was joining. Hundreds of thousands of workers joined the party in the days that followed and each card said once again, "Lenin will live on."

## Lenin Lives On

Lenin saw a long way ahead and pointed the way for the future to follow. All his life, from his early youth to his death, he devoted to building that great force, the Communist Party, which is leading the country along the path he marked out, toward the abundance of material and cultural values for all, toward communism.

The party has consistently and steadfastly adhered to Lenin's precepts on the need for a creative approach to all the problems of communist construction, on the importance of being able to single out at every given stage the main, decisive link in the whole chain of historical development, to see ahead, mobilize the masses, and boldly and resolutely discard what is obsolete, routine and impedes our forward movement.

The period that has gone by since the creation of the first socialist state headed by Lenin is characterized by the continued growth of the party, the strengthening of its unity and the still greater solidarity of the Soviet people in their support for the party.

April 22, Lenin's birthday, is a national holiday in our country. But it is our everyday life that is a constant reminder of the man. Lenin lives on. He is always with us.

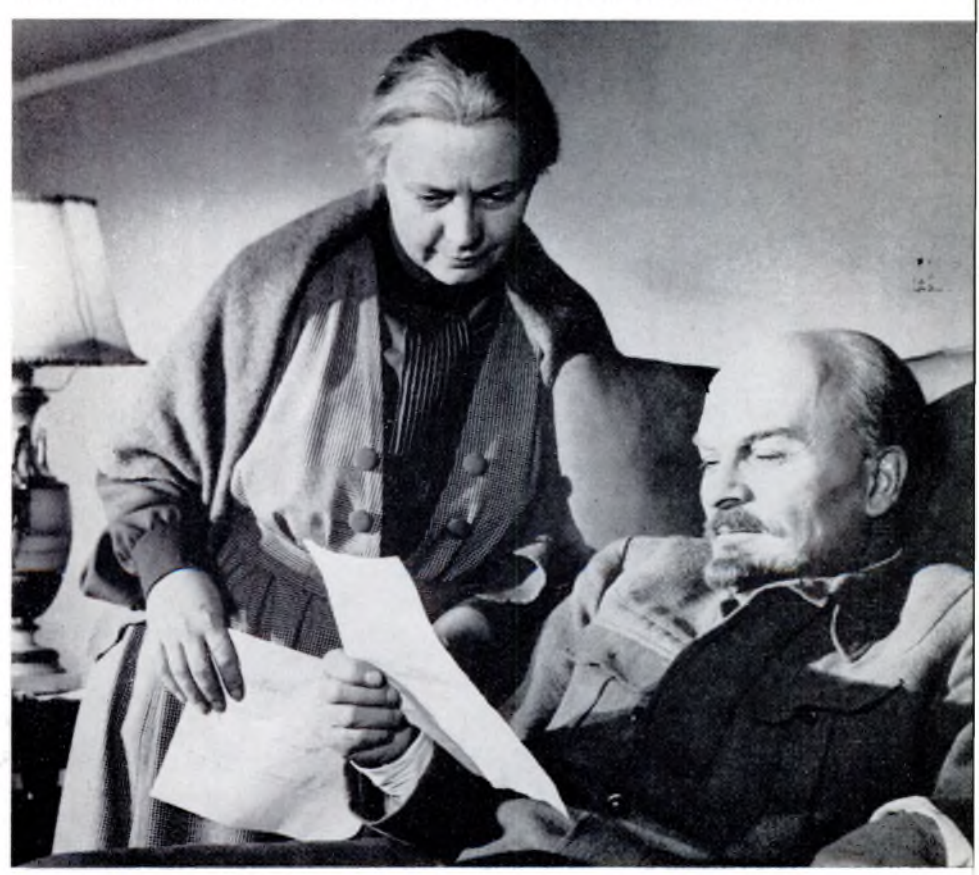
refuse him the newspapers and radio. Lenin resorts to all sorts of strategies, many of them ingenious, to learn the news. He finds out that the enemies of the party have been taking advantage of his illness and insists upon returning to Moscow. It is to be his last journey.

In the final scene a group of workers have come from the Urals to visit Lenin. They are shown leaving his room in Gorki. He is half reclining in an armchair. His wife is reading to him and Sasha sits close by listening. There is a sudden apprehensive silence and Nadezhda looks up from the book. She jumps up. The book falls unheeded to the floor, open to the title page, *Love of Life*, by Jack London. Her cry, "Volodya!" mingles with the music, rising like a great song to a new world.

DISOBEYING DOCTOR'S ORDERS, LENIN ADDRESSES A MEETING OF WORKERS.



MANY LETTERS CAME TO GORKI EXPRESSING THE WISH FOR LENIN'S RECOVERY.





# Kremlin Chimes

***Excerpt from a play by Nikolai Pogodin***

Nikolai Pogodin is a well-known Soviet dramatist. His plays, *Poem of the Ax*, *Aristocrats* and *The Man with the Gun* have been staged by many Soviet theaters. His themes are the October Revolution, the Civil War, construction in the thirties and reconstruction after the Second World War.

The play *Kremlin Chimes* is set in the first years of Soviet rule when the Communist Party, led by Lenin, was trying to draw the old Russian intelligentsia into the Herculean task of rebuilding the war-shattered country.

This excerpt is Scene V of the play. On his way to a date with his sweetheart, Sasha Rybakov, a sailor, meets Lenin.

*SCENE V*

*The Kremlin embankment and boulevard. Night. Dim lanterns at rare intervals. Rybakov sits on a bench under a tree. At first he is whistling, then he begins to sing.*

RYBAKOV *(painstakingly)*: The songbirds sing on every tree, Their merry music fills the air; The joy of spring is everywhere—But not for me, but not for me. *(Sits lost in thought, then gets up.)* If I can spot Mars . . . yes; if not . . . no. *(Scans the sky, humming to himself.)*

*A beggarwoman enters.*

BEGGAR: Young man, spare a cigarette for a poor, sick, old woman.

RYBAKOV: Help yourself.

BEGGAR: Thank you, young man. *(Exit.)*

*Lenin appears. He recognizes Rybakov.*

RYBAKOV: Vladimir Ilyich?

LENIN: Sasha Rybakov! What are you doing here?

RYBAKOV *(coming to with a start)*: You're alone? Why aren't your guards with you?

LENIN: I gave them the slip.

RYBAKOV: How did you manage that?

LENIN: Oh no, that's something I won't tell you. The secret of an old-time conspirator. I had a terribly long meeting and now I've slipped away for a breath of fresh air. But I forgot my watch on the desk. My presence here is quite in order, so to speak, but what about you? What are you doing here alone, at midnight? Star-gazing?

RYBAKOV: Uh-huh . . . I won't deny it.

LENIN: You've fallen in love, Comrade Rybakov.
RYBAKOV: I have.
LENIN: Come and walk with me. *(They stroll along together.)* It's a hard time we're living in, a cruel time that would seem to leave love out of the picture. But don't let it worry you. Since you have fallen in love, just go on loving to your heart's content. But let me give you a piece of advice. Don't try doing it in any new-fangled way. Love in the old way, Comrade Rybakov. I've heard of these new ways. So far all they lead to is revoltingly loose behavior.
RYBAKOV: Yes. I've seen some of it myself.
LENIN *(Suddenly stops, takes Rybakov by the elbow and speaks gently)*: It's good to love, isn't it? A wonderful feeling?
RYBAKOV: Yes, Vladimir Ilyich, wonderful.

*Lenin and Rybakov walk on. Three streetcar workers—Bearded worker, Apprentice and Senior worker—appear, pushing a wheelbarrow.*

SENIOR WORKER: Flash the light, let's see what's doing here. Good, let's push on.
APPRENTICE: Did you see? It was Lenin.
BEARDED WORKER: We've eyes of our own. Learn to hold your tongue. You want to be more careful.

*Lenin and Rybakov reappear.*

LENIN: Comrades, can you tell us the time?
SENIOR WORKER *(to the Apprentice)*: Flash the light. *(Takes out a watch and chain.)* Quarter past two.
LENIN: Thank you.
SENIOR WORKER: Before the Kremlin clock used to chime, now it's silent.
LENIN: Yes, and that's very bad. The Kremlin clock should never be silent. Sasha, find a clockmaker—but someone who can deal with ancient timepieces.
RYBAKOV: I'll find one, Vladimir Ilyich.
LENIN: It's a harder job than you think. Plenty already have tried to repair the chimes and given it up.
RYBAKOV: There must be someone who can do it.
BEARDED WORKER: Comrade Lenin, don't rush away. Spend a few minutes with the working class.
SENIOR WORKER: I warn you, he's a great one for joking.
LENIN: You still have the heart to joke?
BEARDED WORKER: Why not? We've crushed capitalism.
LENIN: Crushed capitalism doesn't keep your belly full.
BEARDED WORKER: Now we'll begin to build socialism.
LENIN: Do you know how?
BEARDED WORKER: The world's full of kind people. Someone will tell us.
LENIN: There are plenty of kind people. But I wouldn't advise you to trust them all.
BEARDED WORKER: Oh, we're choosy. We'll trust the ones you do.
LENIN: Why, do you suppose Lenin has never been mistaken in people? He's made mistakes too.
BEARDED WORKER: The important thing is we haven't been mistaken in Lenin.
LENIN: It's much easier to destroy capitalism than to build socialism.
BEARDED WORKER: Not really, Vladimir Ilyich?
LENIN: We're the first to try, nobody can show us how. And to make it worse, we're poverty-stricken for the time being.
BEARDED WORKER: That's true enough. We've grown poor.
LENIN: We'll have to do all the building ourselves. . . No one will help us.
BEARDED WORKER: There's nothing Soviet power can't do. In the Bible, the people of Babylon wanted to build a tower to the skies. It was no go. Why? Confusion of languages, it's written. But I tell you it was because they didn't have Soviet power then.
LENIN: That's a good one.
BEARDED WORKER: No joking, Vladimir Ilyich. Soviet power can do anything it has a mind to.
LENIN: What makes you so sure of it?
BEARDED WORKER: Let me tell you something. Not in a hurry, are you?
LENIN: No, no. Sit down.
BEARDED WORKER: Here you see three men. Moscow streetcar workers, on night shift. The proletariat. Neither saints nor sinners . . . just people. Under what other power would they work all night for a miserable crust of bread? *(Takes crust from pocket.)* Not any. But as it is, we stumble along. If we fall, we lie there a while, then get up and get on with the job. That's why I believe in the might of Soviet power.
SENIOR WORKER: Don't you think we've bothered Lenin enough? It's time we were moving on. We've plenty to do yet.
BEARDED WORKER: Sorry. I talk my head off trying to say what I feel.
SENIOR WORKER: Good night, Comrade Lenin.
LENIN: Good night.

*The workers go off.*

Do you love the Russian man, Comrade Rybakov?
RYBAKOV: Of course, I do.
LENIN: When you've lived as long as I have, then you'll really come to love him. If Tolstoy hadn't spoiled things by inventing Tolstoyism, there'd be nobody to match him for his portrayal of the Russians. But the old fellow had no understanding of the workers. I don't feel like going home. You're in love . . . but what do you suppose is wrong with me? If you want to know, I'll let you in on a secret. Sometimes I like to dream. . . I roam about alone dreaming of unheard-of things. We shan't build towers to the skies, of course, but with a people like ours we can dare things, we can dream. *(Aside)* There's somebody coming. . .
RYBAKOV: Who's there?

*Beggarwoman appears.*

BEGGAR: Me.
LENIN: And who are you if you don't mind?
BEGGAR: A beggar. Please help a poor old woman.
LENIN: Have you anything on you, Sasha?
RYBAKOV: Not a kopeck.
LENIN: Nor I. *(To the beggar)*: Sorry.
BEGGAR: Look at you! All dressed up in a good coat . . . but actually you're worse off than us beggars.
RYBAKOV: Better go home to bed, granny.
BEGGAR: I don't sleep at night . . . that's my time for working. I go begging in the bars and the railways stations.
LENIN: You call it work?
BEGGAR: My work's as good as any other. It's all one now . . . everyone goes around as hungry as a dog. You, for instance, seem to be a brain worker . . . tell me, did you have a square meal today?
RYBAKOV: Let's walk on, Vladimir Ilyich.
LENIN *(to Rybakov)*: Wait! *(To the beggarwoman)* What did you do before the Revolution?
BEGGAR: The same thing.
LENIN: Then what are you complaining about? You haven't lost anything.
BEGGAR: Oh, no, my dear sir, our beggar class has lost most of all.
LENIN: How's that?
BEGGAR: Before the Revolution I was sitting on top of the world! I played the weak-witted pious beggar then. And I had three and a half thousand in gold put away in the bank.
LENIN: Wherever did you get that much?
BEGGAR: I had permanent clients. Besides, I never descended below the homes of rich merchants! Now where's my profit? Who gives us anything now? Lenin's ruined all Russia. And they say he himself is half starving there in the Kremlin. He doesn't live decently himself and he won't let others. You shuffle along, and I'll go about my business. *(Goes off.)*
LENIN: What do you say to that, young man?
RYBAKOV: Just a cheeky old woman, that's all.
LENIN: It's not the woman who matters, Comrade Rybakov. There's a grain of truth in what she says. If we were to rise above the earth now in some flying machine, we'd see below us a black, unlit expanse like a great desert. To what dire ruin Russia has come! The village has gone back to the beginning of the nineteenth century, to using spills for lighting. In the Ural factories, Zlatoust, for instance, men have to set the machinery in motion by hand. The Donets coal mines were flooded by the Whiteguards. *(Prolonged pause.)* Are you good at dreaming, Comrade Rybakov?
RYBAKOV *(stammering a little)*: I? Dreaming?
LENIN: One must dream. . . Must. But does a Bolshevik, a Marxist, have the right to dream? Eh? I think he has this wonderful right, and he simply must dream if he understands dreaming as the growth of the new tasks of his party, his people. And another thing, Sasha, don't worry if your dream diverges from reality. Not if you sincerely believe in it. Study life closely and work ceaselessly, work passionately, work like the very devil to make your dream come true. Back in the nineties we in our party were already dreaming of Russia's future and drawing up plans for electrification. We are forced to cut down rations now, to economize strictly on absolutely everything, to live poorly, sparingly, but we will carry out the electrification of Russia. There is no other way. Otherwise they'll crush us and there will follow a century of disgraceful slavery, of foreign oppression. What do you think, Sasha, can electrification go through now?
RYBAKOV: Vladimir Ilyich, you can see a thousand miles ahead. What can I say?
LENIN: With a people like ours we can dream and dare!



Nikita S. Khrushchev takes a moment from the serious business of the Congress to note that the sun is pouring through the windows of the Kremlin Palace hall to greet the Communist Party Congress.

# *AT THE TWENTY-FIRST CONGRESS OF THE COMMUNIST PARTY*



Delegates range the vocational spectrum: locomotive engineer Arkadi Motov; lathe operator Nikolai Kuzmin; another engineer, Victor Blazhenov; spinner Serafima Kotova; and actor Mikhail Czaryov.



Yekaterina Furtseva, member of the Presidium of the Party's Central Committee, greets some of the 222 women delegates representing the fifteen Union Republics.



Delegates in the same line of work exchange addresses. Makar Posmitny manages a collective farm in the Ukraine; Alexander Semyonov heads a state farm near Leningrad.



Time off between sessions to greet friends and trade impressions. These three delegates were once Young Communist Leaguers. They are now party members.



Delegate Pavel Milenin, a mechanic at a precision instrument plant in Moscow, reports in detail to his shopmates on the Congress proceedings.

# WHO WERE THE CONGRESS DELEGATES



WHO were the delegates to the Twenty-First Congress of the Communist Party? They were people from every walk of life, men and women of the most diverse origins and backgrounds—a true cross section of the country's 200 million people.

Many had traveled to Moscow from regions thousands of miles distant from the capital—from industrial towns built beyond the Arctic circle and from Eastern farm country newly turned to the plow. There were representatives from every one of the republics, many who addressed the Congress in their native Tajik or Lettish or one of the many other languages spoken in this multinational country. There were people in business suits and others in colorful Eastern robes.

Gathered in the great hall of the Kremlin they embodied the collective experience and wisdom of the nation's millions of Communist Party members. They had been elected to present the considered judgment of the communists they represented on the seven-year plan. charged with the responsibility of translating the wishes of their constituents into the target figures that would determine the direction of the country's economy, aware that on their return they would be required to report back to the people they were representing.

### How They Were Elected

The delegates were elected at conferences on the regional and republic level. Representatives to these conferences had been elected at meetings of the local party organizations, including those in the armed forces. As provided for by the party's rules, all elections were by secret ballot with decisions by majority vote.

The Communist Party of the Soviet Union now has 7,622,356 members and 616,775 candidate or probationary members. One Congress delegate with a vote was elected by every 6,000 full members and a delegate without vote by every 6,000 candidate members. There were thus 1,269 voting delegates and 106 delegates with voice but no vote.

The delegates represented 52 Soviet nationalities, with the largest delegations from the most heavily populated of the republics. The number of delegates from the Russian Federation was greatest, followed by the Ukrainian delegation of 195 and the Kazakh delegation of 48.

### They Came From All Fields of Endeavor

There was no significant industrial or farm area that was not represented. Industrial workers and collective farmers comprised one of the largest vocational groupings. This is consistent with the party's emphasis upon leadership by working people. The number of delegates from these vocational areas indicates that a larger proportion of the more than one million new members who joined the party between this Congress and the previous one held in 1956 are industrial workers and collective farmers.

There was a considerable representation from the sciences, the managerial levels of industry and agriculture and the vocational skills. These delegates contributed a background of practical experience which guided the Congress in its deliberations.

A total of 580 delegates are working in some one of the cultural, scientific, industrial or farm fields and range from steelworkers and tractor drivers to academicians. This reflects the vocational composition of the party. More than 2,300,000 party merbers are specialists in one or another field of work. It is worthy of comment that a very large majority of the delegates were college educated.

### They Spoke for the Country

Those delegates who were party functionaries or held government posts were not merely administrative heads. Their reports and speeches at the Congress gave evidence of a thoroughgoing familiarity with the more general aspects of the national economy and a particularized grasp of problems that would have done credit to a specialist.

In discussion the delegates spoke not only for their geographical and vocational constituents but as citizens of the Soviet Union working on a common national project that would affect the welfare of every section of the population and every region of the country.

Nor did the speakers confine their discussion to their own areas of work. Miners presented their ideas on the new proposals for recasting the school system, farmers spoke on the plan for development in industrial chemicals, engineers contributed to the discussion on the nation's agriculture.

### Men and Women, Young and Old

Among the 1200-odd delegates were 222 women. They ranged the vocational spectrum—factory workers, plant managers, farmers, scientists, teachers, doctors. Women work alongside men in practically all fields and now make up about 46 per cent of the country's total working force of industrial and office workers and professional people. There are 1,605,000 women who are members of the Communist Party.

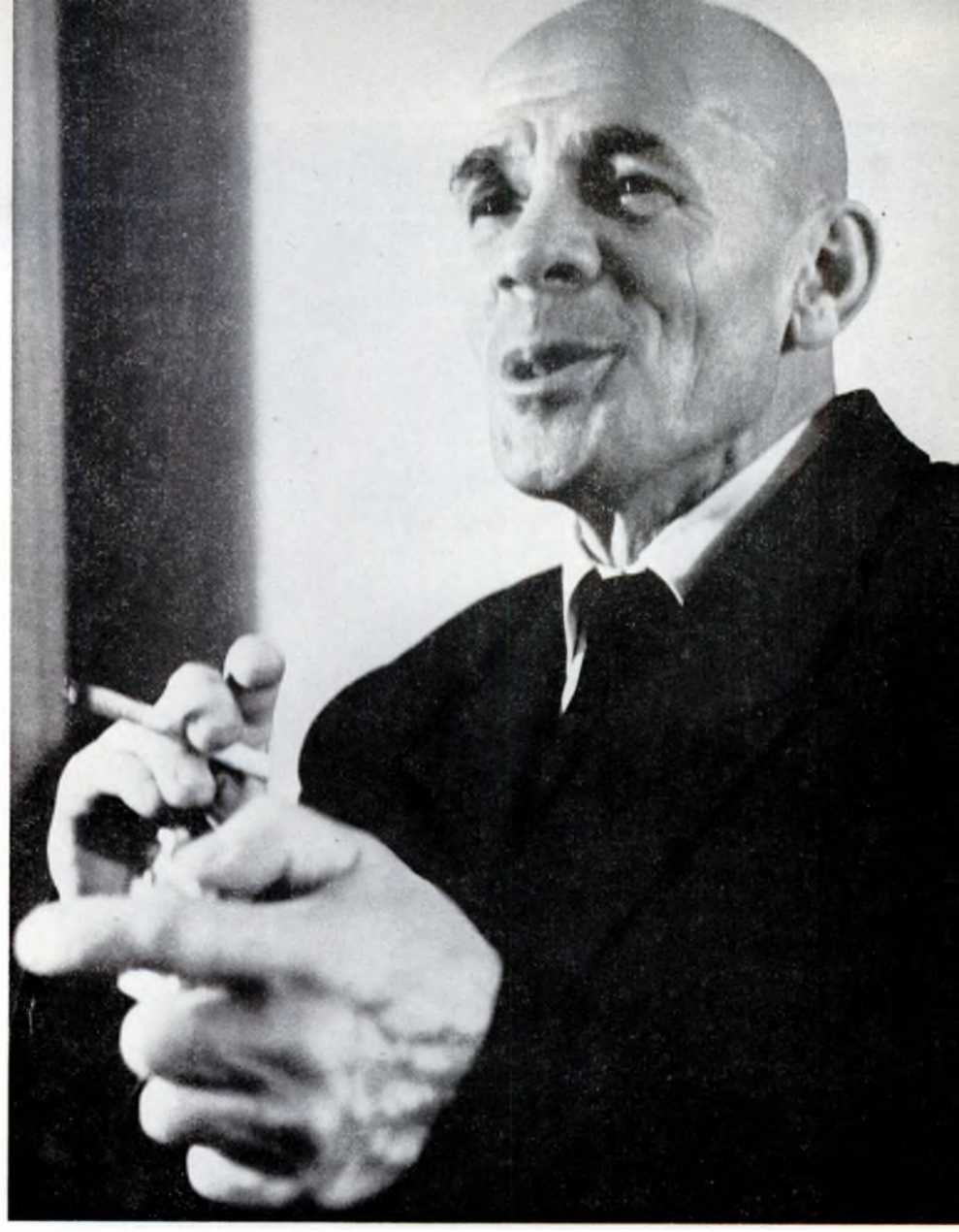
Represented at the Congress are people who had made distinctive and noteworthy contributions in the building of the country. Many delegates had been honored by the government with such titles of merit as Hero of the Soviet Union and Hero of Socialist Labor or had been awarded one of the Lenin or Stalin prizes.

Communists of different generations met at the Congress. Present were veterans who had fought in the October Revolution of 1917 and young men and women who had only recently enrolled as party members. Approximately half had joined the party before 1930, more than 20 per cent had joined since 1946.

Chronologically this was a gathering of relatively young people. About 70 per cent of the delegates were under 50.

It was a Congress representative not alone of the party membership but of all the people, keenly aware of the responsibility entrusted it of plotting the country's future.

# *VLADIMIR KARASEV*
## *from Leningrad*



**Vladimir Karasev, who is a lathe operator at the Kirov Plant in Leningrad, was born in 1900. His early life was dramatic, although hard. When he was eleven he quarreled with his stepmother and ran away from home. For several years he roamed the country. In Petrograd (now Leningrad) he was befriended by a Tatar, Yakum Gaibitullin. With Gaibitullin and the revolutionary sailors of the Kronstadt naval base, he stormed the czar's Winter Palace during the October 1917 Revolution. He saw Lenin and heard him speak.**

**In 1918 Gaibitullin died in his arms during a battle against the counter-revolutionary forces. Karasev took Gaibitullin's name as his patronymic, in memory of the man who had been a father to him.**

**After the Civil War Karasev returned to Leningrad and took a job at the Kirov Metal Plant where he has been working ever since. At the Twentieth Congress of the Communist Party he was elected a candidate member of the Central Committee.**

IT WOULD SEEM as though the delegates to the Twenty-First Congress of the Party met to discuss some very prosaic business—the target figures for the next economic plan. But these are more than figures, actually they reflect the people's confidence in the future.

There was a time when those who didn't like the Soviet Union laughed at our economic plans and called them pipe dreams. But they have long ago stopped laughing. Now they wonder where we get the strength and energy to move ahead so quickly. They sometimes talk as though we have a magic formula we refuse to share with them.

The formula is a simple one—in our country there is equal opportunity for everyone to get ahead, to develop his talents and abilities as far and as fast as he wants to. Our strength lies in our collective spirit, in our teamwork, in the idea of one for all and all for one.

I'll give you an example. Before I left for Moscow last December to attend a meeting of the Central Committee of the party, I had a talk with Alexander Maksakov, he is a member of an inventor's team we have at the plant.

"Can you go to Moscow a couple of days earlier?" he asked me.

"What for?"

"I'd like you to pass along the new cutting tool our team invented to a Moscow plant that might find it useful," he said.

All of us thought it was a fine idea and after considering a couple of possibilities we decided to make the gift to the Likhachov Auto Plant. When I arrived in Moscow I demonstrated the invention to a big gathering of the auto workers and presented it to them in the name of our team. They were glad to have it.

The point of the story is that even before the invention had been registered, it was being shared with others who could use it. That's what I mean by the collective spirit. To us the primary thing is not personal profit but the common good.

That is the spirit with which we have begun working out the seven-year plan outlined by the Congress. Every person is making his contribution to the common cause.

Time and again, in people I meet, I see this proprietary interest in everything that bears on the common good. That is where our strength lies, in collective work, in creative collaboration, in proprietary concern for our country's prosperity.

Could we have launched the sputniks or put the cosmic planet into orbit without creative collaboration between mechanics, engineers and scientists? You have to look far and wide nowadays to find the lone wolf Soviet inventor or scientist.

The Communist Party has no patience with those who think of themselves as the sole and solitary experts in any field of science or technology and therefore try to monopolize it, or with those who try to straightjacket initiative with outmoded rules and regulations. It's the men who lose contact with the people, who refuse to look beyond their own narrow fields of vision, for whom one can have no patience.

Lenin, the founder of our socialist state, called on party leaders to make a thorough study of life at the factories and mills, the mines and construction projects, to maintain the closest contact with the masses, to listen to the voice of the rank and file workers. That is the best way to avoid mistakes and oversights.

I want to say a few words about Nikita S. Khrushchev. Though he is a busy man he finds time to visit factories and collective farms, to talk with workers and farmers, to look into problems of science and of school education. He travels a great deal about the country and seeks the advice of the people.

During the Congress sessions the Kremlin was open to the public—and that included foreign tourists—just as it had been before. I saw people walk in and out, take pictures of whatever they wanted and nobody even as much as looked at them crosswise. During an intermission I saw a delegate from Kazakhstan greet a Kazakh couple who were spending their vacation in Moscow and had come to see the Kremlin just as they would have at any other time.

The seven-year plan has gotten off to a good start and, as the saying has it, a good beginning is half the battle.



# *ALEXANDER GITALOV*
## *from the Ukraine*

**Alexander Gitalov is a Ukrainian farmer who went through a farm mechanization school in the 1930's and has been working as a tractor driver since. For the past few years he has led a tractor team at a collective farm and has introduced many technical improvements to cut down on farm chores.**

**In 1958 he was nominated and elected by the collective farmers of the region to the USSR Supreme Soviet.**

**That year, too, he visited the United States and worked on the farm of Iowan Roswell Garst where he studied American methods of mechanizing corn growing.**

I AM a farmer and the son of farmers. I have been driving a farm tractor for twenty-five years now, so that my working life covers several of the previous five-year economic plans. From this perspective I am in a good position to gauge the improvement in farm living standards that came with each of the economic plans as it was fulfilled.

But when we were first going over the draft of the new seven-year plan and discussing its application to our collective farm —this was some months before the plan was finally adopted by the Twenty-First Congress of the Communist Party—we all came to the conclusion that here was a working blueprint for a standard of living we wouldn't have dared to dream about ten years ago, let alone twenty-five.

The target figures were daring, no question about that. By 1965, they called for a grain harvest 20 to 25 per cent bigger than the bumper crop of 1958, double the output of meat, and nearly double the output of milk.

But those of us who had worked to meet the bold target figures of previous plans and had seen them not only reached but exceeded are not inclined to be daunted by large numbers. We see them as the arithmetic for an economy of abundance. We didn't spend much time talking about whether these figures were possible. The question we did spend time on was whether our collective farm couldn't hit the target figure sooner than 1965.

That isn't by any means an impossibility, considering the amount of capital investment that's to go into farm production in the next seven years—500 billion rubles, a lot of money from whatever angle you look at it. It means more heavy farm machinery to cut hand jobs to a minimum, more mineral fertilizers and the application of scientific growing methods to do a faster, better job. We collective farmers see this 500 billion rubles converted by 1965 into enough foodstuffs and to spare for every family table in the country and into the raw agricultural products used by industry.

In addition to participating in a good many discussions we had at the collective farm on the draft of the seven-year plan, I was invited to a plenary meeting of the Central Committee of the Communist Party held in Moscow a month or so before the Congress opened. I was one of a number of collective farmers, specialists and scientists, both party members and non-party people, who were invited to attend.

Nikita S. Khrushchev spoke on the development of farm production for the five years past and the tasks ahead. His emphasis throughout, as well as that of other speakers, was that the country now has the know-how, labor power and natural resources to give every man, woman and child in the Soviet Union a standard of living higher than that of any other country in the world.

I had the opportunity at this Central Committee meeting to give my ideas on mechanization of farm labor, ideas which had grown out of my twenty-five years of experience working with farm machinery which I thought could be applied nationally.

I also spoke of my trip to the United States and the time I had spent working on the farm of Roswell Garst, an Iowa farmer. For me it was an instructive and pleasurable experience. I carried back with me not only a good many ideas which we found useful in our collective but a very warm and cordial memory of the many kindnesses of Mr. Garst and his wife, John Christoll and others. Nikita Khrushchev took a moment at the meeting to extend the thanks of the Soviet Government to the Garsts for their hospitality to me.

I am convinced that the widest possible exchange between our two countries in practically all fields—agriculture, industry, science —will be profitable for both our peoples and will surely promote better understanding and friendship. And this is of equal importance to all of us.

John Christoll's parting words have stayed in my mind ever since the trip. We had been talking of peace and he said, "I know you don't want war. Believe me, I don't want it either."

To us, peace means not only the absence of death and destruction but the chance to grow and produce more, to give everyone a chance at a better, richer life. That's why we Soviet farmers think of the seven-year plan as a plan for both peace and plenty.



# *ALEXANDER STRAUJUMS from Latvia*

**Alexander Straujums was a bookkeeper in a cooperative society in Ludza, his native town, when Latvia joined the Soviet Union. He fought in the Second World War and was severely wounded.**

**When his Republic was liberated, he returned home, became head of a district finance department and then was promoted to a position with the Ministry of Finance. He has served as deputy from one of Riga's districts to the city council. In 1958 Straujums was elected to head the Riga City Committee of the Communist Party.**

THERE were people from all corners of the country at the Party Congress but the feeling you got coming into the great high-ceilinged hall of the Kremlin Palace was that this was a family gathering.

Around me were Georgians, Tajiks and Lithuanians speaking their native language. Here was a delegate from Georgia, to judge by his accent, and there a man from one of the Asian republics in his colorful Eastern dress.

But regardless of language, facial characteristics and dress, we were all people of the Soviet Union gathered to discuss the country's future. A Ukrainian stepped to the podium. He was followed by a Russian, a Tatar, an Estonian, an Uzbek. Each one spoke of his own republic—but his republic as a member of the united Soviet family of nations.

We Latvians are not likely ever to underestimate the meaning of this unity. It was what drove the Nazi invaders from our soil and restored our war-wrecked economy in so short a time. That fraternal help has made it possible for us to develop Riga's industries to the point where they now produce as much in one month as they used to in a year in pre-Soviet times.

Our modern factories manufacture machine tools, precision instruments, electronic computers, transistor radios, textiles, footwear, furniture, and a long list of other goods sold at home and abroad. Eleven Riga factories were awarded prizes for quality goods at the Brussels World's Fair.

Latvia's industry is intimately linked with that of the rest of the country. Our textile mills spin Uzbek cotton. We get our oil from Azerbaijan, our coal from the Donbas, steel from the Urals, machine tools from Moscow and Leningrad, tractors and cars from Minsk, Gorky and Chelyabinsk. These are the more visible and tangible threads which tie our Republic to others.

These contacts are not limited to an exchange of goods. First and foremost, they are contacts between people who are working shoulder to shoulder on a common task: to advance the country's economy and improve the people's living standards. At the Congress I met an old friend of mine, Nikolai Chugunnikov, who was a delegate from the Communists of the Russian city of Yaroslavl. Close ties exist between our two cities. A delegation from Yaroslavl visited us recently, and a Riga group paid a return visit. During the Congress we agreed on a program of broadening and strengthening the ties between the two cities. I also met delegates from the Byelorussian capital of Minsk, with which the people of Riga have ties of close friendship.

During these friendly chats we also spoke about how we Latvians, Russians, Byelorussians could help each other in order to be able to fulfill the seven-year plan well ahead of the time limits set in the target figures approved by the Congress.

With the help of the country, Riga, and Latvia as a whole, will be pushing forward fast with the seven-year plan. Machine tools, instruments and chemicals are slated for particularly rapid expansion. Automation is to be introduced widely in Riga factories. Industrial output will be doubled.

Old Riga is undergoing a face-lifting job, the city is dressed up with new schools, theaters, new apartment houses, with more to come as the seven-year plan, joint product of this family of peoples, gets into full swing.

Our Latvian people have a deep understanding of the meaning and significance of the seven-year plan in the life of the country and the life of each of its Republics. Their attitude toward the gigantic economic program was well put by Janis Berzins, a Riga factory worker. "This is our common program and we will do everything in our power to carry it out ahead of time for the benefit of all."



# *MUSTAI KARIM*
## *from Bashkiria*

**Mustai Karim was born in the village of Klyashevo in Bashkiria in 1919. He studied literature at the Bashkir Teachers Training College and in 1941, after graduating, he selected writing as a career. During the war he served as correspondent for army newspapers with combat units.**

**His books *Flowers on a Rock*, *Spring Voices*, *Selected Poems*, and his stories for children have won him a large body of readers and have been translated into other languages spoken in the Soviet Union.**

**In 1951 he was elected Chairman of the Union of Writers of Bashkiria. He is a deputy to the Supreme Soviet of the Russian Federation.**

JUST as a magnifying glass collects sunrays and focuses them on one point, the Twenty-First Congress of the Communist Party of the Soviet Union collected and focused the thoughts and wishes of Bashkir oil workers, Donbas miners, Moscow machine builders, Uzbek cotton-growers, Baltic fishermen and Georgian grape growers. Everybody in the country, whether member of the party or not, took part in the preparatory discussion for the Congress.

On the way to Moscow with other delegates, we all got to talking about the work each one of us was doing. Galya Gizatulina, a housepainter, described her job in interesting terms. "It's like being a good tailor who sees everybody around him wearing his well-cut, attractive clothes," she said. "It gives him a real sense of pleasure and accomplishment. We painters dress the houses and streets that people live in. It makes us feel good to surround people with attractive and pleasing colors. I'd like to see the whole country dressed up that way."

Nikolai Buduyev, a delegate elected by Communists at the Beloretsk Steel Mill, who still carries pieces of Nazi shrapnel in his body to remind him of the war, said, "I get a picture sometimes of the steel I handle being built into a future space ship. Wouldn't that be something—Beloretsk steel flying through outer space!"

"The way things are moving along, very likely we'll see both pretty soon," I said, "the whole country dressed up the way you want it and space ships made of Beloretsk steel." I was thinking of the progress my native Bashkiria has made in my own lifetime.

When I was a child it was a primitive region, its people threatened with extinction. Today, it's a healthy, prosperous, modern region, with power stations that generate more electricity than the whole of Russia did before the 1917 Socialist Revolution. Bashkiria is now an important producer of chemicals, machinery, metals and coal. It holds a leading place for oil extraction and refining. In recent years it has put 1,250,000 acres of virgin land under cultivation.

Bashkiria today is in touch with most parts of the modern world. Our factories produce goods for export to India and Rumania. Frenchmen, Chinese and Vietnamese come to Bashkiria to study our extraction methods. We have American visitors coming to our oil fields to see Soviet-designed turbodrills in operation.

Many of our people are taking trips abroad nowadays, on business and pleasure. Groups of citizens from our capital city, Ufa, and the Rumanian city of Bakeu have exchanged visits. A few weeks ago two fellow writers left for a tour of India. I myself have visited China and Vietnam. Bashkir singers and dancers have performed for audiences in dozens of foreign countries, and books by our authors are published abroad. In all sorts of ways our people have moved out of our ancient isolation into the mainstream of life today.

It is this dynamic movement forward that our writing tries to portray. Our Bashkir authors will have much to write about as our people take the next seven-league step called for by the Party Congress.

# *ASLAN OSMANOV*
## *from Azerbaijan*



**For fifteen years Aslan Osmanov has been working as a bricklayer in Sumgait, one of the newest of Azerbaijan cities. He raised the walls of its tube-rolling mill, its synthetic rubber plant and schools and houses by the score. He leads one of the best building teams in the country and construction men from other cities come to Sumgait to see how Osmanov operates. He has been honored for his work with one of the nation's highest awards—Hero of Socialist Labor.**

**Osmanov was 19 when he left his native mountain village in the spring of 1944 to help build the new city. While working he studied in a secondary school for which he laid the bricks; he lives in a house which he helped build.**

THE Communists of Sumgait chose me as their delegate to the Twenty-First Congress of the Communist Party, an honor of which I was very proud, but a responsibility too, of course. Before I left for Moscow I kept asking them and myself: What shall I tell the delegates from all over the country? We came to the conclusion that I could do no better than to tell them how our new city of Sumgait had been built and what we have in mind for its future.

Sumgait is called the gem of Azerbaijan, but fifteen years ago there was nothing but wasteland where you now see broad tree-lined streets of houses, schools and factories.

Nature had obligingly provided us with our building materials—limestone deposits close at hand. This ancient limestone which once formed the sea bottom is as handsome and as durable as granite after our machines saw it into building bricks. When I calculate the millions of these limestone bricks that I must have laid in these past fifteen years into Sumgait houses, I sometimes feel as though I had moved a whole mountain.

Some of the delegates at the Congress talked of builders as altruists. The word is a little fancy, but the fact is that we construction men do feel something quite special when we watch people moving into houses we've put up.

People ask me how many buildings I've helped erect. I don't know the exact figure but it must be pretty high. We've done a lot of building, especially of dwellings, in these past fifteen years and we're scheduled for a lot more in the next seven. We're going to be putting up another 15 thousand apartments. Besides this big housing program, Sumgait is planning a new synthetic fibers plant and additions to its steel-rolling mill and synthetic rubber plant.

The seven-year plan schedules the Sumgait area for a fivefold increase in gas extraction and as a major chemical industry center. This will affect our work directly since the chemists will be providing us with new building materials.

We are making greater and greater use of prefabricated ferro-concrete large block assemblies. My team does the assembling. It's made up of twenty-five men—bricklayers, carpenters, tower-crane operators and others. These names are purely conventional, however, for each of the men is a jack-of-all-trades.

The Party Congress gave me a real feeling of the enthusiasm and vigor with which the country tackled the job of getting the seven-year plan finished in even less time than scheduled.

The people of Azerbaijan realize that the new economic program discussed and approved by the whole population and accepted by the Congress concerns every man, woman and child. Its implementation will influence every place in the country, including our city of Sumgait, by boosting the living standards, ensuring further cultural progress, making life still more meaningful and interesting both for our generation and the ones to come.

My particular part of the seven-year job is to see that every family in our city gets good, new housing as soon as is humanly possible —sooner, if my team has anything to say about it.

# LET WORLD LAW

*By Zinaida Lebedeva, Secretary of the USSR Parliamentary Group*



BRAZIL'S PARLIAMENTARY DELEGATION TO THE SOVIET UNION WAS HEADED BY MADAME IVETA VARGAS.

IT IS hardly necessary to prove the point that personal contact between members of legislative bodies can contribute significantly to better understanding. Our parliamentary delegations visiting other countries have brought back not only a more intimate knowledge of foreign governmental systems and their economies but a keener insight into the hopes and aspirations of the people of the country. The same report would undoubtedly be given by the many foreign parliamentary delegations that have come to our country on exchange visits.

At almost every session of the Supreme Soviet, our legislative body, we discuss ways and means of widening contacts with other countries. We hear reports from those of our deputies who have visited abroad, and are always pleased to have foreign colleagues who are guests speak before our parliament.

In 1956 the Supreme Soviet addressed a message on disarmament to the parliaments of all nations. It met with a favorable response by many of the legislative bodies. A year earlier the Supreme Soviet sent a resolution it had adopted to the peoples and parliaments of all countries expressing the earnest desire that relations between states, great and small, be based on friendly cooperation that would contribute to peace and good will. The resolution noted that direct contact between parliamentary bodies, exchanges of parliamentary delegations, addresses by legislators to the lawmaking bodies of other countries were all very desirable ways by which better understanding could be achieved.

This initiative had most fruitful results. It was welcomed by parliaments and statesmen abroad who expressed active interest in working toward such contacts. The resolution helped significantly in stimulating the exchange of parliamentary groups.

### Visits Exchanged

Delegations of deputies from the Supreme Soviet have been guests of the parliaments of some thirty countries, as have such Soviet political leaders as N. Khrushchev, Chairman of the Council of Ministers; A. Mikoyan, Deputy Chairman; K. Voroshilov, President of the Presidium of the USSR Supreme Soviet; and S. Rashidov, President of the Presidium of the Supreme Soviet of the Uzbek Republic. Soviet legislators have been guests of the parliaments of Britain, Finland, Austria, Burma, India, Pakistan and other countries and have addressed many of the lawmaking bodies.

Parliamentary delegations and heads of governments of thirty-four foreign countries visited the Soviet Union during the past five years. Among the countries represented were Britain, Finland, India, Sweden, Japan, Belgium, France, Austria, Brazil and Greece.

The foreign legislators toured the country, met with ordinary citizens and with leading political figures in all fifteen Soviet Republics and were usually interviewed on radio and television. Our guests had long talks with deputies of national, republic and local bodies and were present at many of the legislative sessions.

Lord Hinchingbrooke, member of the British House of Lords, speaking over the Soviet radio after visiting many parts of the country, said he and the members of his delegation had been received very warmly by their parliamentary hosts and by the people everywhere. He had observed, he said, a universal, deep and unmistakable desire for the friendliest of relations with Britain.

Another member of the British parliamen-

MIKHAIL TARASOV, VICE PRESIDENT OF THE USSR SUPREME SOVIET'S PRESIDIUM, GREETS DANISH LEGISLATORS.



# MAKERS MEET



MEMBERS OF THE BELGIAN LEGISLATURE SEE THE USSR SUPREME SOVIET. PARLIAMENTARY GROUPS FROM 34 COUNTRIES HAVE VISITED THE SOVIET UNION SINCE 1955.

tary delegation, Conservative Member of Parliament C. Osborne, remarked that he had been greatly impressed by the common wish for peace expressed by the man on the street and by public officials everywhere he went. Laborite E. Davis spoke of these sentiments as most encouraging for the world's peace.

A visiting member of the Norwegian parliament, E. Wikborg, commented in an interview on the invaluable importance of these exchanges. Seeing the Soviet Union had helped him immeasurably to understand its way of life, he said.

Deputy Pierson of the Belgian parliament, giving his impressions of a trip through the country, said that it was impossible for him to conceive that the Soviet Union or the Soviet people wanted war, not when he saw hospitals, schools, colleges and houses by the millions that had been built on the ruins the last war had left, not when he heard of the country's plan for construction for the future that would require every available hand and brain for generations to come.

### Learning at Firsthand

Insights like this can best be provided by personal contacts and observations. I can bear witness to that myself. In recent years my colleagues from the Supreme Soviet and I have visited many countries—England, France, Switzerland, Brazil, Thailand and India, among others. I met and talked with people of diverse occupations, social positions, and political convictions. We invariably found a common tongue and a basis for common understanding.

Two years ago on a trip to Britain with a group of Supreme Soviet deputies I met an engaged couple at a farm in Wales. They were very interested in the way our young people lived and I, in turn, asked them a hundred questions about English young people. We were both learning from each other and are still learning. We have been corresponding ever since and have become fast friends.

Again in the summer of 1957 I was a member of a Soviet parliamentary delegation that attended a conference of the Inter-Parliamentary Union held in Rio de Janeiro. On the

A GROUP OF POLITICAL FIGURES FROM CAMBODIA VISITED A SUMMER CAMP FOR CHILDREN NEAR MOSCOW.





INTER-PARLIAMENTARY UNION HEAD IN MOSCOW.



FRANCE'S EDGAR FAURE CALLED ON PATRIARCH VOSGEN, HEAD OF THE ARMENIAN CHURCH, DURING HIS VISIT.

# LET WORLD LAW MAKERS MEET

eve of our departure for home we had a memorable discussion with a group of members of the Brazilian parliament. They told us they were in the midst of drafting a plan for the economic development of their country. They knew of the Soviet Union's successful planning of its economy and since our economic plans are considered and approved by the Supreme Soviet, they were interested in our procedures. We, of course, were pleased to answer all their questions as best we could.

Although exchange contacts between American and Soviet delegations and individuals have been developing commendably in many fields, there is one area which has been insufficiently stressed—meetings between members of our legislative bodies. The exchange agreement our two countries signed in 1958 makes reference to such meetings. They can be worked out with no more difficulty than exchange of scientists, artists, educators or the many other kinds of delegations that have traded visits with mutual benefit.

SOVIET DEPUTY JUSTAS PALECKIS IS RECEIVED BY PRESIDENT PRASAD OF INDIA.



INDONESIA'S DEPUTIES APPEARED BEFORE MOSCOW'S TV AND RADIO AUDIENCES.






SUPREME SOVIET DEPUTIES PASS A RESOLUTION TO EXPAND PARLIAMENTARY CONTACTS AS A WAY TO ACHIEVE COOPERATION AND BETTER UNDERSTANDING BETWEEN NATIONS.

### The Inter-Parliamentary Union at Work

We joined the Inter-Parliamentary Union in 1955 at its 44th conference in Helsinki. Nikolai Mikhailov, Minister of Culture of the USSR, who headed the Soviet parliamentary delegation, was then elected a member of the Executive Committee of the Union and Justas Paleckis, President of the Presidium of the Supreme Soviet of the Lithuanian Republic, and Konstantin Gubin, editor of the Soviet newspaper *Izvestia*, were both elected members of the Council.

Through the Inter-Parliamentary Union we have been able to meet with members of the parliaments of other countries and to exchange thoughts and ideas on international problems. I first met Henry O. Talle, secretary of the United States parliamentary group, at the Helsinki conference and we had a most interesting exchange. When I met Mr. Talle at later conferences of the Union in London, Bangkok and Rio de Janeiro, we spoke as friends working together in a mutual effort at international understanding.

Our Soviet legislators are active in the Union's work. At the 47th conference held in Rio de Janeiro, I delivered a report on cultural exchanges between nations and their great value in fostering better relations. Following the report the Union adopted a unanimous resolution that called on all member groups to promote such exchanges in the interest of world peace and friendship. The resolution expresses the delegates' hope that the members will persuade their governments to take steps to implement the resolution.

The Union, at the request of the Soviet group, has included in its program of work questions of such vital world concern as disarmament and the banning of war propaganda. The organization, we believe, serves a most valuable function in providing the means through which parliaments and legislators can establish contacts.

IVAN KAIROV (LEFT) IS VICE CHAIRMAN OF THE SOVIET DELEGATION TO THE INTER-PARLIAMENTARY UNION.



# TAXES TO BE ABOLISHED in the near future

**By Efim Manevich**
*Institute of Economics*
*USSR Academy of Sciences*

**Revenue of the National Budget for 1959**
***in billion rubles***




THE TAXES paid by Soviet citizens make up a very insignificant part of the revenue of the national budget. Within the next few years the Soviet Union proposes to abolish taxes on individual income altogether. This is one of the targets which the current seven-year plan is aiming at.

When industry and agriculture were nowhere near their present levels, the proportion of individual taxes in the budget was rather substantial. They were needed to help meet the costs of the country's economic growth and for scientific and cultural development. But as productivity increased and national wealth grew, an increasingly larger part of the budget came from the incomes of publicly-owned enterprises and a correspondingly reduced part from taxes paid by private citizens.

Each year the part of the national budget derived from individual taxes has become smaller. Today it constitutes only 7.8 per cent of revenue and all of it goes back to the taxpayer in the form of free benefits and social services.

This has been the conscious and calculated tax policy even though individual incomes have systematically risen. Savings bank deposits are a good index of individual income levels. From 7.3 billion rubles in 1941 these deposits grew to 87 billion in 1958. Forty million people—one out of every five—have money in the bank.

The trend toward a tax-free future is already reflected in the national budget for 1959 that will finance the first of the seven planned years. This is a balanced budget, of course—there is no problem of budget balancing in a socialist economy run to plan—and is directed, as all previous budgets have been, at developing the country's economy and raising the living and cultural standards of its people.

### Budgetary Expenditures for 1959

The greater part of budgetary expenditures are being used for financing the further development of industry, farming, transport and construction. All told, more than 308.9 billion rubles will go to the national economy. In addition to these budgeted funds, another 175.6 billion rubles from the accumulated earnings of the industrial and farm enterprises themselves will be spent on their own development.

Almost one-third of budgetary expenditures will be used on social and cultural services, all of which are completely financed at state expense. The amount to be spent for these purposes during 1959 is 232.2 billion rubles compared with 215 billion rubles spent in 1958.

The amount allocated for government administration this year is reduced, as it has been in previous budgetary years. From the 11.9 billion rubles of 1958 it is cut to 11.5 billion. More significantly, the amount budgeted for defense expenditures has not been increased but has been reduced from the 96.3 billion rubles of 1958 to 96.1 rubles. This reduction follows the pattern set in the past few years.

### Where the Money Comes From

At present the Soviet budget is financed almost entirely out of incomes of the national economy. The seven-year plan provides for a steady rise in these incomes. Eventually—and that means the relatively close future—they will finance all national expenditures.

More than nine-tenths of the budgetary funds for 1959 are expected to come from this source. Compared with last year the income of the national economy is expected to increase by 85 billion rubles to a grand total of 656 billion. By comparison, the total revenue to be derived from individual taxes will not exceed 56 billion rubles.

Although the percentage of the budget to be met from taxes is smaller than last year's, the total amount of tax revenue will be 6.2 billion rubles more than in 1958. But that is due to the larger number of persons employed in 1959 and to increased earnings.

### Income Tax

At present, there are three kinds of personal taxes—income tax, agricultural tax, and tax paid by people who do not have children.

The procedure for collecting taxes is very simple. As a rule they are withheld once a month from wages or salary. All exemptions specified by law are taken into consideration by the accounting office at the place of employment, which is responsible for collecting taxes. The taxpayer is not required to file any tax return forms.

The most general of the taxes is the income tax, which is paid mainly by city people. The amount of this tax depends on the source and the size of the income.

The income tax of factory and office workers runs from 1½ to 13 per cent of earnings. This category also includes teachers, doctors, lawyers, scientists, writers, musicians, artists—all those who are employed at one or another enterprise or organization.

Artisans and handicraftsmen united in co-operatives pay a somewhat higher income tax than do factory and office workers. A still higher tax is paid by physicians, lawyers and other professionals who have a private practice. The highest income tax is paid by those persons who are self-employed.

The law provides for considerable deductions from the income tax for dependents. If the wage-earner has more than three dependents, for example, his tax is reduced by 30 per cent.

In January 1957 a tax-free minimum wage was fixed, so that the unskilled and therefore lowest paid workers pay no tax at all. In March of the same year taxes were reduced for another group of factory and office workers with small incomes.

Pensioners pay no taxes. Neither do servicemen during their tour of duty, except for commissioned officers and men who decide to re-enlist after their required period of service.

There is no tax on money awards paid to inventors, unless the amount is in excess of 10,000 rubles. Interest from savings bank deposits or government bonds is tax-free, as are winnings from government lotteries. No tax is paid on gifts, grants to mothers of large families or on money inherited.

### Agricultural Tax

The agricultural tax, as its name implies, is paid by the rural population. Collective farmers pay no tax on the income they earn as members of the cooperative. But most collective farmers have separate plots of land for their personal use, and they pay a tax on the profits they derive from these plots. The amount of the tax varies with the size of the plot.

Factory and office workers and members of producers' cooperatives who reside in the countryside and have plots of land pay the agricultural tax at the same rates as collective farmers. The tax on individual peasant households is double that paid by collective farmers.

All farmers, whether they work alone or in collectives, are exempt from the agricultural tax in the event that a member of the family is doing his tour of army service and there are dependent children but no able-bodied persons other than the wife or mother. No tax is paid by families of war invalids with only one able-bodied member. Farmers who have reached the age of 60 for men and 55 for women pay no tax, nor do teachers, agronomists and medical personnel who work in rural areas.

### Other Taxes

People without children are required to pay an additional tax. Male factory and office workers between 20 and 50 years of age, regardless of whether they are single or married, and married women from 20 to 45 years of age pay a tax of six per cent if they have no children. Certain groups of people are exempt from this tax—single factory and office workers who make no more than the tax-free minimum wage, servicemen and non-commissioned officers and their wives, and college students.

There are, besides government taxes, some local levies. They include such things as license fees paid for cars, taxes on livestock and buildings, and ground rent. All of these local taxes are very small—owners of livestock, for instance, pay from 10 to 50 rubles a year per head. The money collected remains in the local budgets and is used entirely for local needs.

### Less Tax and More Benefits

Although the revenue from personal taxes year by year makes up a smaller share of the national budget, the allocations for social and cultural services annually grow very much larger. This can be seen graphically by comparing the 56 billion rubles expected this year as tax revenue with the figures in the charts below.

In 1965, according to the seven-year plan, the budgetary expenditure for social and cultural services will reach 360 billion rubles. Averaged out for the population generally, it will amount to some 3,800 rubles a year which every worker in the country will be getting in various services over and above his earnings. In addition, more than 800 rubles per worker a year will be spent for the construction of housing, schools, public utilities and medical institutions.

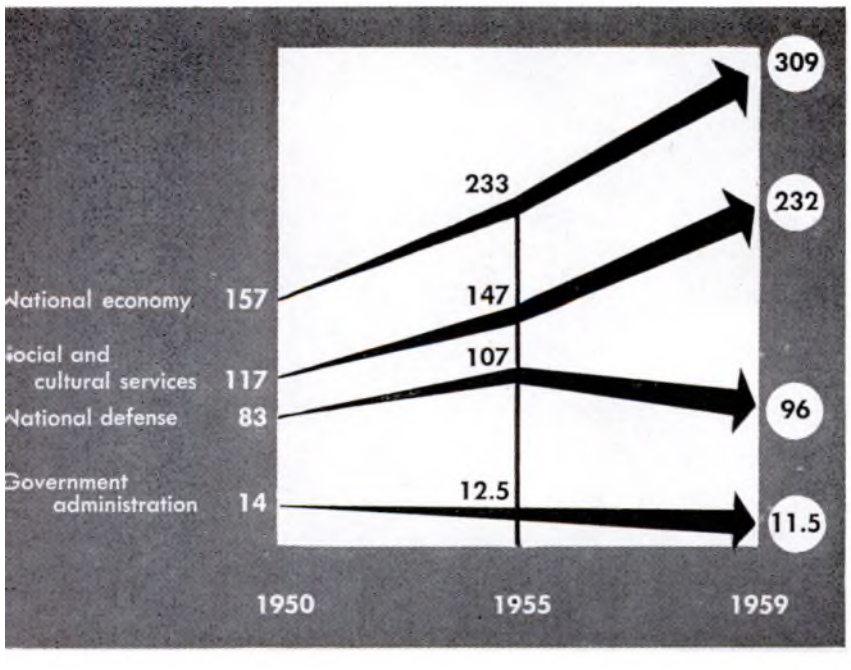
The larger part of what the Soviet Union produces in the way of material values is still distributed as wages and varies with the quality and quantity of work a person does. But an ever-increasing portion of the values produced are distributed without regard to the kind of work performed.

About half of the 200-odd million Soviet people are workers and farmers. The other half are dependents—children, the aged, the disabled. A very small part of the funds for maintaining the dependent section of the population comes from individual taxes, and that part will be getting smaller and smaller as time goes on.

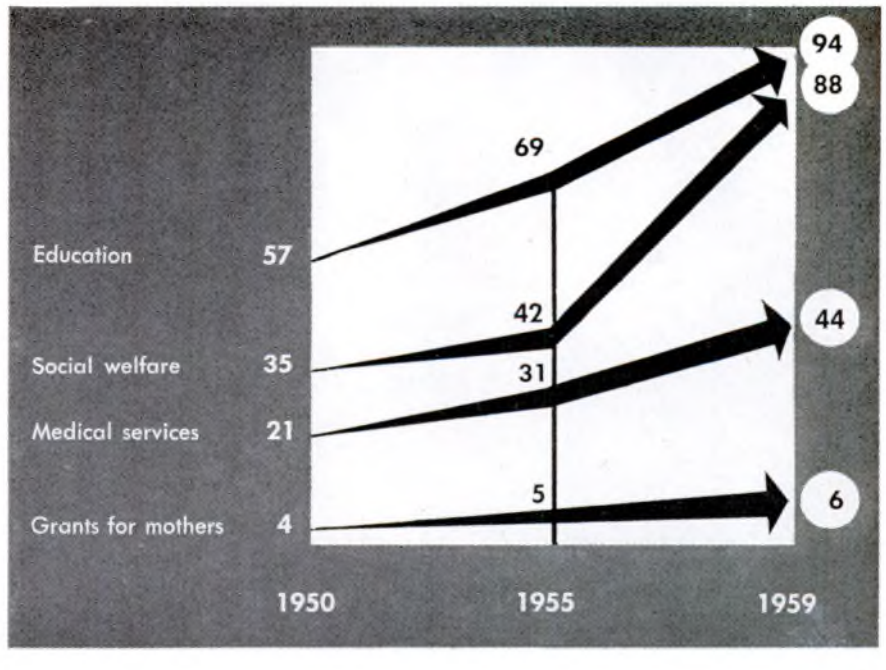
At present some 20 million pensioners are being maintained out of government funds. The nurseries, kindergartens and children's homes care for 5 million children. More than 30 million people are getting their education without cost and those in trade and technical schools receive stipends and free dormitory accommodations. An additional 3,300,000 students in universities, colleges and technical schools are also paid a maintenance allowance. About 8,600,000 children and adults go annually to vacation and health resorts free of charge or at reduced rates. Government grants are paid to 7 million mothers.

Many more such services will be made available to every Soviet citizen as the seven-year plan matures and the country's productivity multiplies. The ultimate goal is to provide for the needs of everyone from birth through a secure old age from the national wealth created by this greater productivity. This goal is within sight, and one of its milestones is a tax-free future.

**Expenditures of the National Budget for 1959**
***in billion rubles***

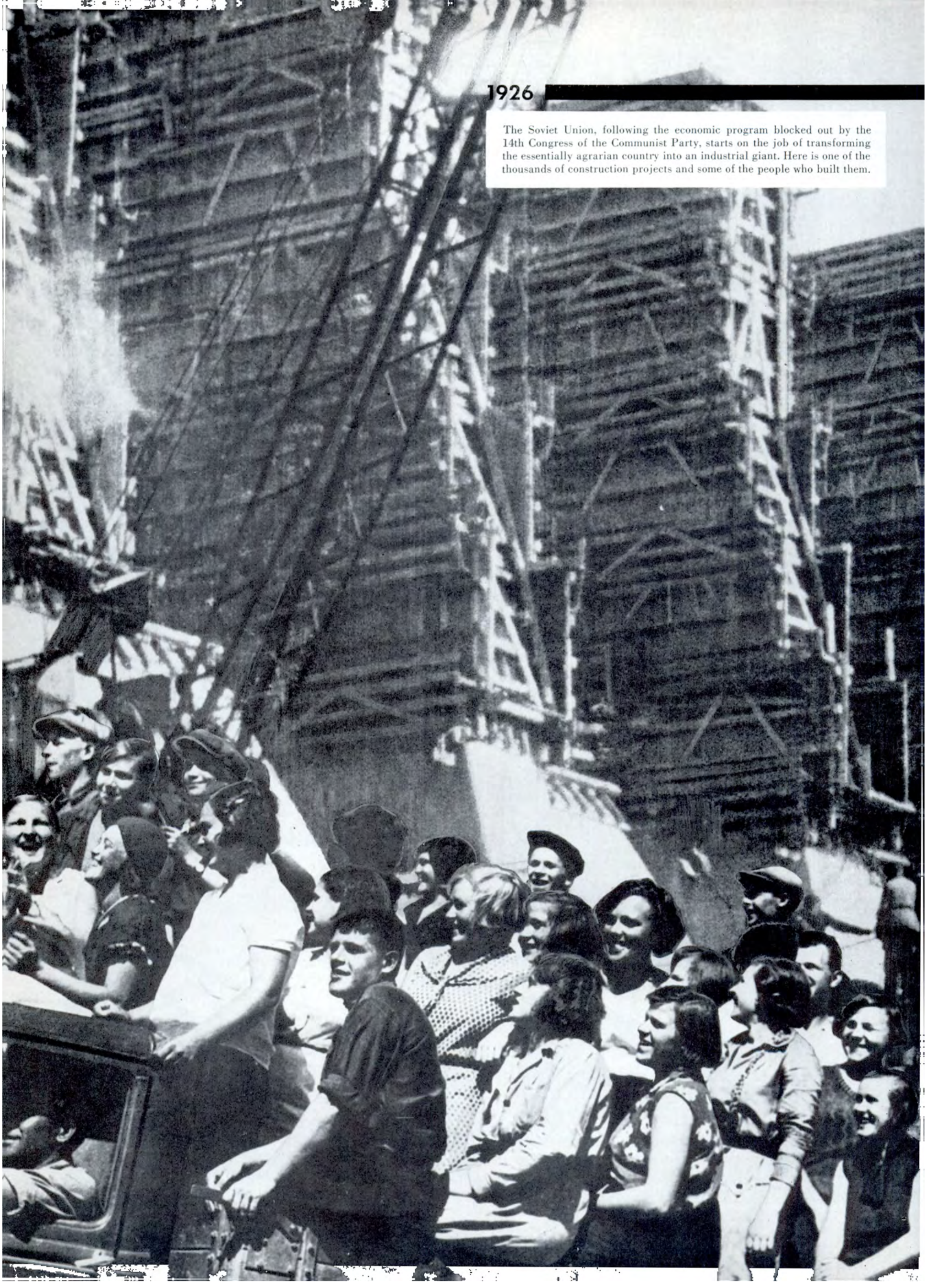



**1959 Budgetary Expenditures for Social and Cultural Services**
***in billion rubles***



## 1926

The Soviet Union, following the economic program blocked out by the 14th Congress of the Communist Party, starts on the job of transforming the essentially agrarian country into an industrial giant. Here is one of the thousands of construction projects and some of the people who built them.



**This is the third in a series of articles on the history of the Soviet Union. The first was published last November, issue No. 11(26), and described the events of 1917 leading to the establishment of the Soviet state. In February, issue No. 2(29), the period of civil war, foreign intervention and reconstruction was covered. This article takes the reader through 1941, and the article in the next issue will deal with the period of the Second World War.**

# SOCIALISM Constructed to Plan

**By Alexander Grunt**
***Historian***

JANUARY 1, 1926, ushered in a new period of Soviet history. The day previous, the Fourteenth Congress of the Communist Party had concluded its sessions with the adoption of a decision outlining the general direction of the country's development based on industrialization. Thus did the Soviet people launch the construction of the economic foundation for socialism.

The trying years of the First World War, the Civil War and foreign intervention were over. The ruined factories had been rebuilt, the trampled fields resown, and the national economy as a whole had regained its prewar level of 1913. But that was the level of a backward country, essentially agrarian with a feebly developed industry and low productivity.

## Socialist Industrialization

To build socialism the young Soviet Union had to overcome the economic backwardness inherited from czarist Russia. Speedy industrialization was imperative to ensure all-round economic progress with the accompanying rise in living standards.

For this enormous undertaking the Soviet people could depend only on their own efforts and resources. Not one of the foreign powers was willing to extend financial help. Every ruble available had to be used for building power stations and metal plants, railroads and coal mines.

Construction was spurred throughout the country. The Volkhov Hydropower Plant near Leningrad, the first large project of the kind in the country, began providing electricity a year after the Fourteenth Congress. Work on what was to be the largest hydropower station in Europe started in 1927 on the banks of the Dnieper River near the Ukrainian city of Zaporozhye.

That same year the first miles of rail of the Turkestan-Siberian Railroad were laid to link the wheat regions of Siberia with the cotton regions of Central Asia. This railroad was to play a major role in the economic development of the eastern part of the country.

The first tractor plant began to go up on the banks of the Volga on the outskirts of Tsaritsyn (now Stalingrad) in 1927, and plans were prepared and surveys made for three giant iron and steel centers—Krivoi Rog in the Ukraine, Magnitogorsk in the southern Urals and

**1927**



The Turkestan-Siberian Railroad to link the Siberian wheat fields with the cotton regions in Central Asia was begun in 1927. The road was crucial to the development of the East, an area with immense stores of natural resources which had barely been tapped under the czarist regime.

**1928**



The backbone of a socialist economy, Lenin had said, is heavy industry—coal, steel, electric power. In 1928 construction work was started on the great metallurgy centers—the Kuznetsk complex in western Siberia, Magnitogorsk in the south Urals and Krivoi Rog in Ukrainian Republic.

## 1929



The year of the great break-through in the farm collectivization program. The advantages offered by large-scale mechanized farming were by then plain to be seen and millions of peasant households pooled their plots of land, stock, tools and their labor to form collective farms.

## 1930



In 1930 Soviet-made tractors began to come off assembly lines in quantity at the newly built Stalingrad plant. Once a rarity, tractors soon became commonplace. Agricultural specialists were sent by the government to the collective farms to teach scientific growing methods.

# SOCIALISM Constructed to Plan

Kuznetsk in western Siberia. By 1928 gross industrial output as compared with 1923 had risen by 32 per cent.

This greatly accelerated construction and industrial development required planning capable of seeing ahead for longer periods than the annual plans followed up to that time.

It was the founder of the Soviet state, Vladimir Lenin, who worked out both theoretically and practically the basic principles of socialist planning. His name is closely associated with the first Soviet long-range economic plan adopted in 1920. Known as GOELRO, it was a national plan for the electrification of the country with the aim of rebuilding the entire economy on the basis of modern large-scale machine production. In advancing the vast program of socialist construction, Lenin stressed the vital role of heavy industry in raising the general industrial level of the country, as well as in providing up-to-date farm machinery for the reorganization of agriculture.

These concepts of Lenin's were the backbone of the five-year plans by which the Soviet Union has guided its economic growth. These plans have set the rate of industrial and agricultural expansion, ensured the required proportions between various branches of the economy, established time limits for construction projects, outlined programs of social and cultural services for the population.

The first five-year plan was worked out at the end of 1928 and, after nationwide discussion, was approved in 1929 by the Fifth Congress of Soviets, the country's legislature of that time. Its main task was to build basic industries as the core of the socialist economy. The plan provided for total capital investments of 64.6 billion rubles, with 19.5 billion allocated for industrial construction, including electrification, and 10 billion for the development of the transport system.

When the target figures were published abroad, they were laughed off. "Sheer fantasy," "delirium," "Utopia"—read the foreign press comments. But as the months and years passed these "Utopias" became structural realities. Great rivers were belted with the dams of new power plants. New industrial centers grew up in both central and outlying regions.

In 1929 for the first time in the country's history gross output of industry exceeded that of agriculture. The transformation of the Soviet Union from an agrarian to an industrial country had begun to take visible shape.

### Collectivization of Farming

The year 1929 has gone into the country's history as the year of sweeping victories of socialist industrialization. It is also characterized as the year of the great break-through in agriculture.

Industry was now based on the socialist principle of national ownership, opening vast possibilities for the rapid and uninterrupted growth of productive forces. In the countryside, however, there was an ocean of individual peasant households. A very considerable number of these small farms were hardly more than self-supplying.

Thus an obvious discrepancy developed between large-scale socialist industry that scored new successes year after year and individual peasant farming that continued to lag very much behind.

The nationalization of the land and turning it over to the peasants right after the Revolution was a great stride in transforming the life of the countryside. But the scattered character and general backwardness of agriculture still remained, and this hindered the progress of the entire national economy.

It was beyond the reach of tiny individual farms to use modern equipment and advanced agricultural methods. As a result productivity was still very low, and the rapidly growing need of the nation for farm products could not be met. This also made remote, if not impossible, a real improvement in living conditions of the peasantry.

The key to the solution of the problem was suggested in Lenin's plan for cooperation of individual peasant households, a plan of large-scale collective farming to permit the widest introduction of machinery and science in agriculture. This was the socialist way of farming based on the peasants' joint ownership of their collective farms and on common labor for the common good.

The Fifteenth Congress of the Communist Party held in December 1927 charted the program for extending and consolidating the network of collective farms which had already been organized by the peasants themselves. The advantages of pooling land, equipment and labor became more and more obvious to millions of peasants.

The year 1929 was marked by mass collectivization. Peasants by whole villages, and even whole regions, began to set up collective farms. The movement attracted not only the poor but also the middle peasants. Only the kulaks, an insignificant portion of the peasantry that had accumulated their wealth through the merciless exploitation of poor peasants were against collectivization.

An important role in collectivization was played by the machine and tractor stations that were set up by the government to provide newly formed collective farms with machinery and advice. The construction of plants for the manufacture of farm machinery was accelerated. Soon tractors, harvester combines and other machines were being produced in quantity for the first time in the country's history. The government advanced credit to the collective farms for the establishment of their economy and sent farm experts to teach the peasants how to grow their crops scientifically.

By the spring of 1930 half the peasant households had formed into

collective farms. This was the beginning of complete collectivization. The vast majority of the country's peasantry wholeheartedly welcomed it as the way out of age-old poverty and ignorance toward a prosperous and secure life. Thus the new social system established itself firmly and irrevocably in the villages as it had in towns and cities.

### Five Years in Four

As early as 1929 it was evident that the five-year plan could be completed ahead of time. The people coined a slogan that caught on everywhere in the country—"Knock a year off the five-year plan, finish in four."

The workers in the factories and the peasants in the collective farms examined the possibilities of speeding up the fulfillment of their plans. Factory challenged factory and workers challenged each other to engage in socialist competition for better production achievements. It was the energy of millions of people united by the common goal of building a new life that explained the rapid progress of the country.

By the end of 1932 the first five-year plan was completed. In the four years the Soviet Union had boosted its industrial output 2.7 times over as compared with 1913. The share of industry in the country's economy had topped 70 per cent.

The Soviet Union had built 1,500 large enterprises, thus creating an industrial complex technically advanced for that period. It had developed branches of industry altogether new to the country's economic scene—tractor, automobile, aircraft, machine tool and heavy engineering. Modern power stations, iron and steel, chemical and farm machinery plants had been built and many new industrial centers had appeared, chiefly in formerly backward outlying regions.

In agriculture great social transformations were accompanied by sweeping technical reconstruction made possible by the widest introduction of up-to-date farm equipment and machinery. By the end of 1932 collectivization of farming had been nearly completed in all main agricultural regions. The country now had large-scale mechanized agriculture.

The speedy progress of industry and agriculture reflected itself in improved living standards. Unemployment had disappeared, the workday had been reduced, real wages had increased. There had also been an increase in budgetary allocations for the national program of social welfare and pensions, for free medical services and education. In 1935 the government abolished the system of food rationing which had to be instituted in 1928.

### Contacts with Foreign Countries

As far back as the mid-twenties most of the foreign countries had established diplomatic relations with the Soviet Union. On October 10, 1933, the Soviet government received a message from President Roosevelt with the proposal of the United States to end the abnormal relations which had obtained until that time between the two nations. On November 7 formal negotiations started in Washington and on November 16 Soviet-American diplomatic relations were established by an exchange of official letters.

But even before that time there had already been numerous contacts between the two countries. Many American industrialists were carrying on a profitable business with the Soviet Union. In 1930 alone they had sold 114 million dollars' worth of goods. General Electric, DuPont, Ford and other companies had signed technical aid contracts, and some 2,500 American technicians were working on the installation and servicing of the purchased equipment in 1930-31.

Economic relations between the two countries were further strengthened by the agreements of 1935 and 1937. By that time Soviet exports to the United States had mounted to 134.4 million rubles and imports to 244.3 million.

The diplomatic and trade relations between the Soviet Union and foreign countries which developed fairly well in the thirties were not the only areas of contact. Scientists, writers and public figures, as well as ordinary citizens met as tourists and as unofficial ambassadors of good will.

One such visit of good will was a record-breaking USSR-USA nonstop flight of three Soviet airmen, Valeri Chkalov, Georgi Baidukov and Alexander Belyakov, in June 1937. Their plane took off from an airfield near Moscow and in 63 hours and 25 minutes, after crossing the North Pole, landed at Portland, Oregon. Another Soviet plane manned by Mikhail Gromov, Andrei Yumashev and Sergei Danilin

## 1931



The Gorky Automobile Plant was completed this year and the first Soviet-made cars began rolling off the conveyors. The auto industry was one of many new ones created by the first five-year plan, an almost inconceivably ambitious plan that was dismissed by foreign economists as fantastic.

## 1932



In 1932 the first five-year plan was completed ahead of time, to rank the Soviet Union with the most advanced industrial countries. Among many other projects, the Dnieper Hydropower Station was finished this year. At the time it was the largest power station in Europe.

# SOCIALISM Constructed to Plan

**1933**



It was not only new industry being built. People were being equipped with the hundreds of new skills the times called for. Specialists in every field of endeavor were being trained in the technical schools and colleges that had been set up by the score in every one of the Republics.

**1934**



Nor was progress confined to industry and agriculture. Research and exploration was being done in the sciences, the humanities and the arts. Here are the Arctic explorers of the Chelyuskin expedition, rescued when their ship was crushed by floating ice, getting a hero's welcome at home.

**1935**



Great tasks engender great movements. Socialist construction brought to the fore workers who set new production records in industry and agriculture that their workmates tried to emulate and to better. The movement spread to every field of work and to every part of the country.

made the run across the North Pole from Moscow to California three weeks later.

At that time these were daring flights. For the Soviet aircraft industry, they were especially significant. Old Russia had had no aircraft industry at all and now this very young Soviet industry had broken a world record.

## Great Transformations

Life was moving fast in the Soviet Union. In every area of national endeavor men and women were working with great enthusiasm. The people saw that their labor was bringing more and more prosperity to their families. They were proud of being the collective owners of the increasing wealth the nation possessed, and gradually, almost imperceptibly, the whole concept of work was changing.

The workers and farmers were not content merely to complete the production targets—they made counter-proposals to exceed the plans and then went about devising new methods of work to guarantee their fulfillment. Socialist competition had reached a higher level. First in industry and then in agriculture a new type of worker was emerging, a hero of labor who had earned and received the gratitude and respect of the whole nation.

It was people of that indomitable stamp who paced the second five-year plan that was fulfilled in 1937—in four years and three months. Its main task had been to complete the technical reconstrucion of the entire national economy, and its fulfillment put the Soviet Union first in Europe and second in the world for leadership in volume of industrial production.

New large plants to the number of 4,500 had been added to the 1,500 built during the first five-year plan. New industries had been established, such as nonferrous metals, synthetic rubber, mineral fertilizers.

The two five-year plans fundamentally changed the economies of all

the Soviet Republics. In 1937 the Ukraine alone began to turn out as much industrial goods as had the whole of prerevolutionary Russia. Large-scale industrial and railroad construction was under way in the Central Asian Republics, in Siberia and in the Far East.

The progress of industry had reached a point where the Soviet Union was no longer dependent on supplies from foreign manufacturers. It was now not only able to stop importing some industrial goods but began exporting them. The country could now be supplied with home-manufactured tractors and other farm machines, with locomotives and coaches, ballbearings and many kinds of machine tools.

### Everybody to School!

It was not only the economy that was being changed, the people themselves had undergone a transformation. From czarist times the Soviet Union had inherited a population that was 75 per cent illiterate—only one person out of four was able to read and write. Among the numerous national minorities, illiteracy was almost total.

Everybody to school! This was the slogan raised immediately after the Revolution. And everybody went to school. Between 1917 and 1920 alone seven million people were taught to read and write. By the end of 1932 illiteracy had dropped to ten per cent. Universal free elementary education was compulsary. Both children and adults were studying.

"How many of your people study?" asked an Italian professor visiting the construction site of the Dnieper Hydropower Plant in 1930.

"Ten thousand," answered the engineer who was showing him around.

"But then who does the work?" exclaimed the professor in surprise.

"Those who do the studying," was the answer.

Compared with prerevolutionary times the number of students in Uzbekistan had increased 68 times over; in Kirghizia, 43 times; in Turkmenia, 33 times. Education for these peoples, depressed economically, socially and culturally under the czar, was one of the roads to full equality.

But the country in process of building needed more of people than the ability to read and write. Trained specialists were in demand in every field—engineers, technicians, scientists, agronomists, doctors, teachers. During the first five-year plan alone the Soviet schools equipped 170,000 specialists with a college education and 310,000 with a technical secondary education. Before the Revolution there were only sixteen cities in the country with colleges, by 1939 there were 140.

Here was a new generation of educated young men and women—the children of illiterate laborers and peasants to whom education had been an impossible dream under the czar.

### The New Constitution

By 1936 more than a decade had passed since the adoption of the first Constitution of the Union of Soviet Socialist Republics in January 1924. Both the country and the people had grown and changed in those dozen years. Socialism had in the main been built, and the old Constitution was no longer adequate to the new times.

On December 5, 1936, the Extraordinary Eighth Congress of Soviets, the national legislature, unanimously approved the new Constitution. In the five and a half months of public discussion which preceded the parliamentary session, an estimated 50 million people, more than half the adult population of the country, had a word to say in the framing of the Constitution.

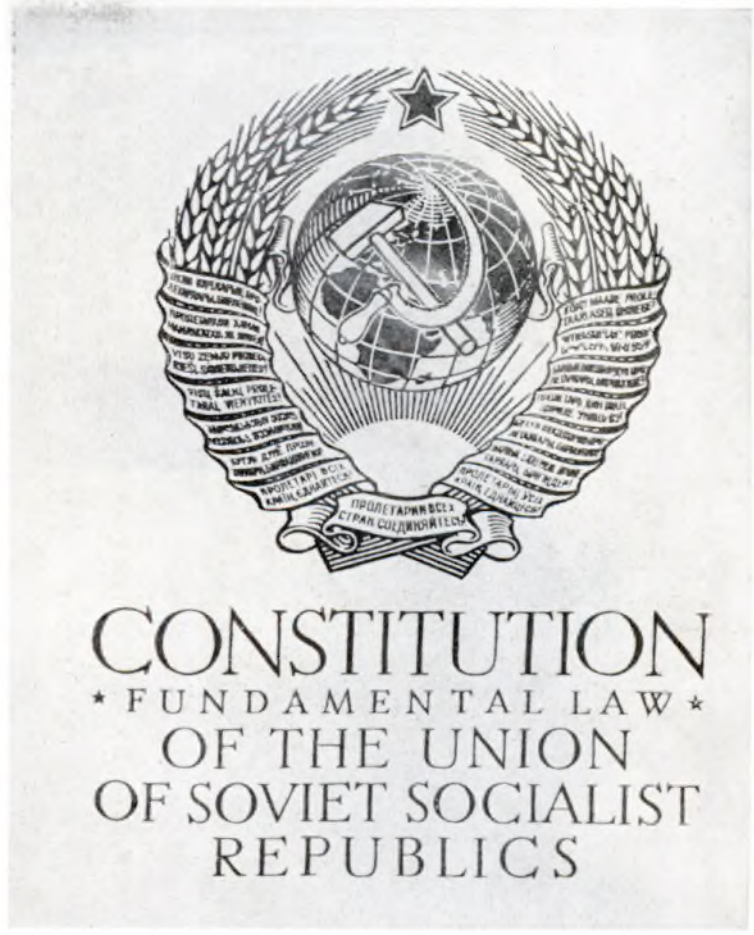
The 1936 Constitution defined the Soviet Union as a socialist state of workers and peasants, with socialist ownership of the means of production as its economic base. It vested all power in the working people in city and village, to be delegated by them to their elected representatives in the Soviets of Working People's Deputies.

The new Constitution established universal, equal and direct suffrage by secret ballot. Every citizen was guaranteed the right to a job with equal pay for equal work without regard for sex, age or nationality, the right to paid vacations, to education, material security in old age and in the event of illness or disability. Guaranteed were freedom of speech, press, assembly and other rights.

The Soviet Union is a multinational state, and the Constitution guaranteed equal rights to citizens belonging to all of the country's nationalities and national groups. These are united now in fifteen sovereign Union Republics, each having its own Constitution, its own Supreme Soviet and Council of Ministers located in its own capital.

The highest legislative body of the whole country is the USSR Supreme Soviet, with deputies elected for a four-year term. Its two

## 1936




The country had grown and changed vastly since the first constitution had been adopted in 1924. To sum up the achievements of socialist construction and to define the rights which it had brought, a new constitution was adopted in 1936 after nationwide discussion.

## 1937



This year Valeri Chkalov made the first USSR-USA nonstop flight over the North Pole. Unofficial envoys of good will, the flyers brought with them to the United States the warm greetings of the Soviet people. Here they are being welcomed on their return home by Nikita S. Khrushchev.

1938




In 1938, with the foundation of heavy industry laid, the Soviet Union had launched the third five-year plan. It was a plan to start building abundance in town and country, a blueprint for an unprecedented housing program and for great expansion of consumer goods production.

1939



This rolling mill operator vacationing at a southern health resort was now the typical Soviet worker to whom unemployment was unknown. The 1936 Constitution guaranteed him an annual vacation with pay, free medical service, education without cost and a pension when he retired.

# SOCIALISM Constructed to Plan

chambers—the Soviet of the Union and the Soviet of Nationalities—have equal rights and respectively reflect the common interests of all the country's peoples and the specific interests of its national groups.

The first elections after the adoption of the new Constitution took place in 1937. The Communist Party nominated candidates in a bloc with non-party people and called for support of the joint list. In response to this appeal 90 million voters—98.6 per cent of those who went to the polls—cast their vote for the bloc of Communists and non-party candidates, and this unanimity was a new phenomenon for the world.

### The Major Economic Task

The 1936 Constitution recorded the fact that the Soviet Union had entered a new period in its history. It was a period of the completion of the building of socialism and the gradual transition from socialism to communism.

By the end of the thirties the Soviet Union had gathered the experience of ten years of planned construction, and now the time was at hand to start building an economy of abundance of material and cultural values to meet the rapidly growing requirements of the people.

In its first two five-year plans the Soviet Union had moved up to a position where it had surpassed all European countries in absolute volume of production, technology and rate of industrial growth. But it had not caught up in per capita production. The Eighteenth Congress of the Communist Party held in March 1939, in outlining the country's major economic task, had set a target to surpass the most advanced countries of the world in per capita production in the historically shortest period of time.

## 1940



The country's cultural life had broadened immensely. The world treasury of music, art and literature had been opened and made freely available to whole nations of people who for centuries under the czars had known only discrimination and poverty, ignorance and superstition.

The third five-year plan (1938-1942) had as its goal the further development of all branches of the national economy and a further rise in living standards. The amount of capital investments was to be 192 billion rubles, much larger than for the previous five-year plan. These were tense prewar times, but the plan was being successfully carried through. Its first three years saw the construction of 3,000 new industrial enterprises. Life was becoming fuller and easier.

But the Soviet people were not able to fulfill the third five-year plan. At dawn of Sunday, June 22, 1941, Nazi planes dropped their bombs on Soviet cities, invading armies crossed the Soviet frontiers from the Baltic to the Black Seas, and the Soviet radio announced to the world: "Germany has attacked the Soviet Union without declaration of war."

The Soviet Union has had to spend almost half of its forty-one years in fighting invasion and rebuilding an economy ruined by war. Although the havoc wrought by the Second World War was tremendous, the country recovered much more quickly this time than it had after the ruin of the First World War, the Civil War and intervention.

There were the achievements of the first five-year plans to build on and the very basic transformation they had made in factory and farm and in the people who worked them. Reconstruction was not limited to the mere restoration of what had been destroyed. The old factories were modernized and new ones built, more new industries were created, and tremendous new areas of the country began to develop both industrially and agriculturally.

The prewar economic level was very soon reached and shortly afterward surpassed, and the country entered its present period of development with the current seven-year plan for 1959-1965 adopted at the Twenty-First Congress of the Communist Party held last January.

## 1941



On June 22, 1941, the Nazi armies invaded the Soviet Union and the great work of constructing a new way of life was abruptly halted. Like these young men waiting to enlist, the whole nation put down its building tools for the war's duration and rose to the defense of the country.

*Swan Lake* has become a permanent feature of the Bolshoi Theater's repertory, which includes the classics and modern ballets by Soviet composers.



Maya Plisetskaya is Odette, the Princess who has been turned into a Swan, and Yuri Kondratov is the Prince whose love can lift the magic spell.





# BOLSHOI

**The ballet company of the Bolshoi Theater will visit the United States for eight weeks in what is going to be a major event of the Soviet-American exchange program. The group coming to America will include the Bolshoi's most talented dancers, among whom are Galina Ulanova, Raisa Struchkova, Nina Timofeyeva, Yuri Zhdanov and Nikolai Fadeyichev.**

**The visit will open with Sergei Prokofiev's *Romeo and Juliet* to be given at the Metropolitan Opera in New York on April 16. Tchaikovsky's *Swan Lake*, Adam's *Giselle* and Prokofiev's *The Stone Flower* will also be presented to American audiences along with two colorful concert programs featuring scenes from *Chopiniana*, *Shuraleh* and other ballets.**

**After its performances in the United States the visiting company of the Bolshoi Ballet will go on to Canada.**



Tchaikovsky's ballet which was first produced in the seventies, laid the foundation for Russian classical choreography. In Soviet times, the never-ending search for new and different interpretations has made *Swan Lake* equally popular with both audiences and dancers.

# BALLET

THERE is a vast difference in tone and emphasis between a contemporary Bolshoi production of a classical ballet and one which a Bolshoi troupe might have given in pre-Soviet times. The new element is in the search for realism, the attempt always to probe for the historical mood and temper of a time or period.

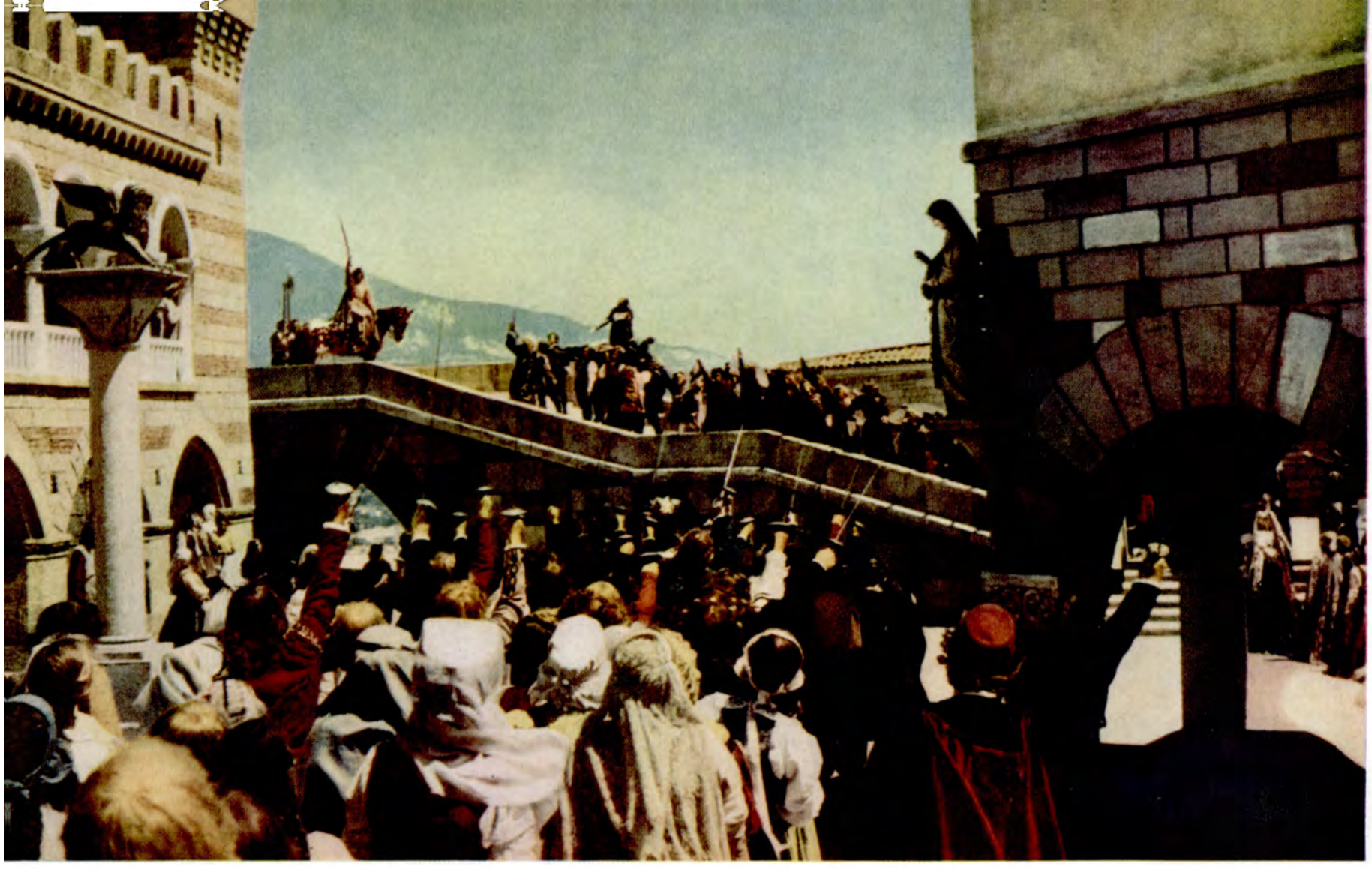
To the classical ballet the Bolshoi has given a fresh and modern spirit. Even in such fantasy as *Swan Lake* the Bolshoi has searched out the elements of social and psychological truth and has given them life and meaning through gesture and movement. For the Soviet choreographer, the dance is by no means an abstraction, it is a dramatization in music and movement of a living and pulsating reality.

That direction is, of course, much more evident in the new ballets which the choreographers and dancers of the Bolshoi Theater have created in the past two or three decades and which now make up its basic repertory.



In a last futile attempt to keep the Prince and Odette apart, the magician bestows the outward appearance of Odette upon his daughter Odelia. Nina Timofeyeva dances the part of Odelia, Nikolai Fadeyichev is the Prince, and Vladimir Levashov is Rothbar, the wicked magician.





The current version of the ballet *Romeo and Juliet* is the result of many years of experimentation. First produced in the thirties, it was one of the Bolshoi's early attempts to convey human relationships and dramatic situations through the medium of the dance without resorting to pantomime.

# BOLSHOI BALLET

Galina Ulanova and Yuri Zhdanov dance the title roles in the poignant love story. Like Shakespeare's works generally, it lends itself to contemporary interpretation, and the gifted ballerina has brought to her modern Juliet the courage and resolve of a young woman of our time.



## Two Hundred Years Old

Russian ballet developed out of comic opera presented by serf singers, dancers and musicians as early as the middle of the eighteenth century. A group of 77 serf actors staged the first Russian comic opera, *The Miller*, written by one Sokolovsky, an unheralded violinist. Operas by West European composers, with whatever incidental dances they called for, were also produced at the time.

Production of Glinka's first opera, *Ivan Susanin*, ushered in the Bolshoi's classical period in 1842.

But before the Bolshoi Theater could develop a Russian national classical repertory of its own, it had to wage a struggle with the ardent devotees of the Italian operas at the czarist court who looked on Russian opera as "music for coachmen."

One of the most implacable adversaries of Italomania in opera was Tchaikovsky. He fought the tendency both as critic and composer. In the seventies his ballet *Swan Lake* laid the foundation for Russian classical choreography. "Society" dismissed it as it had his operas. It was only his fifth opera, *Eugene Onegin*, that won some degree of approval for Russian music.



**Soviet ballet** is the artistic integration of dance, dramatic action and musical imagery. In ***Romeo and Juliet*** the composer Sergei Prokofiev, the choreographer Leonid Lavrovsky and the dancer Galina Ulanova have combined them with consummate skill.



Prokofiev's musical expression of the Elizabethan tragedy is typical of current ballet music. No longer relegated to the role of mere dance accompaniment, it has become the point around which the choreography is created.

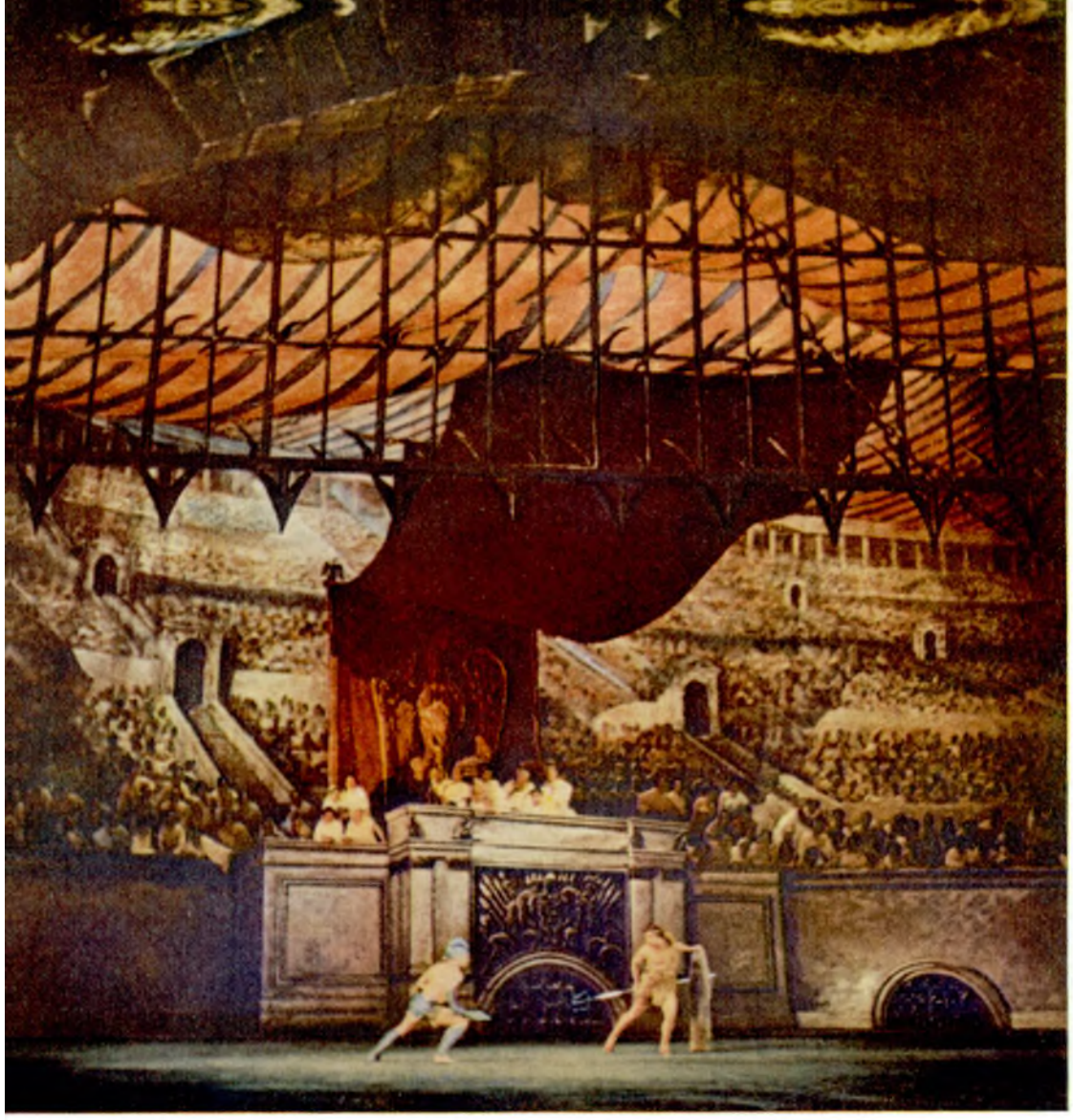


Through this breach the works of other Russian composers, which had lain neglected for several decades, inched their way to the Bolshoi's stage to open a new and efflorescent period of Russian national opera and ballet.

Such Russian composers as Moussorgsky thought of music as their way of "speaking with the people." In order to give the "dramatic truth of life," their compositions, developed out of folk melodies, had to get to the roots of the Russian national character and the social and historical conflicts out of which it evolved.

The operas of Glinka, Dargomyzhsky, Borodin, Rimsky-Korsakov, Moussorgsky and Tchaikovsky contributed to that development with both text and music. Particularly did Moussorgsky's *Boris Godunov* define the Russian vocal style—that masterful blending of orotund declamation and free-flowing arias—rendered with such consummate artistry by the great basso Fyodor Chaliapin, the tenor Leonid Sobinov and the soprano Antonina Nezhdanova.

By the early 1900's the Bolshoi Theater had developed a brilliant orchestra and chorus. Its settings of extraordinary beauty were being done by eminent painters. Its ballet master Alexander Gorsky had refashioned Russian



Great moments in history, literature and contemporary life have been translated into the dance; ordinary people and everyday events are the theme of several modern Soviet ballets.



# BOLSHOI BALLET





Galina Ulanova and Vladimir Preobrazhensky in Sergei Prokofiev's ballet *The Stone Flower*, an old folk legend about a craftsman whose stone carvings rival nature for their beauty.



choreography to create an artistic whole of dance, dramatic action and musical imagery. And a pleiad of resplendent talent headed by the famous Yekaterina Geltser graced the Bolshoi's ballet stage.

This illustrious heritage was brought by the old Bolshoi Theater to Soviet art.

## New Ballets

The first Soviet ballet was produced in 1927 —Gliere's *Red Poppy*—and is still widely performed after thirty years, the earliest of the ballets to replace fairies and princesses with the living, breathing people of today. This turn toward realism was especially evident in Asafyev's *Flames of Paris*, with the French Revolution of 1789 as setting, and choreography which embodied the fiery dances of the Basques and the French patriots. The same composer's *The Fountain of Bakhchisarai*, *Prisoner of the Caucasus* and *The Peasant Lady* as well as Gliere's *The Bronze Horseman* were based on Pushkin's poems.

These and Prokofiev's *Romeo and Juliet*, *Cinderella* and *The Stone Flower* and Aram Khachaturyan's *Gayane* and *Spartacus* are all products of the Soviet period.

## New Generation of Dancers

A new generation of dancers of the Bolshoi company have been weaned on these Soviet ballets created by the theater's gifted













Maya Plisetskaya and Nikolai Fadeyichev in Khachaturyan's *Spartacus*, the story of the brave Roman gladiator who led a slave revolt 2,000 years ago.



choreographers—Rostislav Zakharov, who did *The Fountain of Bakhchisarai* and *The Bronze Horseman;* Leonid Lavrovsky, who did *Romeo and Juliet;* Pyotr Gusev and Vainonen. Today's Bolshoi orchestra of 250 is conducted by Yuri Faier and Alexander Rozhdestvensky.

The Bolshoi's pride and glory is the première danseuse Galina Ulanova. Her Juliet is an unforgettable performance. Olga Lepeshinskaya is also one of the older generation of Bolshoi stars. She is a delightful Quiteria in *Don Quixote.*

Among the younger generation of ballerinas are Maya Plisetskaya, Raisa Struckova, Nina Timofeyeva and Marina Kondratyeva. The galaxy of male dancers is crowned by Yuri Kondratov, Yuri Zhdanov, Nikolai Fadeyichev, Alexander Lapauri and Georgi Farmanyants.

The Bolshoi Theater occupies two buildings in Moscow, with two stages. In the main building the stage holds 400 performers without any crowding.

The Bolshoi season runs for ten months, from September 1 to June 30, during which it stages some sixty operas and ballets. This season it is featuring twenty ballets, including all the Tchaikovsky ballets: Glazunov's *Raymonda;* Minkus' *Don Quixote;* Adam's *Giselle;* Prokofiev's *Romeo and Juliet, The Stone Flower* and *Peter and the Wolf;* Asafyev's *The Fountain of Bakhchisarai* and Gliere's *Red Poppy.*



Pity, jealousy, hatred and violence are portrayed by the dynamic Maya Plisetskaya in the role of Zarema, scorned wife of the Tatar Khan Girei.



Raisa Struchkova in the role of Maria, the Polish Princess captured by the Tatar Khan Girei, danced by Alexander Lapauri, in Asafyev's *The Fountain of Bakhchisarai*. Staged in 1934, it was one of the first productions where the nymphs and dryads of the old ballet were replaced with real people.



# A Ballerina's Notes

**By Galina Ulanova**

***Premiere Danseuse, Bolshoi Theater***

**Galina Ulanova, considered by many critics and by ballet-goers the world over as one of the great ballerinas of all time, will visit the United States this spring with a group from the Bolshoi Ballet Theater. Ulanova will include in her dance repertoire, among other ballets, *Romeo and Juliet* and *Giselle*, to which she makes reference in this article.**

**The notes provide the reader with a view of the dance through the eyes of the performer. Ulanova's profound knowledge of her art is a clue to the skill of her technique and the captivating quality of her interpretations.**



**BALLERINA GALINA ULANOVA DANCES THE TITLE ROLE IN ADAM'S *GISELLE*, ONE WHICH HAS WON HER WORLD FAME FOR ITS SUBTLE AND TOUCHING DEPICTION OF FIRST LOVE.**

A BALLET dancer can interpret the beauty and feeling of a role only through mastery of dance technique. When I speak of technique, I have in mind not only the precision of movement and virtuosity that people generally imply when they talk of "a ballerina's brilliant technique" but the word in its most complete sense—the plastic molding of the dance, the harmony achieved by the dancing partners and what I like to call musicalness.

By musicalness I do not mean merely a sense of rhythm—that is something every trained dancer must have—but the added capacity for translating the substance of the music into dance forms. The more the dancer understands the music and is moved by it, the more accomplished her technique will be and the more complete the choreographic portrait she will create for the spectator.

Working out a new role the ballerina, like the dramatic actor, must get to the very heart of the character she is to dance. No matter how perfectly she delineates her character from the outside, the portrait will be lifeless unless its inner meaning is revealed.

The actor has a somewhat easier problem. If he is very skillful, he may on occasion be able to say a great deal without feeling anything at all since he communicates with the spoken word, frequently supplied him by a playwright of genius. But we ballet dancers have only music and pantomime. We must therefore learn to make our dance speak for itself, to communicate its meaning clearly and persuasively.

How is that to be done? There is no book on the ballet nor any dancer that has ever been able to answer the question with words. The answer has been given us by ballet artists past and present who made their dancing speak with the expressiveness of language. Maria Taglioni, Anna Pavlova, many of the Russian ballerinas I have had the good fortune to see and whom I have striven to emulate, were able to give their dances profound meaning and great spiritual beauty, to make them speak.

## New Themes for New Audiences

Soviet choreography, as it evolved, acquired a deeper understanding of dance characterization. It introduced new themes to the ballet stage and won a mass audience which made more exacting demands as it learned to appreciate this art form. This new audience called for new ballet productions of greater significance.

Through a tortuous learning process of trial and error, of search and real discovery, we dancers made progress. From the ultra-revolutionary *Red Whirlwinds* and the ultra-industrial *Bolt* we moved to a new poetry and a new realism in our dances.

We found new themes in the great literature of the past, in Pushkin, Cervantes and Balzac —*The Fountain of Bakhchisari, Don Quixote, Lost Illusions;* in great events, historical and contemporary—*Flames of Paris* and *The Red Poppy*. For me, personally, Pushkin's *The Fountain of Bakhchisarai* was vitally important to my growth as a dancer.

Before these Soviet ballets were composed —I am thinking of the best of them, there are a goodly number—ballet music, except for the brilliant scores by Tchaikovsky, Glazunov and some West European composers, had the function of helping the dance along by accentuating its rhythm. It had to be nothing more than dance music, easy to follow.

Now, no one denies the merit of this kind of dance music. But if the be-all and end-all of music for the ballet is no more than to help the dancer cope with her *pas*, how can she hope to re-create the "life of the human spirit" on the stage?

Soviet choreographers made music their starting point. The very fact that they now proceeded from the music itself as communication, instead of merely adapting it to the uses of the production, made for a content with depth and forced the dancer to come to grips with the problems of musical characterization.

## Real People and Real Passions

Thus, a new direction was opened for ballet music, one which blended meaning and movement, which required that the dance appeal to both mind and emotion. Ballets were



FINALE OF BORIS ASAFYEV'S *FLAMES OF PARIS*, WHOSE THEME IS THE FRENCH REVOLUTION OF 1789.

# A Ballerina's Notes

SARACEN DANCE FROM GLAZUNOV'S BALLET *RAYMONDA*, BASED ON A MEDIEVAL PROVENCAL FOLK LEGEND.





no longer staged for the sake of the sweet melody of a waltz or gallop, but to convey in dance idiom the meaning and emotion of the music. Music could then move beyond the fairy tale image and immaterial fantasy to real people and their real world of real passions.

This is what Boris Asafyev was able to do in his music for *The Fountain of Bakhchisarai*, that sad ballad of the capture of the Polish Princess Maria by the Tatar Khan Girei. With its sharply etched musical characterizations of Maria, the Khan and the Khan's wife Zarema, with its deeply moving score so beautifully attuned to the dance, this ballet sounded a new note. It discarded the nymphs and dryads—charming creatures, it is true, but sadly lacking in intelligence.

*The Fountain of Bakhchisarai*, produced in 1934, is, for this reason, a landmark in the development of Soviet choreography. While we dancers were working with the choreographer Rostislav Zakharov, we were searching for the truth underlying the human relationships. It would have been impossible otherwise to reveal the message of Pushkin's ballad and re-create its lovely images.

Pushkin's characters cannot be realized by a generalized dance, carried over from one ballet to another with no more than a change of costume to mark the transition. No, his characters must be individualized, the dance movements must be intrinsically peculiar to Maria or to Zarema, the one gently pensive,



MARINA KONDRATYEVA DANCES THE TITLE ROLE IN *LAURENCIA*, ALEXANDER KREIN'S BALLET BASED ON A PLAY BY LOPE DE VEGA.

the other passionately jealous. The movements in the dance may be flowing, mercurial or stormy, depending on the mood of the character.

In the "dialogue" between Maria and Zarema, the state of feeling of the two women was "explained" without recourse to pantomime, it was all given through dance movements. This was done also, and as effectively, in Zarema's dances, in Maria's scenes with Girei, and in those in which she recollects her native land and the people dear to her.

### Interpretations for Our Time

While working on the production of *Romeo and Juliet* we did a great deal of experimenting. We were very much helped by the years we had spent learning to dramatize our dances, sufficient experience, we thought, to translate the great Shakespearean tragedy into dance.

This is a timeless play, permanently alive, its meaning grows richer and deeper and demands a new interpretation from one period to the next. We see Shakespeare now with our twentieth century eyes. Our view is different from yesterday's, and tomorrow's will be different from ours. The Elizabethan tragedy written 400 years ago must have a contemporary interpretation.

Here I must define what I mean by "contemporary interpretation." We have been trying to work it out in practice and have found that the problems it represents are by no means simple ones. By contemporary interpretation I do not mean merely "a reflection of today," but one which is consonant with our world outlook and our aspirations. This is the essential nature of the new ballet.

Measured by this definition, the range of writers, composers and artists we choose from is infinite—Pushkin, Shakespeare, Beethoven, Leonardo da Vinci are all within our sphere of choice. Our range of ballet themes is immeasurably broadened. We are free to move from the events of the French Revolution to the slave revolt led by the Roman gladiator Spartacus; from the struggle for peace to the philosophic poems of Nizami; from the heroism of the sailors of the battleship *Aurora* during the Socialist Revolution of 1917 to present-day life of young people on a collective farm.

All this can now be translated into the language of the new choreography. It has been done with such ballet productions on Soviet themes as *Days of the Partisan* by Boris Asafyev, *The Baby Stork* and *Svetlana* by Dmitri Klebanov, *Tatyana* by Alexander Klein, *Youth* by Mikhail Chulaki, *The Shore of Joy* by Antonio Spadavecchia, among others.

When we staged *Romeo and Juliet* for the second time in Moscow, after the war, we did a contemporary interpretation.

In the ordinary course of living an actor will store up a multitude of impressions without any conscious thought that they are likely to be helpful in his work generally or useful in some particular role. But when he happens to be given a part specially suited to his ideas and feelings, it will suddenly seem as though all his living up to that moment has been one long preparation for that role. All his recollections, meetings, conversations, chance thoughts and reflections, the books he has read, all of this begins to simmer and come to a boil, until the character which the role has conjured up in his mind crystallizes into the only possible character he can portray.

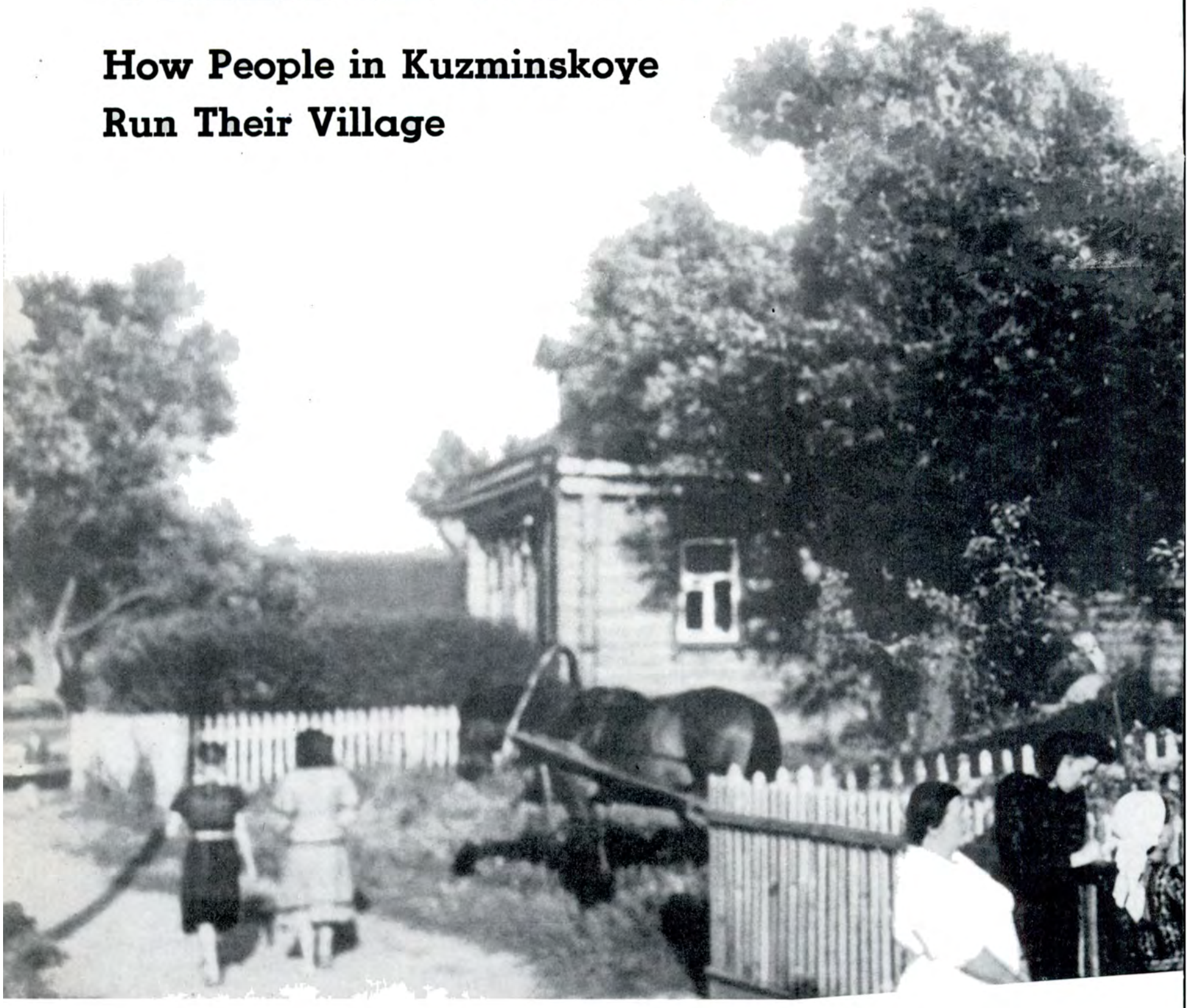
### A Soviet Dancer's Creed

This was the case with my new Juliet, illumined by the experiences of the war just past. I had seen how selflessly Soviet people had lived, how much they had given to win the war. Those war years helped me to look at my postwar Juliet with new eyes, to give her the courage and resolution which had been less apparent in the previous production.

The qualities I worked to portray in the role of Juliet and the Swan, Giselle and Maria are qualities of our Soviet men and women today —courage, faith in man, in his reason and will. "Everything is in man, everything is for man"—this fundamental idea of Soviet humanism, the idea of faith in man, in his power, beauty and will to fight for his happiness—this is the creed of our Soviet ballet theater, choreographers and dancers.

# VILLAGE SOVIET

## How People in Kuzminskoye Run Their Village



Polina Isayeva (left) is a local collective farmer. She usually has a word to say when the Village Soviet meets.



**The local (village, town, city and district) organs of state power are the Soviets of Working People's Deputies. Their members, who are people from all walks of life, are elected for a two-year term on the basis of universal, equal and direct suffrage by secret ballot. On a local scale they are called upon to give direction in matters which on a higher level are handled either by the Supreme Soviets of the Union Republics or by the USSR Supreme Soviet.**

**As Soviet democracy keeps expanding, more and more people are being drawn into the work of local government. Some 381,000 deputies were elected to the local Soviets of the Ukrainian Republic last March, 45,000 more than two years ago. On a nationwide scale 1.8 million deputies were elected last March to both the local Soviets and the Supreme Soviets of the Republics.**

**For the most part the deputies remain at their regular jobs. Since their needs as citizens are the same as those of their fellow workers, this close relationship with their constituents makes for greater perceptiveness and efficiency in government.**



## By Mikhail Sukhanov

ANTONINA IVANOVA is the chairman of the Village Soviet in Kuzminskoye. Officially and in full her title is Chairman of the Executive Committee of the Kuzminskoye Village Soviet of Working People's Deputies, but that designation is usually stored away for formal occasions and legal documents.

Antonina is more often to be found out in the fields or in the barns where most of the village people work than in her modest office. She prefers going out to meet her constituents rather than having them come to her with their problems, whether public or private.

She knows the village, since that's where she has spent most of her life; she knows farming, since that's been her working background for years; and she knows the people, since she has been brought up with most of them from childhood. She is a middle-aged woman with a frank open face and a pleasant manner.

Kuzminskoye is an old village on the bank of the Oka River near the city of Ryazan, just about two hundred miles south of Moscow. Grouped in the village main square are the school, post office, savings bank, drug store, bakery and other public service buildings. Off to the side, neighboring the old park, is the village hospital. Along the main street are cottages, many new, others in process of construction. Nearer the river is the white-columned community center and the steel masts of the high tension lines carrying power to homes and farm buildings.

Antonina Ivanova, chairman of the Kuzminskoye Soviet, has the floor at one of the sessions. The Soviet, made up of 23 deputies elected by popular vote, governs the village.



The Soviet has only two full-time paid officials. The other deputies, like Anatoli Samodurov, work at their regular jobs.



# VILLAGE SOVIET

## How People in Kuzminskoye Run Their Village



# VILLAGE SOVIET

### Wide Range of Authority

There are 750 farm households on the territory of the Kuzminskoye constituency with a population of 2,500. Most are members of the local collective farm. The others work at the local hydropower plant, the dairy, the six stores, the three schools, the two libraries, the hospital and the post office.

The Village Soviet is the local government authority and directs the whole of the community's many-sided life. As provided for by the Soviet Constitution, it is responsible for maintaining public order and for the protection of the personal rights of citizens. It is responsible for the village budget and works with local enterprises on matters affecting the economic life of the village. It controls farm legislation, supervises the village school system, records births and marriages and performs a multitude of such other functions as are required by a modern community.

As Antonina Ivanova puts it, "There is hardly anything that goes on in the village that doesn't in one way or another concern the Soviet or one of its commissions."

The Kuzminskoye Village Soviet has 23 deputies. All of them were elected to office by unanimous or near-unanimous vote. That's hardly surprising since unpopular nominees are voted down in the nominating meetings which precede elections. In a village the size of Kuzminskoye people know each other very well.

Typical of the deputies are Maria Polyakova, who works in the collective farm's dairy division; Sergei Sokolov, elderly village schoolteacher; and Alexandra Malakhova, young pediatrician. These are hard-working people, highly thought of in the village.

The deputies are all working people. Thirteen are collective farmers—a reasonable proportion for a farm village—and the other ten are office workers, teachers, doctors and people in other lines of work.

The deputies are required by the Constitution to report periodically to their constituents. A deputy who fails to justify the confidence of the voters or who disregards their needs and wishes may be recalled at any time.

The Village Soviet must meet at least six times a year. In actual practice the deputies in Kuzminskoye meet much more frequently since they must consider so many problems that relate to the affairs of this fast-growing rural community.

### The Soviet at Work

Between sessions, legal authority is vested in the Executive Committee elected by the Village Soviet at its first meeting. The Executive is, of course, responsible to the Soviet as a whole. Its present members are Antonina Ivanova, chairman; vice chairman Ivan Fadeyev, who works at the hydropower plant; secretary Pelegaya Gorbunova, an office worker; and four other members.

The Executive Committee carries out decisions of the Soviet and higher legislative bodies and makes its own ordinances which have the power of law for all people within the village's jurisdiction.

Of the 23 deputies of the Village Soviet, only two—the chairman and secretary of the Executive Committee—are full-time paid officials. All the others work at their own trades and professions.

The Soviet has three standing commissions: budget and finances, agriculture, culture and community services. The first is chaired by Vasili Govorushkin, chairman of the local collective farm; the second by collective farmer Ivan Gusev; and the third by farm electrician Anatoli Samodurov.

These standing commissions enlist the help of collective farmers and other village people who are not deputies so that the actual working membership is quite large with a broad representation that makes for wider discussion and consequently for better decisions.

Antonina Ivanova stresses that point of approach on all and sundry occasions. "We must have good and regular contact with the people who elected us," she insists. "The Soviet can't hope to get anything done without that. We have various ways of doing that —by getting citizens to work on standing commissions, by meeting people at discussion meetings and by reports from the deputies to the village as a whole."

Many of the village's major improvements originated from informal exchanges between deputies and citizens. The hydropower station is one. It was first suggested by some of the older village people and carried through by the Soviet with the help of a long-term loan provided by the government. Other public projects like the laying of water mains and the construction of the hospital and the community center originated in the broadened standing commissions. Most village improvement projects are products of joint deputy-citizen thinking and planning.

### Kuzminskoye Collective Farm

Since the major occupation of the villagers is agriculture, the Kuzminskoye Soviet is particularly concerned with the welfare of the collective farm. It is an independent economic unit owned and run by the farmers themselves. They decide on policy, finances and the rest. The Village Soviet interferes in no way with the administration of the farm, except to see that the laws relating to such enterprises are observed.

The basic rules which regulate the farm's activity are adopted by the cooperating members. It is only when these rules conflict with the law, something which can happen on rare occasion, that the Village Soviet has the right to interfere.

The Kuzminskoye collective farm is highly mechanized and completely electrified. It has 5,000 acres of plowed fields, large truck gardens, fruit orchards, meadows and 3,000 head of cattle, mostly dairy. It owns such heavy

farm machinery as harvester combines, aside from numbers of tractors.

In the past five years the income of the farm has nearly doubled owing to greater yield and to higher prices paid by government purchasing agencies. The farm's income for 1958 came to more than four million rubles and provided surplus funds for a good many projects to make work more productive.

Prosperity for the collective farm has meant prosperity for its members. Best proof of the financial pudding is the money deposited in the village savings bank by the end of last year. The total exceeded 1,500,000 rubles and averaged out to 20,000 rubles for every farm family.

### The Village Budget

Where does Kuzminskoye village get its operating funds? The large sums needed for village improvement and for such things as education come from its allocated share of the revenue of state and cooperative enterprises within its territorial jurisdiction. Individual taxes are very low in the Soviet Union. They make up only about 8 per cent of the national budget, and a large portion of this is turned over to the local budgets.

About half the village budget goes for school and library maintenance; another 30 per cent goes to maintain the hospital and clinic. The remainder is used for village improvements, to pay for pensions and other free services, and to cover administration.

Before the budget is adopted the Village Soviet does a great deal of preparatory planning with electors. Antonina Ivanova explains, "This way we can gauge accurately the funds we can expect and so establish the budget limits."

The procedure followed is this. All the establishments under the Soviet's jurisdiction present their estimates for the year's expenses. These estimates are gone over by the Budget and Finance Commission of the Soviet. Last year when this commission had checked and collated the figures, it proposed an increase of about 10 per cent over-all for schools and libraries.

The additional funds could be budgeted because there had been considerable growth of trade in the local consumers' cooperatives as well as increased growth in the income of the collective farm, the dairy and other local enterprises. This meant that the village would be getting larger sums from these sources which could be used for expanded social and cultural services of various kinds.

Appropriations from the national budget are only a part of the village budget's income. Fairly large funds are also contributed by the collective farm and the consumers' cooperatives for village projects. The collective farm, for example, paid for the construction of the 1,500,000-ruble community center, for a public address system and for the laying of watermains. The farm also lends money to members who wish to build their own homes.

### An Eye to the Future

This small and more or less typical village of Kuzminskoye is a busy and thriving community with its eye on the future. The villagers are now doing long-range work for the next seven years following the adoption of the national economic plan. They expect that by 1965 the collective farm will have at least doubled and perhaps tripled its output of grain, fruit, milk and meat. They already foresee the big rise in the village's living standards.

Typical is collective farmer Vladimir Silkin's comment on the Twenty-First Communist Party Congress which met in January to adopt target figures for the plan. Farmer Silkin is not a party member but he says, "Our Communist Party has great things in mind. And we'll get these things done, you may be sure. Just see how we've been climbing the past few years. Not so long ago we figured the income of our farm in thousands of rubles, now we figure in the millions. And with our better equipped farm, we're going to be climbing that much faster and higher. Just watch us."

As the farm village has grown physically and productively there has been an accompanying demand for more cultural and social services which the Soviet is planning and working to meet. It was reflected in a report which Chairman Antonina Ivanova made at a recent session of the Soviet. Village projects for the next two years, she indicated, include a big spurt in new housing construction, a larger network of libraries to reach out to every part of the village environs and improvements scheduled for the village park.

Her report evoked spirited discussion, and a large number of other projects were presented and debated by the deputies. A stadium for the young people was proposed by Deputy Anatoli Samodurov, a new dental office for the local clinic was strongly urged by Deputy Alexandra Malakhova and a suggestion was made by Deputy Vasili Dorokhov that the libraries initiate a series of forums on books by Soviet and foreign writers.

Deputy Sergei Sokolov, who was elected to preside over the Soviet session, proposed that a music school to accommodate forty students be set up in the village. Said Deputy Sokolov to a very responsive Soviet, "I love music myself, as all of you know, and I know from my own experience as a teacher, how fond children are of music. The collective farmers have asked me any number of times to teach their children to play. We need a music school in our village and it's certainly within our means now."

Sokolov's proposal was adopted, as were many of the other suggestions, all intended to make Kuzminskoye a better and happier place in which to live.





Alexandra Malakhova is a deputy to the Village Soviet. She assists Dr. Chuchelkina at the Kuzminskoye clinic. The village teacher is also one of the Soviet deputies.



The new community center. The Soviet has large plans for building, especially for new cottages.




# HOMAGE TO A GREAT AMERICAN

## *Lincoln's Anniversary Commemorated in the Soviet Union*

THE Soviet Union paid homage to Abraham Lincoln on the 150th anniversary of his birth with commemorative meetings by historical, scientific and student groups, with articles in newspapers and magazines.

This is quite usual procedure in the country for the world's outstanding personalities. All children study history in school and learn about the men who influenced it. They know about George Washington and the American Revolution; Benjamin Franklin, writer, inventor and statesman; Thomas Jefferson and the Declaration of Independence; Abraham Lincoln and the Civil War. The interest aroused in school is kept alive in later life by the publication of numerous monographs, papers and historical research devoted to important events in America's past and present.

*Ogonyok*, one of the most widely read Soviet magazines, carried a feature story on the Civil War president, and the newspapers of many of the republics commented on Lincoln's life and work with such lead headings as "Great Son of America."

The nationally circulated newspaper *Izvestia* wrote that "Abraham Lincoln belongs to humanity," as indeed he does. Writing of him in 1909, Leo Tolstoy said, "Lincoln lived and died a hero . . . He will live as long as the world exists . . . What Beethoven was to music, Dante to poetry, Raphael to painting and Christ to philosophy, he was to mankind."

During the difficult years of the Civil War, two Russian squadrons laid anchor in the ports of New York and San Francisco to convey to the American people Russia's profound wishes for the victory of the democratic forces of the country. The name of Lincoln is associated in the memories of Russian people with a man who is known as a true democrat, a wise statesman, a great liberator and a courageous leader dedicated to preserve the Union.

The 150th anniversary of Lincoln's birth coincides with another noteworthy event, the establishment of diplomatic relations between Russia and America a century and a half ago. This statement of Lincoln's is therefore particularly apropos. "Let us strive," he said, "to do everything which will make for a lasting peace between ourselves and with all other nations." To this great sentiment of a great American the Soviet people wholeheartedly subscribe.



Mikhail Rogozhin's skills range from mechanic to carpenter. Like his fellow workers at the state farm, he is kept busy throughout the year.

By Alexander Kuznetsov

# JACK-OF-MANY FARM TRADES

MIKHAIL ROGOZHIN is a farmer who works at the Dubrovitsa State Farm. Unlike collective farms, which are owned cooperatively by their members, the state farms are national property. While the income of a collective farm belongs to its members, who share the profits, the profits of a state farm become the property of the country as a whole and are distributed to the population through the national budget.

Rogozhin, like all state farm workers, receives a salary much like a worker in industry. State farm workers have their own trade union, with all the free benefits and privileges accruing to union members. They receive accommodations at vacation resorts at a fraction of the cost in addition to vacations with pay, and schooling, medical care and other services which are free to all citizens. They are eligible for paid sick leave, disability and old-age pensions. The money for these services come from the social security fund to which the workers make no contribution.

As a matter of fact, state farms have many points of similarity with industrial enterprises. Their workers are paid their average wage while receiving free training for new trades and are given bonuses for exceeding their quotas and suggesting ways to improve the work. These agricultural "factories" test new growing methods and machines and their recommendations are passed on to the collective farms. The state farms provide their workers with facilities for a rounded cultural life: well-equipped community centers, libraries and classes and lectures on every subject imaginable. Technically and culturally, the state farms are an important factor in the speed with which the difference between



THE BULK OF THE FUNDS FOR RUNNING THE NURSERY SCHOOL COMES FROM THE NATIONAL BUDGET.



Rogozhin's son Pyotr would have a hard time fixing the engine of his truck without junior's supervision.

# JACK-OF-MANY FARM TRADES

city and country life is being eliminated.

But to get back to Rogozhin. His background parallels that of many of the older farmers whose lives span both czarist and Soviet times. He comes from a peasant family in the Tambov region, Vorontsovka village. His father owned no land and when work was available, he hired himself out to one of the rich landowners.

When it was scarce, as it almost always was, he became a migratory worker. He would leave Vorontsovka in the spring and tramp through the country looking for any kind of job. He picked cotton on Central Asian plantations, salted fish on the Pacific Coast, puddled clay in a Rostov brickyard, bound sheaves of other men's wheat in the Kuban.

When Rogozhin was old enough, he joined his father in that eternal tramp for jobs. Even with the two of them working, there was never enough for the family to live on.

After the Revolution, Rogozhin farmed in Vorontsovka. In the early thirties he joined one of the collective farms organized in the district.

When war broke out he left the farm for the army, saw heavy fighting, was badly wounded and sent to a hospital far in the rear. Very much taken with the countryside where the convalescent hospital was located, he took a job with the Dubrovitsa State Farm when he was demobilized and has been working there ever since.

This is not seasonal work. The farm employs its people on a year-round basis. Rogozhin, like the other hands, works at whatever jobs need doing. In the spring he may be loading the tractor-drawn seeder or planting fodder crops and vegetables. In the fall he will be joining all other hands in harvesting. He may operate one of the hay stacking machines or work one of the small but very efficient machines the farm uses to harvest beets and potatoes, or perhaps be one of the crew assigned to handle a big wheat combine. At harvest, there are ten jobs for every man and the work keeps going from early dawn to dark.

There are times of the year, however, as any farmer knows, when all you can do is watch the plants grow. There's no way of rushing the season. During these slack periods, Rogozhin does carpentry. He heads a crew of men who do repairs on the farm buildings and build cottages for the farmhands.

This is general practice. To provide work the year round the farm runs short technical courses to teach new trades. A tractor driver may learn electrical repair work or a dairy-

GENERAL VIEW OF THE STATE FARM'S MAIN BUILDINGS. MECHANIZATION AND MODERN METHODS ACCOUNT FOR THE STEADY RISE IN OUTPUT AND INCREASE IN WORKERS' PAY.





Pyotr often visits the farm's public library which has a large and varied book collection.

man to service farm machinery. Rogozhin, like many of the farmers, has a number of skills.

There is a scale of pay for each type of job, so that earnings vary somewhat with the kind of work a man does at a particular time of year. Last winter, for example, Rogozhin helped to build eleven new cottages. He lives in one of them now, a four-room centrally heated house for which he pays 49 rubles a month rent. For work as carpenter he was paid 1,200 rubles a month. This is just a little less than he makes in the spring and fall at planting and harvesting.

Rogozhin's son Pyotr works at the farm, too. He drives a truck. Rogozhin is trying to convince his second son, Victor, to settle down at the farm when he finishes his army service. There are half a dozen jobs waiting for him to choose from, technical schooling if he wants it, an assured year-round wage and the security his grandfather never had.

Rogozhin's daughter-in-law has worked out an infinite number of designs with the cross-stitch.





MIKHAIL ROGOZHIN EXPLAINS THE INTRICACIES OF COLLECTING MATCHBOX LABELS TO HIS GRANDSON.

LAYING OUT A GARDEN AROUND ROGOZHIN'S NEW HOUSE IS A PROJECT FOR THE ENTIRE FAMILY.



# An Introduction to SOVIET

By Nikolai Popov

THE BIOGRAPHIES of Soviet writers, collected into a single volume, would tell the story of our time, a magnificent account of new quests, heroic struggles and great achievements. Soviet life has fashioned a writer of a new kind, one who is not satisfied merely to look on and record the environment around him, he participates actively in shaping it.

Alexander Fadeyev wrote of the young writers of the twenties, he was one of them: "We surged into literature, wave after wave of us, we were many. We each brought with us our own set of individual, personal experiences. What we all had was the feeling that the new world was our own, this passion we had in common. . ."

Fadeyev wrote one of the best Soviet novels of the Civil War. *The Nineteen*, about a Siberian partisan group. When he began to write the book, he had no need to stretch his fancy to invent incidents and characters. He had fought with this group, marched shoulder to shoulder with his heroes. It was life itself he was drawing on for material—all its confusions and undercurrents, its victories and defeats—the truth of life that he had learned by living it.

This, too, was the way Dmitri Furmanov, author of the memorable novel *Chapayev*, lived and wrote. Chapayev is the Civil War hero. a peasant's son, who became an army leader. His exploits, even at the time, had the flavor of the legendary. When Furmanov was appointed political commissar of Chapayev's guerrilla army, it is not likely that he had more than the vaguest notion of becoming a novelist. But as he worked with the peasant commander to whip that raw, spontaneously assembled volunteer detachment into a politically conscious revolutionary army division, the book must almost have shaped itself into the picture he gives us of the truth of the Civil War, a harsh and tragic truth ennobled by the self-sacrifice of a revolutionary people.

The epic novel *The Silent Don* had the same genesis. Like the Cossack hero he wrote of, novelist Mikhail Sholokhov himself fought on the Don steppes. He traced the tortuous road which the old Cossackdom traveled before it shifted to support the Revolution. He told the grim story of a people fighting its way to a new freedom. No impersonal story this was, he himself knew what that freedom had cost in suffering for himself and his own Cossack people. More than once death had stared into his face. There is no mistaking the genuineness of Sholokhov's monumental panorama of Cossack life.

### The Greatest Writers Join the Revolution

Writers like Maxim Gorky and later Vladimir Mayakovsky had chosen their side with the Russian working class even before the 1917 Socialist Revolution. They were part and parcel of the insurgent people's movement. When the rising came, they recorded the great moment in imperishable poetry and story.

These chroniclers of socialism led the way for the older generation of writers, men like Alexander Blok, Valeri Bryusov, Vikenti Veresayev and others. They were not revolutionary writers with the vision of Gorky and Mayakovsky, but they were men who had long hated the czarist regime and its inhumanities. When the Revolution did come, they recognized it as the only road to freedom for Russia and threw in their lot with the people.

Alexander Blok urged the intellectuals to place their talents unreservedly at the service of the new world. "Everything must be made new," he said, "so that this false, dreary and ugly existence of ours is turned into a just, pure, cheerful and beautiful life. Life is worth living only when one makes the most limitless demands on it. Everything or nothing. Yearn even for that which you cannot expect to achieve; believe not merely in the things 'which are not' but in those 'which should be!' What if these things do not exist now and will not exist for a long time! Life will grant them to us."

With all his power of persuasion, with all the passion of his great heart, Blok begged his fellow writers to discard their small artifices, their "crafts," as he called them, "to disavow formalism" and "to hearken. hearken to the music of the Revolution."

Not all the writers of old Russia reacted to the Revolution as Blok did. Very many refused to accept or to recognize its permanence. But that was inevitable. The Revolution was too new, too greatly daring, not to have opponents and even enemies.



BOOK ILLUSTRATION FOR MIKHAIL SHOLOKHOV'S NOVEL *SEEDS OF TOMORROW*, A STORY ABOUT THE SOVIET PEASANTS' STRUGGLE TO ESTABLISH COLLECTIVE FARMS.

# LITERATURE

A host of theories sponsored by various literary groups cropped up during the early years of the Revolution—Symbolists, Imagists, Acmeists and Futurists. As the poet Ilya Selvinsky recalls it: "A wild crop of swarming literary groups and grouplets tossed manifestoes, platforms and declarations into the air every minute. Each grouplet had its haunt in some café declaiming before a chewing and drinking audience, chasing after fame and immortality. . . The common motto of all these 'ists' was the slogan of the French leftists, *'Changer tout cela!'* (Change everything!)"

It was a hodgepodge of everything: of appeals for a "pure" art far removed from life; of calls to dismiss the tradition of the great Russian literature; for objectivism and naturalism, a servile copying of reality. All these trends had this common ingredient: failure to understand the Revolution and distrust of the people.

This was the literary climate in 1925 when the Association of Proletarian Writers, abbreviated to RAPP in the Russian, was formed. The Communist Party and the people's government supported RAPP. They helped young writers to understand the essential meaning of these clashing literary schools, warned against a contemptuous dismissal of a great literary heritage, and insisted upon a kindly and conciliatory attitude toward those writers who were sincerely for the Revolution but had not yet left all their old prejudices behind.

At first RAPP, by uniting the revolutionary writers, was a positive force in the struggle against literary trends which were inimical to the revolutionary people. In its ranks were such outstanding Soviet writers as Fadeyev, Furmanov, Panferov and Afinogenov.

In the early thirties, however, RAPP became a hindrance rather than a help in rallying writers. The sectarianism to which its leaders had fallen victim had begun to drive away non-party writers and to block the creative transition of the authors of the older generation toward ideas of socialism.

This narrow, parochial outlook and the literary factions which it gave rise to was incompatible with the spirit of the Revolution and of socialist construction. At the suggestion of the Communist Party RAPP and its factions were dissolved and a single Union of Soviet Writers was formed in 1932. Its aim was to unite all writers who wished to help in the building of socialism and to use the great themes and aspirations of communist construction as their chosen literary motifs.

### New National Literatures Brought to Life

The Revolution brought to life the literature of the many nations which together make up the Soviet Union. Poetry, prose, plays and critical reviews are published in more than fifty languages in the country. Peoples deprived of all rights by the czarist government now have their own flourishing culture. In the Far North, where the two hemispheres meet, a new literature—that of the Chukchi, kindred of the Alaskan Eskimos—has come into being. Only a few decades ago the Chukchi were an illiterate people without even an alphabet of their own. Today the works of its writers are translated into the languages of the peoples of the Soviet Union and read throughout the country. The same story can be told for many of the Central Asian peoples.

There are literatures in the Soviet Union barely out of their childhood, others still in their adolescence, still others so ancient they can be traced to stone plates and time-worn manuscripts. They differ in language, national customs and historical traditions and are similar only in the dominent idea common to them all—the building of a new social order.



ILLUSTRATION FOR DMITRI FURMANOV'S CIVIL WAR NOVEL *CHAPAYEV*.

This similarity is understandable. Since the effort to build communism follows much the same lines among all the Soviet peoples and their constructive work has much in common, it is only natural that they should also share certain features in common in their spiritual life and in their works of art reflecting this life.

The differences, too, are easy to fathom. Here national customs and traditions come into play.

Samed Vurgun, Azerbaijan poet, for example, leans toward emphatically bright colors and exalted tones, tendencies deeply rooted in the literatures of Azerbaijan, Armenia, Georgia and, more especially, of the peoples of Central Asia. The use of beautifully turned, flowery phrases, the cultivation of a highly elaborate style of speech were common to the oral folk poetry of the East.

In contrast, the Latvian writer Andrei Upit turns the sharp edge of his criticism against excessive use of color. Art is more effective, he feels, when its emotional expression is toned down—it must neither doze in some quiet corner nor fly off into the clouds. His style reflects in large measure the characteristic tendencies of the development of Latvian literature in general, with its penchant, shared by Lithuanian and Estonian literature, for realism, for plasticity of description and subdued emotions.

The literary experience of Soviet writers belonging to a multinational family of peoples with rich historical traditions behind them offers a picture of highly diverse styles, all born of creative searching within the framework of socialist realism.

### Socialist Realism

The humanism of nineteenth century Russian literature lies in its kinship with the people, in its profound concern with their destiny and in its assertion of their right to freedom and happiness, suppressed for so long by czarism and autocracy. This was a literature of critical realism.

With the Socialist Revolution, which eliminated the irreconcilable contradiction between man and the state, between the individual and society, critical realism became inadequate as an art form in the new society. It was necessary to find a new creative method.

# An Introduction to SOVIET LITERATURE

Speaking at the First Congress of Soviet Writers in 1934, Maxim Gorky put it this way:

"While we do not deny the colossal accomplishments of critical realism and have the highest regard for its achievements, we should understand that this kind of realism serves only to shed light upon the survivals of the past so that they can be fought against and eliminated. But this form of realism has not served, nor can it serve, for the education of the socialist individual because it criticized everything without supporting anything, or, at its worst, retrograded to uphold what it had formerly denied."

At the same time that it tolled the knell of critical realism, the Revolution gave rise to a new literature, a literature such as mankind had



BORIS POLEVOI'S NOVEL *A STORY ABOUT A REAL MAN* TELLS OF THE HEROISM OF ALEXEI MARESIEV, A FLYER WOUNDED IN WORLD WAR II.

never before known, one that gave expression to the profound truth of the new life. Its realism was therefore of a different kind. Unlike the old realism, whose life blood was criticism and denunciation, the new realism directed the entire power of creative writing toward the affirmation of socialist reality, toward the portrayal of the builders of a new, communist world. And this method, the method of socialist realism, gained steadily in strength and maturity.

As Maxim Gorky described it: ". . . Socialist realism treats life as a creative process whose purpose is the uninterrupted development of man's most precious individual talents for the sake of his triumph over the forces of nature, for the sake of his health and longevity, for the sake of the great happiness of living on the earth which he wishes to cultivate entirely, in accordance with the continual growth of his requirements, as the beautiful abode of mankind united in one family."

Writers began to produce monumental pictures of the fight for Soviet power, of the labor enthusiasm of the victorious people. A new hero came into his own, a hero that literature of former times did not know—the worker who had taken power into his own hands, the ruler of his country—strong-willed, filled with inexhaustible energy and bold initiative, direct in action, the builder of a new world, of a new way of life and new social relations, the destroyer of the exploitation of man by man. Creative writing, truthful writing, blossomed forth with the fresh bloom of springtime, imbued with youthful energy. The hero of our time—fighter and builder, striving for a socialist way of life—received literary embodiment.

## The Writer and Socialist Construction

With the Revolution won and the Civil War ended, the Soviet people began to carve out a new life for themselves. The five-year plans were launched. The Stalingrad Tractor Plant, the Dnieper Hydroelectric Station, the Rostov Farm Machinery Plant—all these great projects were built with a fervid and creative enthusiasm.

With the builders went the writers. Their literature mirrored the great transformation. They stayed at the construction sites, worked alongside the builders, studied the collective work processes, the new techniques that arose out of cooperative labor. Mostly they studied the people changing, growing anew under socialism, their talents and capacities developing. This was a new kind of writing and a new kind of writer.

Gorky was the leader of this new literary-social movement and gathered around himself those who wished to take part in these epoch-making events. He conducted a tireless correspondence, organized writers' groups to travel out to the remote parts of the country to work with and study the people. He himself undertook a tour of the Soviet Union and on his return wrote a book of sketches, *Through the Union of Soviets*, in which he described in glowing prose the process of socialist construction and the new socialist builders.

The theme of Leonid Leonov's novel *Sotj* was the construction of a paper mill in the wilds of the taiga. Before writing his novel Leonov worked on the project. The problems and difficulties he describes are those he himself experienced as a worker. His characters are those he watched growing and developing as the work went on. The Communist Uvadyev, his hero, is the portrait of a living individual, one of many he met, a man infused with an unwavering faith in the future of Russia.

In the concluding part of the novel Uvadyev looks on at the lights of the Sotj construction development. The light is prophetic of the coming victory of the new socialist system over the tenacious age-long darkness of old Russia: ". . . Perhaps he imagined the cities which were to arise in these wild expanses, and the wind filled with the fragrance of flowers ruffling the curls of a little girl with a familiar face; perhaps everything he saw was like a naïve picture in an ABC book . . . printed on the paper of his own making in the coming age . . . But the thing he saw clearest of all was that Sotj had changed, and its people, too!"

Another novelist, Fyodor Gladkov, tells how he met this new type of man, the socialist builder:

"In the early years of industrialization, I had occasion to visit many factories and construction jobs. I saw these valorous builders at work on the Volkhov development, one of the first big projects. Then I helped in the construction of the Dnieper Hydroelectric Station. I knew that if I wanted to learn how and what to write, I had to work with working people. *Cement* and then *Energy* and all my other books were what I saw, felt and lived through. It was new and magnificent—this thing that was taking place in our country and I wanted to tell about it, to share my impressions with people."

In 1932 Mikhail Sholokhov published his novel *Seeds of Tomorrow*, in which he wrote of the socialist reorganization of the village and the formation of collective farms. Sholokhov, who lives among the peasants, saw the first collective farm organized. It was the basis for his extraordinarily vivid and authentic picture of socialist change in the villages.

It was in this era of five-year plans that Maxim Gorky completed his epic four-volume novel *The Life of Klim Samgin;* that Alexei Tolstoy wrote his *Peter I;* and Yuri Tynianov his *Death of Vazir Mukhtar* and *Pushkin*. In these books the great ideas of our time are seen as historic developments of the patriotic and humanistic traditions of Russia's past.

"I had been aiming at a work on Peter I ever since the beginning of the Revolution," wrote Alexei Tolstoy. "I could see every stain on his coat, and yet Peter loomed before me like a riddle enveloped in the mist of history. I started writing the novel when the five-year plan got under way. I saw it as a Marxist voyage into history through contemporary eyes . . . The present in its entirety becomes understandable only when observed as a link in the complex historic process."

## Writers and the War Against Fascism

During the years of the war against fascism, Soviet writers fought with the people. Many worked as front-line correspondents or with army newspapers, others as privates, commanders or political instructors. In whatever capacity they served, they were both historians and fighting men. "We are witnessing a remarkable phenomenon," wrote Alexei Tolstoy in 1942 of Soviet writing during the war period. "It would seem that the thunder of war should muffle the poet's voice, make it rougher and simpler, as though it were coming through the narrow slit of the trench. But out of this ruthless and bloody struggle where the only alternative is victory or death, an ever greater moral strength grows in our people. They demand of literature the powerful words that will express that great moral strength. In these days of war, Soviet literature is becoming a true people's art depicting its great struggles and its great aspirations."

The war matured such writers as Boris Polevoi, Vasili Grossman and Konstantin Simonov and brought new ones to public notice. These new writers, just as happened during the Civil War, came to literature via the front lines. They wrote poems which were passed on from squad to squad, company to company. Soldiers memorized them and carried them into battle like heroic war cries. This was one of the great moments in Soviet literature, one of the brightest pages in its history.

Newspapers like *Pravda, Krasnaya Zvezda* and *Komsomolskaya Pravda* published these poems, stories and plays alongside the war communiqués. Alexander Tvardovsky's poem *Vasili Terkin*, Boris Gorbatov's story *The Unbowed*, Konstantin Simonov's play *The Russian People* and Leonid Leonov's story *The Capture of Velikoshumsk* all appeared originally in the public press.

There were, too, during the war years, writers who took as theme the great mobilization of defense workers behind the lines, a unity of front and rear unparalleled in the history of any people. Marietta Shaginyan in her book *The Urals in Defense* described it as "a continuous process of innovation, an endless tendency toward victory."

The wartime exploits of Soviet labor in the Urals, the Far East, Siberia and elsewhere behind the lines served as subject matter for Fyodor Gladkov's *The Vow*, the first volume of Anna Karavayeva's trilogy *Lights* and Arkadi Perventsev's novel *The Test*.

## Portraits of the Communist Builder

After the war, many writers turned to the gigantic national effort at reconstruction for their themes. Galina Nikolayeva's novel *The Harvest* pictures the postwar rebuilding of a collective farm and the difficult transition from a wartime to a peacetime way of living, with all the clash of habits and personalities that it entailed. The events of Nikolayeva's novel were for the most part borrowed from reality. She lived for a long time at a collective farm in Gorky Region, working in the fields with the characters she used in her book.

Vsevolod Kochetov, author of *The Zhurbins* and *The Yershov Brothers*, two novels of working class family life, also wrote out of his own experience as a shipyard worker. His novels have the authenticity and understanding of complex motivations which come from personal experience blended with artistic skill.



ILLUSTRATION FOR VALENTINE KATAYEV'S *SOVIET POWER*, WHOSE MAIN CHARACTER IS A BOY GROWING TO MANHOOD IN THE TURBULENT YEARS AFTER THE 1917 REVOLUTION.

Kochetov's characterizations touch on an aspect of Soviet writing which had not until then been as completely developed—the picture of the individual Soviet citizen who had built this socialist society. The older writers had concentrated on the wider panorama of the society in construction.

Other writers at the time were giving a more intimate close-up of the individual—Leonid Leonov in his novel *The Russian Forest;* Konstantin Fedin in the first two books of his triology, *First Joys* and *An Unusual Summer;* and Fyodor Gladkov in his autobiographical narratives *Childhood Story, Freemen* and *An Evil Time.* These were books that pictured the birth of the modern hero, the Communist revolutionary reshaping the old life.

The idealism and strength of the Communists Kirill Izvekov and Pyotr Ragozin, the heroes of Fedin's trilogy, are directed toward the aim of giving every man a chance at happiness. Professor Ivan Vikhrov, hero of Leonov's *The Russian Forest,* is the man who identifies his ideals with his life. "The ideal," he tells his students, "is as necessary for building happiness as is knowledge or thought." Neither a revolutionist in the past nor a member of the Communist Party now, Vikhrov nevertheless personifies the integrity and the self-sacrifice of the true Communist, the dedicated man.

The writer has one of the characters in the novel say, "People demand happiness of life, success and riches too, but the richest are those who have given themselves most devotedly to mankind." Professor Vikhrov is the rich man, the one who gives himself generously to his ideals, to the people. This is indeed the hero of Soviet life, a new type of hero, one much altered from the time-honored character of the old Russian novel who stands alone, above the crowd.

This new hero is with and of the people. He is, first and foremost, a part of the collective society, organically bound with it in thought and action. It is the collective, in fact, that has made him. The traits that distinguish him from his traditional predecessor are these: his attitude toward labor, his concern with the society of which he is a part, his willingness to serve the community, his fidelity to the collective principle, unwavering belief in the capacity of mankind for good, and his faith in man's future.

The best of the novels give that picture of the hero in the round. The Soviet reader has grown in maturity as the country has grown culturally. He demands of today's writers a dynamic picture of life. He feels that the writer with insight and talent should be able to individualize and generalize both, to convey great social ideals through the individualities of his heroes. This the Soviet writer tries to do.

## Constructive Criticism

To picture the positive in socialist life does not presuppose by any means at all that difficulties, mistakes and shortcomings are to be glossed over. But how is criticism to be made, that is the problem. What is the motive from which it derives?

There is criticism which is destructive and derives only from hatred, its very negativism denies possibility of change. Hate is positive only when it has a constructive motive and criticism is valid only if it is based upon an affirmative ideal.

There can be no comment on a social evil which can have any value unless it is based on a constructive ideal. Otherwise, it amounts at best to philistine grumbling; at worst, to corroding skepticism which paralyzes the will to creative endeavor, the will to struggle for change. That is why Soviet readers and writers have been so critical of Boris Pasternak's *Dr. Zhivago* and Vladimir Dudintsev's *Not By Bread Alone.*

N. S. Khrushchev says of this negativism in his article *For Closer Alliance of Literature and Art with the Life of the People:* "We have resolutely and irreconcilably opposed and continue to oppose a one-sided, unconscientious, untrue depiction of reality in literature and art. We are against those who seek out in life only negative facts and gloat over this; who try to defame, to smear our Soviet way of life. By the same token we are against those who create saccharine, sugary pictures which are offensive to the feelings of our people, who refuse to accept any falsehood."

Criticism, no matter how scathing, is taken at face value. And the diversity of Soviet life offers wide scope for methods of presentation. Satire is one of its more palatable forms. Witness Mayakovsky's satiric plays *The Bedbug* and *The Bath;* which are perennial favorites of the Soviet theatergoer. Or the novels of Ilya Ilf and Yevgeni Petrov, *Little Golden Calf* and *Diamonds To Sit On,* which many hundreds of thousands of Soviet readers have chuckled over for years. It is the rare theater in the Soviet Union that has not produced the satiric plays of Alexander Korneichuk. The pungent fables and verse of Samuel Marshak and Sergei Mikhalkov frequently appear in newspapers and magazines.

Criticism of the outworn, of the decadent, of those things which have outlived their time and throttle progress—that is socialist criticism. What must accompany it is a clear view of the new, the constructive, the progressive. This is criticism which can serve as weapon and tool for defending and building communism.

"We Soviet writers," said Leonid Sobolev, "frankly proclaim that as literary spokesmen for the Soviet Union we are one with the people. Yes, with the people, and also therefore with the Communist Party, because it is this party that leads the Soviet people along its historic road."

Soviet literature is avowedly partisan, a partisanship which comes naturally to a writer who has thrown in his lot with the people. This partisanship is the artist's ability to see society evolving toward a higher stage of development, that of communism. Partisanship is the writer's wish to use his beliefs and talents to help build that kind of society. It demands the courage to adhere to principle and to put that principle to test, whether in controversy over a disputed question of art or in defense of the way of life it espouses.

## Unlimited Freedom for the Artist

It is this partisanship which never fails to raise the question of artistic freedom among non-socialist intellectuals. The answer to this problem of creative freedom presupposes the liberation of the writer from something more than economic dependence and legal restrictions. The writer is free when he clearly sees the laws governing life, when he understands the nature of the historical process, the forces which ensure the affirmation of real freedom and happiness for mankind, when, in response to the call of reason and the heart, he places his art at the service of progress and the struggle for the interests and happiness of the whole people.

This is the way Soviet writers understand freedom for the artist.

"In socialist society where the people are really free, where they are the true masters of their destiny and the creators of a new life," wrote N. S. Khrushchev in the article *For Closer Alliance of Literature and Art with the Life of the People,* "the question of whether he is free or not in his creative work simply does not exist for any artist who faithfully serves his people. For such a creative worker the question of the approach to the facts of reality is clear. He does not have to adapt or coerce himself. The truthful presentation of life is his heart's necessity."

The people themselves prove the validity of this. Soviet writers have a tremendous and most critical reading public. Books are published in the millions in the many languages spoken in the vast multinational country. They are snatched up and read as soon as they are released for sale and become topics for animated discussion on the street, in libraries and the literary circles which have become so vital a part of every Soviet citizen's life today, whether industrial worker, farmer, scientist or housewife; Russian, Latvian, Tajik or Chukchi.

## Appreciative Audience

This is a most eloquent audience—as lavish in its praise as it is vitriolic in its condemnation. The people know what they want and are quick to demand it. They say to the writer: Write about the things that are. Tell us, too, the things that your more perceptive eyes see along the uncharted road we are traveling. Encourage us, inspire us, criticize us, but be one with us. We want to read about real people, with all their strengths and weaknesses; about real situations—past, present and those to come in the future we are making for ourselves.

Now new challenges and new great themes present themselves to Soviet writers in the vast construction projected for the next seven years by the sweeping economic plan to raise industrial and agricultural production to an all-time high to achieve the highest living standard in the world.

Once again Soviet writers lend their talents to communist construction. As in the forty years past since the Revolution, they are writing the continuing chronicle of the new, communist age.

"We are the first," wrote Alexei Tolstoy thirty years ago. "Like Columbuses in ancient caravels we are crossing an unexplored sea toward new shores. Great ships will sail in our wake."



***Exhibition of Drawings by Indian Children*** **by Anna Gerber**
**10 years old**



***Penguin*** **by Tatiana Kislyakova**
**11 years old**

# *A Children's Art*

**By Yevgeni Rachev, Artist**

IT'S as though I had just come away from a gay, uninhibited festival—that's the impression I always leave a children's art show with. This must be because children's art itself is primarily a product of joyful creation.

Children find the process of drawing an absorbing game in which the difficult problems of depiction are easily solved without suffering and perspiration. Most children's drawings, especially those of the youngest ones, are fresh and spontaneous. Bright, radiant colors combined with a wonderful sense of rhythm are fused with the ability to find the necessary composition and sense of proportion. All of this makes it possible for youngsters to freely depict things and events that interest or attract them.

It frequently happens that we find a freshness in children's art that we adult painters lost somehow in the process of growing up.

The last children's show I saw was held in Moscow. It was a national exhibition, the eleventh of its kind. The gallery walls were hung with murals that groups of children had worked out together. They were vivacious, bright and very festive. The youngsters had done wonderfully well in coping with these large surfaces. It occurred to me that children generally ought to be given more opportunity to decorate school rooms and club walls with these colorful and imaginative murals.

Most of the children used watercolor as medium. The subjects ranged from the details of life around them and stories they had read, to excursions in fantasy, but all rendered with a charming spontaneity and artlessness.

Four-year-old Irma Zaron of North Ossetia drew a picture that told how "brother and sister went off to a parade without taking her along" and another, *Looking Into a Mirror.*

Eight-year-old Nikolai Bakin painted a watercolor of a daring cavalry attack. He called it *For the Soviet Motherland.* Vladislav Med-





***Cat and Dog*** **by Vagif Magoramov**
**12 years old**



***The Race*** **by Yuri Kilgan**
**12 years old**

# Show

vedev, another eight-year-old, and most probably a future space pilot if one is to judge from his careful detail, painted *To the Moon.* Leningrader Yevgeni Viktorov, also in the eight-year-old group, did a gouache *At the Stadium*, with a happy, even though unorthodox, solution of the problem of portraying a mass of sports fans in the bleachers.

The older children, of course, had more technical mastery and worked in a larger variety of media. Alexander Pistsev showed a landscape drawn in pencil. Oxana Obranka did a charcoal self-portrait. Yulia Dremova's linoleum cut of Bambi, out of the Walt Disney animal film, was one of the most delightful items in the show. These twelve-year-old artists are all from Moscow.

Margarita Shtiglits from Leningrad, Osis Yanis of Latvia, Ruben Gevondyan of Armenia and a number of other children from other parts of the country exhibited landscapes in both oil and watercolors.



***The Humpbacked Horse*** **by Yevgeni Sidorov**
**9 years old**



***Holiday Fireworks*** **by Yuri Yegorov**
**16 years old**

# *A Children's Art Show*

***A Devil*** **by Dmitri Kalinin**
**15 years old**



### The Spontaneity of Children's Drawings

There is this problem which art teachers have in working with growing children—one which by its very nature can never be solved more than partially—how to preserve in these older children whose work is moving toward the adult that primitiveness which is so charming a quality in very young children's drawings.

Once I saw a small boy trying to make a drawing of a dog that had some time before taken a nip at him. The child was so absorbed in trying to draw the dog's open mouth and bared teeth that it was almost as though he were once again defending himself. His pencil dug into the paper with sharp, almost violent movements. The paper of course tore, but the thing that interested me enormously was the fact that the child was not drawing any old dog, or a dog in the abstract, but this particular dog that had gone after him. Young children react with a startling emotional vividness to the concrete details they live with. If only art teachers could find a way of carrying that over to their older pupils.

Another quality of these young painters is their lack of self-consciousness. They'll tackle any subject that stirs their interest—difficult landscapes, portraits that need great skill, anything at all—without the slightest hesitancy as to whether it will come off or not. The surprising thing is that it frequently does come through and sometimes with so fresh and original an expression that the more conventional adult work looks thin and forced by comparison.

### How the Child Grows in Art Expression

A child's ways of drawing changes as he grows. In the first two or three years the



***Latvian Fishermen*** **by Maya Tabaka**
**16 years old**



***Alyonushka*** **by Tanya Mikhailova**
**13 years old**



***Goats*** **by Yevgeni Bakharev**
**15 years old**

child is learning to coordinate the movements of wrist and fingers. From broad strokes that cover an entire sheet he moves ahead to the more precise strokes. He will try to draw a circle or a rectangle. Later he works with more detail. The pictures he makes of mother, father and himself may differ from each other only in size, but there *is* differentiation and that is a big step forward.

The composition, as time goes on, becomes more detailed and more complex, with an awareness of movement and of relationships. People are drawn not simply with the white paper as background, but against a landscape. Most frequently the object in the foreground will be much too large against the background and will hide it from view. Later on the child tries to resolve this difficulty by drawing the objects in the foreground small and gradually enlarging those that move toward the rear. From this reverse perspective he passes on to linear perspective.

Most children stop at about this point, they become absorbed in other growing interests, except for the relatively few who go on to careers as artists. Were this self-teaching process to continue through the teens and into young adulthood, most of us would learn to draw passably well. This would be helpful to many of us in our work, to say nothing about the personal satisfaction it would provide.

A knowledge of the arts, even more, active participation, is an important part of our system of education. Artistic creation, besides developing imagination, initiative and perseverence, inculcates high moral qualities.

This exhibition makes me feel that most of our teachers have learned how to help our young ones discover and develop their capabilities and have inspired the children with an appreciation for the forms and colors of our world. **(From the magazine *Creations*)**



***Winter in the Suburbs*** **by Yuri Tomilov**
**16 years old**



Milling machine operator Sergei Mayorov upped his classification and earnings by attending training courses at his plant. Studying has become a habit now and he has enrolled in the evening specialized high school.

By Yelena Surova

# *Education is the Fashion in Kupavna*

KUPAVNA is a studious town. One out of every two of the 3,700 workers at the textile mill around which town life centers is attending school after work. Some are studying for technical high school diplomas, others for college degrees.

Kupavna is a small town about 25 miles from Moscow. The people there have been textile workers for generations, deservedly proud of the woolen suiting and coating they weave.

The mill management allocates more than 100,000 rubles annually for vocational schooling which is free for employees. The outlay repays itself many times over, says the mill director. The worker who has gone through a training course in a shop or has graduated from one of the technical schools knows his job. He turns out a better fabric in less time and with less waste. He can adapt his skill that much more easily to the new machines which the mill keeps introducing.

For the worker personally more technical education means qualification for the skilled and better paying jobs. This is important, of course, but it is really only half the story. The fact is that changing methods of production are themselves a stimulus to a continual process of learning. With mechanization on the increase, brain work is fast replacing brawn and the old gap between engineer and worker is narrowing.

What this actually means is that workers are not only acquiring new technical knowledge, but that their cultural horizons are broadening. That's why schooling is very much the fashion in Kupavna, all the way up and down, from apprentice spinners and weavers to shop superintendents. Here are some educational case histories.

### The Mayorovs Raise a Family

If you had asked Sergei Mayorov, milling machine operator fourth category, how things were going a few years ago, he would have answered, "Couldn't be better!" He had just gotten married, had a good job, made 800 rubles a month and found life quite satisfactory.

With the birth of his first child, Sergei took inventory. He realized that he had been vegetating, hadn't made much progress as an individual. Sergei decided to go back to school. It became important to him to improve his general knowledge as well as his working skill. And with the increased responsibility imposed by parenthood, Sergei couldn't be indifferent to the pay raise a higher category rating would bring him.

Sergei enrolled for one of the shop training courses. The teacher was Mikhail Dragunov, his shop superintendent. The class met three evenings a week at the mill's vocational training center and Sergei spent another evening or two a week in the center's library, drafting room and engineering laboratory.

Sergei is one of 3,288 workers at the mill who have taken these three-month training classes in the past five years. The course ended with an examination by a committee of the most experienced foremen in the shop. Sergei passed the exam with flying colors and was certified as a milling machine operator, fifth class. He was given a more skilled and

more interesting job and his monthly wage jumped by 150 rubles.

Once Sergei got started, he kept right on taking courses. In the three years since, he has completed an advanced training course and a full year's study at the technical school for textile workers. His present wage is 1,100 rubles a month, with another raise scheduled soon.

Sergei's wife doesn't mind the time he spends studying. It's quite obvious to her that his work has become a deep source of satisfaction to him as a result of it. He always has so much to tell her about what's doing in class and new developments on the job that even their home life has become more meaningful.

### Almost Everybody Goes to School

Galina Panova's is another case history in Kupavna education. She began working at the mill four years ago. Her mother had constantly admonished her, "Study, daughter, get down to your studies. I want you to be able to stand on your own feet." But Galina wasn't much interested in schooling.

When Galina started to work, she was taken on at the mill as a trainee. Her teacher was Lydia Birkovich, an experienced weaver. At first Galina caught on quickly, she was good with her hands. But when it came to learning the parts of the machine, she made very slow progress.

Lydia is a relatively patient person and a good teacher, but one day her patience ran out and she took Galina to task for being mentally lazy. "It isn't enough to be clever with your hands, you've got to know things, too, and that takes schooling."

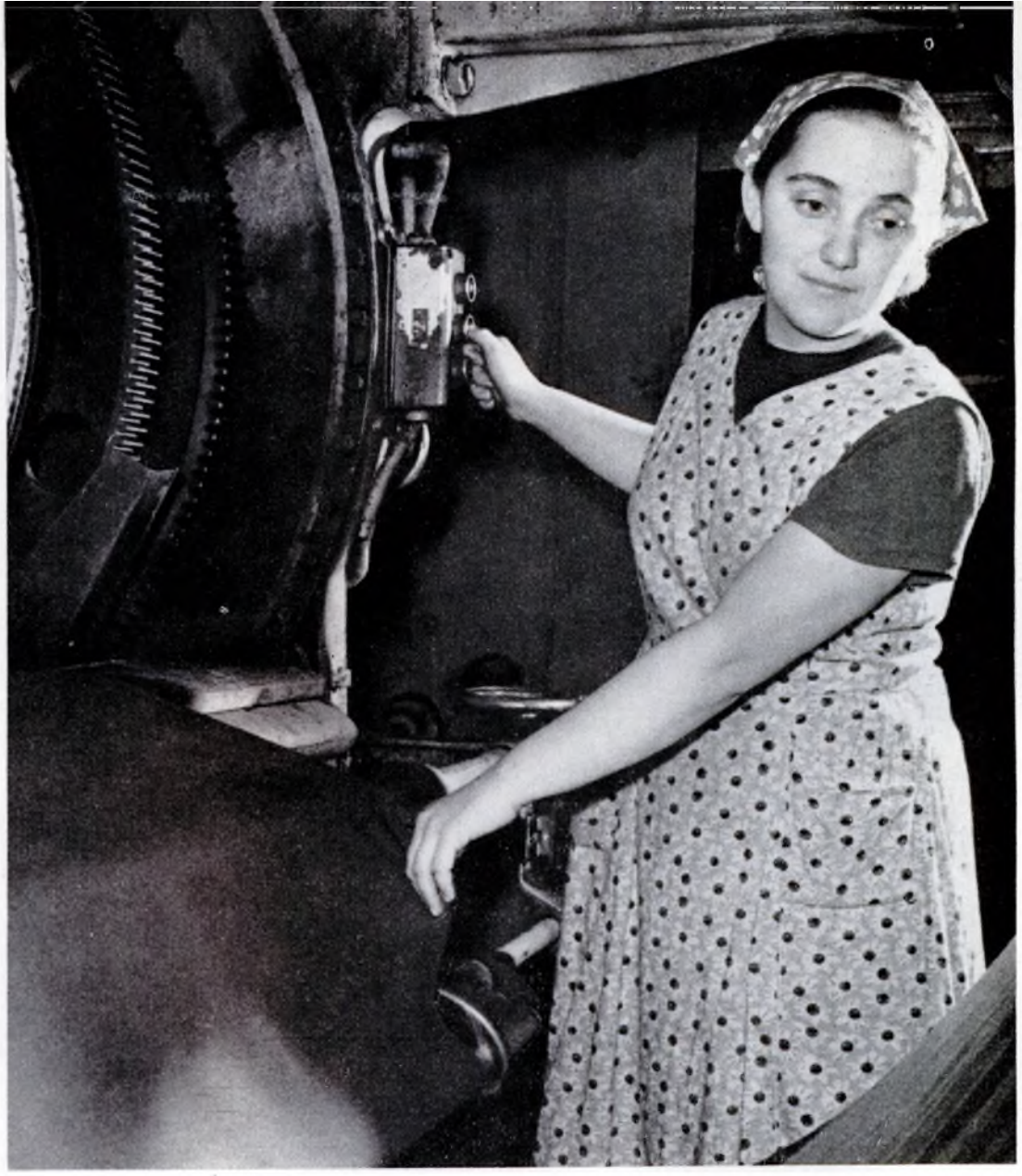
Apparently that impressed Galina. Then, too, she had learned a few things at the plant that had nothing to do with weaving. She had always thought a factory worker didn't need much education. But almost all the girls who lived in her dormitory for young workers were going to school. Her roommate, Galina Andreyeva, had just entered the junior class at the evening high school and the two girls who lived in the next room—Lyubov Baranova, a weaver, and Alexandra Inozemtseva, a drier—were seniors at the same school.

To tell the truth, Galina felt left out of things and it wasn't long before she enrolled. It was hard going at first but she kept at it. Gradually she got accustomed to studying, learned how to plan her evenings so as to have time for both study and recreation and now she is making very good progress.

When Galina graduates from the evening high school this spring, she will be promoted to a new job in the finishing department. Her earnings will go up by about 200 rubles a month. Now Galina talks of going on with advanced study. There's no reason, she thinks, why she can't get through the technical school and qualify as foreman.

### Training for Better Jobs

The mill management goes much more than halfway to make things easier for people like Galina and Sergei, who study in their spare time. Classes are held in two shifts, to fit in with working hours. To give students



Galina Panova is one of the 600 Kupavna textile workers who have gotten a high school education while holding down a job. Vocational training is financed by the mill and is free for the worker.

Classes are held right near the mill. A lab for the specialized secondary school (top); foremen's and superintendents' course (bottom).





# *Education in Kupavna*



Raisa Repnikova went to school to get the proper background for learning to use automatic looms.

time to prepare for end-term examinations, they get extra vacations with pay.

The specialized technical school at which Sergei Mayorov is studying and which Galina Panova will soon be entering is located right alongside the mill. It was founded thirteen years ago and nearly all the foremen and shop superintendents now working at Kupavna have gone through the course. In the past seven years, the school has graduated 270 workers. The present enrollment is about 200.

Among those who will be graduating this spring is Raisa Repnikova, an energetic young woman who is employed as a weaver. When she enrolled at the school four years ago she was well qualified at her trade. But the machines at which she worked were being replaced by automatic looms and Raisa hadn't sufficient technical background and experience to operate them, so she enrolled in the weaving division of the technical school.

For the first two years she studied general subjects. Specialization began in the third year with such courses as physics, chemistry, mechanics, machine design, drafting and the technology of materials.

Before long she was transferred to the automatic loom shop. Now she operates four of these machines and makes about 1,600 rubles a month. She expects to be promoted to assistant foreman, or perhaps foreman, when she graduates.

This is the usual stepup for the school's graduates. They rate jobs as assistant foremen, foremen, technicians or instructors.

### The Studious Korotkovs

Victor Korotkov, who completed his studies last year, is now assistant foreman in the weaving department where Raisa works. He is doing advanced study at the Textile and Light Industry Correspondence College and expects to get his engineering degree.

Victor's wife, Larissa, who teaches in the mill's school for young workers, is a graduate of a teacher training college. His brother, Mikhail, completed work for his engineering degree last year. Mikhail's wife, Anna, is a graduate of the evening textile school and the correspondence college.

The studious Korotkovs are typical of many Kupavna families and Mikhail's career parallels that of many other younger mill workers. His parents had been textile workers and when Mikhail grew up he started at the mill as a fitter's helper. His aim was to become a design engineer.

The outbreak of the war prevented Mikhail from beginning his studies. With the war ended, he went back to his mill job and enrolled at the evening textile school which the mill set up at the time. There he met his future wife, Anna, who was then working in the weaving department. After graduating from the technical school, they both decided to study for their college degrees in the evening. Lecturers and professors from Moscow came to the mill four times a week. They conducted seminars, lectured and gave the students individual guidance.

It was something of a pull, what with Mikhail's job as foreman in the preparatory department and the arrival of their son Grischa only last summer. Mikhail and Anna, together with eleven of their fellow workers at the mill, defended their diploma theses before an audience of mill workers and engineers. The graduating students described the projects they had worked on and showed drawings of the machines they had designed.

Mill director Victor Yerofeyev congratulated the new engineers and announced that the management was awarding bonuses to the best 75 of the 240 graduates of the evening high and technical schools and the college. The Korotkovs were among the 75; Anna got a free trip to the Brussels World's Fair and Mikhail a trip to a Caucasus vacation resort.

Anna is now a designer in the chief engineer's office. She works out new fabrics. Mikhail is chief of the preparatory department, and he is going on with graduate study. His new goal is research.

Mikhail and Anna Korotkov, along with 11 other mill workers, got their engineering degree from a correspondence institute last spring. They are now collaborating on designing a new warping machine.





CLIMAX OF THE COMMON FIGHT AGAINST FASCISM — MEETING ON THE ELBE.



FRIENDLY TIES MADE ON THAT HISTORIC DAY HAVE BEEN RENEWED RECENTLY.

# AN APRIL DAY TO REMEMBER

*By Alexei Maresiev*

*Secretary, Soviet War Veterans' Committee*

**Alexei Maresiev is the well-known flyer. He holds the award Hero of the Soviet Union for extraordinary courage. Brought down in an air battle, Maresiev, although seriously wounded, crawled for a harrowing eighteen days through enemy-held territory to get back to his own lines. Both his legs had to be amputated.**

**When he recovered, he learned how to fly again and insisted that he be allowed to get back to front-line duty. Artificial limbs notwithstanding, he flew a fighter plane and before the war ended he had downed seven more fascist planes.**

**The almost legendary exploits of Maresiev are described in Boris Polevoi's postwar novel *Story of a Real Man*. The book was widely read in the Soviet Union and translated into many languages for publication abroad. It was subsequently filmed and had a long and successful run.**

THESE April spring days I am reminded of that other never-to-be-forgotten April day fourteen years ago when Soviet soldiers of the First Ukrainian Front and units of the First American Army made their historic link-up at the Elbe River near the German town of Torgau.

That was indeed a memorable meeting, the climax of those years during which the people of the United States and the Soviet Union fought together against fascist aggression. At the Elbe that day in 1945 we met as comrades-in-arms who had traveled the hard road of war, soldiers in a common fight who had suffered temporary defeats and had finally clasped hands in victory.

I, unfortunately, could not shake the hands of our American allies on the ground because my plane was in the air over the Elbe at the time. Still, I like to think of myself as participating in that notable meeting of friendship.

Friendships made strong by the common trials and hazards of war are not likely to weaken with time. This was shown very vividly when American and Soviet veterans met in Moscow in 1955. Our American friends were not with us long, only a few days, but that was enough to show that our relations were as warm and as hearty as at that meeting at the Elbe.

Wherever our American guests appeared—a Moscow restaurant or club, a village school, a reception given them by the army Chief of Staff—they were met with a hearty Russian welcome. During the visit we published a joint address to all American and Soviet veterans of the Second World War: "We have not forgotten the friendly alliance that was forged during the war years," it read. "The meeting of our troops on the Elbe will go down in history as symbol of friendship, good will and mutual respect between our nations."

Before they flew back home, one of the Americans who had taken part in the link-up, Joseph Polowsky, spoke for himself and his comrades: "Leaving Moscow, we feel as though we are leaving a part of our hearts behind . . . We Americans hope to meet you again."

That reunion did actually take place. At the invitation of the American Veterans of the Elbe Link-Up Committee a delegation of the Soviet Veterans' Committee made a return visit last year. Boris Polevoi, Yuri Volsky, Ivan Samchuk, Alexander Gordeyev and I made up the visiting delegation. We no sooner landed on American soil than we felt the cordial friendship and hospitality with which our American comrades-in-arms surrounded us. We shook hands warmly, listened to friendly words about our country, and were presented with flowers. At the Washington airport, on behalf of the Soviet delegation, I exchanged messages of greeting with Joseph Polowsky.

This feeling of friendship and mutual understanding we felt at all our meetings with the American veterans and with other people and officials we met during the course of our stay.

I remember the comments made by Colonel Leonard, Director of Veterans Affairs of the District of Columbia at the reception given to commemorate the Elbe meeting. Obviously expressing the sentiments and thoughts of all present, he said that friendship, cooperation and mutual understanding were equally and as dearly valued by Russians and Americans.

It is my feeling that we, as veterans, can do much to expand and widen the area of friendly contact between our countries. That is why we who met at the Elbe in 1945 will most certainly continue to meet. We have learned to know each other in combat and we have learned to know each other in peacetime. We have more than enough to think about together, plenty to talk about together at many future meetings.







# AT MOSCOW'S HIPPODROME

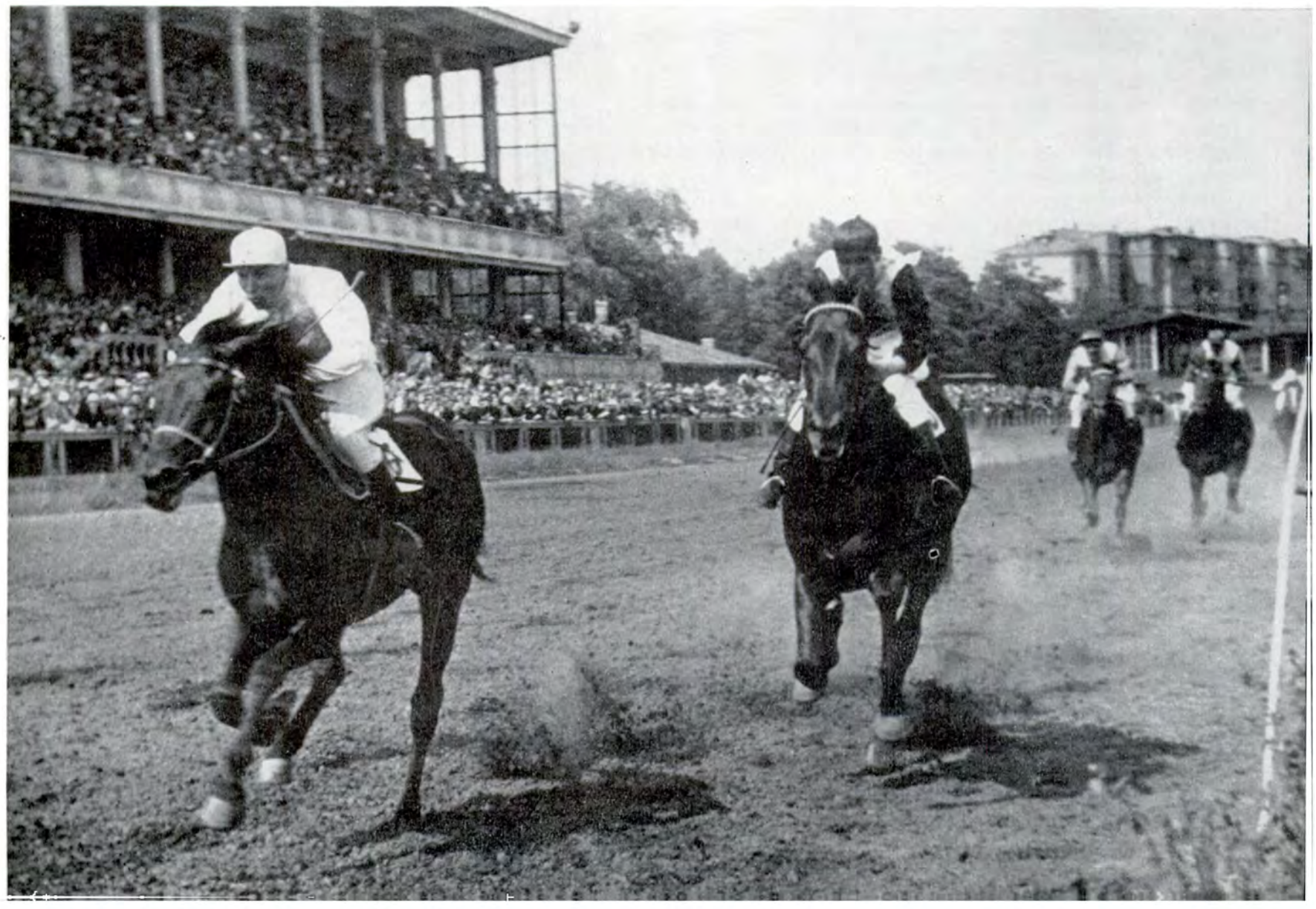
AS OUR photographer scanned the stands of Moscow's Hippodrome for candid shots, he proved with his camera that there are few other sports spectacles which offer more real excitement or build a more loyal body of fans.

The pictures make it obvious that the track odds are followed as closely as anywhere else in the world, and form sheets are religiously studied between events. For the inbred horseman, there is the "tote" board with its 10-ruble maximum for betters possessed of a firm difference of opinion.

The Moscow Hippodrome is an all-season attraction. Although trotting is by far the most popular of the races, other events also draw some sizable crowds. The steeplechase is wonderful exercise for one's vocal chords, our photographer found. Another thrill is troika racing.

Strictly speaking, this is not a track event, but in villages a three-horse (hence *troika*) team of gaily beribboned animals decked with small bells is still a holiday feature. Muscovites have discovered that what's fun on the farm can also be enjoyed on the city's big track, and troika races are followed by tremendous throngs. In rural races passengers sing and exchange pleasantries as they race along. But here at the track there's no time and everybody holds on for dear life.

The Hippodrome annually treats its patrons to a show of horsemanship and games on



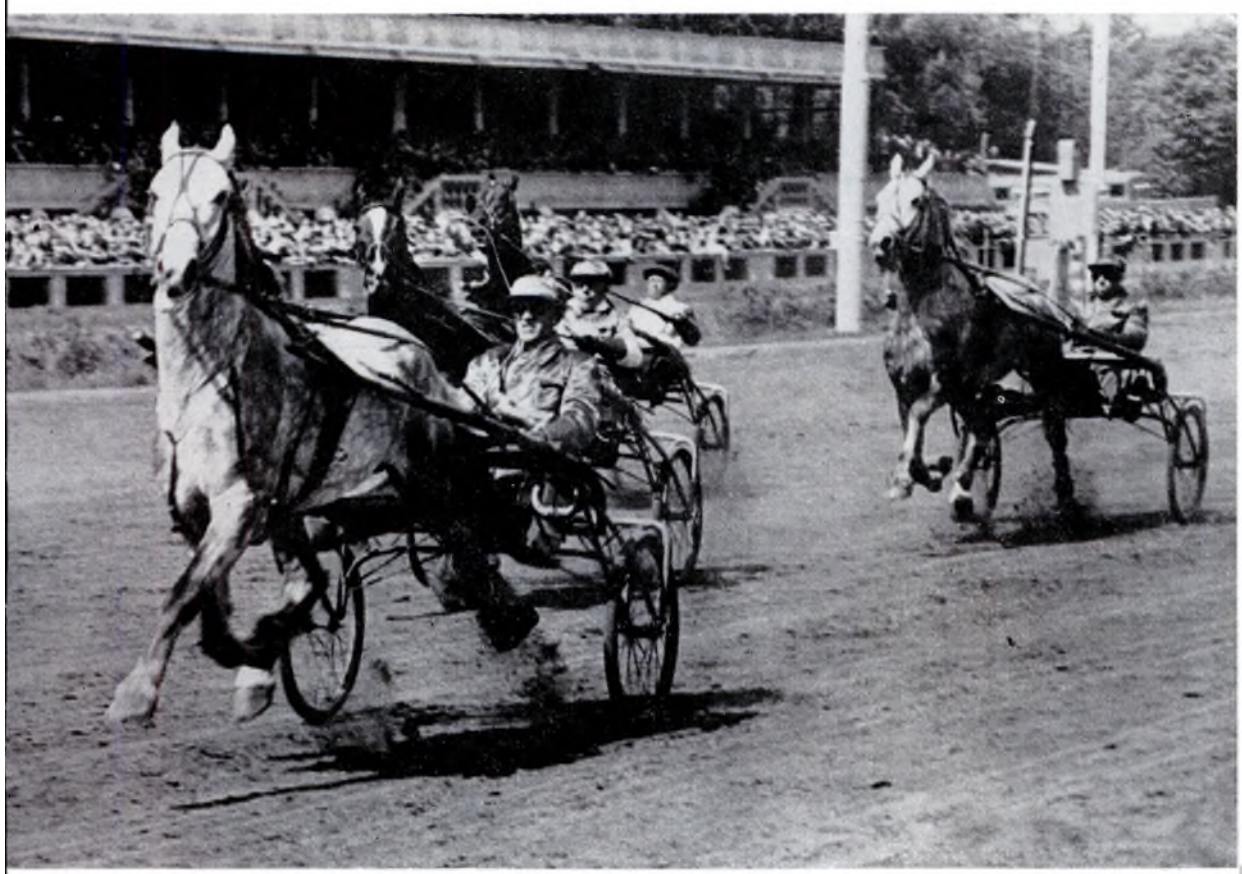












The trotters are favorites. Fans carefully follow the odds before placing their bets. Maximum loss—a mere ten rubles.

horseback drawn from faraway places. In Central Asia the horse takes part in all festivities, even wrestling bouts. This, of course, requires certain cooperation on the horse's part because if he loses interest, the rider is in trouble. This bout is a test of strength and skill. It takes years of training for horse and rider to act as one.

In the racing line Central Asia also provides us with an event that always makes the spectators roar with laughter and gives them something to talk about for a long time. It is a game played by pairs of youths and girls. The girl gets a head start and races off with the boy in pursuit. His task is to catch her before she reaches a safety zone about a mile away.

If the youth succeeds, he is rewarded with a kiss of undetermined duration. But should he fail to catch the speeding miss, as sometimes happens, they race back to the starting line with the lass whipping him the entire distance. This, of course, does little to improve the male ego and perhaps explains some of the zeal the lads show in the beginning.

There are quite a variety of folk games in different parts of the country that are played on horseback. These popular events are included in the annual display in the capital, but standing out above all is the exhibition of cossack riding.

This is a combined rodeo and exhibit of daredevil horsemanship rolled into one, and



There are lots of thrills and not a few spills in the steeplechase, and you can't beat it for exercising the vocal chords.

rse-racing is a popular all-season attrac-
n and the stands at the Moscow Hip-
drome are usually filled to capacity.



A coachman puts his three gaily beribboned and belled steeds through the paces while the occupants of the troika hang on for dear life.

# AT MOSCOW'S HIPPODROME







definitely is not for the weak of heart. It is especially true when groups of riders form themselves into mounted pyramids and other gymnastic forms while their horses tear down the track at breakneck speed. Another exciting stunt is archery on horseback. Hitting a tiny target on a pole is difficult on *terra firma*, but shooting on the run from a saddle is real virtuosity.

Each of these events has its supporters, but all in all there's nothing better for most of us than the old fashioned horse race. The horses entered at the Hippodrome are from the country's best stud farms and every once in a while a remote collective farm will produce a winner and a sensational upset.

Moscow fans follow the races quite like Americans do at Churchill Downs, Laurel or Hialeah. There's the same type of argument, the same search for "real hot tips." In fact, as one American cameraman said after a day at the Hippodrome, "It's funny, but different as they may be, people seem to be the same everywhere."



Wrestling on horseback comes from Central Asia. There is no point in even trying this one without the horse's prior consent.



What's a man to do when there are only two horses and three riders? It's done while the horses tear along at breakneck speed.



**BOLSHOI THEATER BALLET**

*See Page 30*



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**Front and back covers:** Display of the mastheads of some of the 9,936 newspapers and 858 magazines published in the Soviet Union. *See story on page 24*


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MAY 1st IS A DAY FOR ALL KINDS OF CELEBRATIONS. FIRST COMES THE PARADE IN MOSCOW PAST THE REVIEWING STAND ATOP THE LENIN AND STALIN MAUSOLEUM.

# MAY DAY

MAY DAY in the Soviet Union is a national holiday, a gay and happy festival observed with good cheer, with parades, songs, dances and fireworks.

Workers in old Russia celebrated May Day at gatherings and meetings which were illegal, with a watchful eye out for the czarist police. But those gloomy times are long past.

May Day is the international holiday of labor, commemorating the unity of working people the world over, and delegations from many countries come to the Soviet Union at this time to join in the celebrations.

The two-day holiday, May 1 and 2, is carnival time everywhere. The streets and avenues are in fancy dress with thousands of banners flying everywhere. The buildings are festooned with giant-sized portraits of people honored for the contributions they have made to the country's progress, and with brightly colored streamers painted with letters six feet tall that call for international peace and friendship. And as though to greet working people the world over on May Day, their traditional holiday, nature decks itself out in spring green.

The hustle and bustle starts long before May 1st. Gifts have to be bought and dinners planned for. Usually, on the eve of the holiday, factories and offices have parties at which the best workers are commended. Then, after the traditional awards, comes music and dancing.

On the morning of May Day the main avenues of towns and cities everywhere are thronged with paraders. The most impressive of the many colorful parades is the one in the nation's capital where athletes, soldiers and just people by the millions march across Moscow's Red Square past the marble mausoleum at the foot of the Kremlin wall. Every few minutes the giant parade is slowed down while young men and women in brilliant national costumes move by in a graceful, frolicking step from a Ukrainian, a Georgian or a Kirghizian folk dance.

In the evening after the parade and a holiday dinner, the streets will fill again with merry-making crowds. There are open-air concerts by musicians and singers, performances by theater groups in the parks and big squares and, afterward, the May Day balls in clubs and concert halls that go on into the small hours of the morning.

With the new seven-year plan under way, this May Day is especially memorable. The Soviet people will be celebrating the achievements already made and the many soon to come.



IN DEMONSTRATIONS THROUGHOUT THE LENGTH AND BREADTH OF THE HUGE COUNTRY, WORKERS, FARMERS AND INTELLECTUALS RE-AFFIRM THE UNITY OF THEIR INTERESTS.

# MAY DAY CELEBRATIONS

A GUEST FROM INDIA PRESENTS A YOUNG PARADER IN MOSCOW A GAY BALLOON.



GIRLS DRESSED IN THEIR NATIONAL COSTUMES ADD TO THE COLORFUL DISPLAY.





IN BYELORUSSIA A GROUP OF YOUNG PEOPLE HAVE A PICNIC IN THE COUNTRY.



SIBERIA IS STILL COLD IN MAY AND WINTER CLOTHES ARE THE FASHION.

IN LITHUANIA THE PARADE STOPS FOR THE DANCES.



FIREWORKS LAST FAR INTO THE NIGHT FOR TOMORROW IS ANOTHER DAY OF CAREFREE HOLIDAY PLEASURES.



# THE SEVEN-YEAR




# PROGRAM OF ECONOMIC AND CULTURAL

IN THE ONE-SIXTH of the world's land surface which constitutes the territory of the Soviet Union live more than a hundred nations and nationalities. The largest, the Russian nation, numbers 100 million, half the country's population. At the other extreme are the Khunzakhs, a small national group which inhabits a single mountain village in the Caucasus.

All these peoples are united in fifteen Union Republics. They speak different languages and have a different background of history and tradition. Some, like the Georgians, are nations with a proud humanist culture reaching back a millenium and a half. Others, like the Kirghizians, did not even have a written language of their own before the Socialist Revolution of 1917.

Each of the fifteen sovereign republics, whether large or small, has equal political, social and economic rights, granted them by the Soviet Constitution. They have all used these rights to carve out a richer and more rewarding life for their citizens.

Some republics, especially those in Central Asia, have made the gigantic leap from a patriarchal-feudal society to socialism in the past four decades. Their rate of development has been unbelievably rapid. Consider these production multiples: Industrial output in 1958, compared with the prerevolutionary period, was 17 times greater in Uzbekistan, 31 times in Tajikistan, 40 times in Turkmenia, 44 times in Kazakhstan and 50 times in Kirghizia. With each passing year the new industrial complexes represented by these figures have contributed more and more significantly to the economic life of the entire country.

Characteristic of the Soviet democratic structure is the fact that as each of the republics developed its human and natural resources—built its industries, mechanized its farming, trained its people, advanced its science and arts—it was granted increasingly larger rights in direction of its economic, political, legislative, cultural—in fact, of every sphere of its life. The extension of these rights has been an important contributing factor toward still further growth of individual republics and the

# PLAN OF THE SOVIET REPUBLICS



# PROGRESS FOR ONE-SIXTH OF THE GLOBE

country as a whole. This is an ever continuing process built into Soviet society that makes for its constant growth.

Responsible for the rapid progress of once backward nations—and not only in industry and agriculture but also in education, science, development of national arts, public health and welfare—has been the fraternal assistance of more advanced republics.

Textile workers of the Russian industrial city of Ivanovo helped the Uzbeks, Armenians, Georgians and Tajiks to create textile industries of their own. Ukrainian coal miners worked with the Kazakhs, Kirghizians and Uzbeks to develop local coal fields. Metal workers from the Urals and the Ukraine built metallurgy plants in the Transcaucasus and Central Asia and trained young Georgians, Kazakhs and Uzbeks. Russian and Ukrainian machinists laid the groundwork for the machine-building industry of many of the other republics.

All republics have created a comprehensive and widespread system of free education from the nursery through the university and have schooled whole populations that were illiterate a generation or two ago. The colleges and institutes of Moscow, Leningrad, Sverdlovsk, Kiev, Kharkov and other cities of the Russian Federation and the Ukraine helped the other republics found their own schools for higher education.

This mutual assistance is a built-in feature of the seven-year plan for the further growth of the Soviet Union. The plan for each of the fifteen Union Republics is designed to utilize its own natural resources, its own economic possibilities, its own backlog of talent and experience, as well as all-round cooperation with other republics. Each republic plans its future to further not only its own economic growth but also that of other republics and of the entire country.

The fifteen seven-year plans of the Union Republics are outlined on the following pages. They are not isolated economic programs. Together they make up the balanced, integrated plan by which the Soviet Union has begun to build. Its goal—to provide every family in the country with a standard of living second to none in the world.

**RUSSIAN FEDERATION**

*Territory:* 6,590,500 sq. miles
*Population:* 113,200,000
*Capital:* MOSCOW




# THE RUSSIAN FEDERATION—FIRST AMONG EQUALS

**By Anatoli Shcherbakov,** *Journalist*

An oil refinery worker from the Volga River area. Half the population of the Soviet Union, people of forty different nationalities, live in the Russian Federation.





THE RUSSIAN FEDERATION is the largest of the fifteen Union Republics. It covers an area twice that of the United States. On the north its icy shores are washed by the Arctic Ocean; its southern shores on the Black Sea grow palm trees and sub-tropical fruit.

The Federation is made up of 14 autonomous republics, 7 autonomous regions and 10 national areas. In its vast territory live people of 40 nationalities in a voluntary union, with equal opportunity for each of the nationalities to achieve its fullest potentialities.

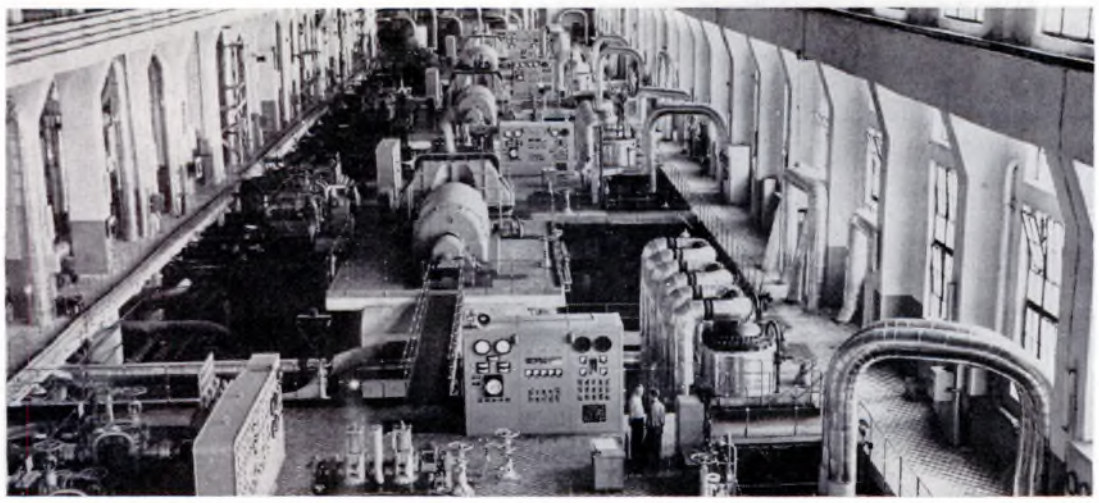
The Russian Federation accounts for two-thirds of the country's industrial production and for half of its farm produce. Its economic future is therefore a salient factor in the seven-year plan of the Soviet Union.

Almost a trillion rubles will be spent in developing the Federations' economy, a sum equal to 50 per cent of the capital allocated for the whole country between now and 1965.

Siberia will be one of the major concentration points. Much has already been done to tap the fabulous natural treasures of this great region and much more is planned. Two large metallurgy centers are to be built. They will be fed by old and newly uncovered deposits of iron ore and coal. Together with neighboring Kazakhstan, Siberia will become the Soviet Union's third metallurgy base—the present two are in the Ukraine and the Urals. The Kuznetsk Basin will continue to be the main source of coking coal for the iron and steel industry of Siberia and the Urals.

The Bratsk Hydroelectric Station on the Angara River, with a capacity of more than 3.5 million kilowatts, will be finished within the seven years of the planned period. It will be generating more power than the Lenin Station on the Volga, now the world's largest. On the Yenisei River the Krasnoyarsk Station, with a capacity of more than four million kilowatts, will be built.

Thermal power plants fueled by coal, oil and natural gas are either in design or under construction in various parts of the Russian Federation. These will be the major sources for power. Supplemented by the new hydropower stations they will more than double the Federation's capacity for generating electricity by the end of the seven-year plan. Siberia alone will be producing more power than any of the West European countries.



**Automation of whole industries to manufacture more high quality goods with less production cost is a major aim of the seven-year plan. This is a fully automated shop in a Moscow ball-bearing plant.**

The Urals, birthplace of Russian metallurgy, will continue to hold the leading position in iron, steel and nonferrous metal production. The production capacity of the giant Magnitogorsk, Nizhni Tagil and other iron and steel plants will be expanded. By 1965 the Chelyabinsk region alone will be producing more pig iron than France does today.

The iron and steel industry in the European part of the Russian Federation is also to be expanded. To meet the needs of these growing plants, large-scale extraction of iron ore will soon be beginning in the Kursk Magnetic Anomaly, the richest deposit in the world. In the relatively near future there will be no need to make costly deliveries from the Ukranian deposits at Krivoi Rog.

The production volume of the numerous machine-building centers of the Russian Federation will be doubled during the seven-year period and hundreds of new items added to their catalogues.

Uralmash, the heavy engineering plant in Sverdlovsk, now makes walking excavators with enormous productivity—each does the work of 30,000 diggers. The plant is presently building a new model with twice the capacity. This is a sample of machinery the Urals will be turning out these next seven years.

The Federation will be doubling its oil output between now and 1965 and boosting its natural gas output six times over. In the postwar period the Volga River area and the North Caucasus deposits have become the country's major sources.

Oil from the rich fields of the Bashkirian Autonomous Republic between the Volga and the Urals is now carried by pipeline to Omsk in Siberia. The line is to be extended to carry Bashkirian oil to Novosibirsk and to Irkutsk for a total run of 2,315 miles. This transcontinental pipeline is only one of several under construction. New large refineries are also scheduled for various parts of the Federation.

Natural gas will be required in increasing quantities to produce synthetic materials, smelt ore, drive turbines, heat factories and homes. New pipelines will be built to bring gas to 129 cities of the Russian Federation. One line will be laid all the way across the republic from the North Caucasus to Leningrad.

The seven-year plan forecasts a much accelerated rate of growth for industrial chemicals. Dozens of new plants are to be built and old ones modernized. The Volga area, using oil and natural gas as raw materials, will be supplying the country with synthetic rubber and fibers, plastics and mineral fertilizers. By the end of the seven-year plan the chemical plants of a single region on the Volga, the Saratov Economic Area, will be producing enough synthetic wool and silk to make annually 10 million men's suits and 45 million women's dresses.

Agriculture of the Russian Federation is keeping pace with growing industry. Nearly 37.5 million acres of virgin lands have been sown in its eastern regions in recent years. Last year the republic's collective and state farms sold the government a record 32.8 million tons of grain. This is nearly twice that of five years ago and much more than any other of the Union Republics sold in 1958.

But present advances are only a portend of greater achievements to come. By 1965 grain production in the Russian Federation will have risen to the 130-million-ton mark.

Grain farming will continue as the republic's principal concentration in agriculture, but the seven-year plan also envisages speedy development of animal husbandry, especially in production of meat. In many regions farmers are already working to meet the target goals in less than the scheduled time. Present rate of growth indicates that by 1965 the republic will have achieved an annual production figure of 12 million tons of meat instead of the 8.5 million planned originally.

There has been a threefold increase in the collective farms' cash incomes during the past five years. Farm incomes will certainly continue to grow during the seven-year period and will provide a surplus for capital construction nearly double the present. In addition to new farm buildings, social and cultural facilities, more than five million homes will be built in the republic's villages.

Large-scale construction is planned for urban communities. Much will be done to modernize and beautify the republic's cities, both old and new. Millions of apartments will be made available as well as more schools, theaters, community centers, stores and hospitals to provide for the growing material and cultural requirements of the people.



**One of the power projects now under way. By 1956 the Russian Federation will be generating double the present electricity.**

**The Federation now produces half of the country's foodstuffs. More farm machines like this combine will be boosting crops.**



**UKRAINE**

*Territory:* 232,000 sq. miles
*Population:* 40,600,000
*Capital:* KIEV

# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



## THE UKRAINE BUILDS FOR THE GOOD OF MAN

**By Lyubomir Dmiterko,** *Writer*

WHAT a great tribute to the energy of man our present-day Ukraine is. Here is a territory which was almost completely devastated by the fascist armies, our factories reduced to ruins, our farms ravaged, our coal mines flooded. Ukrainians who came back from the front to Kiev saw only rubble where buildings had stood.

Of all this immense destruction there is hardly a sign today. Kiev is a beautiful city again, its bridges restored, its parks replanted and its renovated avenues lined with modern apartment houses.

Before the mines in the Donbas coal fields could be used after the war, 650 million cubic yards of water had to be pumped out and more than 1,500 miles of clogged pits had to be cleared. Restored and newly built mines in the Donbas now give far more coal than before the war.

The Dnieper Hydroelectric Station at Zaporozhye, the largest in Europe before the war, was blown up by the Nazis. It was rebuilt in record time and is now one of a cascade of new power plants spanning the Dnieper—Zaporozhye, Kakhovka, Kremenchug. More hydroelectric stations and thermal power plants will be built in the Ukraine during the period of the seven-year plan to meet the growing needs of our economy and population.

A network of new canals carries the water of the Dnieper from Zaporozhye and Kakhovka deeper and deeper into the fertile but arid steppeland. Last January work was finished on a 70-mile canal connecting the Northern Donets River with the industrial centers of Gorlovka and Makeyevka in the Donbas.

The Ukraine now holds second place in grain production after the Russian Federation. Of the 180 million tons of grain the Soviet Union plans to obtain by 1965, about a fifth will come from Ukrainian farms. The republic will produce half the country's sugar beets and a quarter of its milk and meat.

Ukrainian farmers have pledged themselves to meet the target goals in five years instead of the seven scheduled by the plan. They propose to double their present production of meat and milk by 1965.

The Ukraine is one of the major industrial regions in the Soviet Union. It now produces a third of the country's coal, 40 per cent of its steel and almost two-thirds of its iron ore. Every fourth machine carries the trade-mark of the Ukrainian Republic.

Envisage the Ukraine seven years from now. Added to the resources of the older Donbas coal fields will be coal from the new Lvov-Volyn deposits now being tapped.

Natural gas has been found in large amounts in the Carpathian foothills and elsewhere in the republic. It will be used for the development of chemical industries—for synthetic rubber plants, for viscose and kapron fiber factories and for sulphur and potassium works.

An even more important discovery is oil which was found in new places. Before the seven-year plan is completed, oil derricks will be dotting the valleys around Poltava. This will be a new oil center in addition to the old Drogobych fields in the Western Ukraine.

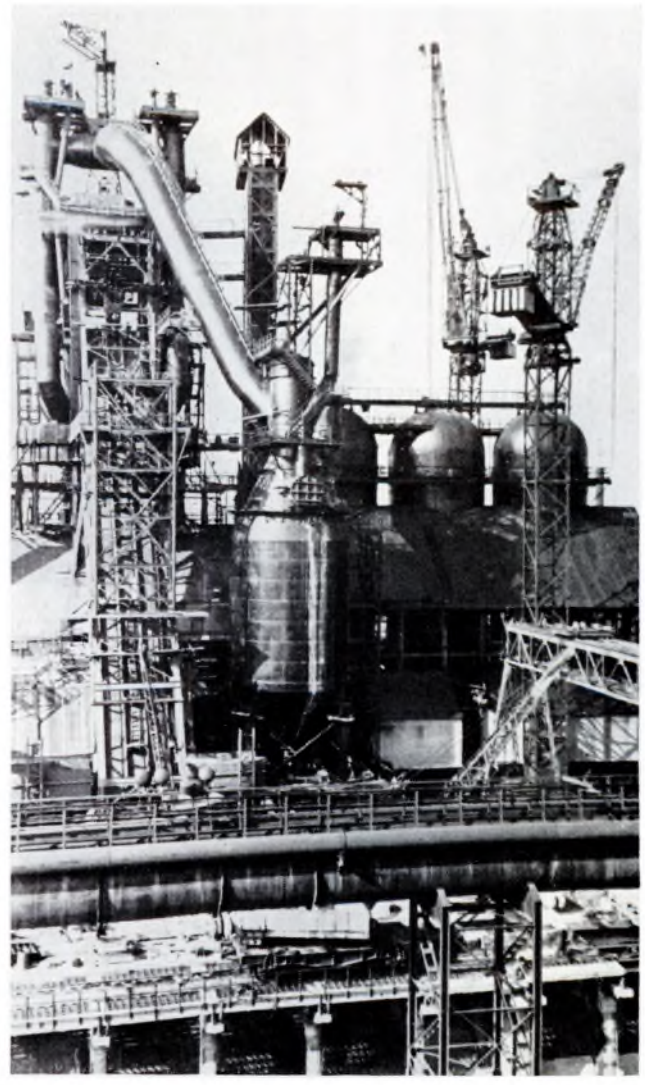
The immense sum of 219 billion rubles is to be spent for capital construction in the Ukraine between now and 1965. New fuel and power sources, new heavy industry, new consumer goods plants—all this is the material base to provide both the necessities and the luxuries for the country's working people.

The Ukrainians are notable farmers. By 1965, and very likely before then, they plan to produce a fifth of the country's grain, half its sugar beets, and a quarter of its milk and meat.

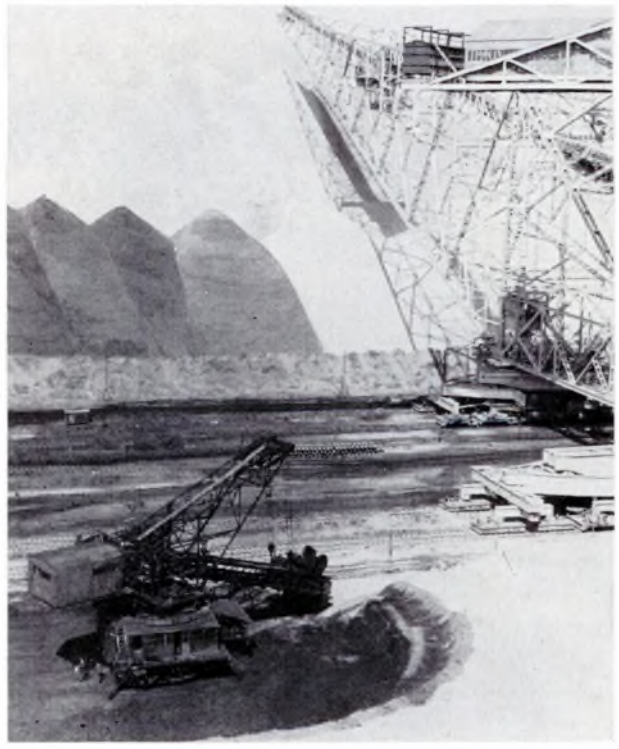




These children from a Ukrainian collective farm are cared for at the village kindergarten. The seven-year plan gives high priority to preschool education.

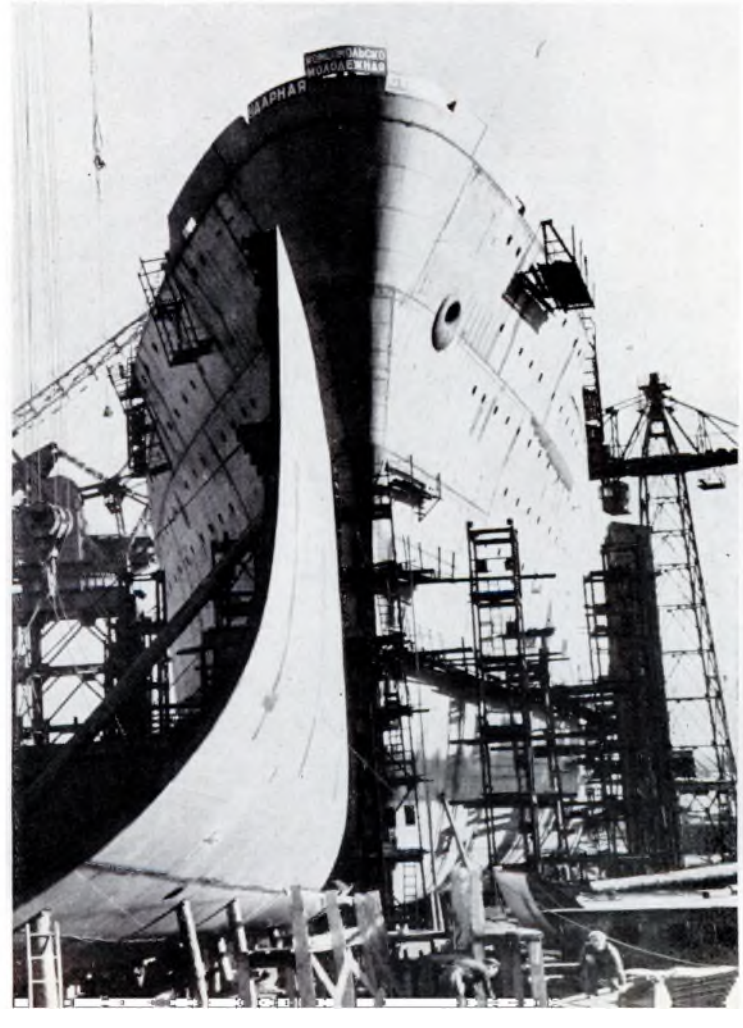


The Ukraine's iron and steel mills will be forging more metal for both heavy machinery and household appliances.



Working the new Lvov-Volyn coal fields. Besides coal, new oil and natural gas deposits have been found in large quantities in the Ukrainian Republic.

Many more of these Ukrainian-built merchant vessels and fishing boats will be launched in the next seven years.



The Ukraine's fertile livestock will be helping Soviet farmers achieve their goal of catching up with America in per capita production of milk and meat.



**BYELORUSSIA**

*Territory:* 80,300 sq. miles
*Population:* 8,000,000
*Capital:* MINSK

# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**By Kondrat Krapiva,** *Writer*

## CONSTRUCTION PROJECTS THROUGHOUT BYELORUSSIA

I SHOULD like to take you on an imaginary seven-year trip through Byelorussia. Let us begin with Polessye in the south of our republic, which used to be a land of impassable marshes and thick forests.

Great tracts of this swamp area are being reclaimed. When the drainage project is completed, about 7,250,000 acres will have been added to the republic's farmland. A diversified agriculture has developed in regions which in prerevolutionary times grew nothing but potatoes, and even those were of the poorest quality. Big crops are expected in Polessye now.

In the part of Byelorussia we are traveling through new power stations are planned. They will use inexhaustible reserves of local peat as fuel. When completed, these stations will more than double the republic's present power output.

Going northward to Minsk, let us stop for a moment to look at the construction site of Europe's largest potassium plant at Starobin. Another stop is at Mozyr where a big oil refinery is to be built. It will be linked to the rich oil fields of the Volga area by pipeline.

Nor must we forget to see the site of the large-scale chemical industry that will be developing in the next few years to increase the republic's output of artificial fiber, plastics and paints.

We come to Minsk, completely restored from the rubble left by the retreating Nazi armies. The main thoroughfare—more than 160 feet wide—has been built anew, a gracious avenue of modern apartment houses for the city's workers.

Minsk is Byelorussia's machine-building center. It turns out the famous "Byelarus" tractors, big dump trucks, motorcycles, radio and TV sets, watches. Its machine tools are used everywhere in the Soviet Union.

At Polotsk, an old city lying north of Minsk, we stop to see another huge construction site for an oil refinery. In the eastern part of the republic we look on at the second section of the Orsha flax mill going up. When the mill is built, Byelorussia will be processing 15 per cent of the country's flax.

The republic's biggest heat and power plant is under construction near Beryoza-Kartuss-

Byelorussia, once a blank spot on the world's industrial map, now manufactures high-grade textiles and other goods formerly delivered from afar.



Young workers all over the republic are studying at evening schools and by correspondence to learn new skills for new industries.





Large-scale swamp draining in Polessye, southern Byelorussia, will be adding many millions of acres of good farmland.

kaya, close to the Polish border. This was a badly underdeveloped region and cheap power will bring in machine building, chemical and light industries.

But it is clearly impossible for us to visit more than a token few of the vast numbers of new projects planned for the seven years. They include an automobile plant, a flax mill, an artificial leather factory and one for artificial furs, sugar refineries, a cotton mill, dairies, canneries.

All this construction is going on in a territory which in my youth—I am some twenty years older than our republic and the republic celebrated its fortieth birthday last January—was just a blank spot on the industrial map of the world.



As the seven-year plan moves along, Minsk, the republic's major machine-building center, will be turning out more and more items like these 40-ton dump trucks.

Byelorussian farmers have been setting bumper crop records for rye. Now they are working hard to top these high marks.



A new residential district in Minsk which was built around a tractor plant. As industry grows under the impetus of the seven-year plan, housing grows with it.



# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**UZBEKISTAN**

*Territory:* 154,000 sq. miles
*Population:* 7,300,000
*Capital:* TASHKENT



Uzbekistan has all the resources, natural and human, to build an economy of abundance.

## UZBEKISTAN—THE OLD AND NEW

**By Iskander Khamrakulov,** *Journalist*

THERE was a time, still well within the recollection of older people, when an Uzbek woman could not leave her house unless she wore a black horsehair veil covering her face. That veil has long since gone and with it the poverty, illiteracy and superstition which once scarred this land.

There is little left to remind one of that old Uzbekistan aside from the traditional embroidered skullcap and the monuments of ancient Samarkand. This is a new land with a developed industry, mechanized agriculture and a well-educated people.

Before the 1917 Revolution there were only a few small factories, mostly for ginning cotton. Today's Uzbekistan has modern textile mills and more than 70 other branches of industrial production, including steel, coal, machine building, chemicals, radio, and electronics. There are 1,300 large industrial enterprises in the republic.

Uzbekistan has just begun another push forward with the seven-year plan. Electrification, over-all mechanization and automation of production processes will speed every branch of the national economy. Capital invested will be 2.4 times that for the preceding seven years.

Exploitation of the great deposits of natural gas found recently near the old city of Bukhara will do much for the republic's industrial growth. Geologists estimate the reserves in one region alone, the Gazlin fields, at an astronomical figure. Gas will be available in practically unlimited quantities for home and industrial use and will be replacing coal more and more as time goes on.

Last year gas accounted for only three per cent of the republic's fuel consumption. By 1965 it will account for sixty per cent. There will be no need to bring in coal from other parts of the country, because its consumption, it is expected, will have considerably decreased by the close of the seven-year period.

This natural gas find is of much more than local significance. Gas will be piped to the neighboring republics and to regions thousands of miles distant, such as the Urals.

Uzbekistan grows most of the country's cotton. The seven-year plan target figures call for the annual procurement of more than 23 million tons of raw cotton. To reach that level of production the present elaborate irrigation system will be expanded, plantations will receive more machines, and new lands will be opened for cultivation. Also due for large expansion are natural silk, wine and karakul sheep and horse breeding.

The republic has all the resources, natural and human, required for the big projects called for by the plan. In the number of specialists with college education, Uzbekistan is not only far ahead of the Asian countries but of many of the western countries also. For every 10,000 of population it has twice as many as France, for example. The republic has its own Academy of Sciences, an Academy of Agricultural Sciences and more than 100 research institutes and colleges.

In the seven years ahead the number of trained specialists in Uzbekistan will be multiplied to provide a larger reservoir of the talents and skills for this rejuvenated land.

Natural gas found near the ancient city of Bukhara in Uzbekistan will be piped to neighboring republics when this pipeline is finished.



With more machinery, better irrigation and new land opened for cultivation, Uzbekistan will be growing more cotton — the main crop in the republic.



# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**KAZAKHSTAN**

*Territory:* 1,067,600 sq. miles
*Population:* 8,500,000
*Capital:* ALMA-ATA



Kazakhstan has been training thousands of women for work in industry, sciences and humanities.

## A CHANGED KAZAKHSTAN

**By Kanysh Satpayev,** *President, Kazakh Academy of Sciences*

KAZAKHSTAN is one of the most productive of the Asian countries. With a population only one-third that of Turkey, it smelts 50 per cent more steel, generates four times as much electricity and mines five times as much coal. Pakistan's population is ten times as large but it produces 23 times less steel, 20 times less electricity and 54 times less coal.

In spite of a generally arid climate, Kazakhstan has in the past four years put in cultivation some 50 million acres of virgin lands and is now one of the biggest grain producers among the Soviet republics. Kazakh collective and state farms harvest six times as much grain as they did before these unused lands were plowed.

By the end of this year, under the impetus of the seven-year plan, Kazakhstan livestock breeders expect that their production of meat for sale will more than double over 1958—from 380,000 tons to more than 800,000.

Previous to the Revolution little had been done to explore Kazakhstan's mineral resources. The consensus of opinion was that Kazakhstan had nothing in the way of minerals but salt, an altogether erroneous conclusion. The republic is rich in minerals and has therefore a good base for large-scale industrial development.

By 1965, when the seven-year plan is completed, Kazakhstan will have built a large metallurgy industry on its enormous reserves of iron ore that run into the billions of tons. The Sokolovo-Sarbai ore concentration plant, already operating, will be supplying an annual 26 million tons of iron ore all by itself.

Among the largest of the new construction projects are the Karaganda iron and steel mill and the Yermakov ferro-alloy plant. The Karaganda mill, by 1965, will be producing almost as much steel every year as did all the mills in Russia in 1913.

A new aluminum plant is now being built in Pavlodar. The big Dzhezkazgan copper smelting plant will be adding to that industry's productive capacity. Lead, zinc, tungsten, molybdenum, nickel and manganese are now being mined intensively.

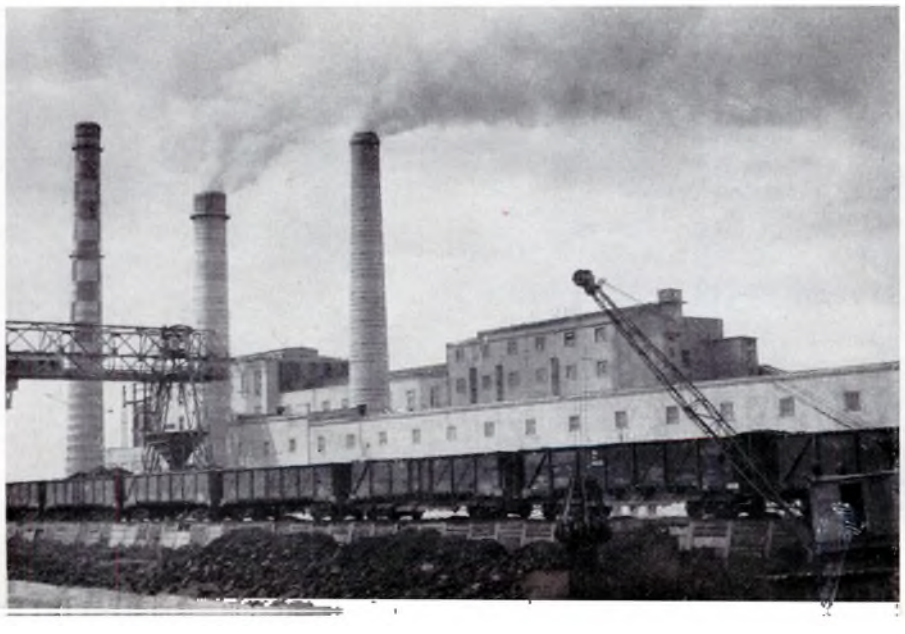
During the period covered by the seven-year plan close to 120 billion rubles will be spent to develop Kazakhstan's economy. This is 20 billion more than has been spent for capital construction since the birth of the republic four decades ago.

In old Kazakhstan the literate person was the rare exception. Now the republic has 26 colleges and institutes attended by 40,000 students. Another 27,000 study after working hours in correspondence and evening schools.

These schools of higher education have trained the thousands of research scholars now working in the Kazakh Academy of Sciences, the Academy of Agricultural Sciences, the Nuclear Physics Institute, and the institutes of law, philosophy, languages, literature and other Kazakh research centers.

The projects outlined for the next seven years will need more trained people in every field. The institutes have geared themselves to this perspective and propose between now and 1965 to train 56,100 specialists as compared with the 31,000 in the preceding seven years.

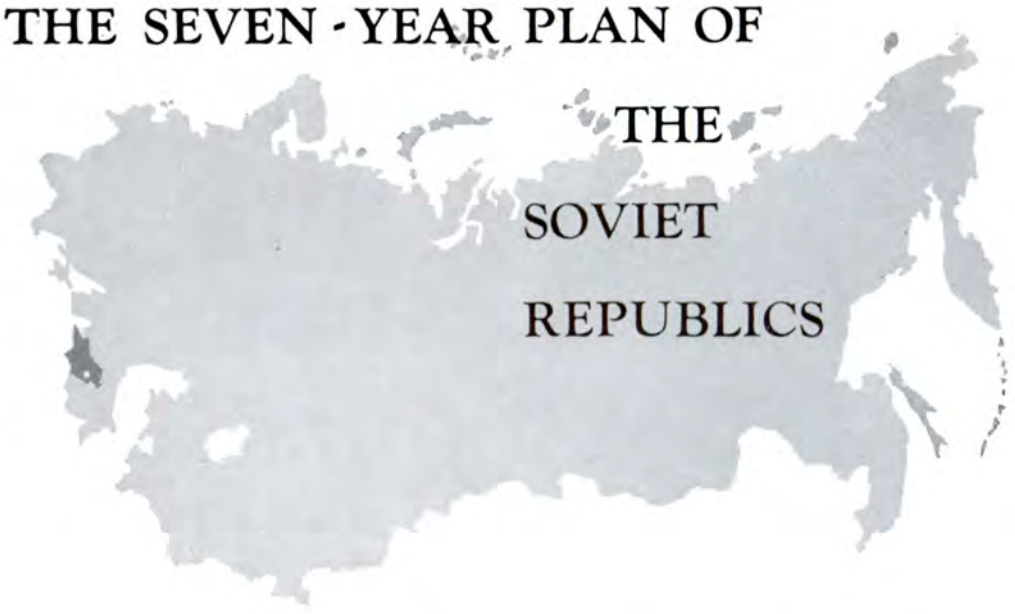
Power plants and steel mills in this Central Asian republic are fueled with local coal. Kazakhstan is building a large industry on its rich iron and coal reserves.



Collective and state farms like the one shown here are working 50 million acres of virgin lands turned to the plow.



# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**GEORGIA**

*Territory:* 27,800 sq. miles
*Population:* 4,000,000
*Capital:* TBILISI

# GEORGIA MULTIPLIES NATURE'S BOUNTY

**By Miron Chubinidze,** *President of the Presidium, Supreme Soviet of the Georgian Republic*

GEORGIA is a country of astonishing contrasts. The region on the Black Sea coast is humid, sub-tropical. Further inland are valleys with a drier, more temperate climate. And still further the country becomes slopes of snow-capped mountains. There are places in Georgia where one looks through the leaves of palm trees at summer snow on the mountain peaks.

Not all the contrasts are nature-made, however. The visitor sees a modern electric power station neighboring a time-worn feudal castle, rides on an electric train that crosses old mule paths, visits a mechanized collective farm in a region so poor forty years ago that three farm families shared one wooden plow.

But perhaps the most remarkable contrast is an advanced industry in this region that Lenin characterized as "even a more predominantly peasant country than Russia." Georgia now has 1,800 large industrial enterprises and some 14,000 smaller plants.

Projected for this small republic by the seven-year plan are new factories for the production of chemicals, electrical equipment, metal-cutting lathes, machinery for mountain and sub-tropical farming and other industrial and consumer goods.

The output of the electrical engineering industry in 1965 will be eight times that of 1958. This industry, which is still in its initial stage of development, will be replenished by 22 new plants. Production of chemicals will show a sixfold gain, while the output of metal-cutting lathes will increase 2.6 times and of trucks 2.5 times. Powerful trunk-line eight-axle electric locomotives have recently begun to be manufactured in Georgia.

Some years ago Georgian farmers began large-scale cultivation of sub-tropical plants. Now the plantations growing tea, oranges, lemons, grapefruit and tangerines extend over valleys and hillsides as far as the eye can reach.

The terraced tea plantations look as though they were pleated, and the farm people in their broad-brimmed straw hats make a pattern against the silvery green balls of the pruned tea plants. By 1965 Georgian tea planters expect to harvest 200,000 tons of green leaves annually, sufficient to fill the entire demand of Soviet consumers.

It would seem at first glance that this bounteous land grows crops without too much assistance from man. It is true that nature here is very generous but that generosity must be directed into channels that are not wasteful. This Georgian farmers have been doing and in the process they have multiplied nature's gifts many times over.



Georgia will be expanding its famed Black Sea resorts to accommodate more Soviet vacationers.

Tea planters of Georgia will be filling all the domestic demand by 1965, with surplus for export.



A few decades ago Georgia had no industry to speak of. It now has several thousand industrial plants. New factories are being built to produce chemicals, farm machines and consumer goods.





**AZERBAIJAN**

*Territory:* 33,600 sq. miles
*Population:* 3,400,000
*Capital:* BAKU

# AZERBAIJAN— LAND OF BLACK GOLD

**By Gasan Seidov,**
*Minister of the Azerbaijan Government*

AT ONE time Baku, the city of black gold, was Azerbaijan; and Azerbaijan was Baku. The city, surrounded by thousands of derricks pumping oil from deep inland and offshore deposits, was once the only industrial center in the republic. Now Baku must share its industrial honors with a half dozen or more new cities.

Once Azerbaijan had to get everything from matches to machines elsewhere. Now it manufactures more than 120 kinds of goods for export. In the years between 1959 and 1965 the republic will be building 250 new large industrial plants for machine tools, instruments, electrical equipment, chemicals, cotton and wool fabrics.

A concentration area will be industrial chemicals, with numbers of new plants scheduled that will be producing synthetic rubber, artificial fibers, plastics and a score of related items for industrial and consumer use.

But oil remains Azerbaijan's major industry. For more than 70 years oil has been extracted in Baku and its environs. Within the Soviet period large new deposits were found which supply more than four-fifths of the present output. The derricks on the Apsheron Peninsula near the city are so thick they seem to be continuous.

Complete towns have been built on steel trestles that stretch far out from shore to tap the rich oil under the sea bottom. By 1965, the seven-year plan envisages, oil extraction from the offshore deposits will be almost double the present figure.

Baku drilling has been highly mechanized. You walk through an oil field and hear the drills boring through the ground—some go down three miles and more. You listen to the hum of the giant pumps and compressors. But there are hardly any workers in sight, except for an occasional supervising mechanic moving from one derrick to the next.

Much of Azerbaijan, which borders on Iran, is sub-tropical with cotton the staple crop. Cotton growing is to be much expanded under the seven-year plan, with a goal of 600,000 tons by 1965 as against 270,000 last year.

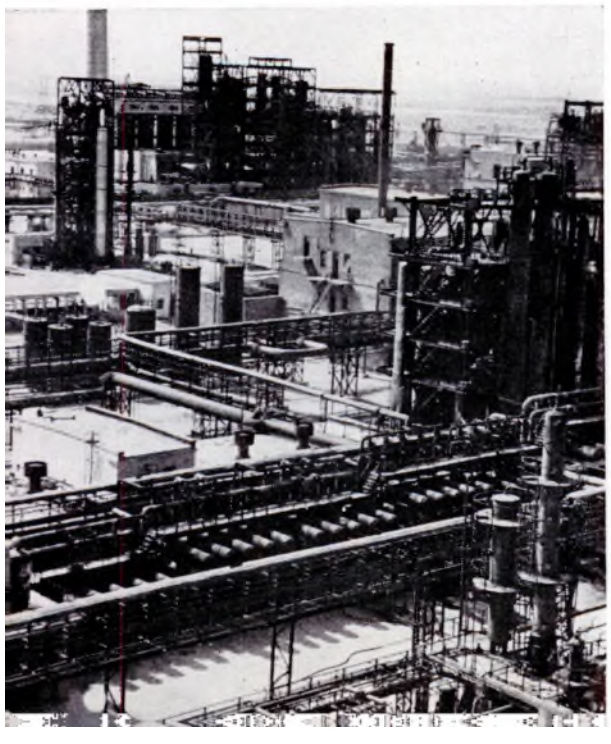
Horticulture and viticulture are to be developed on a large scale by extending the area of orchards, plantations and vineyards under cultivation, especially in the Lenkoran lowlands where a warm and humid climate and fertile soil combine to favor the growing of tea, pomegranates, figs, persimmons, oranges and lemons. This reclaimed land was impassable jungle not too many years ago.

By 1965 Azerbaijan's orchard crop is scheduled to grow to 130,000 tons from the present 53,000; its vineyards will be producing 400,000 tons of grapes as compared with the present 70,000.

Greater numbers of cows, buffalo, sheep and goats will be grazing in the republic's rich alpine and sub-alpine pasture lands. The output of meat, milk, eggs and wool is expected to have grown by 100 to 120 per cent between now and 1965.

The seven-year plan for Azerbaijan means a better life for its people—larger income, better housing, more leisure, greater cultural opportunities. All this is in the making.

This plant in Azerbaijan is part of the Soviet Union's rapidly growing synthetics industry.



Steel trestles reaching far out from shore to tap the republic's rich sea bottom deposits.



Better medical care, housing, education—that is the goal of Azerbaijan's seven-year plan.



**LITHUANIA**

*Territory:* 25,100 sq. miles
*Population:* 2,700,000
*Capital:* VILNIUS

THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



# WORKERS NEEDED, SAYS LITHUANIA

**By Alexander Drobnis,** *Chairman, State Planning Committee of the Lithuanian Republic*

FEW of the Soviet Republics have compressed so much into so little time as Lithuania. It is only since 1940 that it has been a member of the Soviet family of nations. Before that Lithuania was a neglected backwash of Europe with no industry worth the name, a primitive agriculture, and even the fisheries, one of its major sources of income, giving only the barest kind of living. Need forced people to migrate to distant lands.

Unemployment is only a historical memory in Lithuania today, as it is in every other Soviet Republic. There are not enough workers, farmers, fishermen to keep pace with growth. This is even more evident now as the seven-year plan gathers momentum.

There is hardly a spot in Lithuania where new factories and plants are not going up and where skilled and unskilled workers of any one of a hundred trades are not in urgent demand. That holds true not only for such old industrial centers as Vilnius, Klaipeda and Kaunas but also for regions which were most backward industrially only a dozen years ago—Siauliai, Panevezys, Aliitus and Ukmerge. In 1958 Lithuania's industrial output was eight times that of 1940. By 1965 it will surpass the prewar level by fifteen times.

The republic's toolmaking industries are growing fast. A chemical industry is being built from scratch. Both presently existing and new plants in the light industries will be turning out larger volumes of textiles, furniture and footwear. Production of various types of building materials is to increase several times over.

The republic's power base will be broadened with new electric stations like the one at Kaunas which will begin generating power this year. Natural gas will be piped in from the Ukraine through a new line now being built. Vilnius is building a factory for reinforced concrete sections and a meat packing plant among other projects.

All these and hundreds of other new and old factories already have help-wanted signs posted. But Lithuania is not depending on these signs altogether. Its vocational schools are training people for a long list of skills.

Lithuania's agriculture has been moving forward with equal speed. Electrification and mechanization of the republic's collective farms and drainage of swamp areas is well advanced now. More will be done along these lines between now and 1965 to increase farm yields. By 1965 the quantity of milk produced will be double that of Lithuania before it became a Soviet Republic.

The catch of Lithuania's fishing industry is 35 times as great as it was in 1938. Today well-equipped boats scour not only the Baltic shores but the North Atlantic and Pacific waters as well. And in farm villages and fishing ports you see the same familiar signs and newspaper notices: "Help Wanted."



Textiles, furniture, footwear in quantity are being mass-produced by Lithuanian factories.



Training specialists for the new industrial plants being built everywhere in the republic.

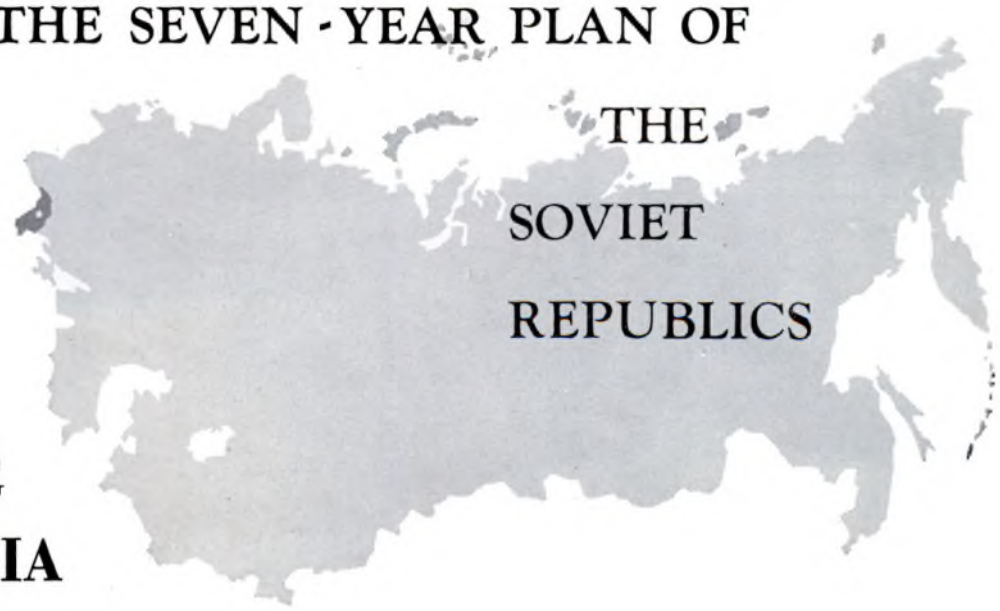


Workers in a hundred trades are needed as Lithuania's seven-year plan gathers momentum.

**MOLDAVIA**

*Territory:* 13,100 sq. miles
*Population:* 2,700,000
*Capital:* KISHINEV

THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



# ONLY THE BEGINNING FOR MOLDAVIA

**By Pavel Rozhansky,** *Vice Chairman, Economic Council of the Moldavian Republic*

ALTHOUGH Moldavia is the youngest republic in the Soviet Union—it was formed in 1940—it has a particularly important contribution to make toward the seven-year plan.

Moldavia is a region famous for its fertile soil and moderate climate, with hill slopes protected from cold winds, exceptionally suited to grape cultivation and fruit growing. Although great tracts of land are planted to cereals, Moldavia's major growing areas are given over to vineyards and orchards.

The Dniester valley is covered with fertile mud washed down from the Carpathian Mountains. The whole of this region not too long ago was almost solid swampland. Thick grass, brushwood and tangles of wild vine and hops made the banks of the river impassable. Earthen dams were built to protect the land from the spring floods, the soil was drained, and gardens, orchards and vineyards were laid out. The result was bumper crops.

Progress was interrupted by the war when the Moldavian Republic was occupied and ravaged by the fascist armies. In a remarkably short time after liberation, Moldavia, with the help of other Soviet Republics, built up its industry and agriculture to a point far beyond prewar levels.

Moldavia's seven-year plan calls for the construction of more than a hundred new wineries, five sugar refineries and three meat-packing plants. By 1965 the republic will be processing a million tons of grapes annually and the output of sugar will be trebled over the present level. It will be supplying the country with fresh and canned fruits and vegetables. Six new canneries will be built and the old ones modernized.

Moldavia now has a growing machine-building industry. Among the new projects are a food industry machine factory to be built in Kishinev which will be making equipment for wineries, sugar refineries, creameries and meat packing plants.

Nor is construction to be confined to industry. In Kishinev, Beltsy, Tiraspol and Bendery large-scale building is already under way for housing, schools, theaters and hospitals. In the villages the old whitewashed clay huts are being replaced by modern houses. Modest estimates indicate that in the past five years one farm family out of every eight has moved into a new house.

Considering that Moldavia began its economic planning only after the war, all this is by no means a negligible record of accomplishment. But this, the Moldavians say, is no more than a beginning.



Young citizen of Moldavia—the youngest of the Soviet Republics.



Moldavia's gardens, orchards and vineyards are growing bumper crops.

**LATVIA**

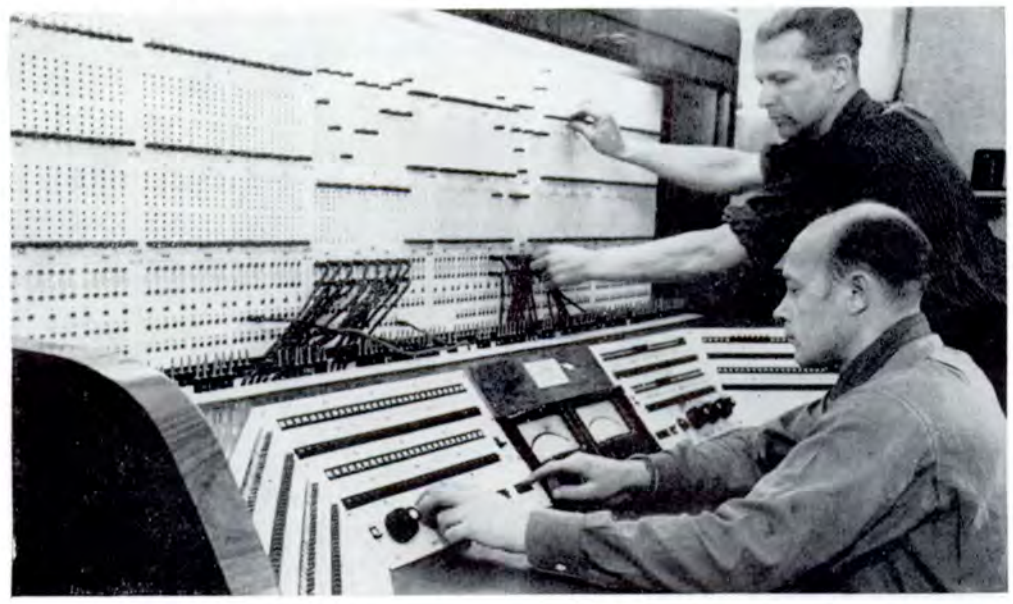
*Territory:* 24,700 sq. miles
*Population:* 2,000,000
*Capital:* RIGA

THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



# LATVIA'S LIMITLESS HORIZON

**By Georgi Gaile,** *Chairman, Economic Council of the Latvian Republic*



Latvia is one of the most industrially developed of the Soviet Republics. Its highly skilled engineers and technicians make precision instruments of the most diverse kinds.

A COMPARATIVELY short time ago Latvia exported bacon and butter and imported industrial machinery. Today Latvia sells complex machines and precision instruments to China and Burma, India and Poland, Britain and Czechoslovakia.

As for bacon, butter and other foodstuffs, they are being produced in increasing quantities for home consumption—and with surplus for export.

Latvia today produces nearly twice as much milk per farm hand as she did before joining the Soviet Union in 1940. The organization of collective farms and the use of machinery in Latvia's traditional farm branches, dairying and pig breeding, made for this marked rise in productivity.

The picture of industrial growth is no less favorable. Compared with the prewar level, industrial output has increased nearly ninefold, with a more than 100-fold growth in engineering industries. Latvia's new factories manufacture electric trains, diesel engines, radio and telephone equipment, textiles and clothing, canned fish and a multitude of other products.

This farm and industrial growth has had its very telling effect on the well-being of the Latvian people. In the next seven years 70,000 new apartments will be available in cities alone. More than a thousand new retail shops and restaurants will be opened. Forecast for 1965 is an increase of 60 per cent in retail trade to come from higher purchasing power.

Some of the Soviet Union's most beautiful seacoast resorts are situated on the Baltic shores near Riga. They are favorite holiday places for Latvian workers and farmers and draw vacationers from all Soviet Republics. Here and elsewhere in the republic new vacation and health resorts for adults and children's summer camps are being built under the seven-year plan.

New schools, libraries and theaters by the scores are planned for the next seven years. The Latvian Academy of Sciences is beginning to build new laboratories for research in the peaceful uses of atomic energy.

Reduced working hours envisaged by the seven-year plan will give people more leisure to develop their talents in the adult schools now being set up for the study of art, literature, music and dramatics. In addition to legitimate theaters Latvia has seven people's theaters with workers and farmers staging productions which have won the praise of both critics and audiences.

Shorter hours without reduction in pay will be coming as a result of increased mechanization and automation. Latvian workers are anxious to make their contribution toward this, because higher productivity means more social wealth and more social wealth means a higher standard of living for everyone.

The new horizon that the Latvian people opened for themselves in 1940 when they decided to build socialism in their republic has been much broadened by the seven-year plan.

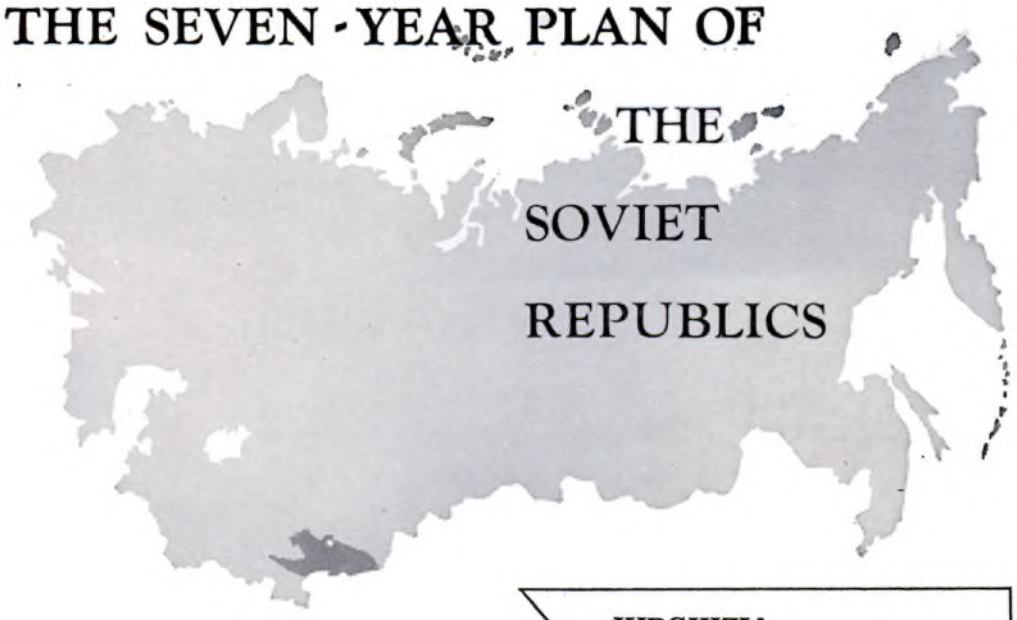
One of the numerous new retail shops that Latvia builds as part of the seven-year plan.



Latvian trawlers fish all the way from the Baltic Sea to the waters of Newfoundland.



THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**KIRGHIZIA**

*Territory:* 76,400 sq. miles
*Population:* 1,900,000
*Capital:* FRUNZE



Kirghizian schoolgirls. Only a few decades ago their nomad forebears had no written language.

# KIRGHIZIA DEVELOPS ITS NATURAL RESOURCES

**By Turabai Kulatov,** ***President of the Presidium, Supreme Soviet of the Kirghizian Republic***

KIRGHIZIA is highland country. Rising gradually from west to east, the Tien Shan mountains reach a height of more than four miles above sea level on the border of China. Fine alpine pastures stretch along the slopes below the snow line. In the summer, when there is an abundance of sunshine and moisture, the pastures are green with thick rich grasses. The northern slopes are overgrown with forests and the hillsides secrete a rich store of mineral resources.

Our fathers and grandfathers made little use of this great natural wealth to better their lives. How could they? For the most part they were illiterate nomads with no written language. They set up their felt tents wherever their herds of horses and flocks of sheep grazed. Most of them lived their lives on horseback.

Now from our midst come talented engineers, scientists, musicians, actors. We have begun to develop mining, nonferrous metallurgy, oil extraction and a power industry which will be greatly augmented by the seven-year plan.

New plants are to be built around deposits of highly calorific natural gas recently found in the southern part of Kirghizia. They will be supplying fuel for household use and raw material for the manufacture of mineral fertilizers and synthetic fibers.

Before 1965 we shall have completed electrifying all our rural districts. High tension lines will cross the mountains and valleys to carry our surplus electricity to neighboring republics—Uzbekistan and Kazakhstan.

Our consumer goods industries are to be expanded. A cotton mill is to be built in the old city of Osh and a worsted mill in the Chu valley. Meat packing plants, dairies and canning factories are going up in all parts of the republic.

Livestock farming remains the most important branch of our agriculture. By the end of 1965 we shall have increased our meat production threefold and our wool clip will have more than doubled. We expect to be marketing a million tons of dairy products annually by that time.

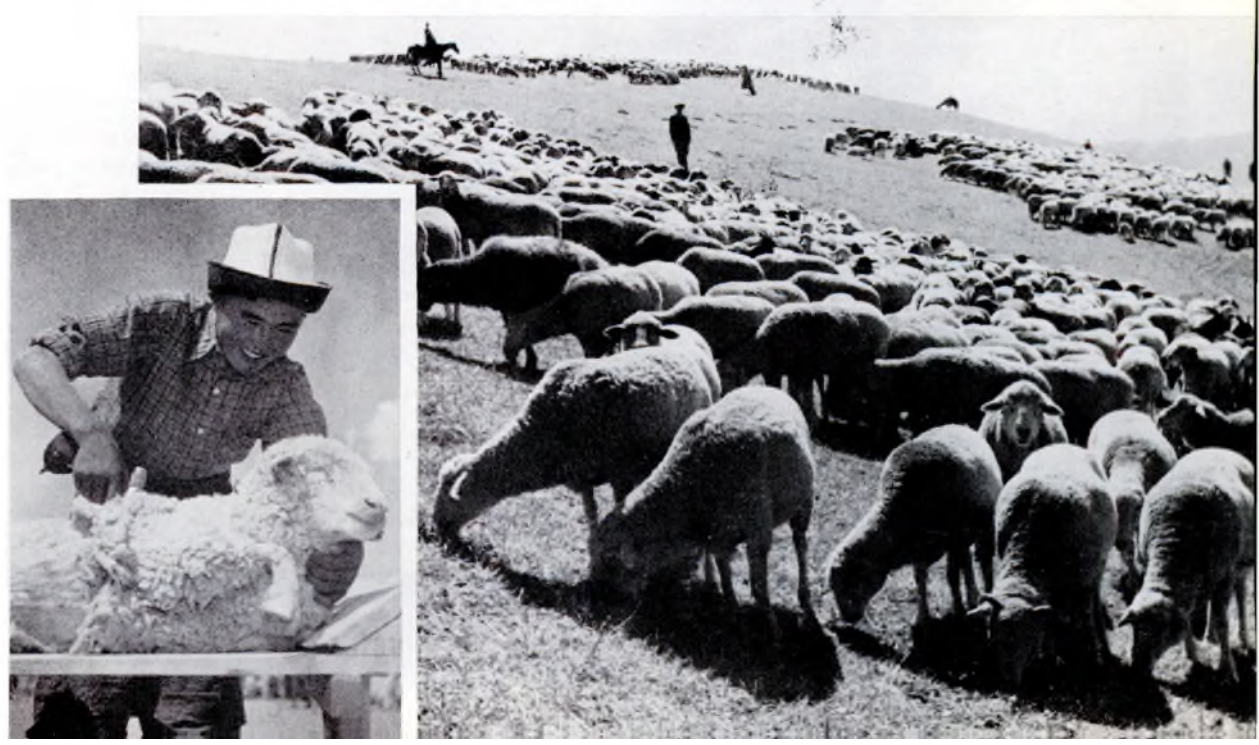
Our livestock farmers no longer have the perennial problem of water. Today it is not man who follows water; water follows man. Our fields and plantations are irrigated by numerous canals. In the next seven years new reservoirs, each holding millions of gallons of water, will be built in the mountain regions of Kirghizia.

Chronologically we are only decades removed from the primitive way of life of our fathers; in accomplishments we are many centuries distant.



Kirghizia is building mountain reservoirs as part of an extensive farm irrigation project.

Rich alpine pastures make livestock farming one of Kirghizia's main occupations. By 1965 the republic will have more than doubled its wool clip and tripled its meat production.



# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS

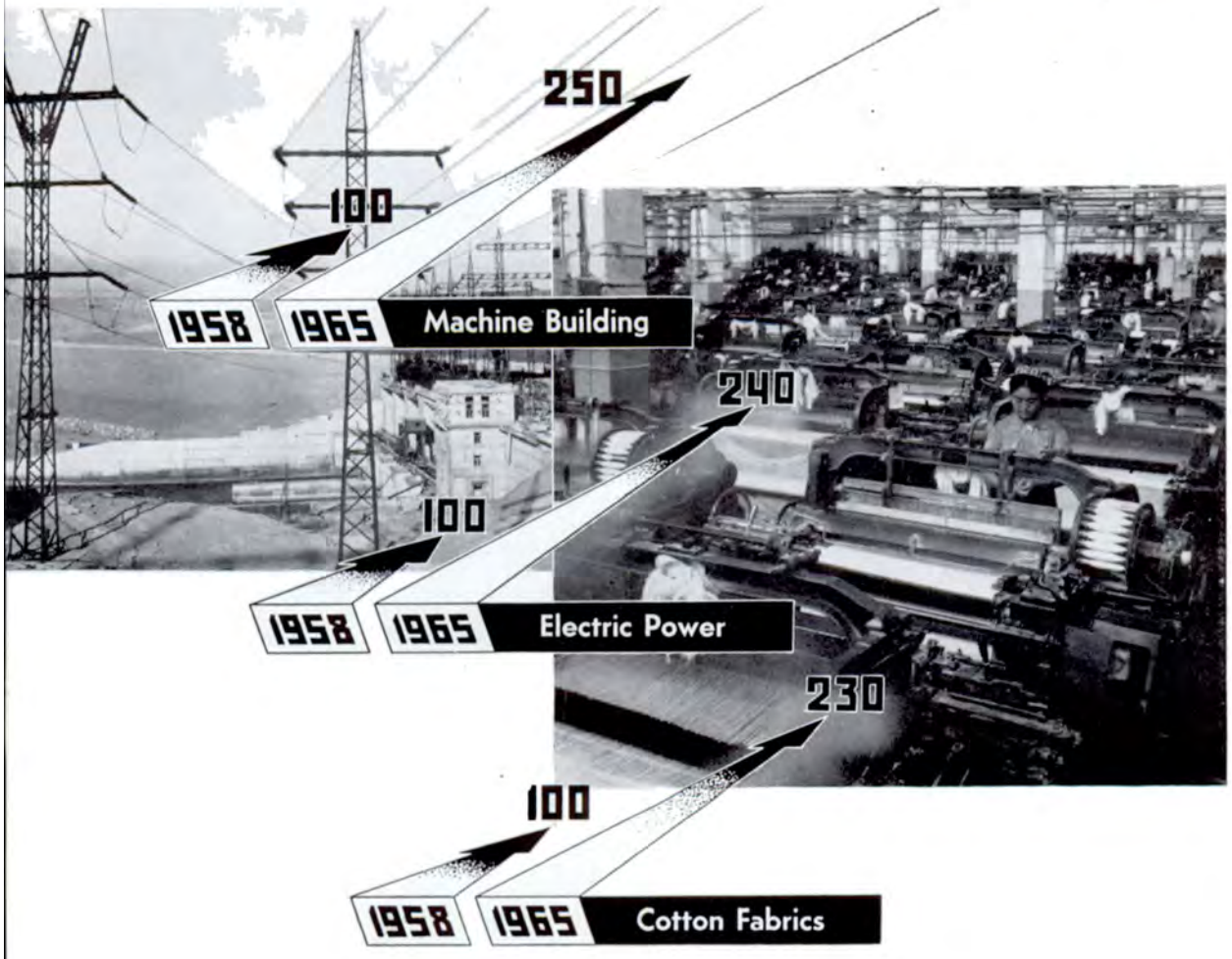


# TAJIKISTAN— THE HUB OF ASIA

**By Sultan Umarov,** *President, Tajik Academy of Sciences*

**TAJIKISTAN**

*Territory:* 54,800 sq. miles
*Population:* 1,800,000
*Capital:* STALINABAD




Young research student. People of Tajikistan have a rich and ancient culture.



TAJIKISTAN lies in one of the world's most remote corners—if one can use this term in our age of jet planes and space rockets. It borders on China and Afghanistan where great mountain systems meet to form the hub of a continent.

For centuries Tajikistan was Asia's crossroad, meeting place of Persians, Arabs, Greeks and Mongols. It is a country with an ancient culture which gave to the world famous poets and philosophers—Avicenna and Saadi, Firdousi and Rudaki, Omar Khayyam and Balhi.

But this was the glory of a remote past. Before the 1917 Revolution the region was the domain of the Emir of Bokhara. The writer Aini, who was one of the founders of Soviet Tajik literature and president of our Academy of Sciences, carried scars of a lashing on his back until he died. He was beaten by order of the Emir.

For a long time Tajikistan was a poverty-stricken land where peasants could hardly make ends meet. All of its industry then employed only 200 people.

Flourishing fields now stretch where there was little but barren, sun-baked earth before. The more developed of the collective farms have incomes running into the millions.

Thousands of workers are now employed in factories built by the republic. There is a large-scale industry for food processing. Textiles are woven at the big mills in Stalinabad and silk in Leninabad.

Tajikistan has its own body of specialists trained in the republic's own schools. There are 43 scientific research institutes.

This is a land of eternal snow-capped mountains out of which are now extracted coal and ores, of fruitful valleys which grow cotton crops with the highest yields per acre in the world.

Mine tunnels are now digging deeper into the mountain sides, and the energy of the mountain streams is being converted into electricity. In the valley plantations machines are increasingly taking over farm chores.

Industrial and agricultural development will be greatly accelerated by the seven-year plan. By 1965 Tajikistan will generate 2.4 times more electric power than at present. The biggest hydropower station in Central Asia is now being built on the Vakhsh River.

Cotton, the republic's prime crop, is scheduled for a 50 per cent increase by 1965. Under the plan, new industries will be created—chemical, cement and machine-building. A new pipeline will be laid from Uzbekistan to supply natural gas to the two biggest cities in the republic, Stalinabad and Leninabad. Aside from the economic benefits that this joint project will bring, it epitomizes the cooperative way in which the Soviet Republics work.

While there will be an 80 per cent increase in capital investment for the Soviet Union as a whole during the next seven years, the scheduled increase for Tajikistan is to be twice that—a sum equal to the total of all capital investment in the republic since it has been part of the Soviet Union.

Tajikistan of today is in the process of growing into an industrial center—the new hub of Central Asia.

# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**ARMENIA**

*Territory:* 11,600 sq. miles
*Population:* 1,600,000
*Capital:* YEREVAN

# ARMENIA— RICH IN PEOPLE

**By Shmavon Arushanyan,** *President of the Presidium, Supreme Soviet of the Armenian Republic*

HALFWAY between the Black Sea and the Caspian, high up in the mountains, as if lifted toward the sun, lies Armenia. Although this a country with rich soil and talented people, it was for centuries one of the world's most impoverished and unhappy lands.

In ancient days Armenia's cities and villages were time and again leveled by successive invaders—the Assyrians, Romans, Arabs, Mongols, Persians and Turks. And each time the people rebuilt their country and revived their age-old culture. But Armenians were never certain that they were not building for the next invader.

The Socialist Revolution of 1917 brought freedom, and these past four decades Armenians have been building for themselves and for generations to come. Dozens of new cities have sprung up. Yerevan, the capital, has grown more than 20-fold in the Soviet period. It will be growing even faster under the impetus of the seven-year plan.

Old Yerevan was an unsightly town of narrow streets, flat roofs and clay huts. It was called the "clay pot." Present-day Yerevan is a city of wide avenues shaded by luxuriant greenery.

Its blocks of houses, with new ones being constantly added, are built in rose, yellow, blue, orange, black and silvery stone. The new opera and ballet theater in Yerevan is one of the most beautiful in the Soviet Union. The new building for the Matenadaran, the famous manuscript archives which house documents fifteen centuries old, is a veritable palace for size and design.

Yerevan has grown into a university city, a scientific and industrial center. Cars equipped with tires carrying the Yerevan Tire Plant trade-mark travel the roads of the Urals, Siberia, the Ukraine and all the Central Asian Republics.

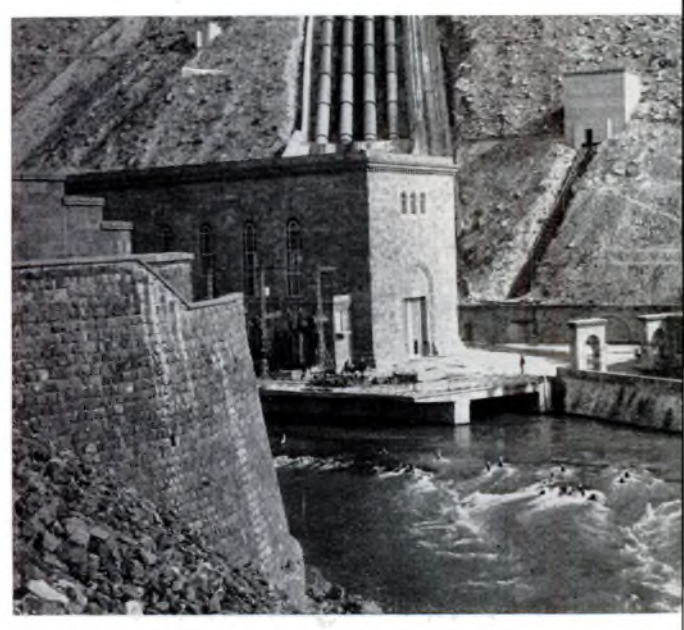
Nor is Yerevan the only city which is growing by leaps and bounds. Kirovakan, Leninakan, Kafan, Alaverdy and others are slated as important industrial centers under the seven-year plan. By 1965 Armenia will be one of the country's most productive machine-building and precision instrument centers.

Most important of the newly-developing regions is Akhta, where an industrial city is growing up. Another is Zangezur in a mountain region which has been source for a whole folklore. Its mountains will soon be giving up their treasures of copper, molybdenum and other metals.

But Armenia's greatest treasure is her people. The cities Armenians are building are for themselves and for their children. They will be living in these modern houses, using these schools, nurseries and stores.

By 1965 the republic's population will be able to buy 73 per cent more goods than today. Cash income will have risen by 47 per cent and pensions and other social benefits by more than 70 per cent.

The plan for the development of their republic was one the Armenian people worked out. They have begun to build by that grandly conceived program for an abundant future.



The fast mountain rivers in Armenia are being harnessed to light homes and run machines.

Armenia has a rapidly growing system of higher education—a university and several technical, agricultural, medical and veterinary institutes.



A test laboratory in one of Armenia's electrical engineering plants. Many of the republic's cities will be growing into industrial centers by 1965.



# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**TURKMENIA**

*Territory:* 188,400 sq. miles
*Population:* 1,400,000
*Capital:* ASHKHABAD

**By Berdy Kerbabayev,** *Writer*

# TURKMENIA TRANSFORMS A DESERT

IN ONE of the January issues of a Turkmenian newspaper (incidentally, four decades ago Turmenia had no newspapers) I came across the following: "The Cheleken and Kum-Dag wells have already produced their first gallons of oil and the cotton gins of Ashkhabad have already turned out the first fibers of the new seven-year plan."

Oil derricks in Turkmenia; a 250-mile canal across the Kara-Kum Desert; Nebit-Dag, a shaded city built amid the sands! All this would have been unbelievable a short twenty years ago.

What is happening in this republic of mine today is magnificent, and tomorrow offers a promise of even greater things to come. Turkmenia is desert country, a land of hot sun and little water. The Kara-Kum, one of the biggest sand deserts on the globe, makes up three-quarters of its territory.

But the desert is not lifeless. It is covered by sparse grass. Try to pluck this dry grass and you will pull up a long root which feeds the plant with the moisture present under even the hottest sand. The grass gives fodder for the sheep and for the camel.

Before the 1917 Revolution the Turkmenians followed their herds through the desert from well to well. Now the nomads are settled and the herds are driven to seasonal pastures over routes spotted with dug wells, some of them more than 600 feet deep. On the collective farms wind engines are used to pump subsoil water to the surface.

Oases scattered through the southern and eastern parts of the republic have been irrigated and are growing superior cotton with a long silky fiber, fragrant honeydew melons and seedless grapes. The Kara-Kum Canal, the first section of which was finished recently, will soon be bringing the waters of the Amu-Darya River to oases hundreds of miles to the west.



These Turkmen schoolgirls will be working on a par with men at whatever vocation they choose.

Geologists are finding liquid treasures of another kind in the Kara-Kum Desert. Not far from Kushka, the southernmost point of the Soviet Union, oil is spouting from a forest of derricks. Western Turkmenia is destined to become an important oil center by 1965.

Oil, however, is not the only industry which is to be developed. The production of all kinds of consumer goods is to be increased many times over. Such items as footwear, furniture, knit wear and foodstuffs will be manufactured and processed not only for the growing consumer demand within the republic itself, but for sale to other parts of the country. Mills for weaving silk and cotton goods are already in process of construction. A fish cannery will soon be getting under way on the shores of the Caspian.

Turkmenia is a busy republic these days. The old towns are changing almost while you look on. Hundreds of new homes, new schools and libraries keep going up.

Only yesterday the word "theater" was foreign to the Turkmenian peasant. Today he sits in a spacious concert hall in Ashkhabad listening to his daughter, an opera star, singing a song composed by his neighbor's son.

The hot Turkmenian soil absorbs moisture not as avidly as its people absorb knowledge. Yesterday's camel herder no longer seeks through the desert for the track of a strayed animal; with his geologist's kit he prospects for new sources of water, oil, mineral wealth.

These self-propelled machines made in Uzbekistan are picking Turkmenian cotton to be woven into textiles by mills in various parts of the country.






Turkmenia is desert country. The oases in many parts of the republic are irrigated and grow quality cotton, honeydew melon and luscious grapes.

**ESTONIA**

*Territory:* 17,400 sq. miles
*Population:* 1,100,000
*Capital:* TALLINN

# THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



**By Ivan Kebin,**
*First Secretary of the Central Committee, Communist Party of Estonia*

## ESTONIA BUILDS AROUND ITS SHALE DEPOSITS

ESTONIA is rich in shale, a mineral of wide and varied uses. It can be used, for example, as fuel for power stations and as raw material for production of gas, oil, medicine, plastics, artificial ice and building materials. It abounds in a big section of the republic along the coast of the Gulf of Finland.

Estonia's economic development during the next seven years will be centered around its shale deposits. Before 1940, when Estonia joined the Soviet Union, most of the shale extraction was done by hand. During the postwar years the industry was completely modernized.

The center of the industry is Kohtla-Jarve, once a small town which in the past ten years has grown into a city of considerable size. Its shale processing plant, built during the Soviet period, pipes gas to Tallinn and Leningrad.

During the planned seven-year period Estonia will double its present rate of shale extraction. By 1965 it will be mining 16 million tons, quite sufficient to supply a growing industry and new thermal power stations with cheap fuel.

Not only will the republic be completely electrified but there will be enough cheaply-generated power to supply Latvia and the Leningrad region. High-tension transmission lines are being built which will subsequently be joined up with the single power system of the European part of the Soviet Union.

Our scientists and engineers are devising new methods for shale extraction and processing which will lighten the job of the miner and at the same time make his work more productive. The Tallinn engineering plants have started producing shale combines to replace laborious manual processes.

The republic's chemical industry, based on shale, will almost double its output of raw materials for the consumer goods industries by 1965. Research institutes are experimenting with new uses for shale and have been training specialists for the industry.

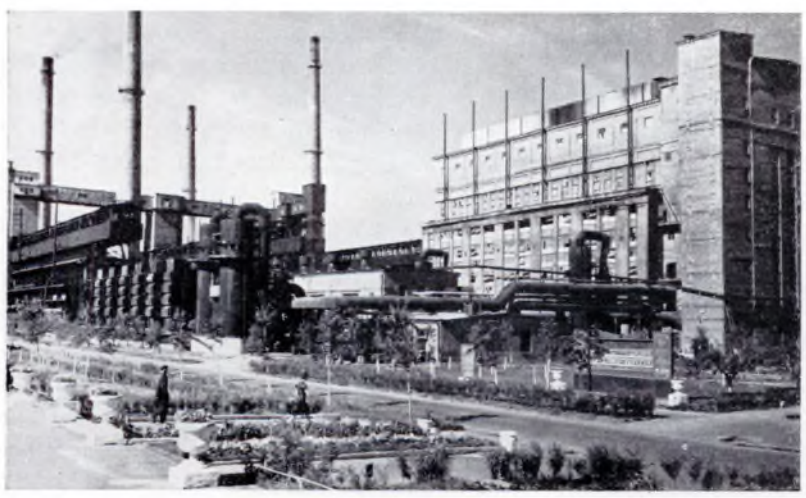
Concentration on this major industry does not preclude development in other areas of Estonia's economy. As a matter of fact, the republic is already deservedly famous for its electrical engineering and instrument-making industries.

As the seven-year plan progresses, new plants will be built for the manufacture of X-ray equipment, mercury arc rectifiers for electric locomotives and various instruments using transistors and radioactive isotopes. As for the republic's agriculture, it will be producing more meat, milk, vegetables and other produce.

Even during the first year of this plan aimed to give Soviet workers a higher standard of living, its impact is already felt in such very concrete terms as better housing, more social services and shorter working hours. Many of the republic's industrial and office workers have already shifted over to a seven- and six-hour workday with no reduction in pay, with another cut in work time to a 30-35 hour workweek scheduled for 1964.

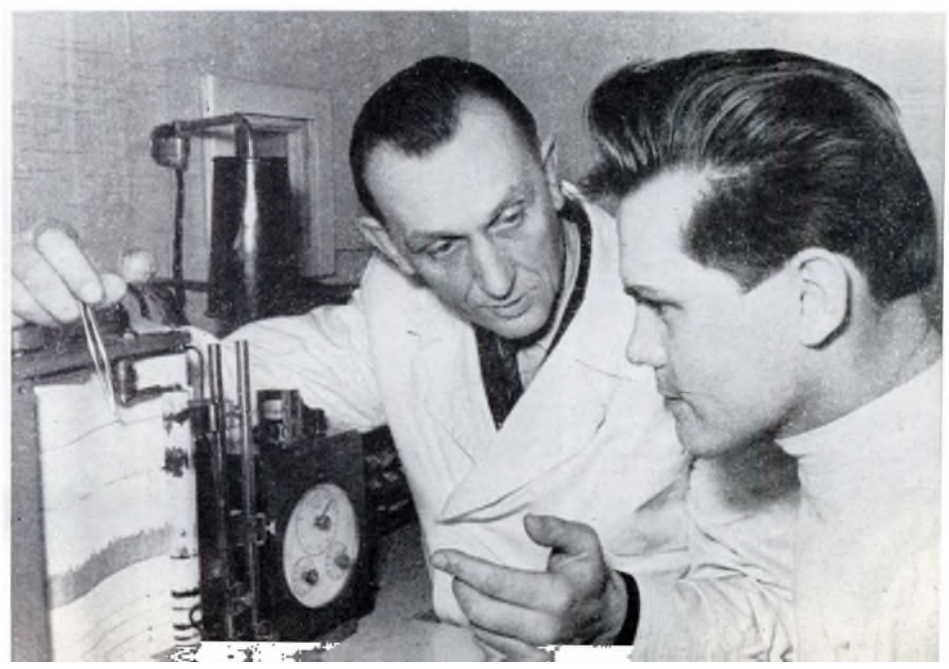


Estonia's seven-year plan schedules many more housing projects like this one in Kohtla-Jarve.



This new plant in Estonia and others to be built in the coming years transform the republic's abundant shale into gas, oil and medicines.

Estonia will be allocating increasing funds budgeted under its seven-year plan for scientific research. This is a study of nerve reactions.










# Soviet Newspapers













**By Mark Arkadyev**
Journalist

MORE than 62 million copies of newspapers come rolling off the presses in the Soviet Union. They are read by a great many more people than that, however, for besides newsstand and subscription sales, copies are posted on bulletin boards in towns and villages and are freely available at clubs, libraries, theaters, railway stations and other places where people gather.

The biggest of the Soviet dailies is *Pravda (Truth)*, the official organ of the Central Committee of the Communist Party, with a circulation of 5,650,000.

At the end of the last century, when a Marxist workers' party was just beginning to emerge in Russia, Lenin proposed that a national political newspaper be founded. It was to replace the local leaflets which had been used to spread word of the party's program. The paper founded then was *Iskra (The Spark)*. It was superseded in 1912 by *Pravda*.

From its very first issue *Pravda* has spoken for Russia's working millions. In czarist days it was printed by hand in a changing succession of cellars and hiding places, in ever-present danger of suppression. Traced by the police to one spot, its type confiscated and staff imprisoned, the paper popped up in another, sometimes under a changed masthead but always unalterably dedicated to the struggle for a better way of life.

Although the *Pravda* of those days before the Revolution left much to be desired for quality of paper and ease of reading—it was supported entirely out of the hard-earned pennies contributed by factory workers and poor peasants—and although its circulation was small, it spoke with an infinitely more powerful voice than the heavily-financed press of the czar. To be caught reading an illegal paper meant a prison term, but every copy passed through hundreds of eager hands until the paper was so worn through that the type was no longer legible.

A reflection of *Pravda's* prestige is the fact that May 5, the date of the appearance of its first issue, is commemorated throughout the country as Soviet Press Day.

### Almost 10,000 Newspapers Published

Today *Pravda* is one of the world's biggest newspapers. Its editorial offices are in Moscow but it is printed simultaneously in many cities from matrices flown in from the capital. *Pravda* newsmen cover every part of the Soviet Union and are stationed in many foreign countries.

*Izvestia (News)*, the official government organ, is another of the big dailies with a large national circulation. So is *Trud (Labor)*, published by the USSR Central Council of Trade Unions. *Komsomolskaya Pravda*, published by the Central Committee of the Young Communist League, has a circulation of 2,500,000 which sells out as soon as it hits the stands.

These and many others of the nationally-circulated papers are published in Moscow.

Each republic and every town of any size has its own newspapers in addition. Besides those published in the Russian language, there are 2,500 papers printed in sixty of the languages spoken in the country. All told, the Soviet Union has 9,936 newspapers. In addition, there are 858 magazines published with a total circulation of 26 million copies.

### Papers for Special Audiences

Aside from those which appeal to the general reader, there are numerous papers oriented to a particular audience. *Literaturnaya Gazeta (Literary Gazette)*, published by the Union of Soviet Writers, has many hundreds of thousands of readers. As the name indicates, it is primarily concerned with problems of literature, but it devotes considerable space to a much wider range of topics and takes vigorous positions on all of them. It covers the more important domestic and international affairs from the viewpoint of the Soviet writer.

There are 16 newspapers devoted to economics, industrial construction and related fields. These have a reading public much larger than their special character would seem to indicate. A paper such as *Promyshlenno-Ekonomicheskaya Gazeta (Industrial and Economic Gazette)* is required reading for plant directors, engineers and other people at the managerial levels, but it is not at all uncommon to find the paper in the home of a worker in one of the skilled trades.

Soviet railroad men, with the professional loyalty that workers in that field seem to have the world over, will go through their railroad paper first thing at the breakfast table. There are 90 railroad newspapers, from *Gudok (The Whistle)*, the big nationally-circulated daily, to those put out by local lines.

*Selskoye Khozyaistvo (Agriculture)* is the farmer's paper, but it has many readers in the towns. So does the teachers' gazette, *Uchitelskaya Gazeta*, among parents and *Meditsinsky Rabotnik (Medical Worker)*, among non-medical people.

There are papers published for army readers, for university students and for many other groups with common interests. Many of the local papers for young people are patterned on the bright, topical *Komsomolskaya Pravda*. Sports newspapers like *Sovietsky Sport* are immensely popular with old and young readers.

Both the nationally-circulated dailies like *Pravda*, *Izvestia* and *Trud* and those published regionally by local governmental divisions or public organizations give major space to national and international affairs. The problems they deal with are likely in many cases to be the same but the slant will be quite different, depending upon the special interests of the locality as reflected in the letters sent in by readers and the individual emphasis of the editors and staff writers.

Newspapers are on the stands early, five or six in the morning. The evening papers, mostly regional, carry more local news, less of the very thorough-going analyses than the morning papers and more lighter material generally—stories, poems, humor, cartoons and feature articles.

The bigger papers have their own publishing setups. The smaller ones have joint facilities for editing, printing and distribution.

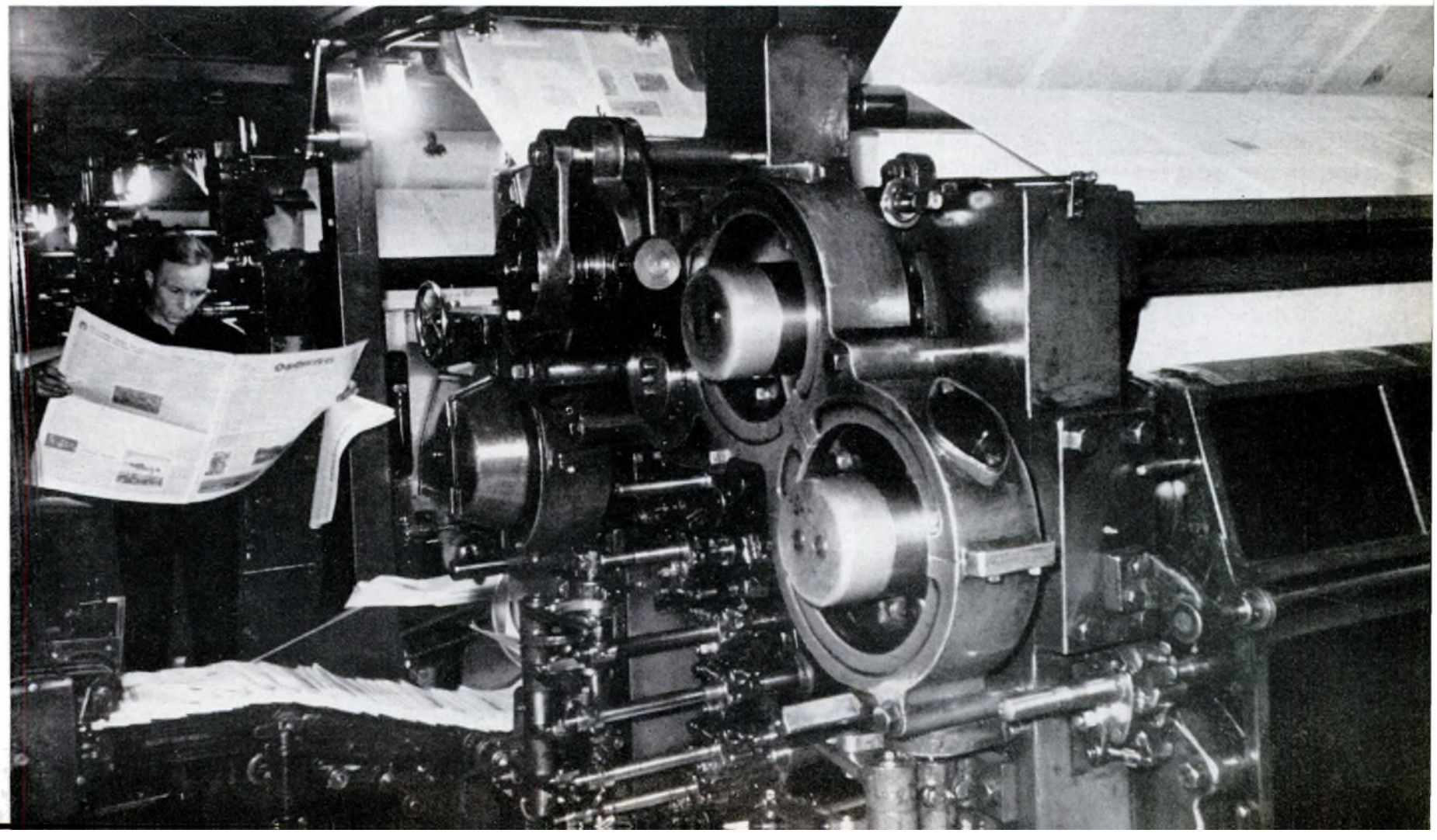
### Forums for Public Opinion

Newspapers are not commercial enterprises in the Soviet Union. It is not their function to publicize the point of view of the individual publisher or to serve as a medium for profit-



*Izvestia* editorial offices in Moscow. The paper, which is published daily and has a large national circulation, is the official government organ.

**5,650,000 COPIES OF *PRAVDA* COME OFF THE PRESSES DAILY. ITS CORRESPONDENTS ARE STATIONED THROUGHOUT THE SOVIET UNION AND IN MOST FOREIGN COUNTRIES.**






The ink is hardly dry when the newspapers are loaded on planes to reach subscribers the same day.

Soviet citizens are avid newspaper readers, and sorting mail at the post office is no small job.



# Soviet Newspapers

able advertising. Nor is their primary obligation to entertain. The job of the newspaper is purely and simply to inform and educate and to serve as forum for the freest expression of public opinion.

Just as there are no privately-owned industrial plants in the Soviet Union, there are no individually-owned publishing houses, whether for newspapers, magazines or books. A Soviet newspaper, regardless of its size, does not reflect the viewpoint of any single person. It is the community viewpoint and the community interest which is always represented. Its publisher will be one of several public organizations—a republic's or a city's Soviet, a local division of the Communist Party, a trade union, a particular factory, a student organization, or an administrative body.

This is in keeping with the socialist concept of public ownership and cooperative living. The constitutional guarantee of freedom of the press is not merely a paper proviso, but one which provides the people of the socialist society with the printing presses, the stocks of paper and the distribution facilities through which this freedom may be exercised.

The publishing house does the purely technical work of getting the paper out. All editorial work is in the hands of the editorial board headed by the editor-in-chief. The board is made up of writers, specialists in various fields and esteemed community people.

The editorial board is chosen by and is responsible to the organization that publishes the paper, but the final authority is always the reader. Editorial boards are very sensitive to public sentiment and Soviet newspaper readers are great letter-writers. Readers' conferences are held frequently and are by no means cut-and-dried affairs. Comment at these conferences is inclined to be very direct and, on occasions, vitriolic.

The editorial board plans the paper collectively. The latitude on controversial questions is unlimited in the planning and discussion stage but the article when it appears will most usually represent the composite judgment of the board as a whole.

### Guardians of the Public Welfare

The popular soil which nourishes the Soviet press makes for journalism which is forward-looking and creative. It mirrors the optimism of a country which has continued growing in these past four decades and a people certain of its direction of movement.

The Soviet press reports the news, it does not have to sell it. It does not go in for sensationalism to attract readers. Nor does it give space to gossip, scandal or the more intimate details of people's lives. The personal lives of Soviet citizens are private, except as they affect the public welfare.

A Soviet newspaper is for serious informative reading—the important national and international news of the day; current developments in industry, farming, science and the arts; contributions made by individuals in one or another field of endeavor.

In addition to current news, the paper will carry articles on aspects of economics, art, politics, science and education that are of more than immediate interest. Some of these, written by eminent scholars in the field, are of long-lasting significance and are clipped by many readers for future reference.

The Soviet daily is not a bulky newspaper. It averages four closely-printed pages and carries little or no advertising.

Criticism is a very basic function of the Soviet press, as it is of such other guardians of socialist standards and ethics as the party, the unions and all other public organizations. No one is exempt from objective criticism in the Soviet Union, whether in high position or low, whether a government minister, high party official, a novelist or a plain ordinary worker.

The press has the very responsible duty not only of informing and molding opinion but of promoting further progress of Soviet society. Its first and abiding criterion is the social welfare and it spares no effort in bringing to light unserviceable practices and in pushing for correction of errors that impede progress. Its tone is often sharp, its criticism does not mince words. If changes are necessary, it pounds away until they are made.

### Letters to the Editor

At least half of the items that are printed in Soviet newspapers each day are written not by professional newspapermen but by contributing readers of all trades and callings—industrial and farm workers, specialists in a variety of fields, artists, educators and so on. This is traditional in Soviet journalism and has a history which stems back to the earliest days of the illegal *Pravda*. The editorial backbone of any Soviet paper has been material from worker-correspondents.

Every morning mail bags crammed full with letters from readers are delivered to the editorial offices of the larger newspapers. This is the basic material out of which subsequent issues are worked.

It is from these readers' letters—the concentrated thoughts, feelings, critical remarks and suggestions of the community—that the paper makes up a considerable part of its issue. They supply the subjects for many articles, editorials and, of course, for the ever-present "Letters to the Editor" column.

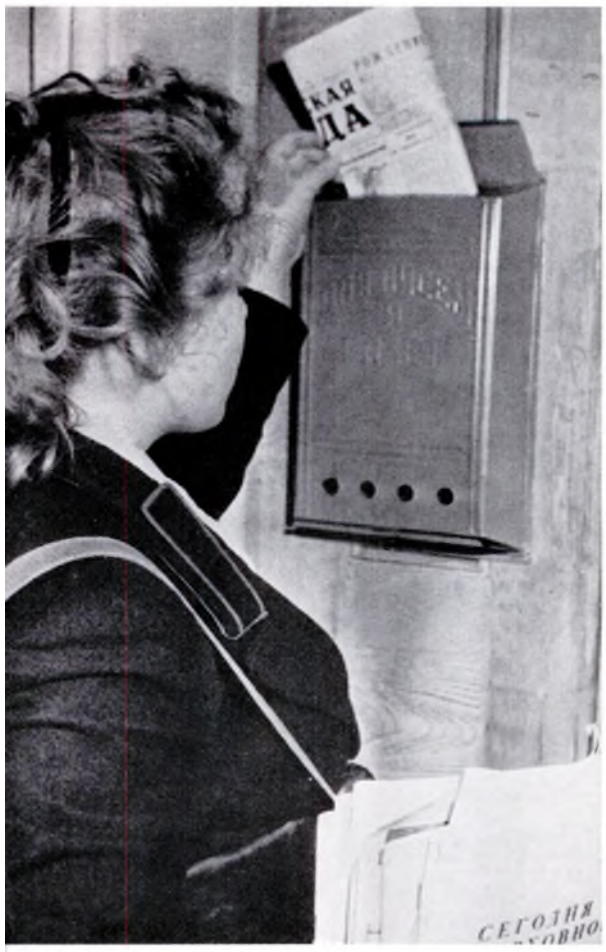
These letters from readers are not literary masterpieces, but that is a minor consideration. By virtue of their individual slant, their spontaneity and their fresh outlook on a problem, they very often strike a note that elicits a public reaction very much wider than the better phrased staff-written articles.

The letters are most diverse. Some will merely comment favorably or unfavorably on some current matter, whether local or national. Others will be vociferous complaints about errors or negligence on the part of a plant management or administrative agency. Many will suggest improvements.




Papers are read by many more people than newsstand sales and subscription lists reveal. They are posted on street bulletin boards and are available free in libraries and many other public places.

Newspapers, magazines and books are delivered right to the door along with the morning mail.



Those that have more than purely individual importance will be printed in the paper's column, allowing for space limitations. But all letters that cite abuses, that make reasonable complaints and that offer sensible suggestions result immediately in proper investigation and swift action. This is standard procedure, very conscientiously adhered to. It becomes the responsibility of the newspaper to follow up and see that the appropriate agency moves on the matter with energy and dispatch.

These letters to editors have more than once initiated national movements of large scope. A comment by Yevgenia Andreyeva, chairman of a collective farm in Tambov Region, that appeared in *Selskoye Khozyaistvo* was instrumental in sparking off the campaign by Soviet farmers to overtake the United States in per capita production of milk, butter and meat within the next few years.

To show the mass of these press contributions by readers: During the nationwide discussion of the seven-year plan which went on for some months before the Twenty-First Party Congress met in January, newspapers, magazines, radio and TV received over 650,000 communications from readers, listeners and viewers. About 300,000 of the letters and comments with the suggestions and amendments they offered were published by the press.

### Professional Standards

Standards of Soviet journalism are high and the ethics of the profession demanding. Soviet newspapermen are respected by the public, and the profession is well represented among the deputies elected to city, republic and national legislatures.

Most Soviet newsmen are graduates of schools of journalism. There are many, however, who turned to newspaper work from other trades and professions.

The Union of Journalists is the national professional organization. There are, besides, press clubs in many cities where newspaper people meet to relax and to talk over professional matters. These press clubs often play host to outstanding Soviet personalities and to visitors from abroad.

### More Papers Each Year

In the past few years there has been a large increase in the number of factory, student and farm papers published. The local farm papers are a relatively recent development. There are about 200 of them now being published by the bigger collective farms.

More regional newspapers are constantly being published. Sverdlovsk, Novosibirsk, Gorky, Riga and other cities are now issuing evening papers besides morning dailies.

Some picture of the growth of newspaper publishing in the Soviet Union may be gathered from this fact: While before the 1917 Revolution only one newspaper was published in what is now Chelyabinsk Region in the Urals, today there are about 100.

With its millions of contributing writers, both professional and lay, the Soviet press plays an important part in the country's life, serving as an effective tribune of public opinion.





Reporters of *Moskovskaya Pravda*, one of the country's 9,936 papers, have just gotten the day's assignments.

# A CITY DAILY PAPER

Thousands of letters a month are received from readers. They furnish the theme for many of the paper's articles and editorials.





Each day the current issue of the paper is planned collectively at a staff conference, and when the issue appears it represents the thinking of all the editors.



An auto worker watches while his article is being prepared for publication. Besides staffs of professional journalists, all Soviet newspapers print items from contributing readers.



The stenographers spend part of the day on the phone, taking on-the-spot news from worker-correspondents who report events of interest at their jobs.



The reporter has just come in with a big scoop and he dictates it directly to the linotypist. His story will be included in the next edition.



One of the paper's senior editors, who used to be a machinist. Many newsmen have come to journalism from various other professions.

# After the PARTY CONGRESS

**A staff writer of *USSR* Illustrated Monthly interviewed several of the delegates who had returned home after attending the Twenty-First Communist Party Congress. The following are their comments on the plan for the country's development during the next seven years adopted by the Congress.**



## *DMITRI NOSKOV*

## *Steelworker from the Urals*

I AM a steel worker and at the Congress I met people in my industry from the Ukraine, West Siberia and other metallurgy centers. Since so much of the seven-year plan is based upon development of heavy industry, iron and steel production came in for much discussion at the Congress.

Delegates from Nizhni Tagil in the Urals reported that they were now getting a record output of steel per square meter of hearth—more than 11 tons. I told the Congress that at our Chusovoi plant in Perm Region, we had brought the volumetric efficiency of our blast-furnaces up to 0.63. The figure took on meaning when I explained that a general increase of only 0.01 per cent above the planned figure in the volumetric efficiency of the industry's blast furnaces would add a million tons to the country's output of pig iron.

We weren't the only people from steel who cited higher efficiency figures. Some of the delegates said their plants hadn't waited for the seven-year plan to be approved to begin expansion and modernization and the results could be seen already.

Our plant goes back to the last century and we are getting ready for a big renovation job. We plan to do it without interrupting production. Our antiquated blast furnaces are going to be rebuilt. We expect to get double the output as a result. Our steel-melting, rolling and ferro-alloy shops are all going to be brought up-to-date. We're now putting the finishing touches on a new blooming mill. Doubling the pig-iron output at Chusovoi is part of our contribution to the big increase in metal production slated by the seven-year plan.

What will the figures of the plan mean to the man on the street? For one thing, an increase in income by at least 40 per cent over 1958. For another, a shorter work week. For a third, better housing.

Quite a large sum is allocated by the state for improving our city. Before the Revolution Chusovoi was a gloomy place indeed. Housing was inadequate, living conditions crowded and behind the times. Now our city has new houses, schools, clubs and hospitals, and many more are under construction. The stores, sports facilities and theaters in Chusovoi compare favorably with those in any well-populated locality. These things, and much more, are written into the target figures of the plan we discussed at the Congress.



## *EMMA KORNEVA*

## *Doctor from Turkmenia*

THERE were three other doctors who were delegates to the Party Congress, and although it was something of a problem for us to find each other among more than 1,300 delegates, we managed, like birds of a feather, to get together. There was Professor Vishnevsky from Moscow, Dr. Anna Shindarenko from Pyatigorsk, Dr. Maria Novikova from Rzhev and myself from Ashkhabad, capital of Turkmenia.

We exchanged impressions and the conclusion we all came to was that the most striking thing about the Party Congress and the seven-year plan which came out of it was its concern with the people's well-being.

I work in the Republic of Turkmenia where before the Revolution people suffered from many terrible diseases, trachoma, typhus and malaria among them. There were then only sixteen doctors and 300 beds for patients in the whole of Turkmenia. Public health had to start from scratch, there was so little to build on.

In the years since, malaria, mosquito fever and parasitic typhus have been entirely wiped out, and the fight against trachoma is making great headway. This disease, which used to take years to treat, is now cured in four months thanks to new medication and methods. The average life span in our republic is now 67 years.

My specialty is pediatrics, so that a few words are in order about medical facilities for our younger Turkmenian citizens. Just before the Twenty-First Party Congress a new children's hospital with clinic was opened in Ashkhabad. My own clinic in the same city recently moved into a newly-equipped building. This has been going on everywhere in our Republic.

The summers in Turkmenia are very hot and we move the children out of the many city nurseries and kindergartens to country cottages in more temperate parts of the republic.

Perhaps the simplest way to estimate the character of the public health work done these past forty years is to say that the Soviet Union now has the lowest mortality rate in the world, while its population growth is higher than in most countries.

The seven-year plan proposes a large appropriation increase for public health services. Between 1959 and 1965, the sum of 360 billion rubles will be spent to keep Soviet citizens fit.



## NIKOLAI BUKHANKO

## Collective Farmer from Siberia

OUR Altai is a fertile Siberian region, but you wouldn't have thought so before the Revolution when my father tried to scratch a bare living out of the soil. At that time it was a "God-forsaken outpost of Russia," the old-timers used to call it.

While I was listening to delegates from my part of the country at the Party Congress, I kept thinking of the changes that have taken place in my own lifetime. I doubt whether my father, if he were alive to see it, would have believed his own eyes.

The collective farm of which I have been chairman these past two years is located on a great steppe 185 miles south of Barnaul, the principal city of the Altai. The farm covers 34,000 acres. Only recently we began to cultivate 5,000 acres of land which had never been touched by a plow. We have a 75-acre fruit orchard.

We grow a number of different crops—wheat, corn, sugar beets and others. Our grain crops have been giving bigger yields each year, particularly spring wheat. Scientific growing methods plus the use of high-quality seed and large amounts of fertilizer are responsible for our big crops. The farm is well-equipped with machinery and many of the chores have been mechanized. Last year we bought 24 tractors, 24 harvester combines, 42 drills, a number of cultivators and other kinds of farm machinery.

Our herds have grown substantially, especially in the past five years, and we have been getting larger yields from our milch cows, pigs and fine-fleeced sheep. We are also raising poultry and have our own fish pond.

The income of the collective farm has been growing steadily—5.3 million rubles in 1955, 7.5 in 1956, 10.6 in 1957 and 13.5 million in 1958. This reflects itself in the individual income of the collective farmers. Milkmaid Ulyana Balyuk earned more than 18,000 rubles last year, cattleman Pyotr Grishkovets made 11,000 and young tractor driver Mikhail Kulshin close to 18,000.

We've been doing a considerable amount of building, both for farm use and for dwellings. More than 200 of the cottages in our four villages are brand-new. We have a first-class hospital, a secondary school for 240 students, libraries and clubs. We publish our own newspaper.

We built everything we have with cooperative hands. Each one of our 440 families worked to make the collective farm the prosperous enterprise it is today.

Our progress is typical of collective farms everywhere in the country. Other farm delegates at the Congress gave the same picture when they spoke. Sergei Boyko and Yelizaveta Dolinyuk, both collective farm chairmen from the Ukraine; Praskovia Kovaleva from Byelorussia; Yevgenia Andreyeva from Tambov Region all had no doubt that their farms would reach the target goals much ahead of schedule.

Our farm has large plans for the next seven years. By 1965 we expect to double the number of cows, sheep and pigs and their meat output. We expect to raise the wool clip per sheep to 17.5 pounds and the annual milk yield per cow to 770 gallons. We intend to build a new village with 700 dwellings and public buildings. All this is past the planning stage, it has already gotten off to a very good start.



## BORIS PETUKHOV

## Legislator from the Kuban Region

AS CHAIRMAN of the Executive Committee of the Krasnodar Territorial Soviet I make it a point to keep in close touch with all the farms in the area, which we call the Kuban. The proceedings of the Congress and the seven-year plan it approved were being discussed everywhere, at crowded village meetings, on wheat and livestock farms, everywhere you went.

It was not just general talk. Most of the discussion was with pencil in hand, figuring farm costs, new barns and equipment, available hands and the rest. Each of the collective farms was working out a seven-year plan for itself that would tie in with the national plan.

There was a good deal of talk going on, too, about Ryazan. That is a rich farm region near Moscow and the people there had figured out possibilities and decided that they could chop four years off the seven, that they could meet the target figures set for meat and milk production in less than half the time scheduled.

Said many of the Kuban farmers, if Ryazan can do it, why not we? The Kuban is good growing country not far from the Black Sea, with a mild climate and rich soil for bumper yields of wheat, corn, sunflower seeds and sugar beets. The Kuban, although it produces cement, roofing slate, machines, textiles, shoes and other kinds of manufactured goods, is one of the country's very important farm regions.

It was two years ago that Soviet farmers advanced the proposal, backed by the Communist Party, to catch up with and surpass American per capita production of meat and milk. This has grown into a nationwide movement with results already evident. Last year Soviet farmers got a milk yield more than the United States. There has been a substantial increase in meat production, too, but here we are still a considerable way behind.

Our farmers in the Kuban chose Iowa production figures as their goal—this for two reasons. First, Iowa farmers are big producers and second, Charles Hearst, Ralph Olsen, Marion Staddom and other Iowans visited us a couple of years ago and we took them on a tour of our collective and state farms. We remember them with fondness and we hope they do us. We'd like to be able to take them around now and show them what's happened since. The Kuban farms have pushed ahead fast in the past few years.

With the seven-year plan, Kuban stockbreeders expect to surpass Iowa's meat output by 1961. As for milk, they expect to be producing twice as much as Iowa by that time and be going on from there. The Kuban is also stepping up production of vegetables, fruit, grapes and sugar.

When Dmitri Matyushkin, one of the delegates from the Kuban, spoke at the Party Congress, he carried not only greetings from the farmers of the region but their assurance that the target figures would be reached much before the time scheduled. And he wasn't the only one to make that pledge. It came from the farm delegate from Ryazan and from others all over the country.

Back home after the Congress I wasn't a bit surprised to find that news of our decisions had preceded me and the farmers already at work to make them a reality.



IN THE FILM VERSION OF *THE SILENT DON* PRODUCER SERGEI GERASIMOV HAS BROUGHT TO LIFE MIKHAIL SHOLOKHOV'S POWERFUL NOVEL ABOUT DON COSSACK LIFE.



DEFTLY INTERWOVEN IS THE TRAGIC STORY OF GRIGORI'S LOVE FOR AKSINIA.

# SOVIET FILMS

AMERICAN movie-goers will soon be viewing seven of the current Soviet films. More or less simultaneously, Soviet motion picture theaters will be showing ten recent American films.

This is the first fruit of an agreement signed last fall in Moscow between film representatives of the two countries. The agreement provides for the purchase, sale and exchange of feature pictures and documentaries, for film festival weeks, for exchange visits by film people, and, most interesting, for joint productions by American and Soviet movie-makers.

The seven Soviet films to be shown in the United States are: *The Silent Don, Othello, Don Quixote, The Idiot, Swan Lake, Circus Artists* and *The Cranes are Flying.*

### The Silent Don

*The Silent Don* transfers to the color screen all the epic quality of Sholokhov's famous novel of Don Cossack life. The novel has frequently been compared with Tolstoy's *War and Peace* for its sweeping panorama of history and its profound insight into the character of a people.

Sholokhov paid tribute to the film group headed by producer-director Sergei Gerasimov for having done in two and a half years in film what



TO PREVENT THE OTTOMANS FROM ATTACKING CYPRUS, OTHELLO HAD TO LEAVE DESDEMONA AT THE VERY MOMENT HER ENRAGED FATHER HAD DISCOVERED THEIR MARRIAGE.

# for AMERICAN MOVIE-GOERS

OTHELLO HAS STRANGLED HIS BELOVED DESDEMONA, AND HIS GRIEF AND DESOLATION ARE MIRRORED IN PRODUCER SERGEI YUTKEVICH'S ARTISTIC SETTING.



# SOVIET FILMS for AMERICAN MOVIE-GOERS



GRIGORI KOZINTSEV PRESENTS *DON QUIXOTE*, CERVANTES' NOVEL OF 16TH CENTURY SPANISH LIFE, IN A NEW LIGHT.

it had taken him fifteen years to do in his novel. The 1800-page trilogy spanning the periods of the First World War, the Socialist Revolution of 1917 and the Civil War of the twenties had, says Gerasimov, to be squeezed into an 180-page scenario. But the film does not diminish the novel. They both rank high in their respective fields.

The Cossacks were a caste with special privileges under the czars. The Revolution threatened to end their privileged status, as it did that of all favored groups and classes. The wealthier Cossacks fought the Revolution, the poorer joined the people's struggle for a new life.

Grigori Melekhov, the protagonist in the film, is a true son of his people. He is torn by the conflicting demands of conscience and his traditional prejudices. The picture follows his tortured and wavering course between revolution and counter-revolution in a search for the truth. Interwoven is the moving and tragic story of his love for Aksinia who has been forced into a loveless marriage.

Grigori is played by Pyotr Glebov, an actor at the Moscow Stanislavsky Theater. This was his first film role. Young Elina Bistritskaya, who plays the part of Aksinia, was selected for the part in a competitive audition with twenty leading actresses.

Many of the Don Cossack villagers, including some of the older people who lived through the events portrayed, appear in the film.

THE FILM SHOWS THE HERO AS A FIGHTER AGAINST ALL THAT DEGRADES MAN.



### Othello

The screen version of *Othello* that American viewers will see was directed by Sergei Yutkevich, who was awarded a prize at the 1956 Cannes Festival for his work in the film. His is a contemporary interpretation that brings to the tragedy Shakespeare wrote more than four centuries ago the insight of historical scholarship and the penetration of modern psychology.

It is not alone the personal tragedy of the Moor that is portrayed—the man of great soul struggling against falsehood and treachery—but the mood and temper of his own time which Shakespeare wrote into the play.

Sergei Bondarchuk in the title role does full and artistic justice to the brilliant interpretation of the director.

### Don Quixote

The screen version of *Don Quixote*, directed by Grigori Kozintsev, also presents a new interpretation of an old book. Kozintsev was not interested in the novel as a Spanish classic satirizing a by-gone world of chivalry. It is not Cervantes writing tongue in cheek, saying that the world is not to be altered, that we are shown. Nor Don Quixote as a madman possessed with an amusing folly. This is a passionate indictment of the evil forces in society. It is Cervantes taking up cudgels for the humanists, saying that the people themselves, through reason and will and courage, will alter their world.

Don Quixote and Sancho Panza are played by Nikolai Cherkasov and Yuri Tolubeyev. Both their interpretations are remarkable for originality and conviction.

### The Idiot

*The Idiot*, a penetrating psychological study of people humiliated and crushed by the power of money, is taken from Dostoyevsky's novel of that name. Prince Myshkin is the leading figure. He is the naïve, innocent, moral man in a world of greed, envy and falsehood, where the guiding virtue is ambition and the measure of value is wealth.

Yuri Yakovlev plays the difficult part of Myshkin with great understanding and simplicity. Nastasia Filippovna, who tried to find her way through the deceit and ugliness of the world around her, is played by Yulia Borisova with striking sincerity. The excellent supporting cast helps to give this portrait of a decadent society an unforgettable graphic reality. The film is a tribute to the genius of the great novelist.



YULIA BORISOVA IN THE ROLE OF NASTASIA FILIPPOVNA IN *THE IDIOT.*



PYRYEV'S SKILLFUL DIRECTION REVEALS DOSTOYEVSKY'S FAITH IN HUMANITY.

### Swan Lake

*Swan Lake* is, of course, Tchaikovsky's exquisite ballet, as performed by the unparalleled Bolshoi troupe. The film shows the major portion of the ballet and gives something of the history of Russian choreography and the famous ballerinas who danced the role of Odette-Odilia. Asaf Messerer, one of the most distinguished of Soviet choreographers, helped work out the script. The film was produced by Zoya Tulubyeva.

### Circus Actors

*Circus Actors* is a wide-screen production made by the Moscow Documentary Films Studios. American film-goers will see leading performers of the Soviet circus in action—acrobats, magicians, Alexander Filatov's famous "bear circus," and the inimitable clowning of Oleg Popov. For children especially, but for grown-ups too, this is something altogether special in movies.

THE EYES OF PRINCE MYSHKIN—SAD, SEARCHING FOR TRUTH AND A WAY TO DESTROY EVIL—ARE A SYMBOL OF MAN'S CONSCIENCE AND DOMINATE THE ENTIRE FILM.





THE FILM *SWAN LAKE* INCLUDES A HISTORY OF RUSSIAN CHOREOGRAPHY.

# SOVIET FILMS for AMERICAN MOVIE-GOERS

### The Cranes are Flying

*The Cranes are Flying* was far and away the most talked-of motion picture of the year. It won the top award of the Golden Palm Leaf at the 1958 Cannes International Film Festival. It is a war film, but one without battle scenes, a moving and beautifully told story of the Second World War as it touched the people behind the lines.

There is only one short scene at the front. Boris Borozdin, a soldier, the major character, is killed by a chance bullet. Otherwise the picture moves far from the battle lines to capture, with extraordinary depth of characterization, the fluctuating hope and despair of people back home.

As the picture opens Veronica watches a flight of cranes across the city roofs. She is happy, in love, her thoughts soaring with the birds into the blue sky. But the war comes and her marriage must wait. Boris leaves to join the volunteers gathered in a school courtyard. She searches for him vainly through the crowd to say good-by; he searches for her. They miss each other.

Boris is killed and Veronica marries his cousin, Mark, out of weakness, perhaps, out of a need for consolation, perhaps—the viewer is left to draw his own conclusions. Does she epitomize the people who are broken by war's horror or those who are just not strong enough to stand up and give battle? She feels that she has betrayed both herself and the man she loves, and she leaves her husband.

There has been no official confirmation of Boris' death, and Veronica holds desperately to the hope that he may yet return. As the picture ends the first troop trains are returning from the war. And once again Veronica hunts for her beloved vainly through the milling crowd. The camera searches for Boris and records the happiness of those whose loved ones have returned and the terrible sorrow of those, like Veronica, whose men will never come home again.

The story line is simple, but the direction and the acting give the personal tragedy a universal significance. The film was directed by



*CIRCUS ACTORS* PRESENTS TOP PERFORMERS IN THEIR BEST-LOVED ROLES.

THE BOXING BOUT IS ONE OF THE MOST POPULAR PARTS OF ALEXANDER FILATOV'S "BEAR CIRCUS."



CIRCUS CLOWN OLEG POPOV IS AN EXCELLENT JUGGLER.



*THE CRANES ARE FLYING* IS A FILM ABOUT THE SECOND WORLD WAR, BUT THE BATTLEFIELD DEALT WITH IS THE HOME FRONT AND THE EFFECTS OF WAR ON CIVILIANS.

Mikhail Kalatozov, the script writer was Victor Rozov, and it stars Tatyana Samoilova, a new young actress who gives a brilliant performance as Veronica. Alexei Batalov plays the role of Boris.

The film is shot from bold unexpected angles and a variety of levels to achieve an extraordinary emotional unity with the acting. Sergei Urusevsky's camera work won him the Cannes technical award.

### Joint Film Productions

It is the hope of Soviet motion picture studios that this film exchange will be the first of many to come and that it will serve to inaugurate other common efforts, particularly the joint production of feature and documentary films by American and Soviet writers, directors, actors and scenic artists.

Soviet motion picture industry has made many such joint films with studios in many other countries—India is a recent example. Besides the mutual contribution they make to film techniques, they serve most significantly to foster understanding between peoples of different countries. There is perhaps no other mass medium today that can contribute so much toward that end.

TATYANA SAMOILOVA WON WORLD ACCLAIM FOR HER PORTRAYAL OF VERONICA.



# Education for

## *THE NEW SCHOOL LAW*

A PROLONGED DISCUSSION on the problems facing the educational system took place throughout the country during recent months. Discussed were the proposals advanced by the Central Committee of the Communist Party and the USSR Council of Ministers on strengthening the ties of school with life and the further progress of public education in modern conditions of the development of Soviet society.

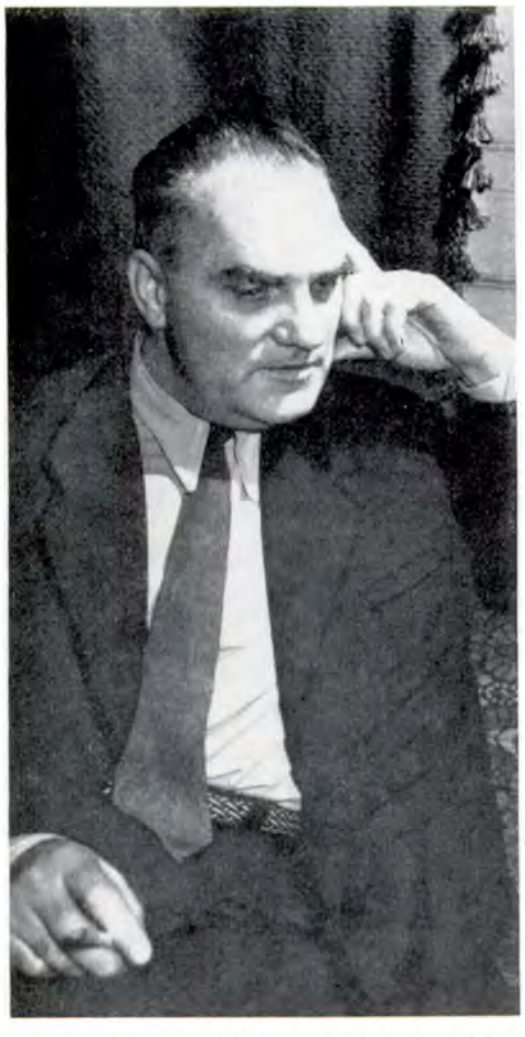
Millions of Soviet people made their suggestions on these questions: 800,000 in the Russian Federation, 500,000 in the Ukraine, 100,000 in Kazakhstan—to cite figures from only three of the fifteen Union Republics. After summarizing the results of this truly nationwide discussion and considering the remarks and suggestions made by the people, on December 24, 1958, the USSR Supreme Soviet adopted a law on further developing the school system in the country.

The major intent of the new law is to combine education with socially productive labor, to help hasten the process of eliminating the separation between mental and manual labor which was so characteristic of the old society.

# SCHOOLING FOR A VOCATION

**By Maxim Ushkalo**

Photos by Alexander Mokletsov



MAXIM USHKALO, PRINCIPAL OF A KIEV SCHOOL.

SECONDARY SCHOOL No. 70 in Kiev, of which I am principal, was one of the first of the pilot schools to experiment with the vocational training program now being introduced into the curriculum of every school in the country.

Our school and five others in the Ukraine began this experimental program in 1954. The following year it was tried out in 640 schools and the next year in more than 3,000. At the beginning of the current academic year 5,660 schools in the Ukraine were giving 600,000 students the elements of more than 100 trades and professions.

This vocational emphasis had been discussed and debated by parents and teachers, by local boards of education, by the Ministry of Education and in the pages of *Sovietskaya Shkola (Soviet School)*, our leading Ukrainian journal of pedagogy, for a long time before the experimental program was attempted.

There was general agreement among parents and educators that schooling should be tied in much more closely with practical and socially useful labor, that we needed to break down the distinction between physical and mental work which is foreign to socialist thinking and living. Only then, it was argued, could we give children a real sense that they were learning to become socially productive people, citizens of a cooperatively working society.

Teachers and educational administrators had noticed time and again that when our secondary school graduates got into college, they felt as though they had found their particular working niche. But the college entrance examinations are competitive, and it is quite natural that many of our graduates could not make their way through. Then they had a difficult time adjusting to a job.



MANUAL TRAINING BEGINS IN THE LOWER GRADES.

# Socially Productive Labor

With the new seven-year plan designed to make the Soviet Union the world's number one producer, education assumes an even more significant and central role. It was Lenin, the founder of the Soviet state, who pointed out that education and labor must be inseparably related if we are to produce the communist man, one with a truly scientific cognition of the world, with his talents most fully developed to serve himself and society.

The character of labor in the Soviet Union is being fundamentally altered by modern technology and the increasing development of the country's productive forces.

Progress in mechanization, automation, the application of chemical methods in production, the use of electronics and computing mechanisms, these and other technological developments have been bridging manual and mental labor. The job of the factory and the farm worker comes increasingly closer in character and substance to that of the engineer and the agronomist.

The worker in socialist production must know how to handle modern machine tools and highly precise measuring and control instruments. He must be able to read complicated blueprints and make involved technical calculations. As the Soviet economy expands, more and more knowledge is required of all its workers, and knowledge of an increasingly versatile kind.

### The Secondary School

The new educational law lays out the pattern for schooling implied by this concept. From the very first grade children are to be prepared psychologically to make their future contribution as socially productive workers. They will be taught to do work commensurate with their age level. They will have work lessons at school workshops and on school experimental plots. As they grow older, these lessons will be increasingly supplemented with practical work in factory shops or collective farms.

The present universal compulsory seven-year school is to be extended another year, as the first rung in the system of education. Its guiding principle is to prepare the boy or girl for future productive

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We drew the obvious implication—that a rounded secondary education today requires more than a general background, it requires a knowledge of the elements of science and the basic skills to qualify for some vocational area. This was our general thinking when we introduced the experimental program in School No. 70 four years ago.

### An Enriched Course of Study

Ours is a ten-year school, roughly equivalent to the American combined elementary and high school. We have a fixed program of general studies in the humanities and the sciences that we did not wish to alter. Nor did we want to cut the number of school hours for any of our basic courses—literature, history, physics, chemistry, biology, geography, mathematics, foreign languages and physical culture.

Where then did we find the time for vocational training? Largely through a better arrangement of the existing curriculum, although in the 8th, 9th and 10th grades we did have to add two extra hours to the weekly schedule.

Without lowering the level of teaching or skimping on general studies we found, in practice, that we were able to give our students the fundamentals of one or another trade. Upon graduating, the student was awarded his secondary school diploma and a certificate which attested to his category of skill in a trade. If he wanted he went on to college, otherwise he was qualified for a job.



PUTTING HIS SCHOOL KNOWLEDGE TO THE TEST.

### Manual Training for All Grades

We carried the vocational emphasis through from the earliest grades, consistent, of course, with the changing age levels.

In grades one through four Soviet school children learn reading and elementary arithmetic and in a very general way are introduced to natural science. In the fourth grade they begin their study of history, geography and natural science. A total of 23 to 25 hours a week is allotted to all these subjects.

An hour a week in these elementary grades is now given over to manual training. The children learn how to handle scissors, needle, hammer and screwdriver. They cut figures out of paper and cardboard, model with clay and work with tin and wire. In process, our pupils begin to apply the concepts they learn in their arithmetic and natural science classes.

In grades five through seven they study algebra and geometry, physics and chemistry, botany and zoology, and ancient and medieval history. The number of class hours is 32-33 a week.

Manual training gets two hours a week in these grades. The children are taught to work with wood and metal. The girls are given domestic science. Our school carpentry and metal shops are equipped with such machine tools as turret lathes and milling machines and with the usual hand tools. This school shopwork is a preparation for the concluding stage of industrial training—work in factory shops done in the 8th, 9th and 10th grades.

### Actual Experience on the Job

In these three senior grades students are given advanced work in physics, chemistry, literature, history, foreign languages and drawing. Vocational instruction is, of course, also more advanced.

Pupils in our school do their practical work at the nearby motorcycle factory. When we originally planned the course we conferred with the factory manager and experienced foremen and worked out training programs to teach our students the trades of fitter, lathe operator and milling-machine operator.

We allotted 858 hours for vocational training. This is about 25 per cent of the total number of instructional hours given in these grades. Courses in the theory of machines and materials related to the trade are given in class, school workshop and the factory shops for 166 hours. An added theory course—elements of electrical engineering—is given in the 10th grade for 60 hours.

The remaining time is devoted to actual practice. Students spend a day a week at the plant working at the jobs of lathe operator, milling-machine operator, or assembler. The quantity and kind of work is defined by the

# EDUCATION FOR SOCIALLY PRODUCTIVE LABOR

work. It will combine a general and polytechnical education, give the science fundamentals, the basic humanities and inculcate a respect and readiness for work.

The second rung in the educational ladder for the graduate of the eight-year school will be one of these three, depending upon the desire and inclination of the student. He may take a job and continue his study after work at an evening or correspondence secondary general-educational school; he may continue his study to complete the full program of secondary schooling at what is called a general-educational labor polytechnical school; or he may enter a specialized secondary educational establishment called a *tekhnikum*.

The evening and correspondence schools for those who go to work will give the background in general education required for admission to specialized secondary schools and institutions of higher learning. The necessary vocational training will be supplied directly at the place of employment.

Since most young people who graduate from eight-year schools will be taking these evening or correspondence courses, the law stresses the care that must be taken in assuring that the schools function at the very highest possible level. The course of study will be three years. The time arrangements will vary depending upon the working hours of students. There will be a maximum of 18 hours of class study per week with sufficient time provided for home study and consultation. Young people who combine work with study will have a reduced workday or week.

The second type of school is for those who do not go to work immediately after compulsory eight-year education. The aim of this school is to supply vocational training in one of the trades or professions in addition to a secondary general education. The course will be three years with a third of the time devoted to the theory and practice of the trade and to productive work, and the remainder to studies of a general educational character. The graduate will be entitled to a diploma attesting to a secondary education and a certificate of proficiency in the trade chosen. He will be eligible to enter any institution of higher education—day, evening or correspondence.

The third type of school, the *tekhnikum*, will provide the theoretical and practical background required for a job as junior specialist in the chosen field—technologist or foreman, for example.

For all of these schools the law cautions against any reduction in time or emphasis presently given to the humanities and calls for improved teacher training methods and retraining teachers if necessary.

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BOTH BOYS AND GIRLS LEARN TO WORK WITH WOOD.



# SCHOOLING FOR A VOCATION

school program. The shop foreman does the teaching and is paid for it by the school.

Here, for example, is Valentin Lobanov, an 8th-grade pupil beginning his practical work at the factory. First he is taught the safety rules. Then he is familiarized with the make-up of a screw-cutting lathe. With the foreman explaining things to him, he watches experienced workers machine various items. He is then acquainted with drilling and milling machines. He learns to handle cutting tools and measuring instruments and to read blueprints. Only after this considerable preliminary instruction does Valentin receive the foreman-teacher's go-ahead signal to operate the machines independently.

### Reaction of Parents and Students

The industrial training program I have described worked well the very first year we tried it. I remember one meeting we held in 1954 with the parents of our senior grade students—many of them workers at the motorcycle factory—to acquaint them with the experimental program. We discussed it in some detail. Most parents thought it very much worth trying, others were hesitant. We agreed then to have only one of the 8th grade classes do practical work at the factory to begin with.

A month or so later one of the parents, Isaac Borets, came to see me with an interesting kind of complaint. Borets Senior turned out to be a worker at the motorcycle factory. He had seen some of our 8th grade students getting their job training at the factory and he wanted to know how it was that his son wasn't one of them. We explained, of course, that we were experimenting with only one class, but he was quite insistent that his boy get the benefit of the training. We began to get so many of these complaints that we very shortly switched our other two 8th grade

GIRLS ARE ALSO TAUGHT HOUSEKEEPING SKILLS.



The changeover is to begin with the 1959-60 school year and is to be completed within three to five years. In no case is the change to be made at the expense of adequate school services and in all cases it is to take into account local needs. For example, in the eastern republics special emphasis is to be placed on further increasing enrollment of girls in the secondary schools.

More boarding schools are to be established. By 1965 it is expected that they will have as many as 2.5 million children as students, 14 times the number currently enrolled. These will be organized both as eight-year schools and as secondary general-vocational schools.

### Vocational Training

In the eighteen years since the national system of vocational schools was founded they have trained 10,250,000 young workers. Through these schools the country has been able to meet in a planned way the personnel requirements of key industries and important construction projects.

But the current forms of vocational training have not kept pace with the demands of the rapidly growing economy. The curriculums have tended to fall behind changing technical standards and the quality of training has not always measured up to the increased requirements of industry.

The large-scale mechanization and automation predicted for the next seven years by the national economic plan will be replacing many hand trades and will demand new skills. In the engineering industries alone at least 1,300 new automatic lines are to be put in operation. Similar changes will be taking place in the chemical, oil, gas and other industries as well as in construction and in farming.

To meet these changing conditions more quickly and more effectively the law provides for a uniform system of vocational training. Urban and rural vocational schools will be opened to provide training for young people who will take up employment in production upon the completion of the eight-year school. The urban schools are to give one- to three-year courses; the rural schools one- to two-year courses.

The new schools will be training skilled workers for more than 800 trades. There will be schools training workers for the metal industries, others for mining, power, chemicals, textile, construction, railroads, motor transport, and so on.

This type of specialization around a particular branch of industry will facilitate the ever-present problem of teachers. The law calls upon factories and farms to assist the vocational schools by providing the teachers and facilities for practical study of new techniques and asks the vocational schools to reciprocate by providing the factories and farms with which they are to be in close daily contact with well-trained workers.

Especially stressed is the need to equip these vocational schools with the most modern workshops and laboratories, to provide the actual

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classes to production practice at the factory.

The students took to it. They responded quickly to the discipline of actual work and liked the feeling that they were entrusted with the responsibilities and duties of grown-ups. Our teachers found that students were much more interested in their physics, chemistry and mathematics. Study had a real purpose, they saw for themselves how usefully they could apply the theory they learned in class to actual and concrete work at the plant. Here was a real tie-in of mental and manual work.

Vasili Petrenko had been one of our problems—a restless lad who found classwork boring and useless. I had had to call him in for a dressing down a number of times. Once he got to his factory practical work and learned to operate a turret lathe by himself, he was a changed youngster, alive and bright and interested. It wasn't long before he found out that he wouldn't get very far at the machines without a knowledge of trigonometry, physics and drafting. Vasili blossomed out as one of our better students.

IN GRADES 8-10 ONE-FOURTH OF THE TIME IS SPENT ON VOCATIONAL TRAINING, WHICH INCLUDES WORK IN THE MACHINE SHOP OF THE LOCAL MOTORCYCLE FACTORY.



# EDUCATION FOR SOCIALLY PRODUCTIVE LABOR

feel of current technological practice. Textbooks and teaching aids are to be thoroughly overhauled and rewritten, if necessary, to ensure a better theoretical grounding than they give at present. Wider use is to be made of such visual aids as motion pictures and television.

Instead of the present free meals and clothing, vocational students are to be paid stipends or wages at the regular rates to provide greater incentive for mastery of the trade. Students who are orphans, who live in children's homes or come from large families are to receive their full support from the government, as they have hitherto.

Besides the full-time day schools, evening vocational schools are to be founded where young people who have already mastered the fundamentals of their trade will be able to continue study to raise their job qualifications.

Job placement for vocational school graduates is to be planned by the appropriate educational and economic authorities not alone to meet immediate personnel needs but in long range terms.

### Higher Education

The principle embodied in the law—the meshing of schooling with productive labor—is carried through to the college level. The country's schools of higher education have been training 260,000 to 290,000 specialists annually and will before long be training 300,000 to 350,000.

Heretofore these graduates have had little training in practical work. The very predominant emphasis on book learning to the virtual exclusion of productive labor has been reflected in the curriculum.

Of the three present types of colleges—day, correspondence and evening—it is the last two which most immediately lend themselves to education-work training.

Today nearly half of all Soviet college students study at evening and correspondence schools. These schools will be widely extended, staffed with the most qualified lecturers and professors and their class and laboratory facilities greatly enlarged to permit training of very large numbers of students employed during the day in some branch of productive work.

The proportion and sequence of work to study and the transfer to full-time day colleges will vary with the specialty, the type of student and a number of other determining factors. At the technical colleges the student will, as a rule, work during the first two years and study at evening or correspondence school. After that he will study full time. In his senior year, to apply his theoretical study, he may once again

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THEORY IS RELATED TO PRACTICAL WORK BY DEMONSTRATING INTERNAL COMBUSTION IN A MOTORCYCLE ENGINE.



# SCHOOLING FOR A VOCATION

### Graduates Continue Studies

Since we instituted our vocational program, 86 of our students have graduated with certificates qualifying them for jobs in addition to their regular secondary school diplomas. Some of them have gone on to the colleges or the universities. Leonid Silchenko is studying construction engineering at a Kiev institute; Nellie Gradoboyeva is at a textile institute; Valeri Nikitin, Inna Braginskaya and Zinovi Rokhlin are in medical schools; Alexander Frolov, Leonid Tsaregradsky and Yuri Moskalenko are studying at the Kiev Polytechnical Institute.

All the other members of this same graduating class found work they liked. Igor Dudnik, Yevgeni Shchuko and Leonid Mikhobuy, for instance, decided to take jobs at the motorcycle plant. Valentin Verotsky is an electrician at one of the electrical engineering plants in Kiev. Lyudmila Khayetova is working at a ceramics factory.

An increasing number of young people who decide to take jobs right after graduating from high school are being encouraged to continue their studies while working or to work for a few years and then return to full-time study.

Many graduates of our school are now taking correspondence courses or are enrolled

work as a junior technician for either a semester or a full year and continue his study after work.

In several of the engineering professions which require an early grounding in basic theory and considerable laboratory work, students will take the first two or three years of instruction at full-time day colleges. The work requirement will be completed later in the course.

By 1965 it is expected that nearly two million college students will be carrying a work-study program.

To make for greater coordination between work and theory, schools of higher education are to be merged with kindred research institutes, and agricultural colleges with the large state farms and experimental stations. Technical schools are to be set up as integral divisions of large industrial plants. At present half of all the country's scientists, more than 130,000, are teaching in schools of higher education. This number is to be increased to relate the schools more closely to industrial and farm research.

Requirements for college entrance have been revised to give preference to applicants with work experience. This has been the practice for some time now. Seven of every ten freshman students this year have had work experience. This proportion will increase after the secondary school completes its reorganization.

The universities will follow a work orientation insofar as it is consistent with the specialization. Their research role on current theoretical and practical problems in both the sciences and the humanities is to be greatly enhanced. Students of the mathematical, biological, physical and chemical sciences and of the humanities (economics, philosophy, history, literature, etc.) are to be given the opportunity for using their specialties in socially productive ways while they study.

To enable larger numbers of people to train as specialists in music, drama and the graphic arts, the system of spare-time study in these fields is to be greatly expanded.

### Creative Approach

The function of the Soviet school as expressed in the new law is to ensure a creative approach to learning, a love for labor and the ability to work independently. These fundamental aims, carried through from the earliest days of schooling through the college level, will make for the roundly educated worker, equipped to handle the many and diversified problems of building a communist society.

The need for the school reorganization has been dictated by life itself. Even before the new law was passed some of the Soviet high schools experimented in combining academic work with socially productive work.

The accompanying article "Schooling for a Vocation" describes one of these experiments carried out by a general education school in Kiev and taken into account in drafting the new law, along with other examples of initiative in revising the educational program.

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at evening colleges. Igor Dudnik, for instance, is taking a correspondence course at the machine-building *tekhnikum;* Valentin Verotsky is studying at the evening department of the Electrical Engineering Institute; Yevgeni Shchuko is taking foreign language courses and Lyudmila Khayetova is a student of philology at Kiev University.

### Planning the Next Step

The experience we gathered with this vocational training program gives us a basis for further planning. Our school will soon be adding another year of study to the present ten. We propose to offer an 11-year course which will combine two stages of secondary education.

The first stage will be eight years of compulsory schooling instead of the present seven. The added year will allow for a better grounding in all subjects. Literature will get 200 hours more of class time and foreign language another hundred. There will be an expanded class program for history, geography, natural science, physics and mathematics. In addition, the fundamentals of a trade or profession will be taught more thoroughly.

Students who complete the eight-year school and continue through the eleventh year will be graduating with a complete general secondary education and vocational training which will qualify them for a specific trade or profession.

Henceforth this will be the curriculum to be followed in ours and in all other Soviet secondary schools. Industry and agriculture will now be getting skilled workers with both a theoretical and practical background. The colleges and universities will be getting students who have had practical work training related to the specialty of their choice.

To judge from our experience at Kiev School No. 70, this new approach in educating our young people has proved itself beyond any shadow of doubt.

THIS NINTH-GRADER HAS MASTERED THE USE OF A LATHE DURING HER DAY-A-WEEK TRAINING AT THE FACTORY.



ALL THE STUDENTS LEARN A FOREIGN LANGUAGE.



# THE GREAT PATRIOTIC WAR AGAINST FASCISM 1941-1945

*By Leonid Papin, Historian*

**This is the fourth in a series of five articles on the history of the Soviet Union. The first, issue No. 11 (26), described the events of 1917 leading to the establishment of the Soviet state. In issue No. 2 (29) the period of civil war, foreign intervention and reconstruction was covered. The next article, issue No. 4 (31), dealt with the first three five-year plans by which the Soviet Union built its modern economy. This article tells about the Second World War, and the series will be concluded in the June issue with an account of the postwar period to 1959 and the adoption of the current seven-year plan.**

May 1945—the end of four years of war against the fascist invaders. Soviet troops raise the flag of victory over the German Reichstag in Berlin.



AT DAWN of June 22, 1941, Nazi Germany launched a holocaust of fire against the whole of the western border of the Soviet Union. A total of 153 German divisions and 37 divisions of Germany's allies invaded Soviet territory. Simultaneously mass flights of Stukas bombed Soviet cities. Only an hour and a half after the treacherous attack did the German ambassador in Moscow officially inform the Soviet Government that his country had started war. It was a war that was to last four long years.

In a radio broadcast the Soviet Government summoned the people and the armed forces to the nation's defense. Confident of final victory, the country echoed with these ringing words, "Ours is a righteous cause. The enemy will be defeated. Victory will be ours."

Fascist Germany unleashed her war against the Soviet Union under most advantageous circumstances. She had a powerful army with almost two years of experience in plundering Europe. It had taken this army only 19 days to overrun Holland and Belgium and only a little more than 40 active fighting days to force the surrender of France.

The fascists had enslaved almost all of Europe. Germany's military and economic potential had vastly increased, for now she had working for her the industries of the occupied countries. And by using the forced labor of ten million foreign workers she had been able to free her own large reserves of man power for military service.

Hitler's generals had carefully calculated their timetable. Within eight to ten weeks they figured to rout the Soviet army and enslave the country. The Soviet army units along the border were to be wiped out and the major industrial regions in the European part of the Soviet Union occupied. The territory up to the Archangel-Volga-Astrakhan line was to be seized and the industrial cities of the Urals and Siberia crippled from the air. This was Nazi *blitzkrieg*, Hitler's lightning war, and his warriors were supremely confident.

### The Blitz Fails

The Soviet Union had been engaged on peacetime construction. Although its defense preparations were picking up momentum, at the outbreak of the war the army had not yet been completely modernized. New planes and tanks superior to the German models, new rocket and automatic weapons were only beginning to reach army units.

To convert to a wartime economy-and to carry out a general mobilization demanded time. The enemy had this enormous initial advantage in the first period of the war and the Soviet troops were forced to retreat.

The fascists seemed to have weighed all the factors and provided for every contingency in their planned *blitzkrieg* against the Soviet Union. But they had made one fatal error. They had not taken into account the courage of the Soviet people, their devotion to the country. The Nazi armies advanced into Soviet territory at a cost which left them dismayed.

As the Soviet forces withdrew, they abandoned important regions to the enemy. But from these regions the workers had dismantled whole



June 22, 1941—the Soviet Union broadcasts to the world that German planes have bombed its cities and 190 army divisions have invaded its territory.



Muscovites took shelter in the subway during enemy air raids. To terrorize the people, the Nazis bombed the cities without mercy or respite.



Mass flights of Stukas bombed Leningrad night after night. The city fought back with shattering losses to fascist planes and flyers.

factories, the farmers their tools, grain and livestock and moved with them far to the rear. Everything portable was evacuated. Everywhere the invaders met with grim and stubborn resistance.

To the North the Nazis tried to break through the defenses to Leningrad and surrounded the city. For 900 incredible days starved and suffering Leningraders fought off the invaders. One hundred and sixty thousand joined the city's volunteer corps. The rest worked under an incessant rain of enemy shell and bomb to make the munitions that kept the defending army supplied. The city was not taken.

In the vicinity of Smolensk, where a battle raged for almost three months, the Nazi generals lost more than 100,000 of their picked troops. Both Kiev, capital of the Ukraine, and Odessa, the southern port, were defended for two months. In the battle for Odessa the enemy lost over 100,000 men and officers.

The closely calculated plan of the Nazi high command to overrun the Soviet Union in eight to ten weeks failed. In the fierce battles fascist losses were so great that the enemy was forced to narrow the offensive and, in some sectors, to go over to defensive tactics.

### Everything for the Front!

Under the direction of the State Defense Committee that was set up immediately on the outbreak of war and was charged with full powers, the country's economy was shifted to war production. In regions close to the front, under enemy shelling, workers did the impossible job of dismantling and evacuating more than 1,300 big factories. A million and a half freight cars were needed to carry the machinery and equipment to new locations. In two or three months the relocated factories were again in operation. At the same time new plants were being built.

Despite the occupation of many of the big industrial and farm centers, the Soviet Union's military and economic potential kept growing. Men of all the diverse nationalities living in the country fought side by side in the patriotic war against the invaders. They were moved by a common hatred of fascist barbarism that threatened to deprive them of their freedom and independence, to destroy their way of life.

During those years people in the rear did two jobs—their own and a second to replace some comrade who was doing the front line fighting. Women and youngsters quickly learned the trades of their husbands, fathers and brothers. People worked with no thought of self, at times without leaving their factories for days in succession. "If the army needs it, we'll get it done," that was the precept by which the home front lived.

With every passing day more tanks, planes, guns and ammunition were ready for the Soviet army. People gave their savings to the Defense Fund, money to build whole squadrons of planes and whole tank columns. One collective farmer, Ferapont Golovaty, contributed enough himself over the period of the war to build two planes which he personally and proudly presented to the air force.

"Everything for the Front" was the slogan. Women, young people and old, replaced their soldier husbands, fathers and sons at the factory benches.





Fighting on the southern front. Early in the war the invaders moved forward deep into Soviet territory but it was at massive cost of men and materiel.



Under heavy enemy shelling underground workshops in besieged Sevastopol worked day and night to turn out ammunition for the city's heroic defenders.

Nothing was left for the occupying armies, everything portable was evacuated. Collective farmers moved with their cattle and tools far to the rear.





# THE GREAT PATRIOTIC WAR AGAINST FASCISM

## The Defense of Moscow

By the fall of 1941 Japan had its troops concentrated on the Soviet Union's Far Eastern borders. Hitler planned that the capture of Moscow by the Nazis would be the cue for Japan to enter the war.

A force of 80 picked fascist divisions—almost half of the Nazi land forces operating on the Soviet-German front—plus three-fourths of the tank units and a great fleet of 1,000 planes were massed for the offensive against Moscow. Hitler promised his weary troops a long furlough in the Soviet capital. He boasted that on November 7, the Soviet national holiday which was to commemorate the 24th anniversary of the Socialist Revolution, Nazi troops would parade in Red Square.

The pincer offensive to take Moscow was mounted that fall. Half a million Muscovites mustered to build defense lines, tens of thousands joined the volunteer divisions and the air-defense corps.

The army fought for every foot of ground against odds which seemed overwhelming. At a railroad siding outside of Moscow a group of 28 men—Russians, Ukrainians, Kazakhs and Kirghizians fighting together—gave battle to fifty German tanks and a large infantry detachment. The commander told his men, "Back of us lies Moscow. There is no place to retreat to." The guardsmen answered by knocking out fourteen enemy tanks.

Moscow held. The enemy threw in more and more divisions. But they smashed themselves against an impregnable barrier of courage. On November 7 the Soviet army units paraded across Red Square as usual and then left for the front.

For every mile the fascists advanced, they paid with thousands of their dead. In their attempt to bomb Moscow out of existence, they lost more than 1,000 planes and 4,000 of their best flyers. The Hitlerite command ordered the offensive to continue at whatever cost, but by early December the German troops were exhausted. Bitter frost had set in but it was not the weather that was the crucial factor.

Early in December 1941, in a surprise move, the Soviet army went on the offensive. In one month the Germans lost some 300,000 men and officers. By the end of February the enemy had been pushed back 250 miles westward in a disorderly retreat, abandoning equipment on the way. Moscow had indeed held firm.

The shattering defeat at Moscow was the first the Nazis had suffered since the beginning of the Second World War. The myth of invincibility that fascist propaganda had created was shattered. The people of the whole civilized world now knew that fascism, the common enemy of mankind, could be defeated. The battle of Moscow was the decisive engagement of the first year of the war.

## The Anti-Fascist Coalition

On June 19, 1941, just before the attack against the Soviet Union, Hitler, in a letter to the German General Staff, had outlined his plan for world domination. Once the Russian campaign was over and the Soviet Union defeated, his armies would move on to the Near and Middle East, take the Suez Canal and the Mediterranean basin and then invade Britain. Later the Nazis would join up with the Japanese against the United States.

It was altogether evident that the interests of all freedom-loving peoples required that they fight off fascist aggression together. When Hitler attacked the Soviet Union the governments of the United States and Great Britain declared their readiness to join forces with the Soviet people valiantly fighting the aggressor. At a conference in Moscow of representatives of the three countries from September 29 to October 1, 1941, a plan was adopted for convoy of British and American supplies to the Soviet Union. The Soviet Union, in exchange, was to supply the strategic raw materials that the United States and Britain needed.

Assisted by Soviet ships and aircraft, American and British convoys fought off enemy attacks as they made their dangerous way to Murmansk and Archangel in the north carrying food and arms.

The defeat of the Nazi armies at Moscow had forced a reexamination of foreign attitudes on the military strength of the Soviet Union. On May 26, 1942, an Anglo-Soviet treaty of alliance during the war and

cooperation and mutual assistance after the war was signed in London. On June 11, 1942, a Soviet-American "Agreement of Principles Applying to Mutual Aid and Conduct of the War Against Aggression" was signed in Washington. In the negotiations with Britain and the United States "complete agreement was reached concerning the urgent task of establishing a second front in Europe in 1942."

However, the Soviet army continued to fight alone against the Nazi armies in the European theater. Although a concerted offensive in that theater was vital, the opening of a second front was put off for reasons that did not rest with the Soviet Union.

The fascists were in occupation of extensive and important productive territories of the Soviet Union, regions that before the war accounted for 63 per cent of the national coal output, 58 per cent of steel production and 40 per cent of the country's population. Despite this, the total mobilization of the nation's resources and the selfless labor of the people behind the lines turned out tanks in 1942, for example, at a speed three times greater than in 1941. Ten thousand new industrial establishments were being constructed in the eastern regions.

Everything for the front meant that there was little for the rear. There was a shortage of food, of housing, of consumer goods of every kind. This was austerity, indeed, and without abatement. Life was hard and bitter, but it was to be endured, and gladly, to beat off the fascist enemy.

### The Battle of Stalingrad

The delay in opening a second European front permitted Hitler to throw all his reserves against the Soviet Union. By the summer of 1942 about 240 of the 256 divisions which Nazi Germany had were concentrated against the Soviet army.

In July the German command launched a powerful offensive on the southern front. The objective was to capture the Caucasus, take the Baku oil region, push on to the Volga River and then northeast to encircle Moscow from the rear.

By September enemy troops had reached the Volga and were at the approaches of Stalingrad. Soviet fighting men vowed to hold the city, and that unbelievable battle for Stalingrad began. Every inch of ground, every street and building was fought for with murderous ferocity. A handful of guardsmen led by Sergeant Yakov Pavlov entrenched themselves in the ruins of a four-story building and for two months repulsed attack after attack. In their repeated attempts to take that one Stalingrad house the Nazis lost several times more men and officers than they did to take Paris. They never did take the building.

Guns and mortars pounded away at the city day and night, aircraft bombed the Soviet positions without let-up. The defenders fought off more than 200 attacks. They kept their vow to hold the city. The world will long remember Stalingrad as a symbol of indomitable courage. In many countries streets and squares have been renamed Stalingrad.

After intensive artillery preparation, Soviet units in mid-November 1942 broke through the front in a number of sectors north and south of Stalingrad. Heavy tank and mechanized units poured through the gaps in a pincer movement and encircled 22 German divisions with masses of military materiel concentrated near Stalingrad.

To avoid useless bloodshed, the Soviet command proposed to the German units that they lay down arms. But Field Marshal Von Paulus, following the orders of Hitler, refused to surrender. The Soviet forces thereupon proceeded to wipe out the fascist divisions. By the time fighting ceased on February 2, 1943, the enemy dead totaled 147,000. The remainder, including 24 generals headed by Von Paulus, were taken prisoner.

### The Soviet Army Advances

The defeat at Stalingrad was the beginning of the end for Hitler's army. The Soviet victory had consequences that went far beyond the immediate effects of the battle. The prestige of the Soviet Union rose immeasurably. People the world over knew that Stalingrad was a defense not only of the Soviet Union, but of civilization and freedom. It marked a critical turning point in the Second World War—the fascist military machine had begun to fracture.

The victorious offensive continued through the winter of 1942-43 to liberate the North Caucasus, push back the enemy on the central front, and break the blockade of Leningrad. The drive was begun to push the fascists out of the Ukraine. During the winter campaign 110 fascist divisions were routed.





This is Kiev after the invaders had been driven out. They destroyed cities and villages by the thousands and left 25 million Soviet people homeless.



A sample of fascist butchery. Railroadman Tikhon Kulichenko grieves over the bodies of his family. They were shot in cold blood at Gartmashevka.

Partisan groups in the occupied regions attacked enemy garrisons, blew up bridges and railroads, fired military depots and disrupted communications.



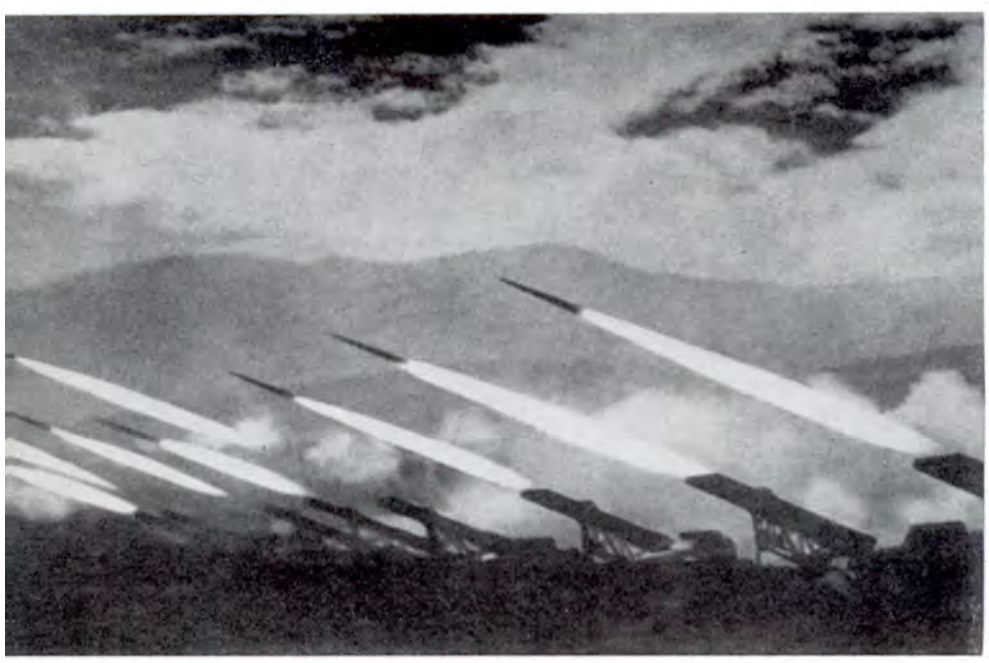


IN THE BATTLE FOR THE CITY OF STALINGRAD SOVIET SOLDIERS FOUGHT WITH INCREDIBLE FEROCITY FOR EVERY INCH OF GROUND, EVERY STREET AND EVERY BUILDING.

# THE GREAT PATRIOTIC WAR AGAINST FASCISM

In the summer of 1943 the enemy's forces were augmented by some two million men. It was Germany's total mobilization, the bottom of the barrel being scraped. With new types of weapons—the Tiger heavy tanks and the self-propelled Panther guns—the German command launched an offensive on the central sector of the front against the large Soviet forces concentrated in the vicinity of the city of Kursk.

With the rear mobilized for full defense production great volumes of munitions rolled on to the battlefronts. These are famous "Katyusha" missiles.



Fifty fascist divisions moved on Kursk from the north and south. The Soviet command had foreseen the offensive and had built a number of defense lines in the area.

With production in full swing on the home front the Soviet army now had everything it needed in the way of equipment. The Russian Urals was outstripping the German Ruhr. In July a battle of unprecedented ferocity was fought at the approaches to Kursk and the Nazi generals were defeated. At Stalingrad the fascist bastion had cracked; at Kursk it began to crumble.

In catastrophic retreat the invaders tried to dig in along the Dnieper, but the Soviet army pushed forward along a 400-mile sector of the river. On November 6, 1943, Kiev, capital of the Ukraine, was liberated and by the end of the year the greater part of enemy-occupied territory in the Soviet Union had been freed. The year 1943 marked the turning point in the Great Patriotic War of the Soviet people against fascisms.

### War Damage

The regions from which the enemy had been driven out were gutted and burned—one great scene of frightful and barbarous destruction. The fascists, on orders from their high command, had killed mercilessly, driven the able-bodied Soviet citizens off to Germany, destroyed homes and factories, blown up bridges and railways. This was scorched earth they left in retreat. They destroyed, either completely or in large part, 1,710 towns, 70,000 villages, 31,850 industrial plants and 98,000 collective farms. Twenty-five million people were left homeless. Seven million men, women, children and old people were killed during the war.

Through the years of the Nazi offensive, the Soviet people were subjected to sufferings unparalleled in history. The enemy was not satisfied to restrict violence to prisoners of war, their barbarism extended to the civilian population as well. Children were slaughtered before the eyes of their parents. Women were abused and sent by the trainload into slavery. Whole villages were forced to dig their own graves and await execution.

But even in the worst days the Soviet people did not associate the atrocities of the Gestapo and SS-men with the German people. They knew that the savagery unleashed against them also fed on the German nation and would destroy it if fascism were not destroyed. The Soviet troops that finally entered Germany came not as conquerors but as liberators. Not for a moment did they forget that it was the Nazi plague that had to be exterminated, not the German people.

The Nazi invasion, if one calculates the war damage, the loss in in-



IN THE STALINGRAD OFFENSIVE SOVIET FORCES KILLED AND CAPTURED 22 NAZI DIVISIONS AND MASSES OF MATERIEL. IT WAS THE TURNING POINT OF THE WAR.

come from enemy-occupied territories, and the amount spent to prosecute the war in money terms, cost the Soviet Union an astronomical 2,569,000,000,000 rubles. If this vast sum could have been spent on peacetime construction, the Soviet economy today would be at the approximate level it will be reaching in 1970.

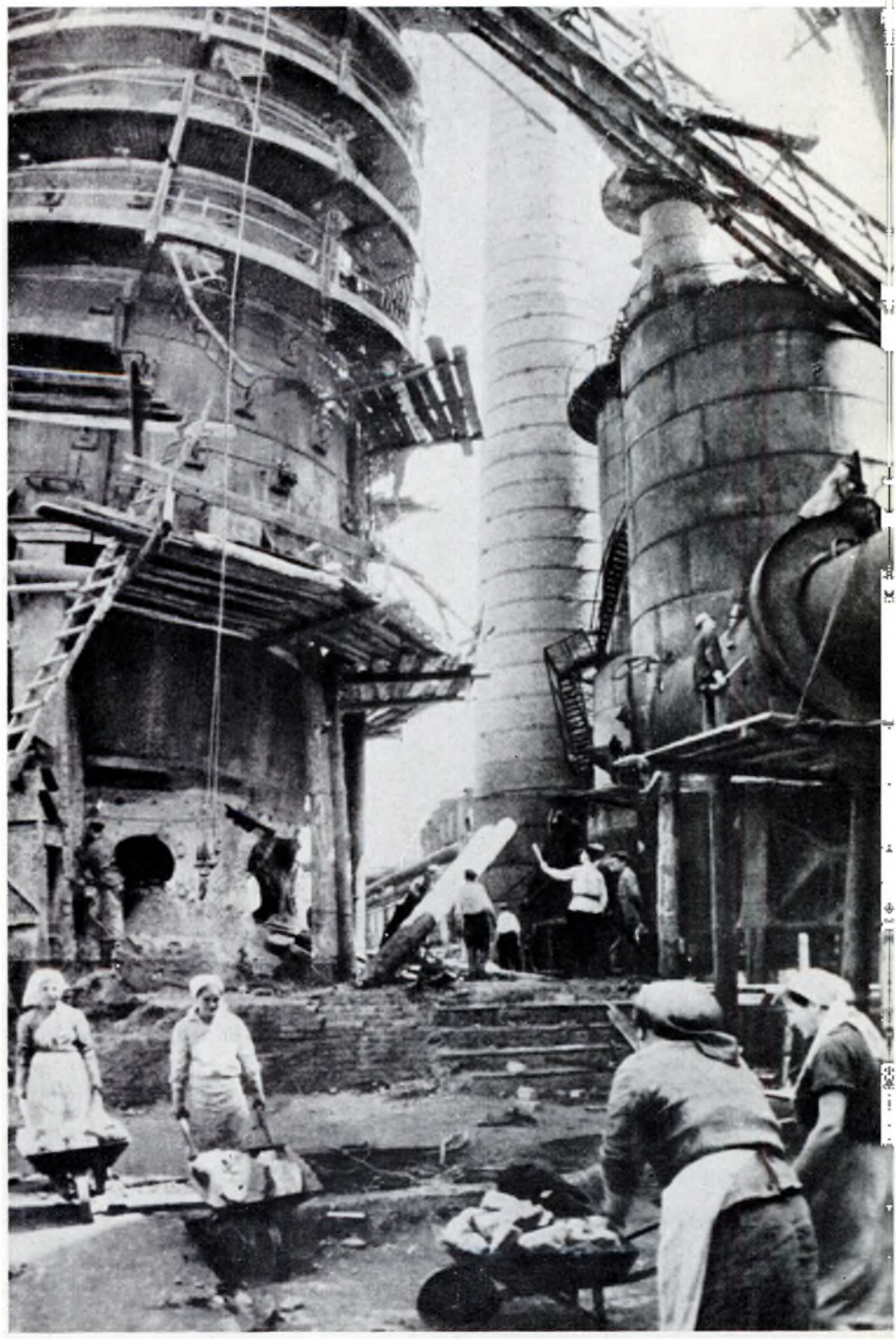
Immediately after the fascists were thrown back, work got under way to rebuild the industry and agriculture of the liberated regions. As the front moved westward, the fields which had been battlegrounds only yesterday were planted to crops. Factories, mines and power stations rose from the ruins. Volunteers came from all parts of the country to reconstruct Stalingrad and other devastated cities.

While the Soviet people were still fighting the war, they were rebuilding. Their land had been occupied by the fascists but they had never been conquered. The Nazis had not been able to run the factories they captured, the people had refused to work for them. The farmers had hidden their grain and smuggled it out to the partisans.

It had been an uneasy occupation for the fascists. Not for a day had they felt safe on Soviet soil. In the early months of the war a partisan movement had sprung up behind their lines. Guerrilla detachments attacked Nazi garrisons, blew up bridges and railroads, set fire to military warehouses, disrupted communication lines.

In a Byelorussian village just liberated from the enemy occupation. As the fascists were pushed back they barbarously slaughtered whole villages.





While the Soviet people were still fighting the war they were rebuilding. Factories, power stations, homes, hospitals, schools rose from the ruins.



The working people of Smolensk rebuilding their ravaged city. They are laying a streetcar line.



The Soviet armies not only drove the Nazis from native land but liberated Rumania, Bulgaria, Czechoslovakia and Hungary, and helped free Poland, Yugoslavia, Austria, Finland and Norway.

# THE GREAT PATRIOTIC WAR AGAINST FASCISM

The partisans were of incalculable help to the Soviet army. Their bullets searched out hundreds of thousands of the enemy. During the heavy fighting at Kursk, partisan groups from the Ukraine, Byelorussia and other regions waged a simultaneous "railroad war." They wrecked all the main lines along which supplies were carried to the Nazi armies. In three months Byelorussian partisans derailed 1,014 enemy trains.

## Approaching the Victory

The Soviet army soon surpassed the fascist forces in armaments. Between 1943 and 1945 it received from the country's civilian front an annual average of 40,000 planes far superior to those produced by the enemy; 30,000 tanks; 120,000 pieces of artillery; half a million machine guns and five million rifles and automatics. Nor did it suffer from any shortage of food supplies.

Victory was close now, brought closer daily by the Soviet army's offensive. In the summer of 1943 American and English troops landed in Sicily and other parts of Italy to open a successful offensive.

In October 1943 a conference held in Moscow adopted a declaration to continue the war until the unconditional surrender of the enemy. The allies pledged every effort to ensure peace and universal security after the war. A special declaration was adopted on the responsibility of the Hitlerites for crimes they had committed.

At the Teheran Conference in November 1943 Joseph Stalin, Franklin Delano Roosevelt and Winston Churchill met to make decisions of far-reaching importance. The United States and Britain agreed to land troops in France not later than May 1, 1944, thereby opening the long-awaited second front against Germany.

The main force of Hitler's army, 236 divisions and 18 brigades, was still concentrated on the Soviet front in 1944. Nevertheless, the Soviet forces continued to push ahead. In January and February the Nazis were forced back from Leningrad and the liberation of Estonia began. In the Ukraine, on the southern sector of the front, an enemy force of ten divisions was surrounded and smashed near the town of Korsun-Shevchenkovsky.

By the spring of the year the Soviet army had reached the USSR southern border along the Prut River and by mid-April the strong enemy force in the Ukraine west of the Dnieper had been completely routed. The liberation of Rumania was begun.

On June 6, 1944, the allied armies under General Eisenhower landed in Normandy and by autumn had liberated France, Luxembourg, Belgium and part of Holland. A total of 90 fascist divisions were in action against the British and Americans. The enemy's main power was still pinned down on the Soviet front.

During the summer, Soviet forces carried through one of the biggest operations of the war when they surrounded and cut to pieces 30 Nazi divisions in Byelorussia. In these engagements the enemy suffered casualties of 540,000 men and officers.

## Collapse of the Fascist Empire

By the end of 1944 the Soviet army had not only driven the Nazis off Soviet territory but had helped free many of the European nations. Finland broke with Germany and got out of the war. The Nazis were driven out of Rumania and Bulgaria. The liberation of Czechoslovakia and Hungary was under way. Soviet troops helped to free Norway and Yugoslavia.

With every blow the strength of Hitler's armies waned, but they continued to resist with frenzied desperation. In December the Nazis suddenly launched an offensive in the Ardennes and breached the allied front. The British and American forces found themselves in a difficult position.

Winston Churchill, in a message to Joseph Stalin on January 6, 1945, asked that the Soviet army speed up its offensive. True to its obligations as an ally, the Soviet Government ordered the army to open a simultaneous offensive along the entire Soviet-German front. Together with Polish units, Soviet troops freed Warsaw on January 17. By the spring Soviet troops had captured East Prussia, freed Poland and Hungary and had entered Austria.

At the Yalta Conference in February 1945 the leaders of the three allied powers pledged to eradicate German militarism and Nazism, to disarm and disband all Germany's armed forces and to break up its war industry so that peace would be guaranteed in Europe. Germany was to be charged with reparations for the enormous destruction she had caused.

Decisions were also made on the frontiers of Poland, on cooperation among the allied powers on the democratic reorganization of Europe and on setting up the United Nations organization. To end the fighting as soon as possible, the Soviet Union agreed to declare war against Japan within two or three months after Germany's surrender.

Even as late as January 1945, some 200 of the German divisions were still being deployed against the Soviet army as compared with half that



A scene which repeated itself in many cities. Rumanians greet Soviet troops passing through Bucharest streets the day the city was liberated.



April, 1945 — the historic link-up in defeated Nazi Germany. American and Soviet soldiers meet at the Elbe River near Torgau.

number of divisions fighting on the western front against the combined Anglo-American forces.

The Soviet army began its final offensive in April 1945. By that time the allied forces were advancing into Germany from the west. After breaching the German defense lines on the west banks of the Oder and Neisse the Soviet units drove on to Berlin. On April 25, 1945, the enemy force in Berlin was surrounded by Soviet units. That was the day, too, when American and Soviet soldiers made their historic link-up on the Elbe River and celebrated the victory which had been won by their common effort.

### The Enemy Surrenders

After stubborn resistance the Berlin garrison surrendered on May 2 and Soviet troops raised the flag of victory over the Nazi Reichstag. Six days later the German high command signed an unconditional surrender in Karlshorst, a suburb of Berlin. The joint efforts of the peoples of the Soviet Union, the United States, Britain, France and other countries were crowned with total victory. The fascist empire was done with.

Adhering to its pledge given at Yalta, the Soviet Union declared war on Japan on August 8, 1945, after the Japanese Government had refused to capitulate. Japan had maintained a fully equipped army of a million men on the Soviet border all through the war. Despite the difficult conditions in the Far Eastern theater of operations, the Soviet army soon defeated the Japanese forces in Kwantung.

On September 2 Japan signed an unconditional surrender and the Second World War was ended.

For the second time in its brief history, the Soviet Union was faced with the task of rebuilding a war-ravaged economy. In March 1946 the country embarked upon the fourth five-year plan for the restoration and development of its economy. The same courage and indomitable will of the people that brought victory in war made it possible to complete the plan in four years and three months and to exceed the targets set. This was also true of the fifth five-year plan that followed.

As consumer goods became more accessible, prices were reduced systematically. The standard of living continued to rise steadily. Allocations from the national budget for free services to the population increased. Tremendous strides were made in science. The world's first atomic power station was built in the Soviet Union and the first sputnik successfully launched.

In the second year of the sixth five-year plan it became obvious that it was now possible and necessary to plan ahead for longer periods of time, and in February of this year target figures were set for a seven-year plan to be completed in 1965.



Germany signs an unconditional surrender. Hitler's empire is done with. Fascist banners are flung to the ground at a victory parade in Moscow.

# FIRST

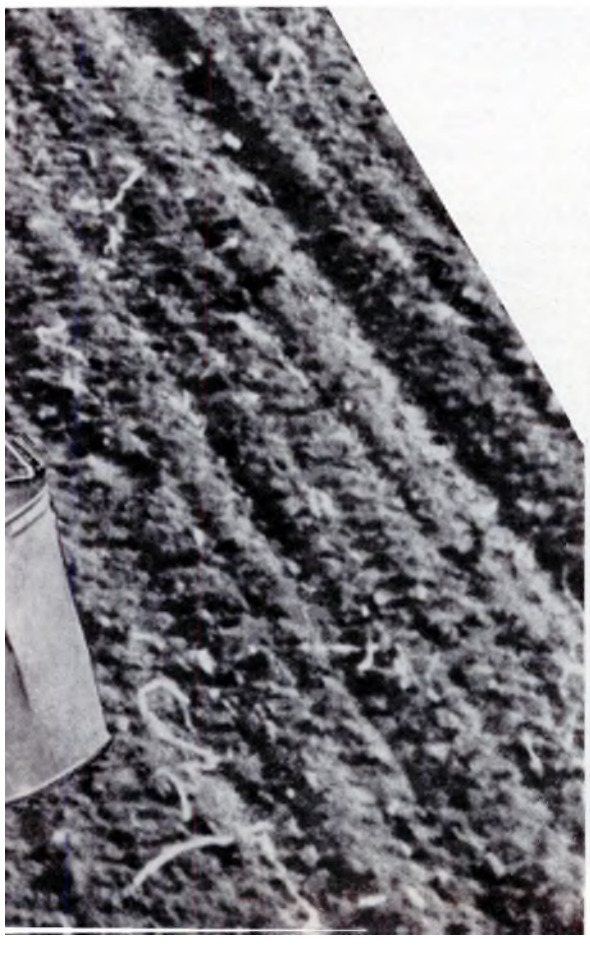
# SPRING OF THE SEVEN-YEAR PLAN

*By Georgi Radov*

THIS is the first spring of the seven-year plan in which Soviet farmers—wheat and cotton growers, truck gardeners, dairymen and livestock breeders—pledged themselves to perform an agricultural miracle. At least this is what many people abroad call it—this plan to outproduce every country in the world in the next few years.

In the Soviet Union spring comes first to the farmers of Central Asia. They start sowing as early as February when fields in the European part of the country are still deep in snow, and blizzards are still blowing in Siberia. The country is so vast that several months pass before spring has traveled from south to north, coming fully into her own everywhere only by May.





This year spring reached the southern threshold of the Soviet Union when the Twenty-First Party Congress was concluding its memorable sessions. Farmers listening to the radio reports and reading newspaper accounts of the proceedings were looking over their fields and barns with a speculative eye and a question. The question? How much earlier than the time scheduled by the seven-year plan could they hit the target figures the Congress proposed? Soviet farmers are not awed by agricultural miracles, they have set precedents before this one.

### A "Grainy" Year

Take the year just passed, 1958. A "grainy" year, people called it, because the country harvested more grain than ever before in its history—139 million tons. Everything had made for a bumper crop—the 90 million acres of virgin lands newly plowed, efficient organization and teamwork, plenty of equipment, and, no small factor, fine weather.

This year, the first of the seven planned years, people are beginning to talk of as a "meaty" year. As far as grain is concerned, farmers predict a steady rise in this top priority crop over the next few years.

The target for 1965 is 164 to 180 million tons of grain, this very sizable increase to come through more efficient farming. Figuring in all predictable factors, most farms are certain they can better the target figures.

The collective and state farms in the Russian Federation calculate on harvests of 115 to 130 million tons; the Ukraine's farms are aiming for 34 million; Kazakhstan for 24 million. Apart from the other twelve Union Republics, these three alone are expected to be yielding more grain than the seven-year plan schedules for all the farms in the country.

A considerable rise is forecast by the seven-year plan in output of cotton, flax, sugar beets and vegetables. Farmers face a challenging task to double the output of fruits and berries, and the output of grapes is to quadruple. Vineyards in the Kuban this year will be as numerous as in France's Champagne. Scores of new vineyards are being planted along the Don and orchards in the Crimea are being expanded. Horticulture is to be further developed in Moldavia, the South and the North, and indeed everywhere in the Soviet Union.

### A "Meaty" Year

Since things are moving with such celerity in all the farm branches, why then so much talk about this year as a "meaty" year?

"Don't count your chicks until autumn" is the Russian equivalent of the old proverb. That caution applies even more emphatically

GOOD SILAGE AND GRAIN RESERVES FROM LAST YEAR'S HARVEST ENSURE FULFILLMENT OF THIS YEAR'S MEAT GOAL.






MANY FARMS USE SPECIAL PLANES FOR CROP-DUSTING.

# FIRST SPRING OF THE SEVEN-YEAR PLAN

to sown crops. Man has not yet learned to forecast nature's caprices. Allowance must be made for the unpredictable. It has happened more than once and the likelihood is it will be happening many more times in the future that a farmer will plow deep and well, sow quality seed on time, watch it sprout, and then have to look on while his field is burned out by scorching sun or drought wind.

But the Soviet Union is big, and thanks to its planned economy, a drought in one district does not mean ruin and starvation for the farmer. Food and seed will be sent in from unaffected regions. But the Soviet farmer, for all that, prefers to leave a large margin for these unheralded acts of nature.

Meat production is another story, however. Granted that a drought can wreak havoc with livestock, too, nevertheless when the granaries and silos are full of rich feed and there are plenty of cows, pigs, calves and sucklings, one can predict meat output with a fair degree of accuracy regardless of weather.

That is very much this year's meat picture. Of the 139 million tons of grain stored in the granaries from last year's harvest, 16 million is corn. And the silage is more plentiful than ever before.

Soviet livestock farming has been on the rise steadily. Last year two-odd million more tons of meat were produced than in 1953. In the next few years the hope is to reach the American per capita production figure. To do this, gross output of meat will have to be brought up to 20-21 million annual tons. This means boosting the average yield to 37 pounds of meat per acre of arable land, a goal already achieved by many state and collective farms, although not everywhere in the country.

While Soviet farmers equaled and to some degree even bettered the gross milk yield of the United States last year and also beat the American butter output figure the year before, meat producers still have a long way to go before they equal the American meat figure.

### A Good Summer Ahead

"We've already heard the first larks, and they promise a good summer," Nikita Khrushchev said at the Party Congress when he was commenting on the possibility of exceeding the target figures for the seven-year plan.

If first signs are meaningful, it certainly does seem as though many parts of the country are likely to come through much ahead of schedule. Ryazan farmers, for example, have reason to believe that they will hit the meat and milk target in two to three years instead of seven. By the end of this year they will have quadrupled their meat production.

The Ryazan region's collective and state farms have large herds of well-fed cattle, plenty of feed stored and, what is most important, farmers who know their business. It is worth noting that the Ryazan region, not too long ago one of the more poorly developed farm areas, now stands first in the country for its dairy produce.

Ryazan farmers are now setting the pace for the collective and state farms of the Stavropol, Moscow and Rostov regions, of the Ukraine and Byelorussia, and of many other areas of the country. But each area is carefully estimating its own possibilities. The Ukraine feels it will be completing its seven-year plan for meat and milk in five years. So, too, for Latvian farmers. The Kuban is really cutting corners—farmers in that area are growing a great deal more corn so as to hit their meat and milk targets in two and a half instead of seven years.

THE INCREASING NUMBERS OF VARIOUS MACHINES ACCOUNT FOR **THE HIGHER PRODUCTIVITY OF AGRICULTURE.**





### Higher Productivity

There is another angle on which Soviet farmers are now working, illustrated by the comment made by the chairman of a collective farm near Kiev, an engineer by the name of Dudchenko. He had come to the farm three years ago and had done wonders with it. Under his management the farm's income jumped 800 per cent. When a visitor congratulated Dudchenko, his comment, after the rather matter-of-fact thank you, was to say that the farm needed to cut its production costs, more particularly its labor costs.

To cut labor costs in any enterprise in the Soviet Union, whether factory or farm, does not mean cutting wages or lengthening hours. What Dudchenko had in mind was the greater productivity that could be gotten by more farm mechanization.

That is something of a general problem now. The collective and state farms have plenty of the bigger machines like tractors and harvester combines. Curiously enough, there is a shortage of the smaller and simpler machines like those for loading and unloading green fodder and silage.

But that is being taken care of. The seven-year plan provides not only for more tractors, harvesters and other heavy farm machinery but also for more auxiliary equipment for loading, gardening, fruit growing and livestock breeding.

The Kharkov Tractor Plant, a giant of farm equipment industry in the Ukraine, has been retooling for mass production of a new type of tractor—a lighter, faster and more economical model. The plant will also be turning out its first batch of narrow-gauge caterpillar tractors for vineyard work very shortly.

The amount of electric power used by the country's collective and state farms will be increased about four times over during the next seven years. This, too, will help to lower overhead by increasing labor productivity.

New machines are being designed and old ones revamped to get the seven-year plan off to a fast start. The country has some 300,000 harvester combine trailers. Up to now they have been pulled by 300,000 tractors. But not too long ago mechanics in the Saratov region began to remodel these trailers into self-propelled combines. By the time harvest rolls around, thousands upon thousands of these self-driven trailers will be out on the fields.

This spring there has almost been a mass movement among corn farmers particularly to get away from manual labor, with thousands of tractor drivers taking part. The Ukrainian tractor driver Alexander Gitalov has been raising corn on large areas without manual labor. He is the Soviet farmer who spent some time working on Mr. Roswell Garst's farm in Iowa.

When Mr. Garst visited the Soviet Union he told Nikita Khrushchev that he would be glad to show Soviet farmers how a man working single-handed could raise 250 acres of corn. Alexander Gitalov went to Iowa to see how Mr. Garst did it and came back with a lot of very useful information.

While Gitalov was still in America, Voronezh farmer Nikolai Manukovsky and his helper, Ivan Visotsky, were working 500 acres of corn without manual labor and were raising 16 tons of green fodder on each acre. In the Siberian Altai, the two Knyazev brothers are raising corn by machine on 375 acres of virgin land. They are not the only ones by far. Others can be cited by the score in the Ukraine, the Kuban, Stavropol, Siberia. Mechanization has been spreading far and wide this spring to other crops, which normally demand a great amount of manual work, like sunflowers and cotton.

Livestock farmers are mechanizing, too. A state farm near Moscow, managed by Nikolai Taschev, is one of those leading the march to automation. In the farm's automatic kitchen, two men prepare feed for ten thousand pigs by pushing various and sundry buttons. The fodder is unloaded by a single truck driver and only one swineherd is needed to care for a thousand pigs. New mechanized livestock buildings like that one are being built by collective and state farms everywhere in the country this spring.

In the village these days one hears the constant buzz of circular saws and the bang of hammers. This is a busy spring for Soviet masons, carpenters, electricians, plumbers and all the other building trades. There are seven million homes they are scheduled to build in the next seven years, not to speak of farm buildings, schools, clubs and hospitals.

It's a busy season for everybody in the Soviet Union—this first spring of the seven-year plan.



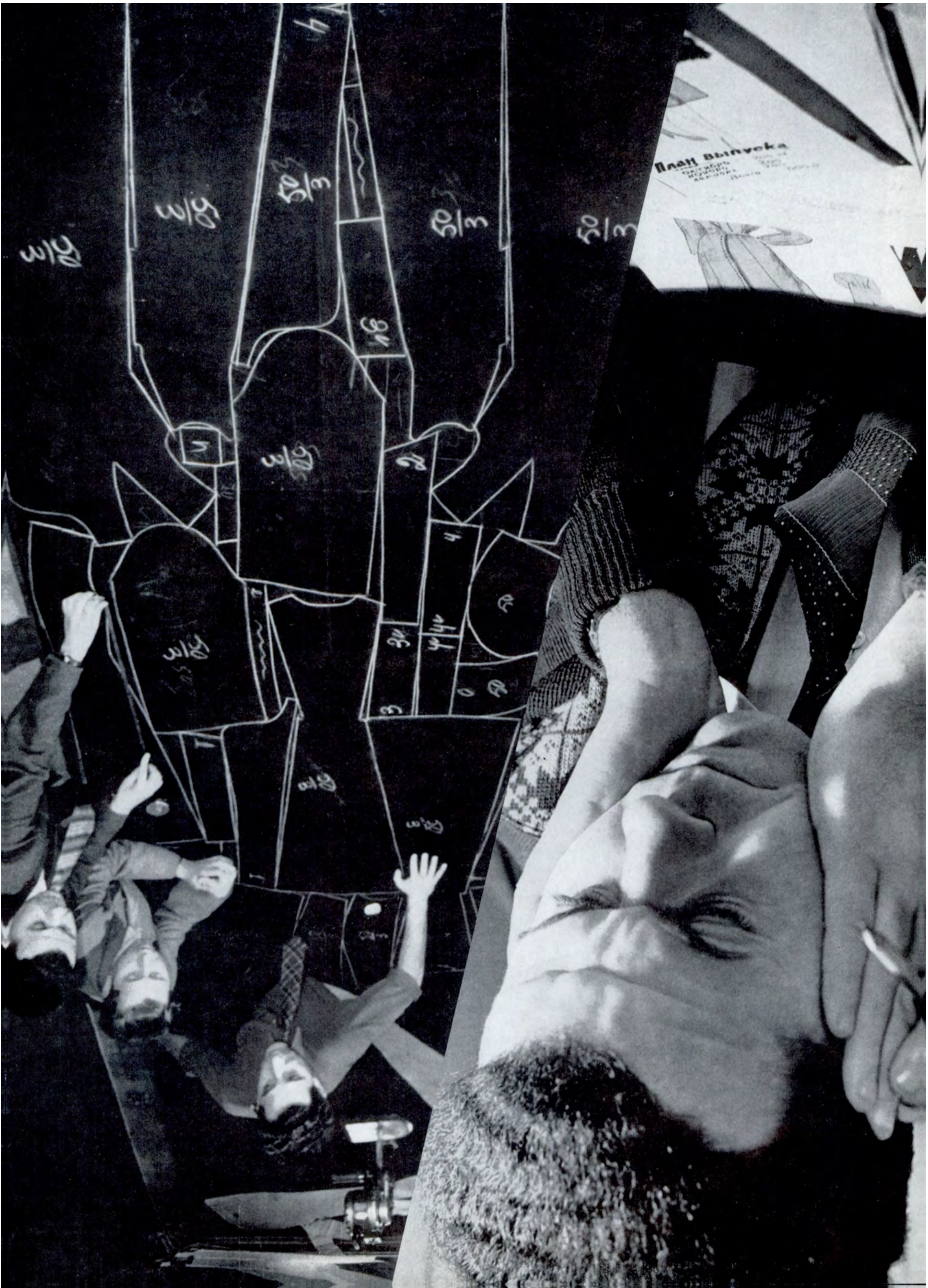
A simple formula: mechanization equals less work and more pay for farmers.



Nikolai Manukovsky is one of those farmers who raise corn without manual labor.



These students will help fill the country's demand for more agriculture specialists.


План выпуска

# A YOUNG MAN IN STEP WITH THE TIMES

*By Yuri Grafsky*

VASIL BOYKO is a young man with the quick energetic step of the person who knows where he's headed. He is a cutter-designer at the big Ukraina Garment Factory in Kiev and as he walks into the sample room with a batch of pale blue cardboard patterns slung across his shoulders, he has the pleased look of a trapper returning with a good catch of blue-fox pelts.

The comparison is not too extravagant. Vasil sees these dress patterns he has designed and cut translated into a lovely gown much as the trapper fancies a fine fox skin gracing the shoulders of a woman.

As for Vasil's energetic step, that is consistent with his idea that "a man has to keep in step with the times he's living in"—he means the very rapid pace at which the country is going to be moving ahead the next seven years.

Vasil is not a member of the Communist Party. But like all Soviet people he has followed the proceedings of the Twenty-First Party Congress and its discussion of the new seven-year plan with keen interest. He is one of the many millions of Soviet citizens who helped formulate the plan. Ukrainian workers held a series of discussion meetings on the draft before the Congress met.

Vasil was particularly pleased at the comment Nikita Khrushchev made in his report to the effect that the Soviet people are going to be dressing much better in the coming seven years. "That's my part of the job," said Vasil.

### Dresses by the Thousands

Vasil Boyko came to the Ukraina factory in Kiev from Uman, a small Ukrainian town where he worked as cutter for five years in a custom tailoring shop. He learned the trade at this shop after he was demobilized from the navy.

When he started work at the Ukraina, Boyko had something of the feeling of a man who suddenly shifts from a motor launch to a trans-Atlantic liner—everything magnified a hundred times. But he got himself oriented to this big-scale work soon enough. He liked the sweep of it, the belt conveyors carrying dresses, suits and coats by the thousands in all colors, styles and sizes. Ukraina manufactures ready-to-wear apparel for matrons, misses and children.

The factory equipment is up-to-date, most of it Soviet-made by textile machinery plants

VASIL BOYKO ALWAYS TRIES TO CHECK THE WORK WHEN ONE OF HIS DESIGNS IS IN PRODUCTION.





VASIL PRESENTS HIS IDEAS FOR A FALL COAT WITH A SHAWL COLLAR TO THE PLANT'S ART COUNCIL, WHICH MUST PASS ON EACH NEW CREATION.

# A YOUNG MAN IN STEP WITH THE TIMES

He gets a reaction to his new designs by visiting retail shops.



in Podolsk, Rostov, Kuibyshev, Gorky, Novosibirsk, Kuznetsk and by the experimental machine factory in Moscow. Ukraina also uses machines built by the German Durkopp and Strobel firms and by the British Below Machine Company.

Semi-automatic machinery is used for seaming, for sewing buttons and making buttonholes, for embroidered trimming, for stitching cuffs and other operations.

Ukraina turns out garments in from 80 to 100 styles a year, some patterned on designs from the Moscow and Kiev Fashion Houses, others originated by its own cutters who also do designing. The garments are shipped to retail stores all over the country.

### School for Designers

When Vasil came to the Ukraina factory, he worked for a while as an operator and was then moved up to the cutting department. An improved pattern he worked out for a children's coat showed that he knew his business and he was soon transferred to a more responsible job in the sample shop. But more important for his progress, he was sent by the factory to take an eight months' course for dress designers at a school maintained by the garment industry. While at school, he was paid a cutter's average wage and when he came back, he was promoted to the job of cutter-designer.

Vasil is a designer before, during and after work, awake and asleep. A walk through Kiev's bustling streets on a Sunday or holiday might be just a walk for other people, for Vasil it's to see what the ladies are wearing. He'll suddenly get absent-minded about a novel idea for a cuff, collar, sleeve.

It was during one of his promenades that Vasil dreamed up the idea of a long scarf which could double as a collar for a lady's coat. He lived with that imaginary scarf-collar for quite a while trying to think up the rest of the coat to go with it.

Then, at a fashion show arranged by the Kiev Fashion House, he was watching the pretty Italian models parade the latest Rome fashions when a version of "his" coat suddenly flashed before his eyes. That was it—he could almost feel the texture of the softly draped lines and see the severe lines of the back.

He worked out the patterns, made the first sample and submitted it to the factory's art council. This is the group of experienced designers and tailors who pass on designs before they are put into production and includes, of course, the sales executive, Mikhail Voloshanovich, otherwise known as the Ukraina "barometer." It's his job to know which styles, colors and fabrics are likely to sell and which won't.

Voloshanovich wasn't sold on Vasil's original design. He dropped in to talk about it. "I think," he said, "that as original as your scarf-collar idea is, it's a little too fancy for everybody's taste. Suppose you work it over and get something a little simpler—a coat with a shorter scarf-collar and the same very attractive lines, maybe."

Vasil argued a bit and then agreed to think it over. He adjourned to the quiet of the factory library and spent a couple of hours checking through fashion magazines. He tries to keep abreast of the work of French, American, Italian, German and Polish designers and, of course, of the models put out by fashion houses in Lvov, Riga, Moscow and Leningrad.

He spent some time sketching out ideas and finally hit on a design which pleased him, Voloshanovich and the rest of the art council. It turned out to be one of the season's very good sellers.

### Designer Turned University Student

From the Ukraina factory to Shevchenko Boulevard is a half-hour's ride by bus. But in that half-hour every day Vasil shifts character. From a clothes designer he becomes a university student. Once he gets to Shevchenko Boulevard and Kiev University he tries to forget about new designs and turns his mind to German grammar or the history of the Ukraine.

This is the sixth year that Vasil has been traveling from the Ukraina factory to the university. There are many evenings when he would sooner take it easy or go to the movies after work, but this is another way he has of keeping pace with the times. So that night after night Vasil is there at what is by now his habitual seat in the university library. He is taking a correspondence degree in history which includes work in archaeology and ancient Slav languages. During examination periods he is excused from his job at the factory, with pay, to do full-time study.

Offhand, there would seem to be little enough connection between the history of ancient Egypt, let us say, and dress designing, but in Vasil's mind the relation is a very obvious one.

Grigori Butenko, a friend of his, once put the question this way, "I don't understand why you're majoring in history. Take me, I work in a fashion house and I'm studying at the textile institute. That makes sense. My studies help me with my work and my work with my studies. But I don't see your logic. If you want to become a historian, why stick at Ukraina? And if you are interested in designing, why are you majoring in history?"

Vasil smiled as he answered: "It's logical enough. After I get my degree I'm going on to graduate study, and I have my thesis subject all picked out. As a matter of fact, I've been doing research on it for some time now—'The History of Russian Costumes.' Get the connection?"



THE PEOPLE WHO WORK IN THE SAMPLE DEPARTMENT OFTEN GET TOGETHER FOR THEIR SOCIAL ACTIVITY.

AFTER WORK, VASIL BECOMES A STUDENT. HE HAS BEEN ENROLLED AT KIEV UNIVERSITY FOR SIX YEARS AND PLANS TO GO ON TO GRADUATE STUDY.





RAPIA AIDAROVA, RESEARCH-BOTANIST OF THE KIRGHIZIAN ACADEMY OF SCIENCES, WAS ONE OF THE FIRST WOMEN TO WIN A MASTER'S DEGREE AT FRUNZE UNIVERSITY.

# THREE SCIENTISTS

## *Botanist from Kirghizia*



BORN into a family of Kirghizian shepherds who wandered with their flocks from one pasture to another, Rapia Aidarova witnessed the changes wrought by the Socialist Revolution of 1917 in all spheres of life of her people.

The Aidarov family live near the shores of Lake Issyk-Kul, a huge body of water situated high in the mountains on the republic's border, and it was here that the first houses replaced the tribal tents of the nomad people. It was at this time, too, that schools were first opened and education became a possibility for girls. Previously only male children went to school, and at that only the sons of the privileged and rich.

Rapia finished secondary school and announced her determination to become a botanist. Thereupon she enrolled in the university at Frunze, the capital of Kirghizia. After graduating she continued her studies and got her degree as a master of biological sciences.

Today Rapia Aidarova takes part in many scientific expeditions and is a member of the staff of the research institute of the Kirghiz Academy of Sciences. She spent the past two years in the Tien-Shan Mountains studying plant life.

The young research worker tries to find grazing areas with the best fodder for livestock. She is the author of a number of monographs on plant life in Kirghizia that have been included in a huge academic work prepared by the institute.

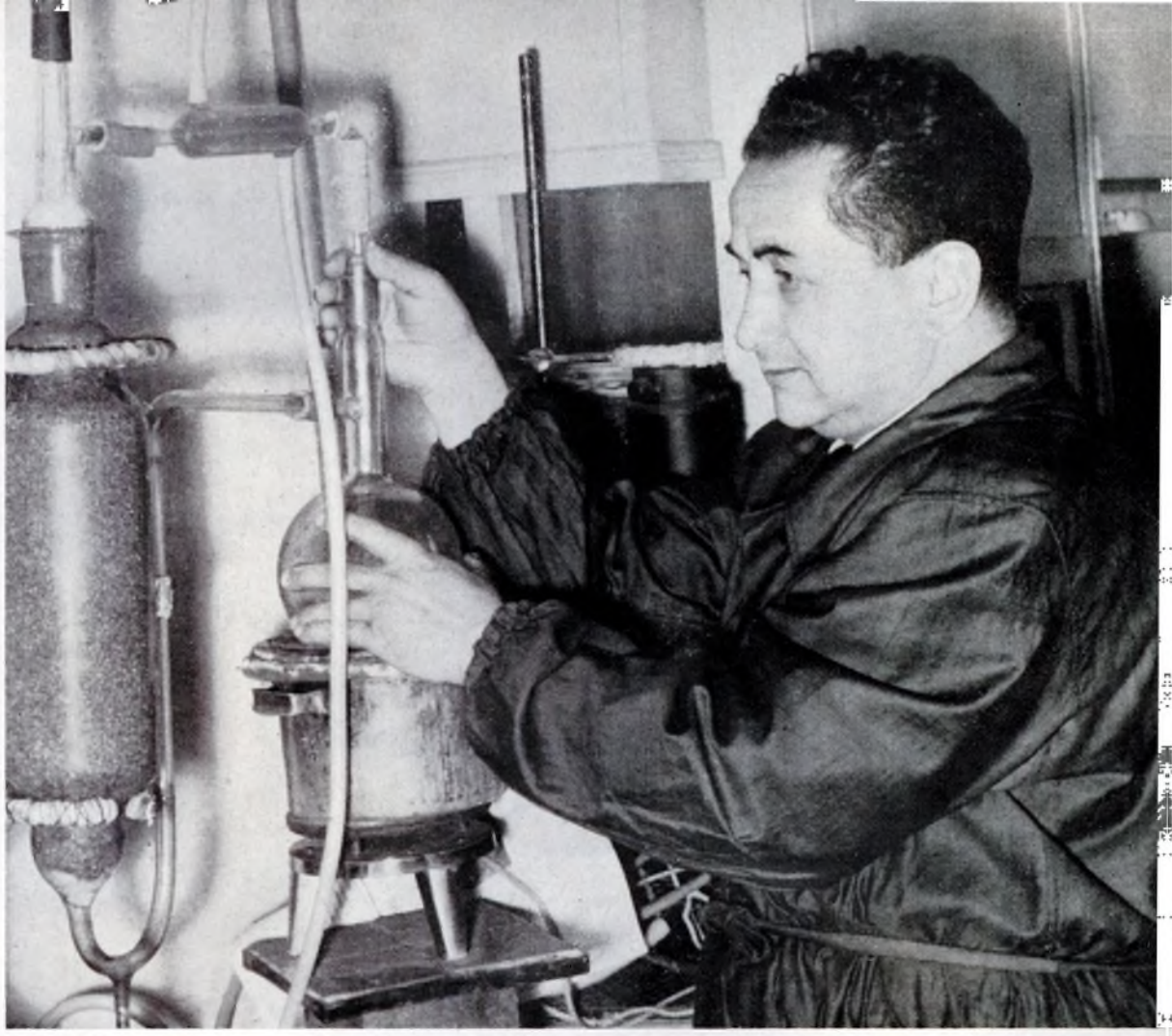
OF THE 700 known alkaloids—caffeine, codeine, quinine and other similar substances extracted mostly from plants—sixty were discovered in the laboratory of alkaloid chemistry of Sabir Yunusov, Vice President of the Uzbek Academy of Sciences.

Alkaloids are widely employed in medicine and have long been used to combat disease in man. Thanks to the discovery of quinine it was possible to synthesize acrichinum, and knowledge of the structure of cocaine provided the basis for the preparation of novocaine.

Yunusov's first discoveries were made thirty years ago when he, the son of a Tashkent bricklayer, completed his studies in chemistry at the first Central Asian University, and was doing graduate work at a laboratory in Moscow. As his graduation work, Yunusov presented the description of six alkaloids he had extracted from the wild oriental poppy.

Wounded in battle during World War II, Sabir Yunusov is now in his fifties and continues his research work. Some 3,000 plants have been tested in his laboratory and 800 were found to contain alkaloids. The structure of 16 has been thoroughly investigated and the main texture patterns of 13 others have been found.

Yunusov is continuing his study of wild plants to find more alkaloids for the benefit and advancement of science.



ACADEMICIAN SABIR YUNUSOV IS WORLD FAMED FOR HIS MANY DISCOVERIES IN THE FIELD OF ALKALOIDS.

# *Chemist from Uzbekistan*

# *Physicist from Azerbaijan*

AT 28, DR. AZAD MIRZAJANZADE IS A RECOGNIZED AUTHORITY ON VISCOUS AND VISCOUS-PLASTIC FLUIDS.



AZAD MIRZAJANZADE, a young Azerbaijanian physicist, is only 28 years old but has already won himself an international reputation for his advanced research work.

Only a few months ago Mirzajanzade celebrated his birthday and won his doctor's degree in technical sciences from the USSR Academy of Sciences. His dissertation was on problems of the hydrodynamics of viscous and viscous-plastic fluids, and it attracted the immediate attention of leaders in this field. He later published more than 50 articles on problems connected with his thesis in various Soviet scientific journals. Some of the most interesting of these were reprinted in the American *Mathematical Review*, the information bulletin of the French Academy of Sciences and other foreign technical periodicals.

In keeping with Soviet practice, Mirzajanzade's defense of his thesis was preceded by a wide discussion of the subject in the scientific press. The interest aroused by his paper is by no means accidental, since a number of important practical problems connected with the drilling and exploitation of oil fields and the shipping of oil were solved by Mirzajanzade in an original manner. Most of his proposals were of great practical importance for the oil industry of the Soviet Union.

A LECTURE-CONCERT ON TCHAIKOVSKY. THE LISTENERS ARE AS ARDENT MUSIC-LOVERS AS THE PERFORMERS, AND CONCERTS ALWAYS ATTRACT LARGE AUDIENCES IN GOMEL.



# GOMEL
## *the city of music*

BYELORUSSIANS say that there are more musicians in Gomel than in any other city of the same size you care to name. Every fifteenth person studied or is studying music, and the city, with its scores of choruses, bands and symphony orchestras, bids fair to become Byelorussia's amateur music capital. Aspiring musicians, singers and dancers come from widespread villages and towns to display their virtuosity at the republic's amateur art festivals held here.

An idea of Gomel's feeling about music is provided by the fact that one of the first things done after the city was liberated from the Nazis was to get a music club going in the railroad workers' community center, the only building left standing. The club has since grown into an evening college with three-year free courses in music, art and dramatics.

Gomel is fast becoming Byelorussia's amateur music capital. Here two boys from the local clothing factory are performing a song, composed by a fellow worker, with accompaniment on the dombra, an old folk instrument.



A small orchestra illustrates lectures and seminars on the history of music given at the evening college which grew out of a music club.




Lidia Maslennikova, literature teacher, plays a Chopin waltz. Every fifteenth person in Gomel studied or is studying music.



Nikolai Pugachev is called a "Gomel violinist," which has come to mean an excellent performer. He is a promising student at one of the local music schools.

# NEW USSR CHESS CHAMPION

**By Alexander Kotov**
***International Grandmaster***



TIGRAN PETROSYAN, USSR CHESS CHAMPION

THE Opera and Ballet Theater of Tbilisi, the Georgian capital, staged a production much different from its usual ones in February of this year—the USSR championship chess matches. The props were ten chess tables and the cast twenty of the country's leading contenders for national honors. Out front an intent audience watched ten demonstration boards that showed the moves.

Focus of keenest attention as the field narrowed down in the final round was Tigran Petrosyan, a slim young Armenian with dark hair who was making his moves with unruffled calmness. All he had to do to clinch the title was to pull a draw. One last carefully calculated move and the crowded theater burst into applause. The calm young man was the new national chess champion, winner of the envied gold medal, perhaps the most difficult of all chess awards to get.

Petrosyan and ex-champion Mikhail Tahl analyze a draw game at the 1959 matches.



Tigran learned the game when he was a very young schoolboy. He spent his after-school hours at the chess club of the Tbilisi Young Pioneer Palace playing with children of his own age and learning the rudiments of theory from the club's instructor. It wasn't long before he had polished off all the contenders his own age and was going after the grown-ups.

In 1946 the embryo chessmaster captured first place in the USSR junior tournament with a brilliant 14 out of 15 points. That same year he won the championship of Armenia and two years later made the semi-finals in the national matches where he placed fifth. This gave him the master's title.

He scored his first big success in 1952 when he tied for second place at the Interzonal Tournament in Stockholm. That won him the title of international grandmaster and rank with the world's great in chess.

But the trouble was that although he invariably took prizes, he rarely came out on top. There was evidently something in his style that was faulty, so he worked persistently to change it. Thus far Petrosyan hasn't revealed how he went about altering his play, but it must have involved a careful study of combinational positions and incisive variations. Whatever the method, the results were soon enough evident.

In this USSR championship match Petrosyan played many sharp combinational games and chalked up the fine score of 13½ points out of 19. He won eight games and 11 draws. None of his rivals got the better of him.

The Soviet Union is chess country, and Petrosyan's victory caused a stir of considerable dimension. When I called the telegraph office in Moscow to send a congratulatory wire to Tbilisi, the clerk didn't ask me to whom, she told me, "To Petrosyan."

I asked how she knew.

"It's not second sight," she answered. "All we've been doing here today is sending telegrams to Petrosyan."

The new champion will be celebrating his thirtieth birthday this year. "I'm already an old man," he said mournfully after the Interzonal Tournament in Yugoslavia last year. "I'm twice the age of Bobby Fischer."

It's true that American Bobby Fischer broke the record by winning the grandmaster's title at the very youthful age of 15, but Petrosyan is also young and it's still a while before he will have to be pushed around in a wheelchair. He has lots of time to develop his undoubted gifts and to win new laurels.

Here is one of the endings Petroysan played at the USSR championship match in Tbilisi. The game was with Anatoli Lutikov (Black) and the diagram shows the board after the 23rd move.

Black thinks his position completely safe,



but Petrosyan's unexpected move now confronts him with insurmountable difficulties.

24. P-QB4! . . .

How is Black to play? If 24. . . . BPxP, then 25. P-B5! R-R1 26. P-B6! and the White Pawn becomes very powerful. Black hastens to set up a defense.

| | |
|---|---|
| 24. . . . | Kt-Bl |
| 25. KtPxP | QPxP |
| 26. PxP | KtxKtP |
| 27. BxKt | RxB |
| 28. O-O | . . . |

Now White holds the key QB4 point and with it opens a decisive offensive.

| | |
|---|---|
| 28. . . . | P-B4 |
| 29. P-B3 | R-B2 |
| 30. Kt(Q)-B4 | R-Kt5 |
| 31. B-K1 | R-Kt2 |
| 32. B-B3 | . . . |

Petrosyan's tactics, as always, are sure and precise. It is difficult for Black to hold his position. He therefore decides to chance a desperate thrust.

| | |
|---|---|
| 32. . . . | P-R4 |
| 33. KtPxBP | PxP |
| 34. PxP | P-K5 |
| 35. K-R2 | PxP |
| 36. RxP | B-Q5 |
| 37. Q-Q3 | B-KB3 |
| 38. R-KKt1 | . . . |

Shifting his pieces to the K-side, Petrosyan prepares for the crucial attack.

| | |
|---|---|
| 38. . . . | K-R2 |
| 39. BxB | RxB |
| 40. Q-B3 | Q-B1 |
| 41. R-Kt6 | R-KB2 |
| 42. R-Kt5 | |

The game was adjourned at this point, but Lutikov resigned without resuming play.

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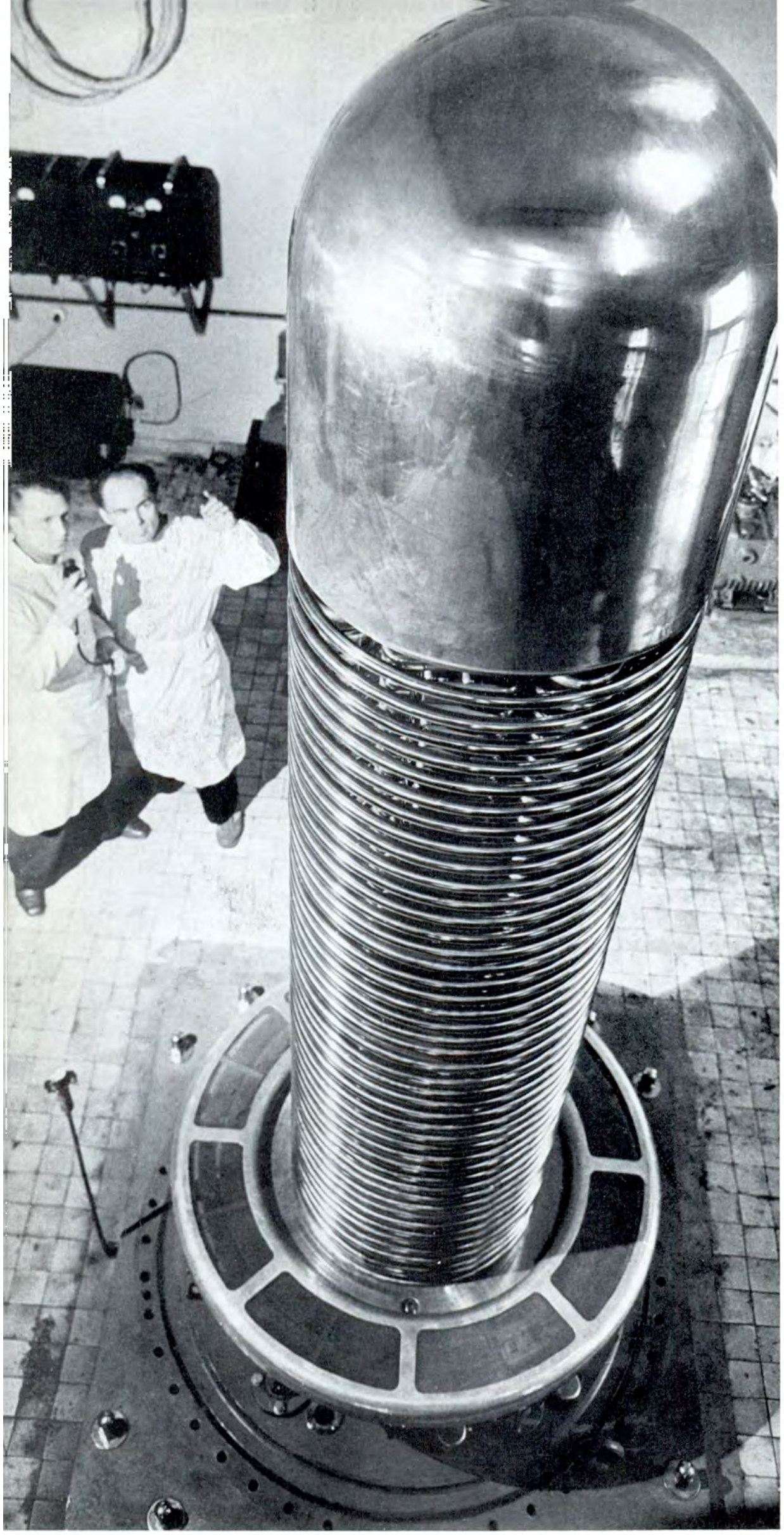
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**SOVIET EXHIBITION IN NEW YORK'S COLISEUM**

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EQUIPMENT GENERALLY USED IN SOVIET RESEARCH WILL BE ON DISPLAY AT THE NEW YORK EXHIBITION.


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# SOVIET EXHIBITION IN NEW YORK

*By Vasili Zakharchenko*

FOR THE first time since the New York World's Fair twenty years ago, Americans will be able to visit the Soviet Union without leaving the United States. Beginning June 30 the USSR in miniature will be on display for forty days in New York's Coliseum—a panorama in photo, film and graphic model of the way Soviet people live, work, study and play.

At the same time Soviet people will be touring the United States as they walk through Sokolniki Park in Moscow where the exhibition pavilions will be showing things American.

Even though visitors to the two fairs will be separated by an ocean, they will be cutting across frontiers in this reciprocal project designed to further understanding between the two countries.

The cover of this issue is an artist's concept of the entrance hall of the Soviet exhibition. The huge parabola darts upward as though it were flying through the transparent layers of the atmosphere beyond which lie the unknown expanses of outer space. It is intersected by the elongated body of a space rocket and the silvery cone of a sputnik.

This is symbol for the future in motion, the beginning of mankind's thrust toward a multitude of distant suns. It might well be the theme of the exhibition.

Soviet science has been contributing much to move us toward this great goal. Many complex problems in design and technology had to be solved, and new materials and precision instruments had to be created before the space satellites and artificial planet could be launched. There is probably no single division of the exact sciences which was not involved in the space exploration project.

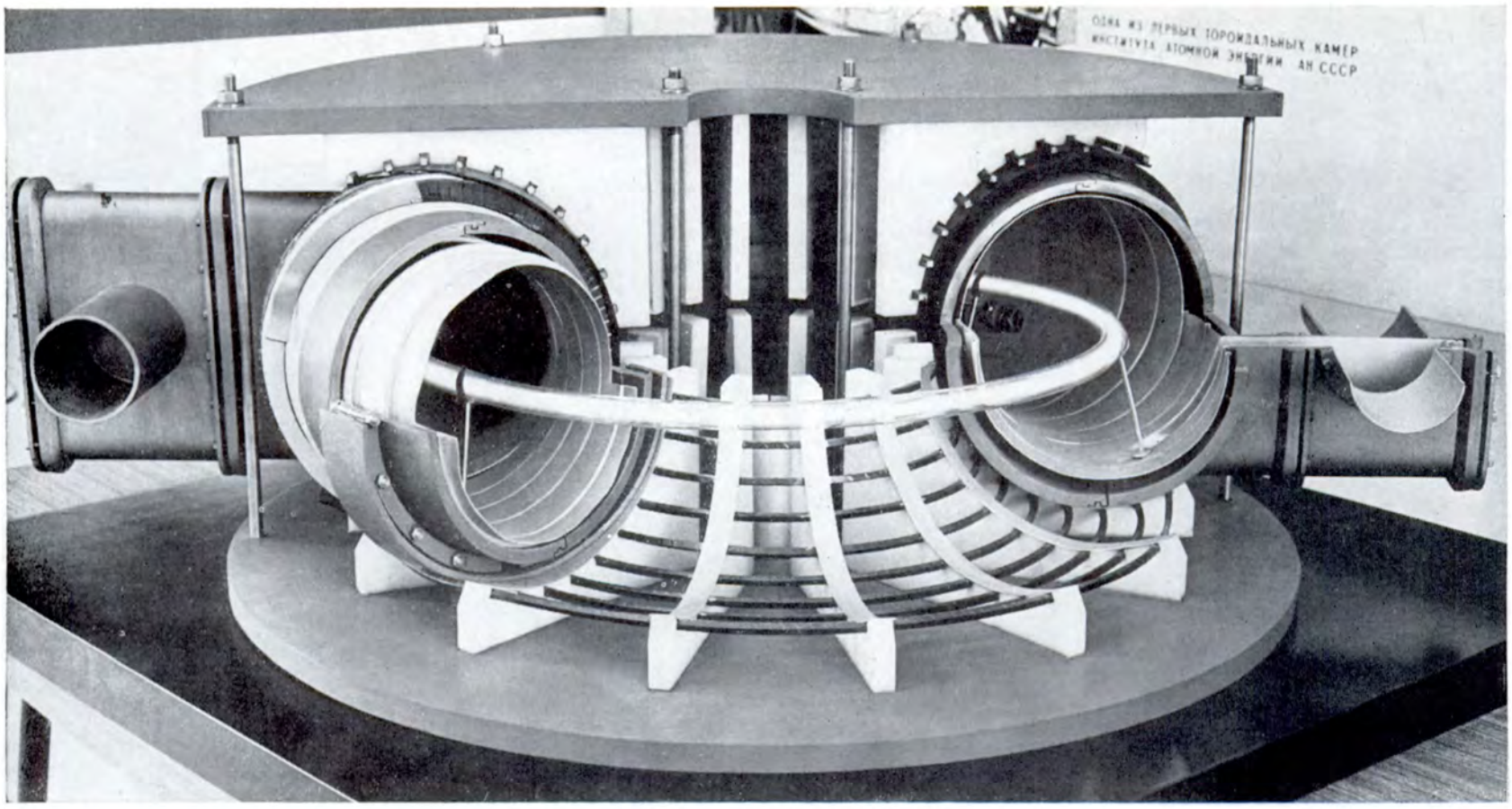
The country has reason to be proud of the results of this synthesis of science and engineering. It provided the world with fundamental data on the atmosphere and outer space now being studied as a preface to the launching of the first manned rockets. This portion of the exhibit will very likely be attracting the same huge crowds as did the comparable display at the Brussels Fair.

Soviet scientists have been working—and with most fruitful results—on semi-conductors, ultrasonics, radioactive isotopes, controlled thermonuclear reactions. All this will be vividly demonstrated in the science and technology displays.

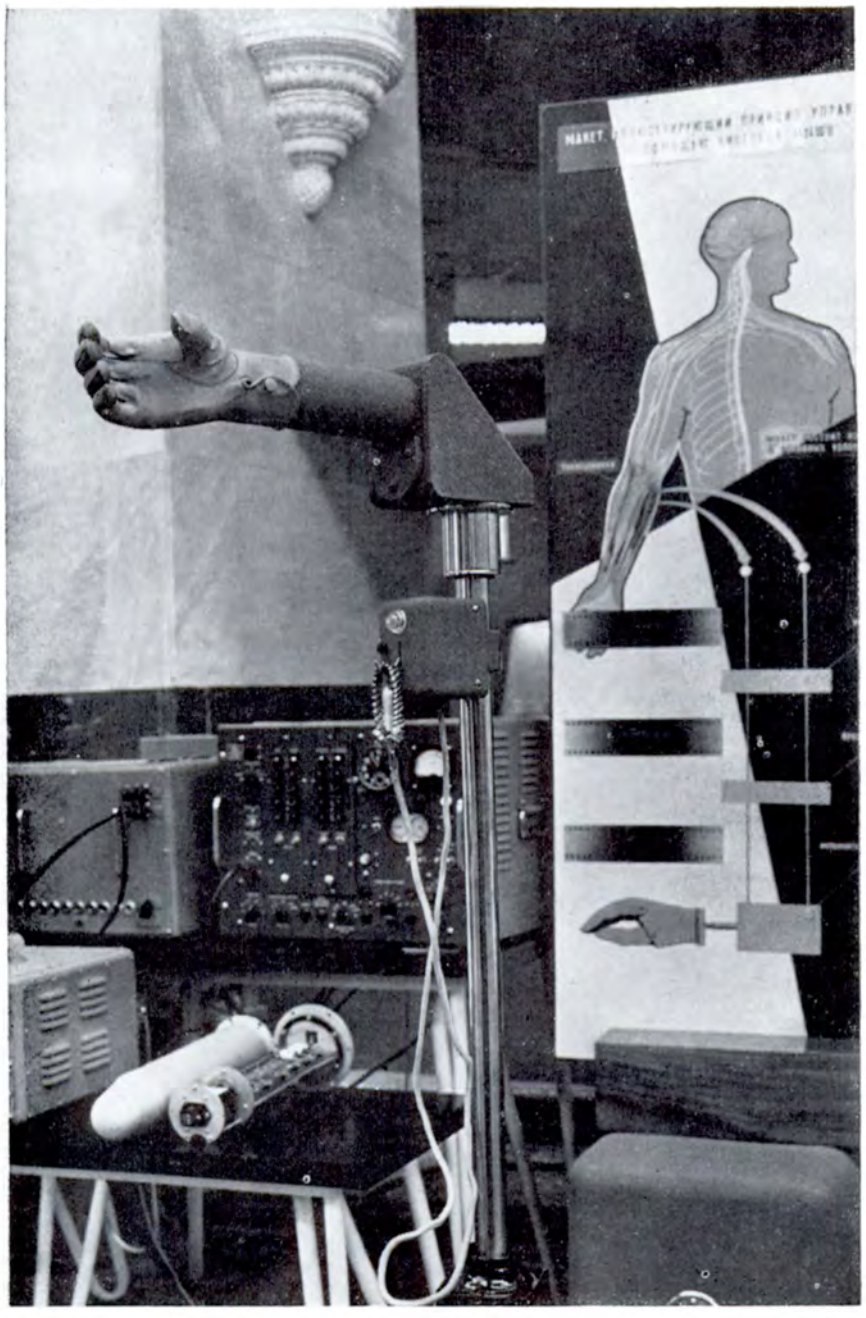
Models of experimental equipment will be on view, among them such newly designed instruments as the hodoscope for counting cosmics particles that enter the earth's atmosphere from outer space, the high-speed pulse height analyzer and a vacuum installation for studying chain reactions.

American visitors will have the opportunity to see what Soviet scientists have been doing with computing mechanisms and with automation and the use of remote control techniques in industrial processes.

Work on an atomic-powered icebreaker for



EXHIBITS LIKE THIS TOROIDAL CHAMBER WILL BE USED BY SPECIALISTS TO EXPLAIN RECENT TRENDS IN SOVIET RESEARCH ON CONTROLLED THERMONUCLEAR REACTION



A glimpse into the exciting future for industrial automation will be provided by this mechanical hand, whose movements are directed by biocurrents of the human body through a transducer-amplifier assembly.

Many new types of trucks are being turned out and highways extended to take care of the 90 per cent increase in motor freight haulage anticipated during the next 7 years.





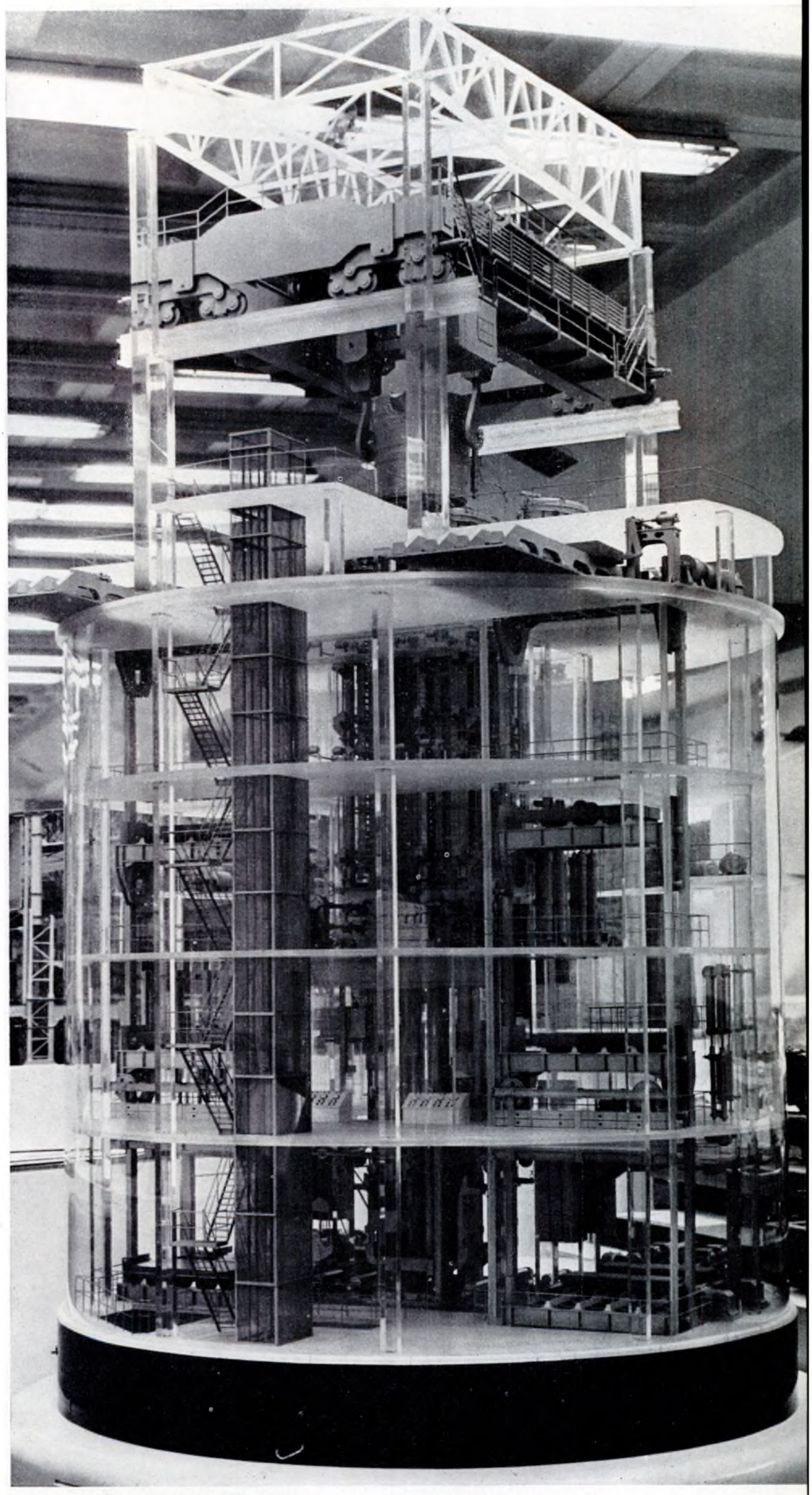
# SOVIET EXHIBITION IN NEW YORK



Arctic exploration is now in its final stages in a Leningrad shipyard. Before long this vessel, to be named after Lenin, will set out on its peaceful cruise, plowing a route through ice-locked ocean expanses. The *Lenin* will be able to circumnavigate the world four times without refueling.

Here is the atom penetrating to the remote corners of the globe to gather scientific knowledge for all people to use. Atoms for peace will be the caption for many of the exhibits—for models of the atomic power stations already built and generating electricity; research equipment for producing a controlled thermonuclear reaction and related displays of atomic energy being used to serve humanity and not to destroy it.

The economic displays will be a commentary on the Soviet Union's past, its present and its future. Only 41 years ago Russia was close to the bottom of the world's list in level



MODEL OF A CONTINUOUS STEEL-POURING SET-UP SHOWS A TECHNIQUE RECENTLY PERFECTED IN THE INDUSTRY.

# SOVIET EXHIBITION IN NEW YORK



of technology and industrial output. It was a long pull, and a very hard one, for this basically agrarian country to build itself into one of the world's leading producers of metal, fuel and power.

And why so much emphasis on steel, oil, electricity? Soviet people are frequently asked. The answer is not difficult. These are the elements out of which not only factories are built but houses and food and books and music.

The exhibit will show how the country has grown and what its future growth will be like. That future is mapped out by the seven-year plan for economic and cultural expansion between 1959 and 1965. Here are some of the statistics:

In seven years' time the Soviet Union will be producing 240 million tons of oil annually, double the present output.

Power production will more than double.

Extraction of gas will quintuple.

Steel mills will turn out 66 per cent more steel than they do now.

Coal output will be sharply increased by working the new open-cast East Siberian deposits.

That is growth indeed and much past the forecast and blueprint stage, to judge by present progress. The seven-year plan calls for an annual average growth in industrial production of 8.6 per cent. But in these opening months of the plan's first year, growth has averaged more than 10 per cent.



Visitors to the Coliseum will get an idea of what's new in Soviet transport from the midget Moskvich and the limousine ZIL-111 to models of jets and turboprops which will be on display there. The atomic-powered icebreaker, *Lenin*, now nearing completion, will be able to circumnavigate the world four times without refueling. The turboprop TU-114, which can make nonstop flights between Moscow and New York in 10-12 hours, carries 220 passengers and has a cruising speed of 600 mph.









Visitors to the exhibition will see a variety of consumer goods (made of both synthetic and natural materials) produced in the country.



# SOVIET EXHIBITION IN NEW YORK

Exhibition vistors will be looking at many of the newest machines made in the Soviet Union for factories and farms, including precision automatic machines with programming devices much superior to those which won a Grand Prize for the Soviet Union at the Brussels Fair. On display will be new automatic lines, coal combines, turbodrills and a variety of electronic devices.

New car models recently off the production lines of Soviet auto plants will be on exhibit, ranging from limousines to midgets. Specially featured will be the low-priced, low-upkeep Moskvich, a small car very popular at home and abroad.

The aviation display will show scale models of the TU-104 jetliner and the giant TU-114 turboprop airliner with its spacious seating for 220 passengers.

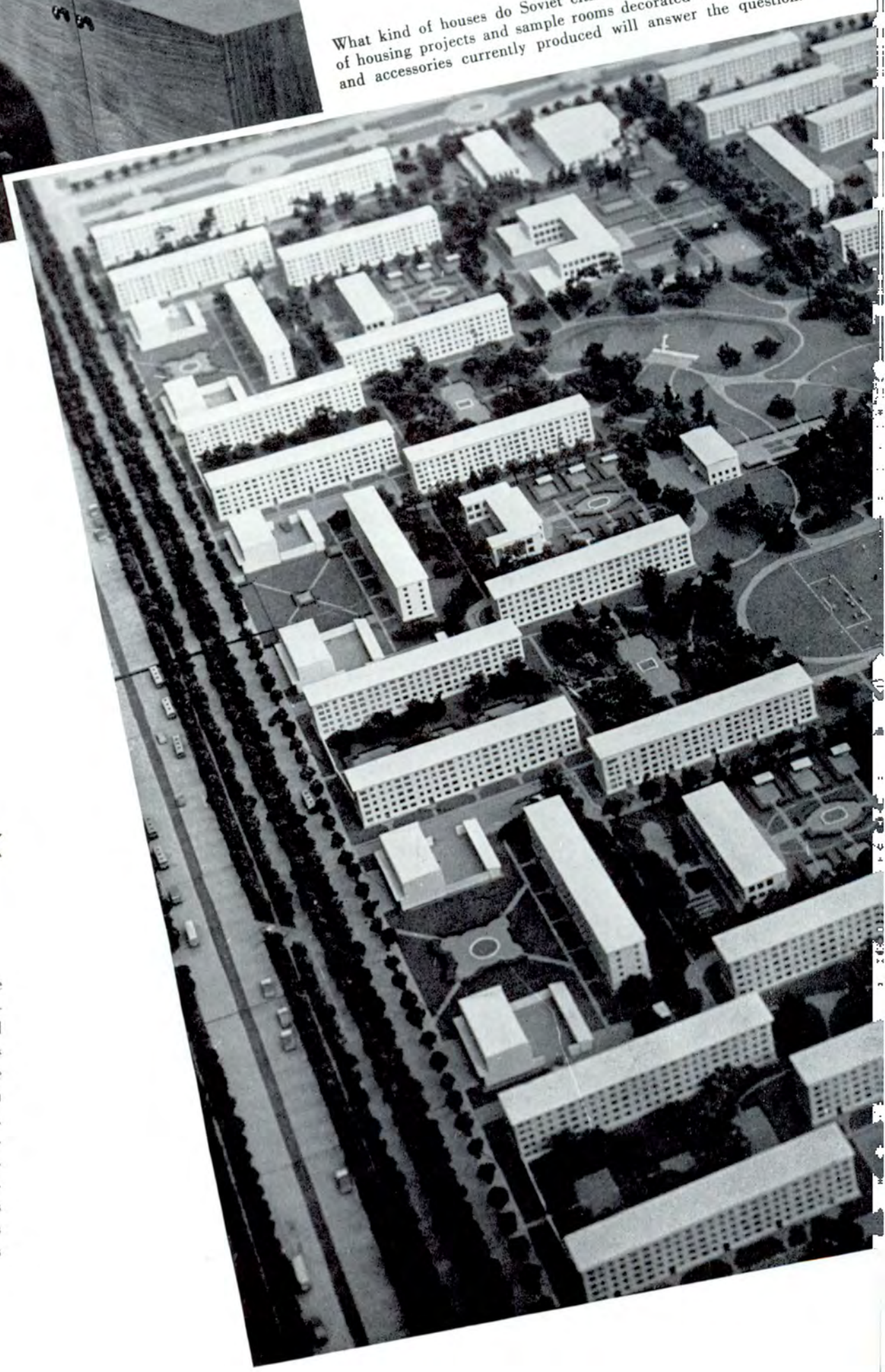




A HIGH SCHOOL HOBBY CLUB MAKING A WORKING MODEL OF A HARVESTER COMBINE TO SEND TO NEW YORK.



What kind of houses do Soviet citizens live in? Scale models of housing projects and sample rooms decorated with furniture and accessories currently produced will answer the question.





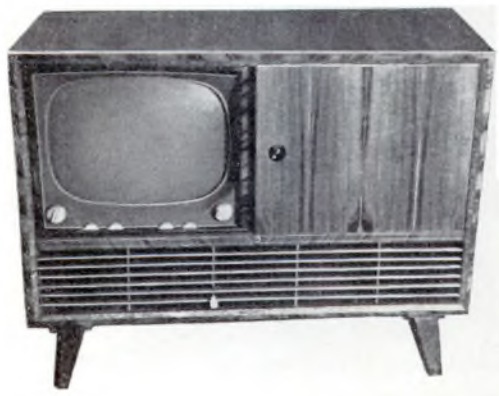
## SOVIET EXHIBITION IN NEW YORK

The farm display is a dramatized chronicle of the transition from the small peasant holdings of czarist Russia to the big mechanized collective and state farms of today. Exhibits will reproduce day-to-day work and leisure time activities at the Ukraina Collective Farm and the Gigant State Farm in the virgin lands.

On view will be tractors, seeders, harvester-combines and the great variety of other machinery used by these big agricultural enterprises. The training given at the farm schools and the experimental work done by thousands of seed-testing and livestock-breeding stations will be pictured.



Radios, television combinations, cameras and other goods on display will be sold to the American public when the exhibition is over.



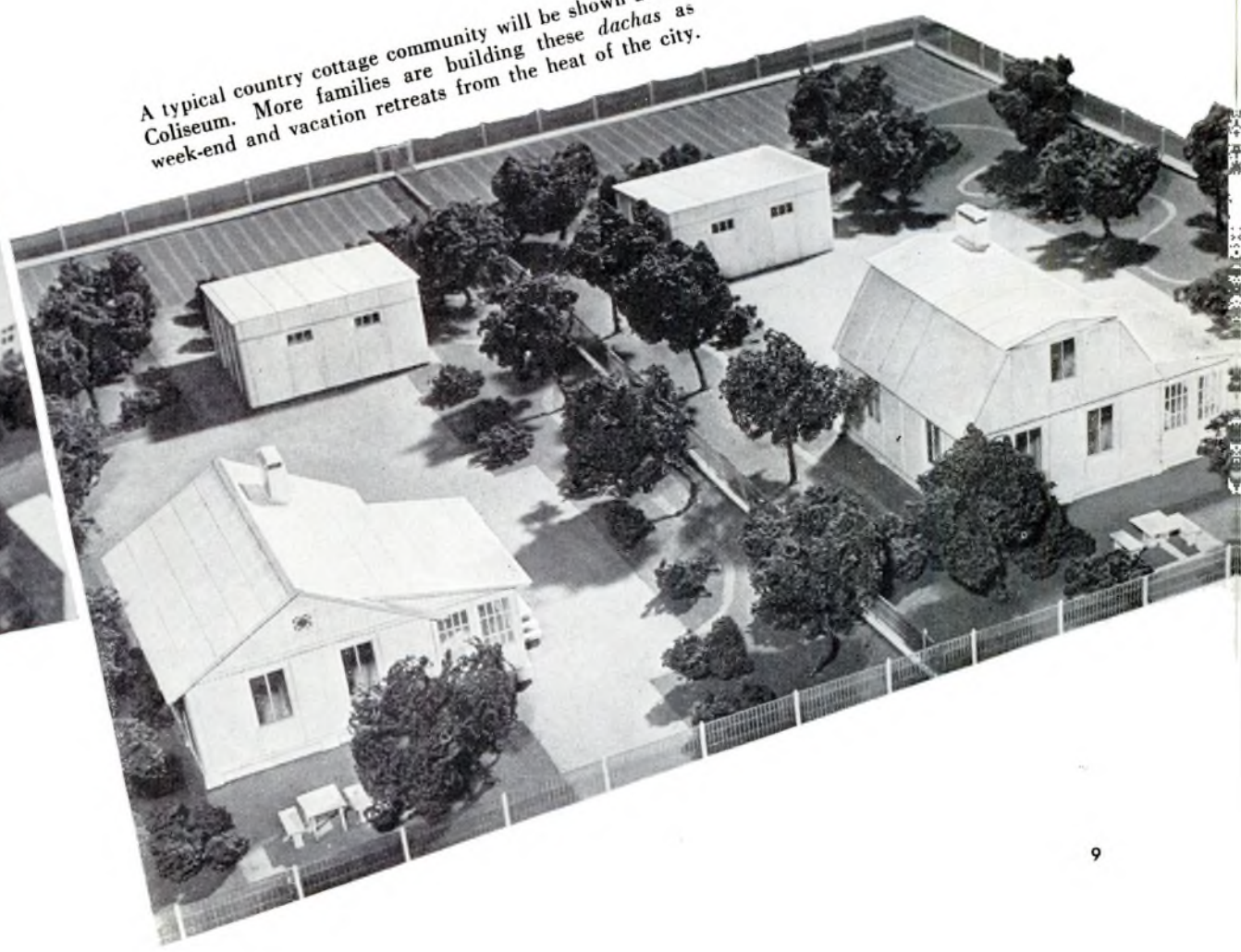




By 1965, 88 billion rubles will have been spent on the production of household goods and appliances that take the drudgery out of housework.



A typical country cottage community will be shown at the Coliseum. More families are building these *dachas* as week-end and vacation retreats from the heat of the city.





# SOVIET EXHIBITION IN NEW YORK

Could the sons and daughters of czarist Russia's peasants have dreamed of a college education and scientific farming? In Soviet times this has come true. Five agricultural academies, 135 agricultural colleges and hundreds of research stations help to conduct Soviet farming on a scientific basis.

New apartments and houses for 75 million people—that is the leading theme of the display on housing. Foreign tourists to the Soviet Union invariably comment on the enormous amount of construction going on. In the past five years there have been as many new dwelling units built as all of Russia had prior to the Revolution. But supply is still a long way from catching up with demand.

The exhibit will show in graphic form the vast improvements in living conditions, the new apartment buildings designed for comfort, air, light and convenience; the household appliances and furniture being mass-produced for sale at prices within easy range of Soviet consumers; the well-planned residential garden districts that are becoming a familiar feature of Soviet urban living.

The display on health and preventive medicine will be most comprehensive and will picture hospitals, clinics, maternity centers, sanatoria and health resorts. Visitors will be able to walk into a full-scale operating theater equipped with the most ingenious instruments for suturing delicate nerves and blood vessels, for heart surgery, for revivification and for transplanting organs.

Graphs, charts and pictures will tell the story of the nationally financed system of social security and social insurance. They will detail the pension plan which makes it possible for every man and woman to enjoy a secure, dignified and independent old age and the provisions that are made for the care of the sick and disabled.

Visitors to the Coliseum will get an idea of the Soviet people's recreational activities and the facilities available to them from pictures of the palaces of culture, community centers, sports stadiums and vacation resorts.

The exhibit on education will highlight some of the remarkable facts of the growth of the Soviet school system. Every fourth person, 54 million people, are studying in one or another kind of school. The Soviet Union now has 765 schools on the college level and 3,500 specialized secondary schools. Seven and a half million Soviet men and women have a specialized secondary or higher education, 39 times more than in the Russia of the czars.

The current reorganization of the Soviet public school system to relate school work more closely to productive work will be described through photos, charts and illustrative models.

On display in the section devoted to the arts will be the representative works of graphic artists, painters and sculptors. Colorful exhibits will highlight the diversity of Soviet music and theater. The Soviet panorama films, *Wide Is My Native Land* and *The Magic Mirror*, will be shown in New York during the run of the exhibition. Panorama is the equivalent of American cinerama.

But probably of even greater interest to the American public will be the live performances of song and dance groups to be given in New York during the exhibition. The groups will include the Russian Pyatnitsky Choir, a leading choral ensemble, and outstanding dancers and singers who will present the choreographic and vocal art of the many nationalities inhabiting the country.

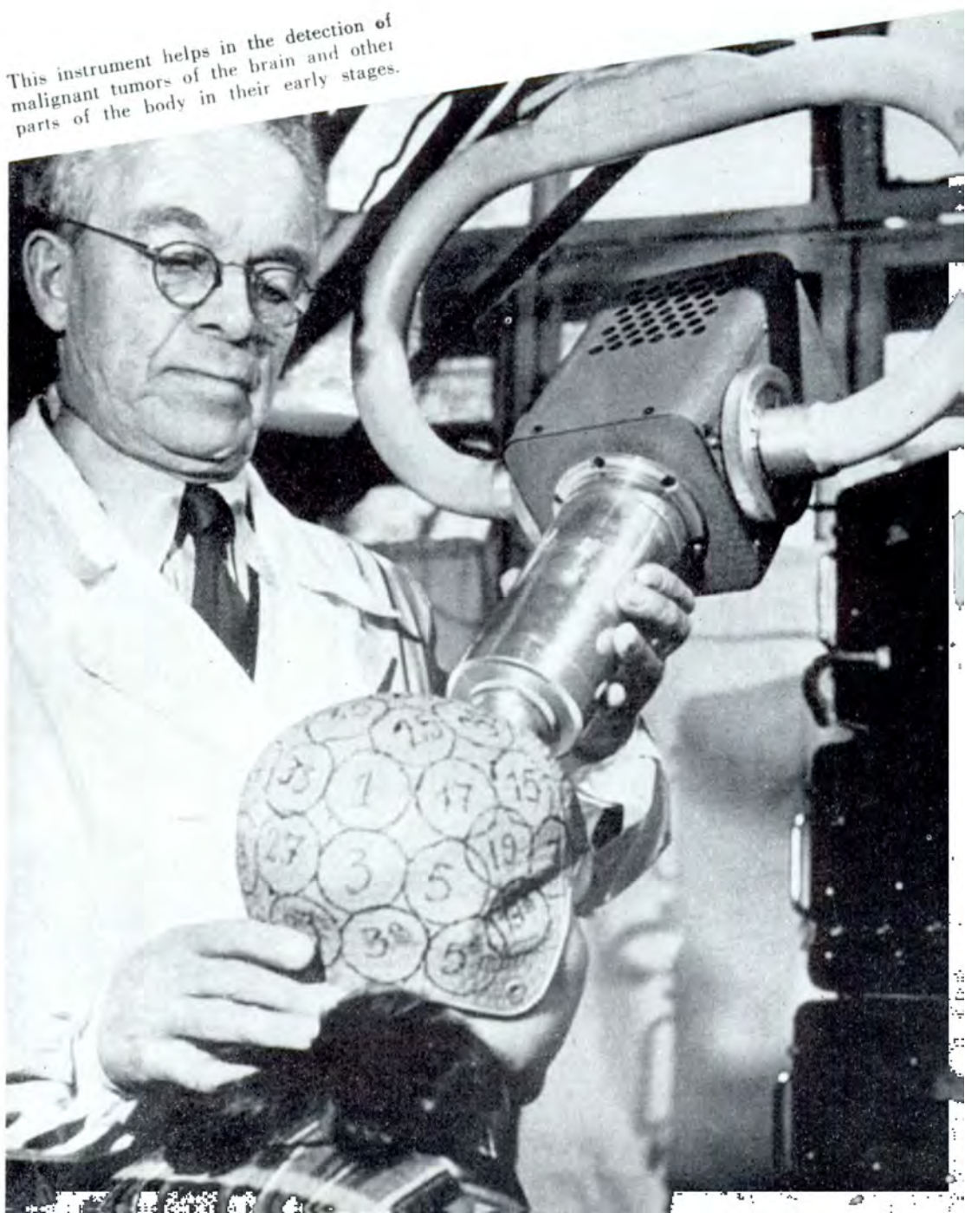
The achievements of creative workers in every medium—Vera Mukhina and Sergei Konenkov in sculpture, Konstantin Yuon in painting, Galina Ulanova in the ballet, Sergei Eisenstein and Alexander Dovzhenko in the film, and others—will be demonstrated. The part that each of the republics has played in creating a national heritage of literature, music, theater and art will be dramatized.

An exhibition of this kind always leaves behind a bit of the life it portrays in the form of impressions made on those who see it. A more tangible and lasting reminder will be provided the American public by the objets d'art, the Soviet-made cars and machinery, TV's, refrigerators and cameras, foodstuffs and other goods on display which will be sold when the exhibition is over.

If we are to judge by the reception given the Bolshoi Ballet in New York and other cities, it is very likely that a considerable slice of America will be visiting the Coliseum this summer. And similarly, if we are to judge by the way Soviet audiences enthused over the American ice show, there will be very large crowds indeed jamming Sokolniki Park in Moscow.

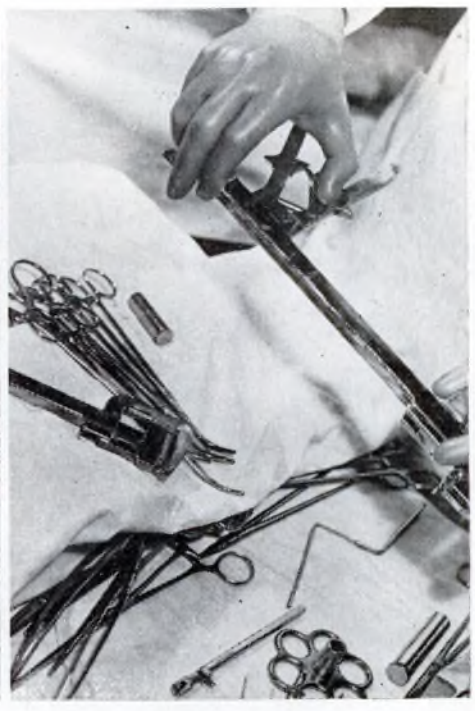
This two-way traffic is very much to the good—good for the Soviet Union, the United States and the peace and well-being of the world.

This instrument helps in the detection of malignant tumors of the brain and other parts of the body in their early stages.

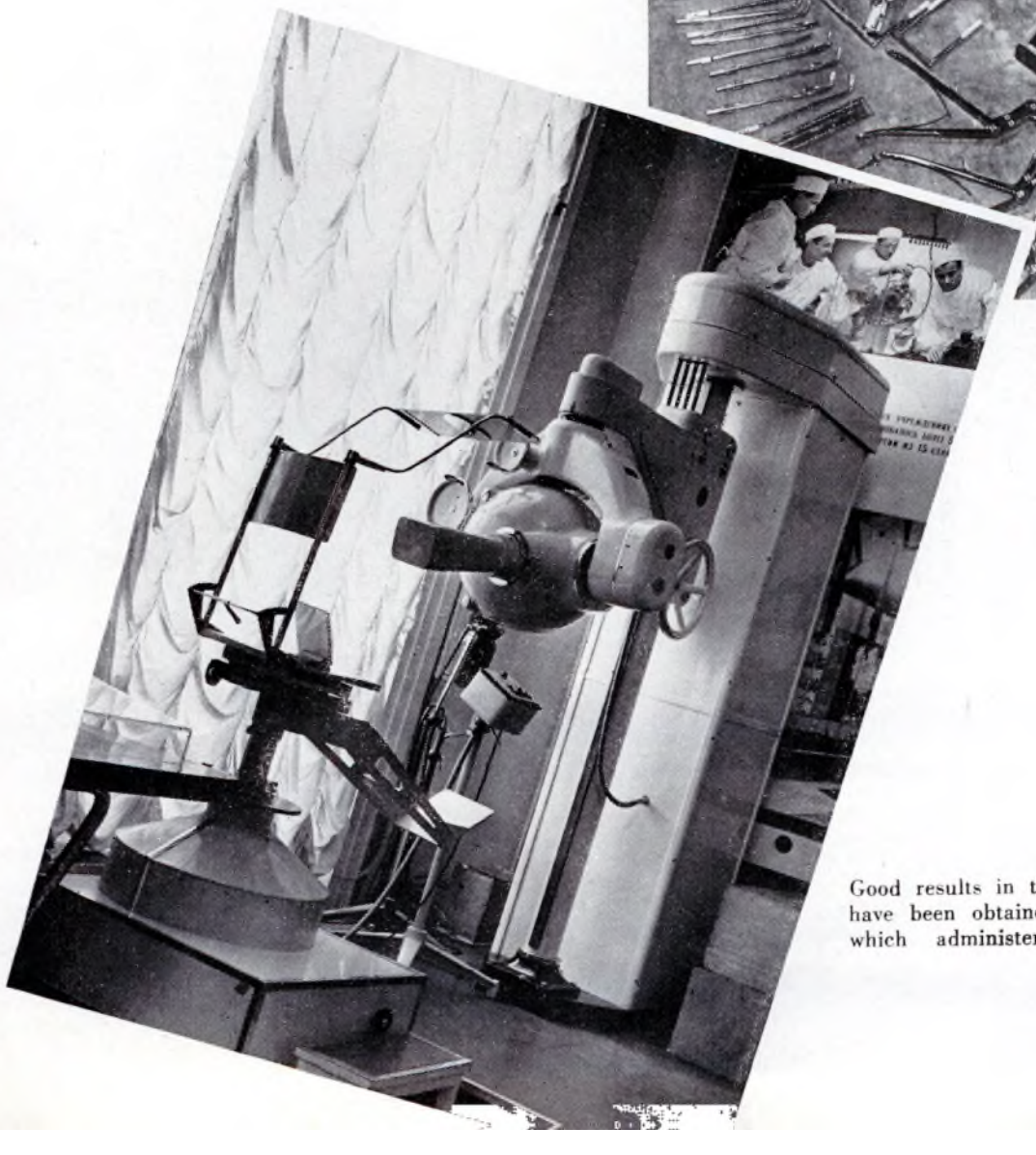


New surgical techniques which now make it possible to arrest and often to cure conditions once considered fatal will be described at the exhibition.





Medical instruments developed by Soviet engineers and doctors include a "sewing machine" which sutures torn blood vessels and nerves.



Good results in the treatment of cancer have been obtained with this apparatus which administers radioactive cobalt.

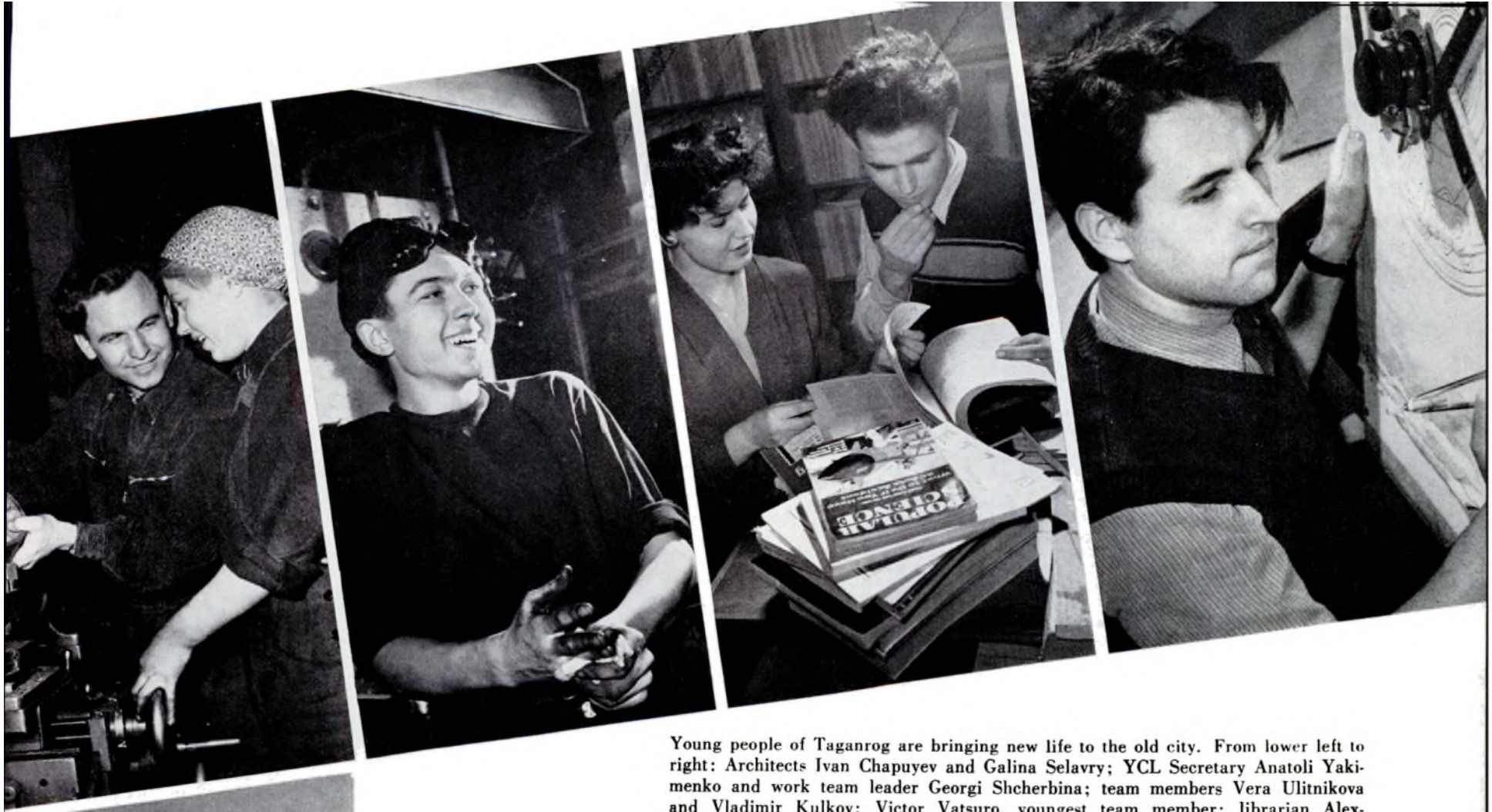
By Adolph Antonov

# Young People in an Old City

Photos by Dmitri Chernov







Young people of Taganrog are bringing new life to the old city. From lower left to right: Architects Ivan Chapuyev and Galina Selavry; YCL Secretary Anatoli Yakimenko and work team leader Georgi Shcherbina; team members Vera Ulitnikova and Vladimir Kulkov; Victor Vatsuro, youngest team member; librarian Alexandra Timofeyeva and student Yuri Salamatin; designer Nikolai Streltsov.



THE PLAYWRIGHT Chekhov once wrote of Taganrog, his birthplace. "I can't imagine life without Moscow, but Taganrog is dear to me too. Second to Moscow. I love Taganrog best."

I met some people who might have been of Anton Chekhov's generation when I visited the town. They spoke about it in much the same nostalgic way, particularly one octogenarian who seemed to be a walking chronicle of Taganrog's ancient glories.

He gave me the city's background of eventful history. It was founded in 1698 by Peter I some ten years before the northern city of Petersburg, which we now call Leningrad. The czar chose Taganrog Cape because it commanded the approach to the Sea of Azov. The town must have been an exceedingly busy place then. It was the first mercantile port in the south of Russia with the first man-made harbor docking the country's first big ships.

The old man quoted me the statement of Chekhov—of course I subsequently heard it from other Taganrog residents—and let me know that the town was much admired by the poet Alexander Pushkin when he visited it in the nineteenth century, and by Giuseppe Garibaldi, the Italian liberator, who was captain of a ship that docked at the port.

But the old man and his cronies were particularly eloquent about the glory of the Taganrog of their youth—a bustling, vigorous trading center, the waterfront streets suffused with the aroma of coffee, cinammon and other spices brought by foreign ships in exchange for south Russian wheat. The city did a brisk business, but then new harbors—Odessa, Mariupol, Novorossiisk and Rostov—began to get the wheat shipments and Taganrog quietly went to sleep.

It slumbered until the October Revolution of 1917 awakened it with the clatter of riveting hammers and steam shovels. Taganrog changed its pace, it became a city of metals and machines. The old factories were modernized and new ones were built. The city's metallurgy plant is now the biggest in southern Russia.

Taganrog today manufactures steel, harvester combines, ships, steam boilers, metal cutting lathes and a large variety of consumer goods, ranging from clothing to toys. By 1965, when the seven-year plan is completed, it will have doubled its present pace of industrial construction and will be manufacturing six billion rubles' worth of goods.

### A Very Young City

This latter information I did not get from my octogenarian acquaintance as we sat talking in the harbor near a bronze Peter I gazing out to sea. The old man was reminiscing about the city's past glories. It was the young Taganrog people I talked to who were much more interested in its very lively present.

Taganrog gave me the impression of a very young city, in spite of its advanced chronological age, probably because there were so many young people in the plants I visited, particularly the harvester combine factory. It was the younger workers, I was given to under-



THE YOUTH HAVE THEIR OWN YACHT CLUB FOR THE CITY'S MOST POPULAR SPORT AND ARE PROUD OF BEING THE CHAMPIONS OF THE RUSSIAN FEDERATION.

# *Young People in an Old City*

stand, who were largely responsible for the plant's new Model SK-3 harvester combine, a very reliable and inexpensive machine which won the Grand Prize at last year's Brussels World's Fair.

I met Arelii Vergun, secretary of the city's Young Communist League branch, just graduated with a degree in philosophy from Moscow University. He was very enthusiastic about the way young people were tackling the seven-year plan. He introduced me to some of the young workers at the harvester combine plant.

In the tool-making department I met Georgi Shcherbina, who has been working at the plant since 1950. He learned his highly skilled trade of toolmaker at the plant's technical school and as apprentice to some of the older workers and engineers. Now he is passing on his skills to the five young workers in the team he leads.

The team has made quite a reputation for itself for its excellent cooperative work and its fresh ideas.

Talking about the members of his team—and he made no attempt to hide how proud he was of them—Shcherbina told me: "We've been doing a lot of thinking about how to make the most productive use of the new machinery the plant keeps installing. We got together one evening recently to see if we could work up some good ideas, and I think we did. Pretty soon all the technological processes will be carried on automatically. It will take a good deal of knowing to handle and control the complex machinery. Our team decided some time ago that each one of us was to study either at evening school or by correspondence."

Georgi himself has been taking a correspondence course at the machine-building school. The other members of his team are taking courses at the school in the plant to prepare for college matriculation. "In a few years," he said, "each one of us will have a thoroughgoing technical education."

As to help from the management of the plant to workers who want to better themselves by study, there is plenty of that forthcoming. Georgi explained. Training equipment has been installed in the shops and teaching is done by plant engineers. The workers get everything they need for their studies free of charge. All of this is provided for in the annual collective agreement signed by the management and the trade union.

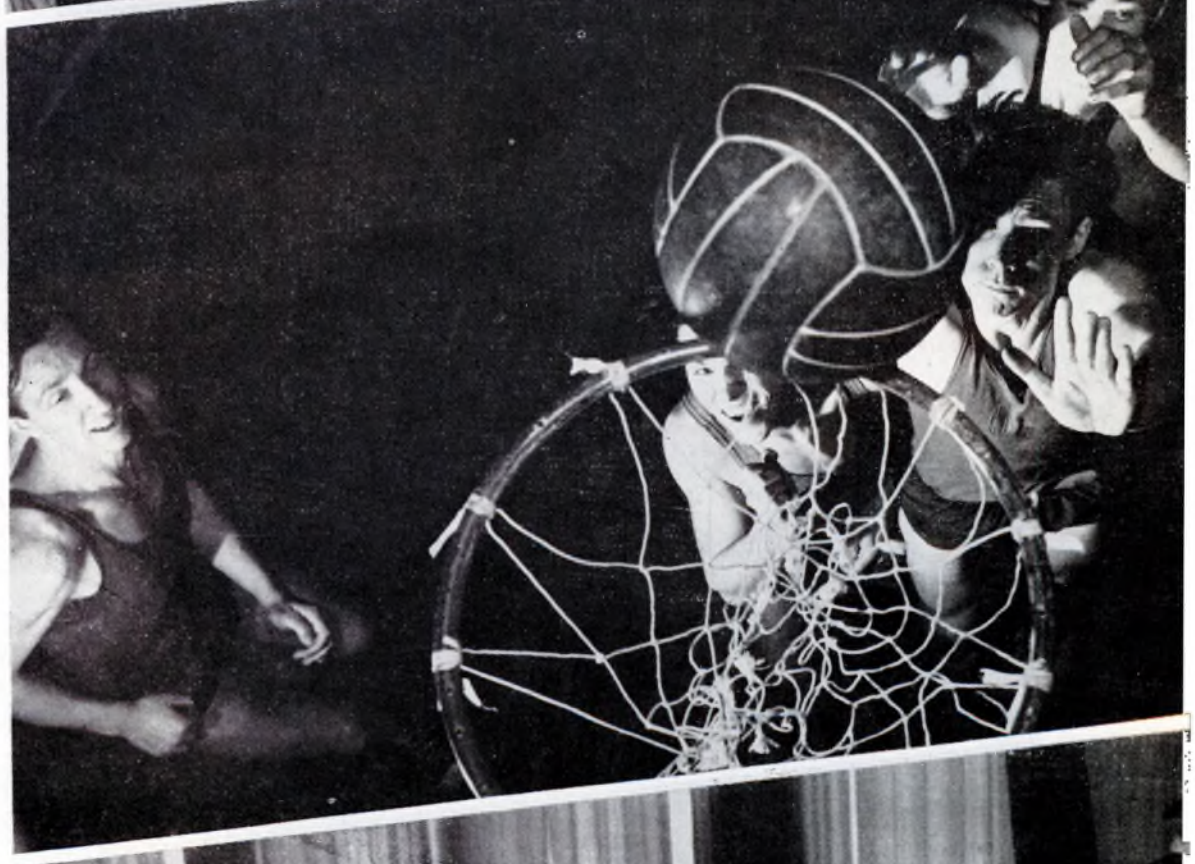
There is also a very close working relationship between the plant and the Taganrog Radio Technical Institute. The plant engineers and the institute scientists work closely on research problems. Professor Mstislav Morozov, who holds the chair of metal technology at the institute, spends almost as much time in the shops as he does at the institute and the young men in Shcherbina's team are very much at home in the professor's laboratory.

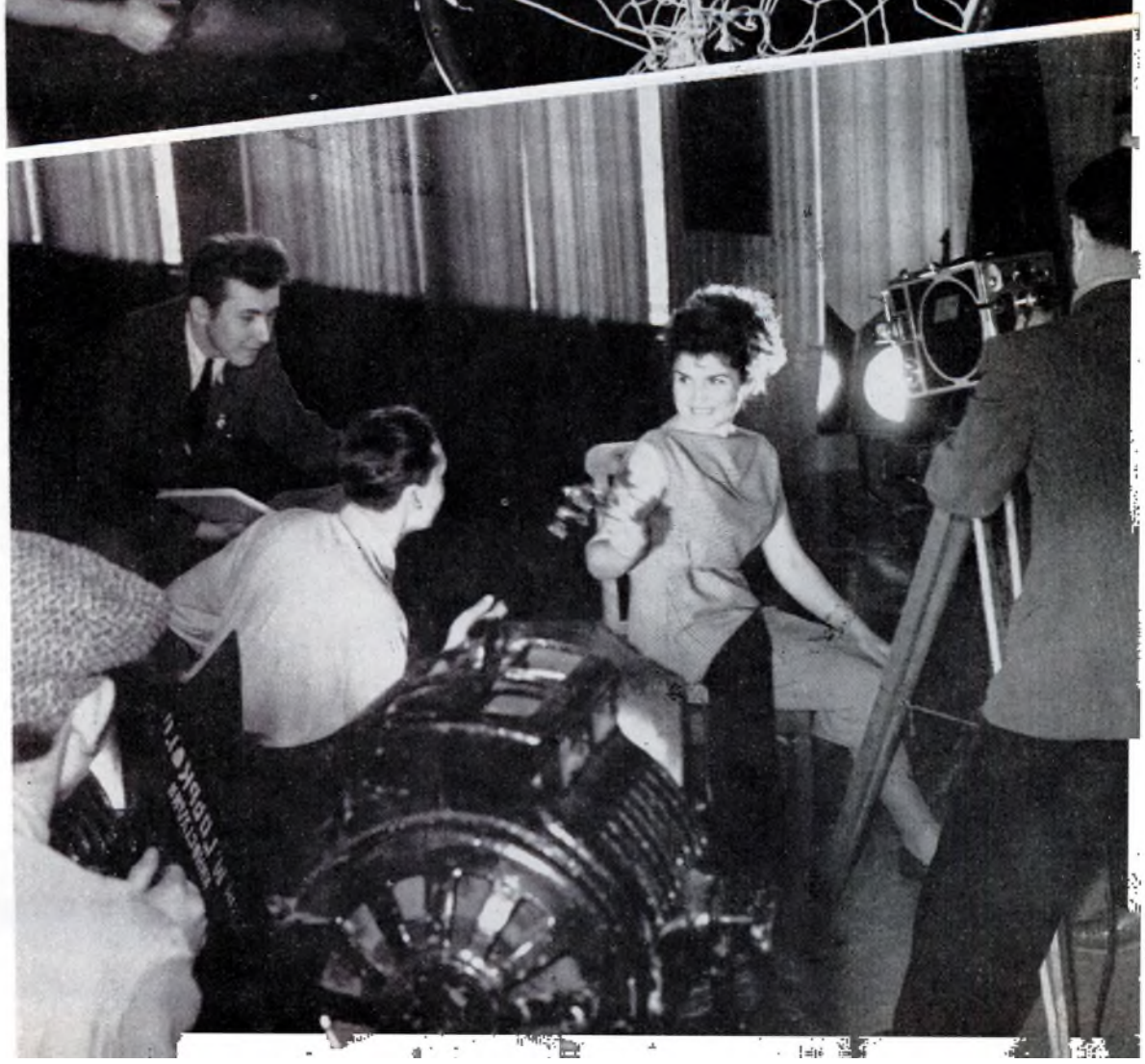
## Many-Sided Young People

Shcherbina had me meet a friend of his, Vadim Ramazanov, a student at the institute, and we spent some time together. Vadim is twenty-four. His father was killed in action during the war, a monument to his memory stands in Taganrog harbor.

The city has every facility for the leisure-time activity of these young people, who are as versatile at play as they are at work. Top to bottom: corner of the Youth Center; at one of the city's 26 gymnasiums; Radio Engineering Institute's amateur film studio.







Vadim went through technical school and took a job as a fitter at the harvester combine plant. It was there that he and Shcherbina became friends. Combining work and study, he finished his high school course and then enrolled at the institute.

Popular with both students and workers and active in public affairs, he was elected deputy to the local Soviet, the city council, at this year's election.

At his home I met other students. Most of them were working in one or another of the city's industrial plants and studying for their degrees either at evening colleges or by correspondence.

All of them, it struck me, were young people with many-sided interests. They talked of Taganrog's Anton Chekhov Theater and I listened to a heated discussion of one of the recent productions. They talked about music, books, the seven-year plan and even—I suspect for my sake—the city's history.

### The School and the Shop

When they talked school and shop, these twenty-year-olds impressed me as rounded people. Their theoretical talk, as much as I could follow it, was tied in closely with the practical down-to-earth production problems they were meeting on the job and vice versa.

This follows very naturally from the working relationship between the school and the factory. The courses and the diploma projects are determined to a considerable degree by the work the factory is doing, so that the motivation is always clear and direct. The student is working on study projects and problems for which practical solutions are needed. To apply his theoretical studies productively, he must learn from the worker at the bench.

The same thing operates the other way round. The worker must call on the theoretical background of the student so as to get a more generalized view of the job he is doing. Here then we get an exchange of learning which is mutually valuable.

The student science club at the Radio Technical Institute gives many talks at the factory on semiconductors, transistors, tele-radio control, ferro-magnetic materials and other such topics which the workers find both interesting and very instructive.

This inter-relationship of technical school and plant will soon be even more direct than it is at present. The institute is in process of transforming itself into a VTUZ-plant. VTUZ is the Russian abbreviation for Institute of Higher Technical Training. This year's freshman class and all succeeding classes will be following a new curriculum that combines study with work at the plant.



LAST-MINUTE RUSH TO MEET THE PRESS SCHEDULE FOR THE INSTITUTE'S PAPER *RADIOSIGNAL*.

LITERARY FORUMS ON CONTEMPORARY WORKS AND THE CLASSICS ALWAYS DRAW A LARGE CROWD.



# *Young People in an Old City*

They will spend their first two years in production work at the plant and in classes at the institute. In the following years they will take theoretical and specialized courses and will apply their knowledge in work projects and research directed to solve plant production problems. The aim is to link classwork with actual production, so that the student at graduation is equipped with both a theoretical and practical mastery of his specialty.

### Too Busy for Yesterday

Since Taganrog is a coastal city, young people gravitate naturally to water sports. On week-ends the harbor is jammed with small craft. Long-distance swimming races are as popular and draw crowds as large as do soccer games in other cities.

Not that soccer does not have its sworn adherents, and by the many thousands. So does tennis, fencing, boxing and volleyball. Cycling is particularly popular and long-distance races are run along the shores of the Azov and Black Seas and the mountain roads of the Caucasus. One of the young people told me of an 1300-mile race held some years ago.

The movies are, of course, a perennial favorite with Taganrog young people, as they are everywhere else. At one student affair at the institute I met a group of amateur film producers. By working on construction sites in their free time, they managed to get enough money together to equip their own film studio.

With the help of the trade union and school organizations, they have been producing documentaries and comic shorts and are at work on a film record of the life of young people in Taganrog. They hope eventually to work it into a current history of the city.

Literary forums are very popular with the young people. I attended one that was held at the Teachers' Institute and listened to the very stimulating discussion from the floor by young workers and students on recent Soviet novels: Alexander Kuznetsov's *Continuation of a Legend*, Galina Nikolayeva's *The Battle on the Way*, Vsevolod Kochetov's *The Yershov Brothers* and Danil Granin's *After the Wedding*.

Listening to them talk of the books and themselves, of their present and future, of their interests and friendships and work—of all those things which young people feel and think and dream about—I thought that here are the leaders of tomorrow, these young men and women of Taganrog and the thousands of other Soviet towns and villages. They know where they are going, these people of the young Soviet generation. They have no time to look back for more than a glance at the dim-visioned past of my octogenarian friend, they are too busy making the future.



Yuri Spiridonov, Moscow University student, is the author of the open letter to American youth.

# A Letter to American Young People

**From Yuri Spiridonov** *Student at Moscow University*

DEAR FRIENDS, I have long wanted to become acquainted with young people of my own age in the United States and I am grateful to *USSR* magazine for this chance to write to you. I hope this letter of mine will be the beginning of a two-way correspondence that will bring us together as friends.

I should like to tell you a little about myself and some of the things I've been thinking about. I am 21 years old and for the past four years I have been studying soil conservation at Moscow University.

I come all the way from Archangel, which is closer to the Arctic Ocean than to Moscow. It is a big stretch of country in the north of the Russian Federation, rich in timber, fur-bearing animals, cattle and fish. I spent my childhood there on a collective farm in the Kholmogorsk District. My mother works in the dairy section of the farm, my father was killed near Leningrad fighting the fascists in the Second World War.

Our village, on the bank of the northern Dvina, is called Lomonosovka, after the great Russian scientist and poet. He was born in this region two and a half centuries ago. The school I went to at home is also named in his honor. On the walls of the school auditorium his famous lines addressed to youth are inscribed in gold:

*Dare and do, you inspired students,*
*Have no fear and prove your worth!*
*We, too, have our Platos, Newtons,*
*Nurtured by our Russian earth.*

I have tried to follow his admonition to "dare and do." And although I do not hope to aspire to Plato's or Newton's laurels, I hope to follow in their footsteps—and in Lomonosov's—by devoting myself to science.

It was two-odd centuries ago that he trudged his way to Moscow, a peasant boy in bast shoes. He was the future founder of Moscow University, a pioneer in the modern natural sciences, a poet who blazed the trail for today's literary Russian. For his time, Lomonosov did very important research in metallurgy, mining, geology, meteorology, optics and astronomy.

Like many of the young people in our village, when I graduated from secondary school four years ago, I took the same route that Lomonosov had to Moscow and the university. But I traveled by sleeper coach. When I saw the familiar bronze statue of Lomonosov in front of the university which bears his name, I felt encouraged. I took the entrance examinations and passed them. American students will have no trouble understanding how happy I was to be studying in the country's leading university with other students of sixty nationalities from all over the Soviet Union and people from fifty or more foreign countries.

We pay no tuition, our living quarters are inexpensive and the monthly maintenance stipends we get from the government makes it easy for all of us to "dare and do."

The Biology and Soil Department in which I am enrolled has 26 sections headed by such eminent Soviet scientists as Alexander Oparin, the biochemist; Nikolai Krasilnikov and Vladimir Shaposhnikov, the microbiologists; Georgi Nikolsky, the ichthyologist; and Victor Kovda, the soil expert. They lecture, supervise our laboratory and research, and lead our scientific expeditions during vacations.

I usually join these summer expeditions to study the new agrotechnical methods of cultivating reclaimed floodlands and peat bogs, which will most likely be the subject for my diploma thesis. This field of work is especially important now since the seven-year plan calls for reclamation of great tracts of land.

Most of us who will be getting our degrees in a year's time have already chosen our specialties and even our jobs. There is a growing demand everywhere in the country—at research institutes, experimental stations, collective and state farms—for trained specialists. We graduates of Moscow University have a very wide choice of job possibilities.

There is a very warm family feeling that Moscow University students have, whether they are from home or abroad. In the botanical gardens adjoining the Biology Department there is a "Friendship Path" lined with young trees planted a few years ago by Soviet and foreign students. The trees are cared for by the student body, and every time I work or sit in the garden I am reminded of the ties that bind young people of every country, including those in the United States and the Soviet Union. We would like to see this friendship flourish the way these young trees have.

On Sunday, June 28, we will be celebrating Soviet Youth Day, dedicated to friendship between Soviet and foreign young people.

Our two countries have been exchanging student and youth groups, in accordance with the exchange agreement signed early in 1958. A group of American young people have been studying at our university for about a year now, and Soviet students have been studying at various American universities. We like the American boys. Many of them are good athletes and vie with us in the gymnasium where I train for the wrestling squad. We have made friends with them and they with us.

Contact means understanding and understanding means friendship—a very important thing for our two countries and for the world. Let us join our efforts in building a peaceful future for ourselves and for young people the world over.

Please let me hear from you.

Yours in friendship,
Yuri Spiridonov
Room 536, Section "D"
Moscow State University
Lenin Hills
Moscow, USSR

Robert Taiffe, one of the American students at the University, has a talk with Spiridonov.





MOSCOW, CAPITAL OF THE SOVIET UNION



MINSK, CAPITAL OF BYELORUSSIA

# 15 MILLION APARTMENTS in Cities



For workers of the Amurstal Iron and Steel Plant — Far East

# 7 MILLION HOUSES

**By Alexander Budaev, *Editor, Building Gazette***

NEW HOUSING for 75 million people, almost a third of the population of the Soviet Union—that is the staggering goal projected by the seven-year plan for 1959-1965. The target figure calls for the construction of fifteen million apartments in urban communities and seven million cottages in rural areas, more than was built—and quite a lot was built—in the past forty years.

Is this Utopian? Not at all. This gigantic housing program is very solidly based on past performance. Note that last year's housing plan for cities and towns scheduled the construction of 656 million square feet of dwelling space. Actually 731 million square feet were built. From present indications, this year's scheduled 861 million square feet will also be completed long before the year is out.

## Coping With Difficulties

Much has been done in the four decades since the Socialist Revolution of 1917 to relieve the very acute housing shortage carried over from czarist times.

Working people in prerevolutionary Russia had far less living space per family than in any other European country. Almost immediately after the Soviet Government took power, it moved workers by the hundreds of thousands out of their miserable slum quarters and basements into decent apartments.

Whatever living space was available in cities and towns, for the most part in houses and large apartments which had been underoccupied by people of wealth, were distributed as fairly as possible. But these comparatively few dwelling units were far from sufficient to meet the critical housing needs of millions





STALINGRAD, RUSSIAN FEDERATION



NOVAYA KAKHOVKA, THE UKRAINE

# and Towns



For workers of the Izhora Engineering Plant—Northwest Russia



For miners of new coal fields in Vatutino—the Western Ukraine



For builders of the Angarsk Hydroelectric Station — East Siberia

# in the Countryside



COLLECTIVE FARM VILLAGE—TRANSCARPATHIA



HOUSING FOR STATE FARM WORKERS—GEORGIA



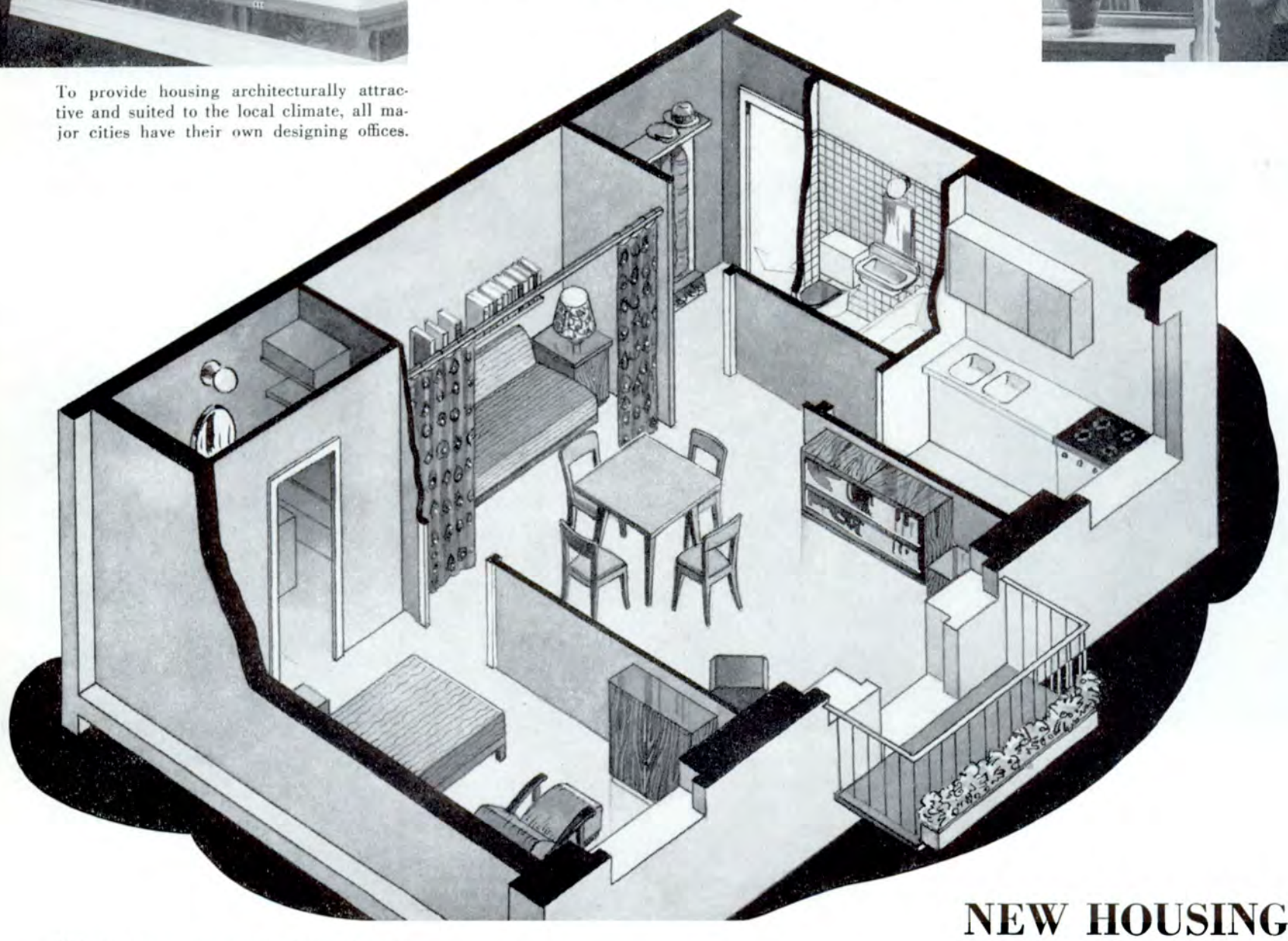
COLLECTIVE FARM VILLAGE—BYELORUSSIA



To provide housing architecturally attractive and suited to the local climate, all major cities have their own designing offices.



Floor plan of a two-room apartment. Rent is based on the actual living area, which does not include the kitchen, bathroom, closets or entrance hall.



This is a two-room apartment in a housing project completed recently. New buildings have shops located on the ground floor.



# NEW HOUSING FOR

of families living in substandard houses—the term is hardly adequate to describe the ancient, vermin-ridden slum tenements in which most workers in czarist Russia lived.

Government funds were therefore allocated to build additional housing in those localities where the shortage was most pressing. Even before the current seven-year plan the scale on which housing was being built was far greater than in any other country. Last year the Soviet Union ranked first in numbers of apartments built per thousand of the population.

This construction, however, as extensive as it was, could hardly keep pace with the rapid growth in urban population that resulted from industrial development. In 1926 the urban population of the Soviet Union was 26 million. By prewar year 1940 it had grown to 61 million and by 1956 to 87 million. Over-all urban housing was built at approximately the same rate. In 1956 there were 200 per cent more dwelling units than in 1926 and 50 per cent more than in 1940.

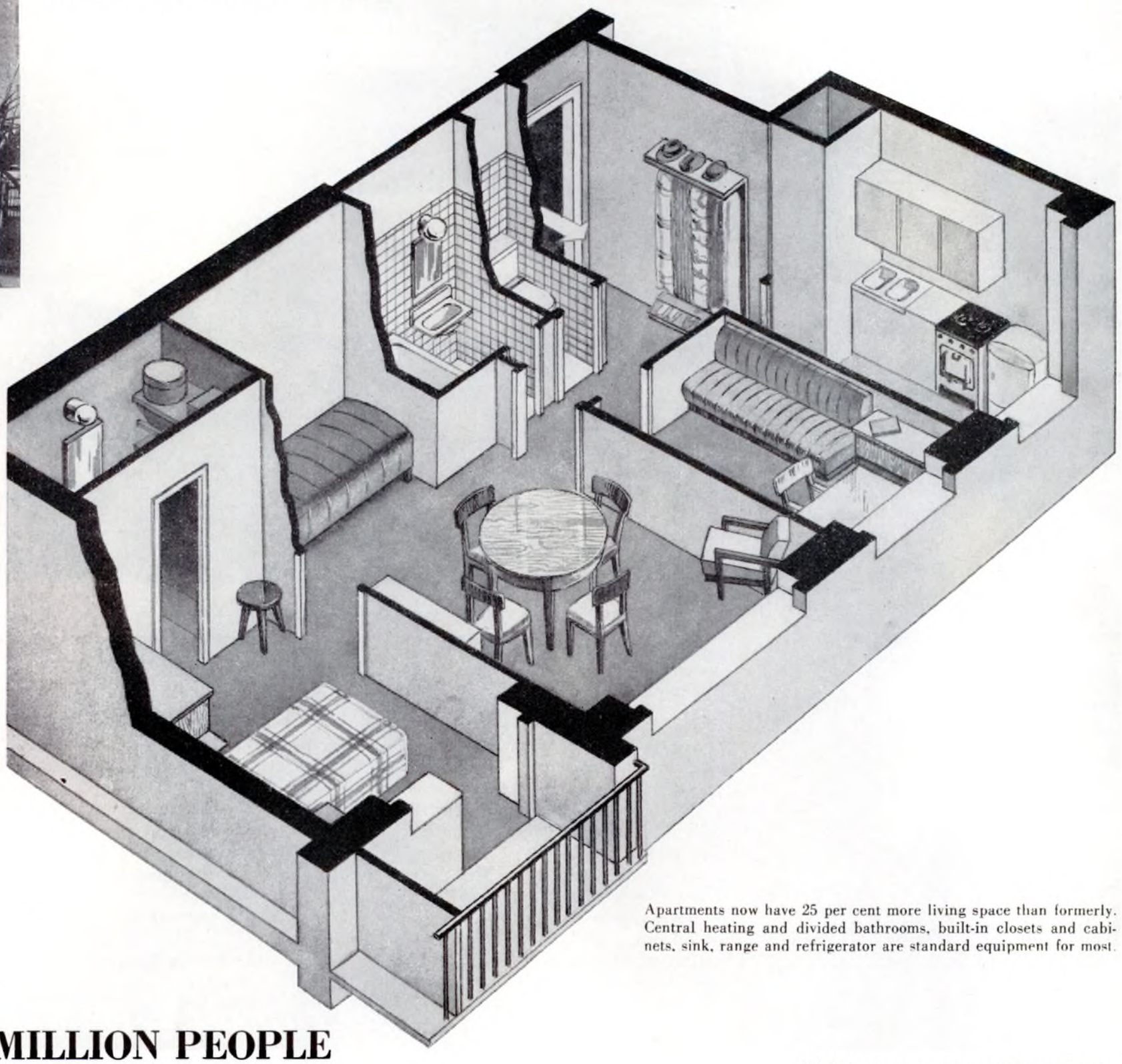
Not only were a good many houses built but they were quite different from those of prerevolutionary times. In smaller cities 99 per cent of the old dwelling units were in single-story antiquated log houses. Even in Moscow as many as 91 per cent of the units were in these ancient structures. The bulk of the new city housing in the Soviet period has been in large apartment houses.

### Building on the Ruins of War

But a good many of the old houses still have to be replaced. Had it not been for the



There is a feeling of space, air and light even in city apartments, with their large windows, balconies and landscaped lawns and flower beds.



Apartments now have 25 per cent more living space than formerly. Central heating and divided bathrooms, built-in closets and cabinets, sink, range and refrigerator are standard equipment for most.

# 75 MILLION PEOPLE

war, everybody in the country would by now be comfortably housed. The Nazi armies destroyed, either totally or partially, 1,710 cities and towns and more than 70 thousand villages. Twenty-five million people were left homeless.

It required enormous efforts to rebuild for these people, let alone increase the amount of housing. But both were done with astonishing dispatch.

In the period between 1946 and 1950 the urban population alone received in new and restored houses some three million apartments. Between 1951 and 1955 the amount of new housing built in cities and towns had jumped to approximately five million apartments.

Minsk, Kiev, Stalingrad and many other large cities had literally to be rebuilt from ruins. They have all been restored now with wide and spacious avenues, parks and modern apartment buildings. Dwelling space in Minsk, for example, has increased by 250 per cent as compared with the prewar period.

Within ten to a dozen years the Soviet Union proposes to have licked the housing problem completely, to have provided modern housing facilities in town and country for the whole population. That is the size of the construction program upon which the country is now embarked, a very vital part of the whole seven-year plan.

### The New Tenants

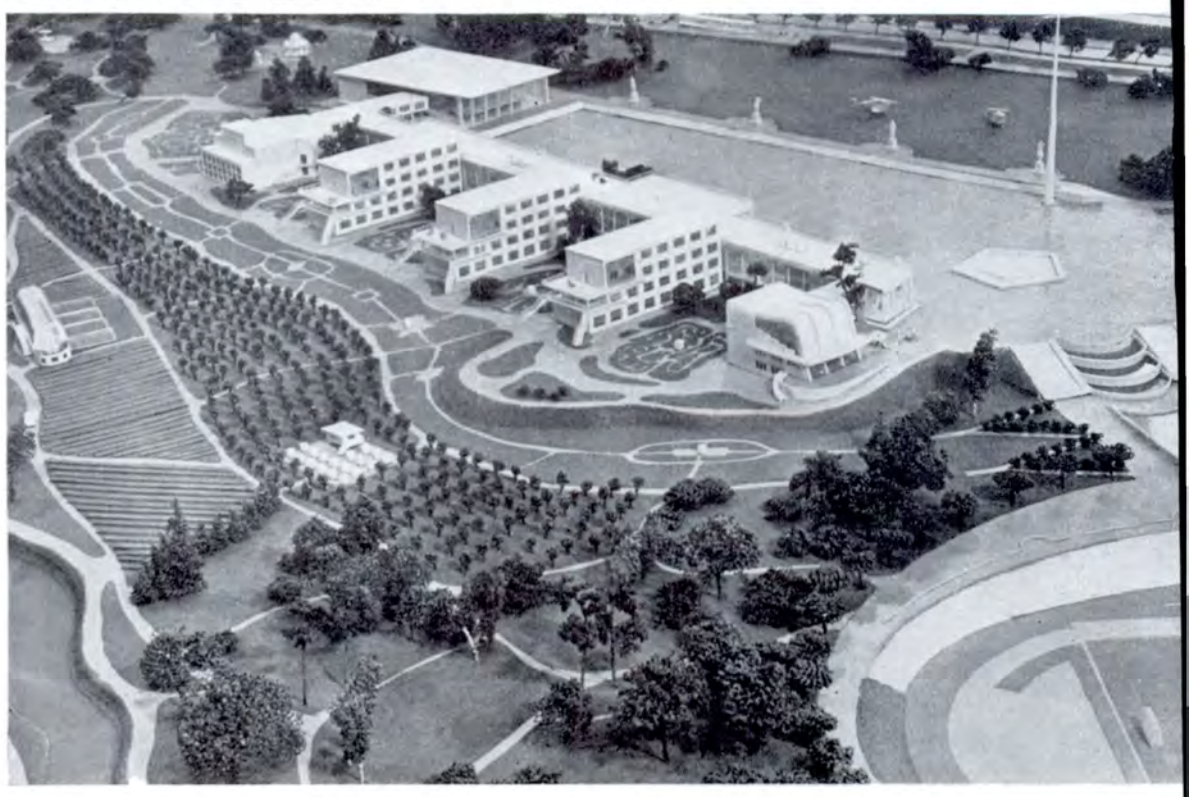
Most of the country's housing is financed from the national budget and is public property. The landlord is the duly elected city or

With furniture and household goods produced in growing quantities, many families are completely refurnishing their new homes.

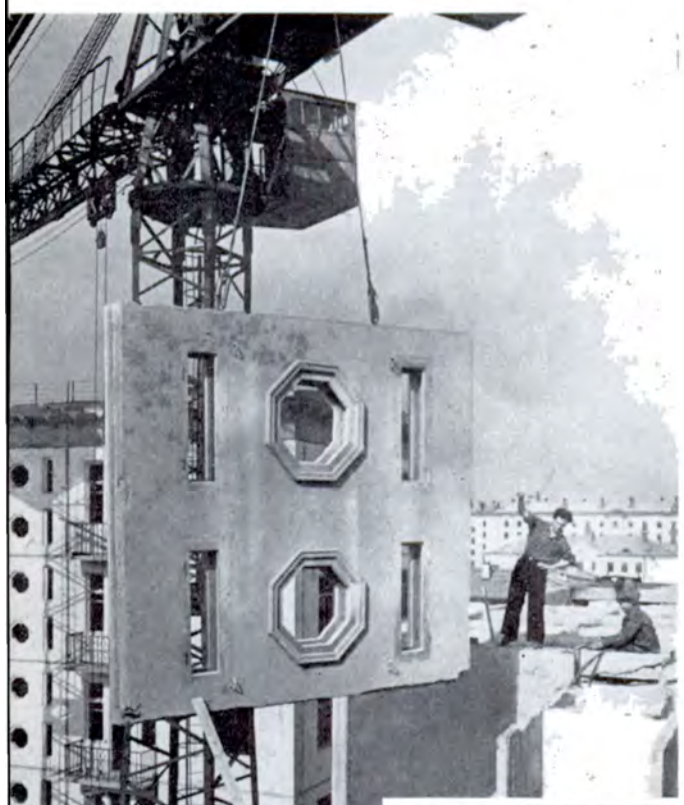




Scale model of the central section of downtown Stalingrad. There is no longer a trace of the war's ravages, but building continues to go on.



This youth center will cover 133 acres in Moscow's Lenin Hills. Its concert hall will seat 1,000, the theater 400. Pool, observatory and science workshops will be included.



The use of prefabricated parts requiring only assembly and finishing at the construction site has cut building time and labor to a minimum.

# WHOLE CITIES EMERGE AS

village Soviet. Each Soviet has a housing committee whose function it is to consider and pass on applications for available apartments.

There are, in addition, apartment houses built by industrial enterprises. Apartments here are distributed by joint decision of the management and the trade union.

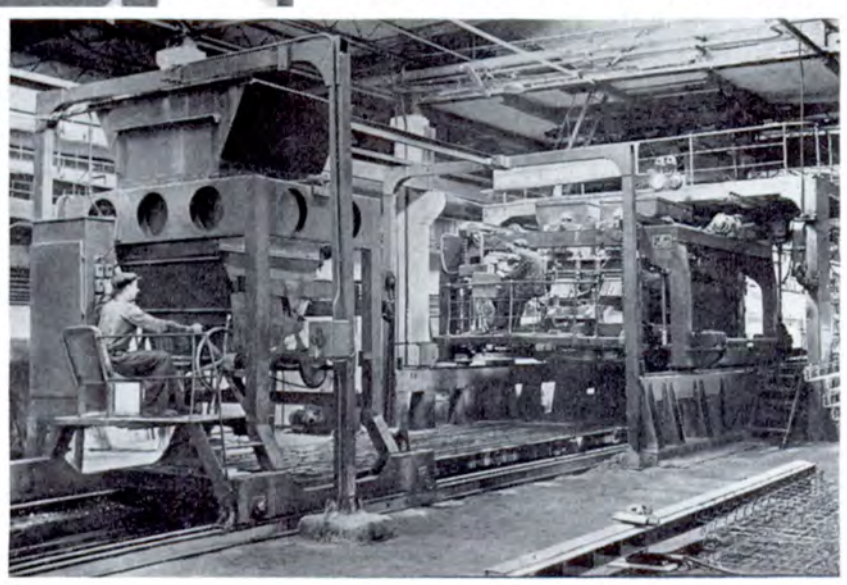
Here is how new housing was distributed in Moscow, for example, in 1957. During this typical year, 71,800 families moved into new apartments. Among them were 37,245 families of industrial workers; 26,420 families of scientists, engineers, technicians and other professionals; 8,135 families of invalids, pensioners and former service men.

Rent and utilities in Moscow, as in any other city or town, come to no more than four to five per cent of family income. It will vary somewhat with earnings and facilities but will never exceed ten per cent and for larger families will be even less than the four to five per cent national average.

### The Cost of Construction

New housing and municipal construction

Section of a plant producing reinforced concrete panels for apartment houses. Entire buildings are now made at the factory.







PLANNING HAS RESULTED IN A PLEASING COMBINATION OF ARCHITECTURAL UNITY AND EFFICIENCY.

# ARCHITECTURAL ENSEMBLES

proposed by the seven-year plan for all parts of the country has a solid financial foundation—allocations budgeted from government funds alone will amount during 1959-1965 to approximately 380 billion rubles—some 170 billion more than the sum spent in the seven previous years. This means that an average 5,600 rubles is to be spent for every working man and woman within the next seven years for new housing, school, hospital and public utility construction.

In addition to the appropriation for housing construction proper, the seven-year plan budgets an additional 80 billion rubles for communal development—new water mains, sewage and gas lines, heating and landscaping.

The cost of construction and maintenance of government housing is far from covered by rentals. The average cost of a new brick house in 1956 was roughly 150 rubles per square foot of living space. A house should stand up fairly well for about fifty years. Depreciation, then, will come to about .25 rubles a month. But the rent paid by the tenant per square foot is considerably less than for depreciation alone, not to speak of heating and general maintenance. It comes to an average of .07 rubles a month. The large difference is made up by government subsidies.

### Single-Family Houses

There is a good deal of individual house building going on, particularly in rural communities and suburban areas. This type of private building of single-family homes is encouraged by long-term government loans. The individual builder gets the lot free and government agencies provide the design, building materials and the labor, if required, at low cost. The house becomes the permanent property of the builder.

Of the 861 million square feet of building scheduled for this year in cities and towns, 310 million will be small private houses. In many communities enough of this kind of construction has already been done to solve the local housing shortage.

This was true, for example, in the residential settlement of the Krasny Oktyabr Plant in Stavropol where the workers built 100 houses for themselves, enough to meet their housing shortage completely. These settlements have attracted very favorable comment from foreign architects and builders.

Whether the project is a block of apartment houses or a cottage community, the design provides for all the needed communal services. The projects are self-contained residential communities, termed micro-districts, with schools and stores, nurseries, playgrounds, restaurants and, of course, transportation facilities.

### City Planning

Aside from the renovation and expansion of the older urban communities, settlements founded in recent years have been growing into cities. In the past thirty years the number of cities and towns in the Soviet Union has increased from 709 to 1,569. They include such well populated municipalities as Magnitogorsk, Komsomolsk-on-the-Amur, Angarsk, Novaya Kakhovka and Magadan.

CONSTRUCTION IS HIGHLY MECHANIZED IN THE SOVIET UNION, GUARANTEEING THE FULFILLMENT OF THE HOUSING PROGRAM WORKED OUT FOR THE NEXT SEVEN YEARS.





Gubkin is an ore town growing around the Kursk Magnetic Anomaly, which is now being tapped.




The Miners' Club in Gubkin has many amateur art groups and is a center of community activity.

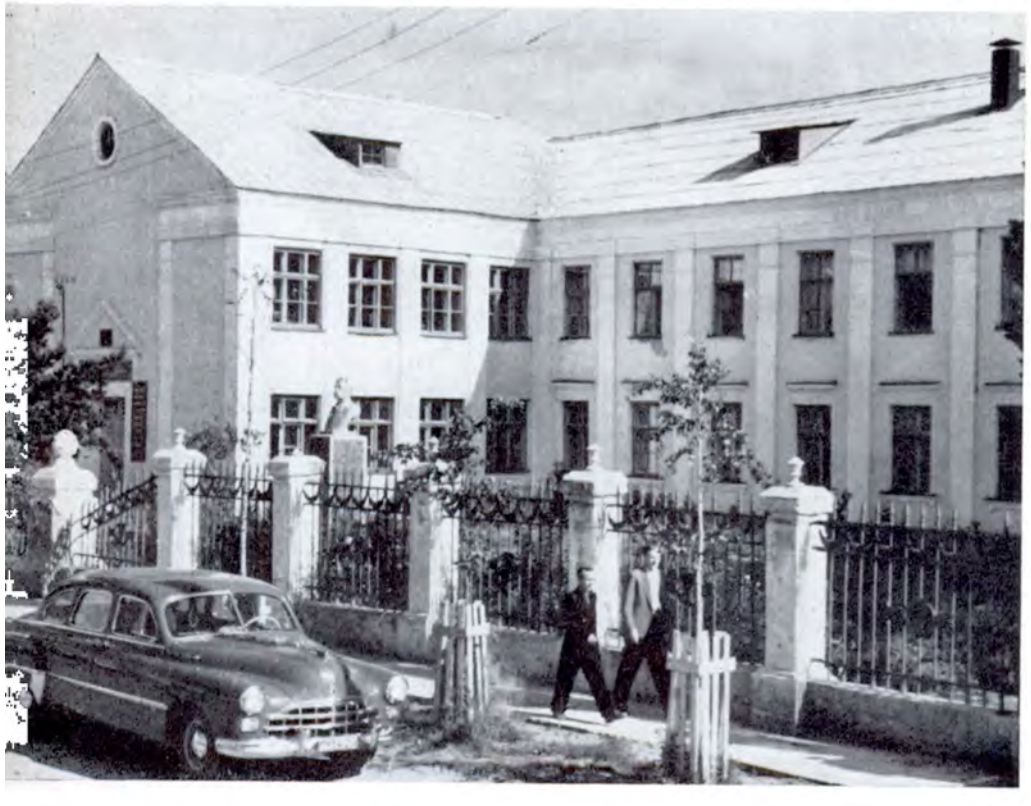





The communities now being built have ample cultural, service and transportation facilities within easy reach.

# CULTURAL FACILITIES CONSTRUCTED

THE SECONDARY SCHOOL WAS BUILT AT THE SAME TIME HOUSES WERE GOING UP.



A town will generally grow up alongside a new industrial center. The Magnitogorsk Iron and Steel Plant built in the Urals in the early thirties is a typical example. The garden city of Magnitogorsk with a population of 300,000 has grown up around it on both banks of the Ural River. Residential Magnitogorsk on the west bank is separated from the blast furnaces by a forest belt which keeps the air permanently fresh and clean.

Volzhski is a new town, only seven years old, which grew up around the Stalingrad Hydropower Station on the Volga. It is a well-planned, beautifully landscaped town of 60,000 people. A living fence of greenery walls off the traffic in the center of the main avenue from the houses on either side. This is the garden city design that has been followed in laying out new industrial centers in Siberia, Central Asia and the Far East.

There has been an increase in public catering establishments within recent years intended to free women as much as possible from burdensome household chores. The ground floor of large projects will usually be reserved for stores and restaurants where the housewife can order a ready-cooked meal or one that only needs to be heated.

The number of service stores have been growing—for tailoring and dressmaking, shoe repair and house appliance repair. There were 80,000 such shops last year. By the end of



YOUNG RESIDENTS ARE PROVIDED WITH PLAY AREAS.



A KINDERGARTEN FOR THE CHILDREN OF WORKERS OF A NEW PLANT IN ZAPOROZHYE.

# VITH NEW HOUSING

this year there will be 103,000 and by 1961 at least 153,000.

### Building Methods

Large-scale building of the type done in the Soviet Union is highly mechanized. About a hundred thousand big excavators, scrapers, bulldozers, self-propelled cranes and other machines are being used presently. The concrete parts—wall panels, blocks and other elements—are prefabricated. The construction site becomes an assembly area.

Builders have been progressing from production of separate prefabricated elements to large panel construction, to the production of an entire building or else of all its component parts right at the factory. Builders are also making increasingly larger use of the light, durable and very attractive plastic building materials.

As a general rule, regional government agencies with their staffs of building specialists are responsible for housing construction. These agencies are subordinate to the economic council in each of the large economic regions into which the country is divided. Coordination on the national level is done through the State Construction Committee of the USSR Council of Ministers. This well-defined organizational setup helps to accelerate the building program.

NO SCHOOL WOULD BE COMPLETE WITHOUT BALL COURTS, ATHLETIC FIELDS AND GYMS.



# UZBEKISTAN:

By Sharaf Rashidov

*First Secretary, Communist Party of the Uzbek Republic*

**Sharaf Rashidov is both a political leader and a gifted novelist. He was born in 1917, the son of poor peasants. He studied at a teacher's training school and then at the Uzbek University in Samarkand where he majored in philology.**

**During the Second World War he was wounded in front line fighting. After the war he worked as a journalist and wrote his first stories. Between 1947 and 1950 he was editor of the widely circulated newspaper *Kzyl Uzbekistan* and served as chairman of the Writers' Union of the republic.**

**In 1950 he was elected President of the Presidium of the Supreme Soviet of the Uzbek Republic and Vice President of the USSR Supreme Soviet. Since March of this year he has been First Secretary of the Central Committee of the Communist Party of Uzbekistan.**

**Sharaf Rashidov, in spite of his very demanding public duties, finds time for writing. His latest novels, *The Victors* and *Stronger than the Storm*, have won him an admiring audience of readers in Uzbekistan and elsewhere in the country.**



THE SONGS of a people, it has often been said, are its history told in music and verse—the joys and sorrows of its past, the hopes of its future.

An unforgettable memory of my childhood is a song I first heard in the hut of an Uzbek peasant. "Deep are the rivers," the words ran, "but you are dying of thirst, and I haven't a drop of water to give you, my child. There is plenty of wheat in the world, but I haven't a pinch of flour to bake bread for you, my child. Fertile is our land, but I have no bit of soil to grow grapes for you, my child . . ."

It was not only a mother wailing to her child, but a whole people crying a protest. Before the Socialist Revolution the Uzbeks were wasting away from lack of land and water, from unbearable toil, from hunger, disease and the afflictions of wind and weather.

So it was in the past. But it will never be so again. My people now sing different songs, of freedom and happiness and creative labor. They sing of deserts transformed into blossoming oases, of electric lights ablaze in every

WATER, FOR UZBEK FARMERS, HAS BEEN A CENTURY-OLD NEED. THE GREAT FERGANA CANAL NOW IRRIGATES TENS OF THOUSANDS OF FORMER DESERT ACRES.



# A NEW COUNTRY AND PEOPLE

corner of the land, of achievements in science and the arts. They sing of peace and the brotherhood of nations.

### A Land Awakened

I am old enough to remember the small railroad shops in Tashkent. There was not very much the capital of our republic had in the way of industry three or four decades ago. In smaller towns there were only a few primitive cotton-cleaning mills. And yet, underfoot, were untouched treasures of natural resources.

Today Uzbekistan with its seven million people has a developed industry and many large industrial centers. Our farms and plantations have blossomed, too, with heavy crops of cotton, grain and fruits. Great flocks of sheep now graze on our irrigated pasturelands.

A traveler crossing our hills and valleys a half century ago would have found it impossible to imagine that this primitive region, into which even such simple necessities as nails had to be brought in from the outside, would, in a time span so brief, be exporting intricate machinery for farming, mining and construction, equipment for the electrical, radio and chemical industries to Europe and Asia.

In the manufacture of some kinds of goods Uzbekistan is ahead of many countries in Europe. The hundreds of hydro and thermal electric stations that power our industries now generate double the electricity produced by all of Russia before the First World War.

### A Tour of Uzbek Industry

Let us begin our industrial tour with Tashkent. There we find factories that make spinning machines and looms, cotton harvesters, excavators, electrical and chemical equipment. As for the light and food industries, they are almost all represented. Tashkent has one of the world's biggest textile mills. There are clothing, shoe, furniture, crockery, refrigerator factories, meat-packing plants, distilleries, canneries.

The Tashkent-Angren train takes us to two new, well-planned towns: Almalyk, a nonferrous metal center with a big lead and zinc plant, and Angren, a coal town.

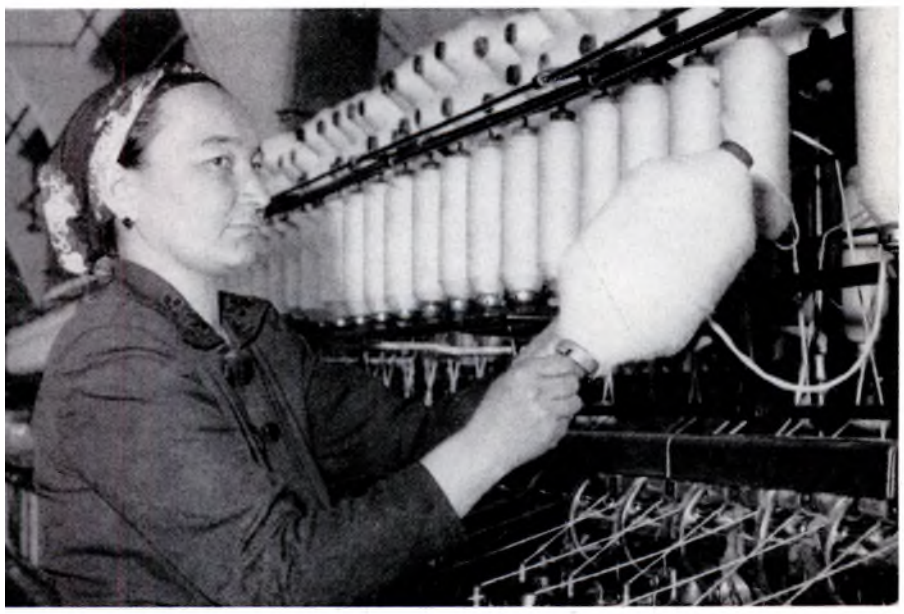
Our coal mining has lately had to meet the rather keen competition of a growing natural gas industry. A few years ago a rich gas source was found in Andizhan Region and more recently one of the world's large deposits of natural gas was discovered at Gasli, near Bukhara.

A pipe line now being built will be carrying gas to Bukhara—that part is already finished—and to Samarkand and Tashkent. Within the 1959-1965 period another line will be laid between Uzbekistan and the Urals. Before the seven-year plan is completed, gas production will be stepped up 106 times, to a total of more than 18.3 billion cubic meters.

Now let's take the train to Chirchik. Here we find one of the Soviet Union's largest electro-chemical plants and a big farm machinery factory. The train takes us on to Begovat, a small village only twenty years ago and now a bustling town employing tens of thousands of people at its metallurgy plant, cement mill and the Farkhad power station, the largest in the republic.

Next we travel on to Leninsk, the center of the Uzbek oil industry, to Vannovskaya with its oil refinery, and to Fergana, where the largest oil processing plant in Central Asia is being built. Uzbekistan produced 13,000 metric tons of oil in 1913. Compare that with the 1,115,000 tons of 1957, and the 2.5 mil-

TASHKENT, CAPITAL CITY, HAS ONE OF THE WORLD'S LARGEST TEXTILE MILLS.



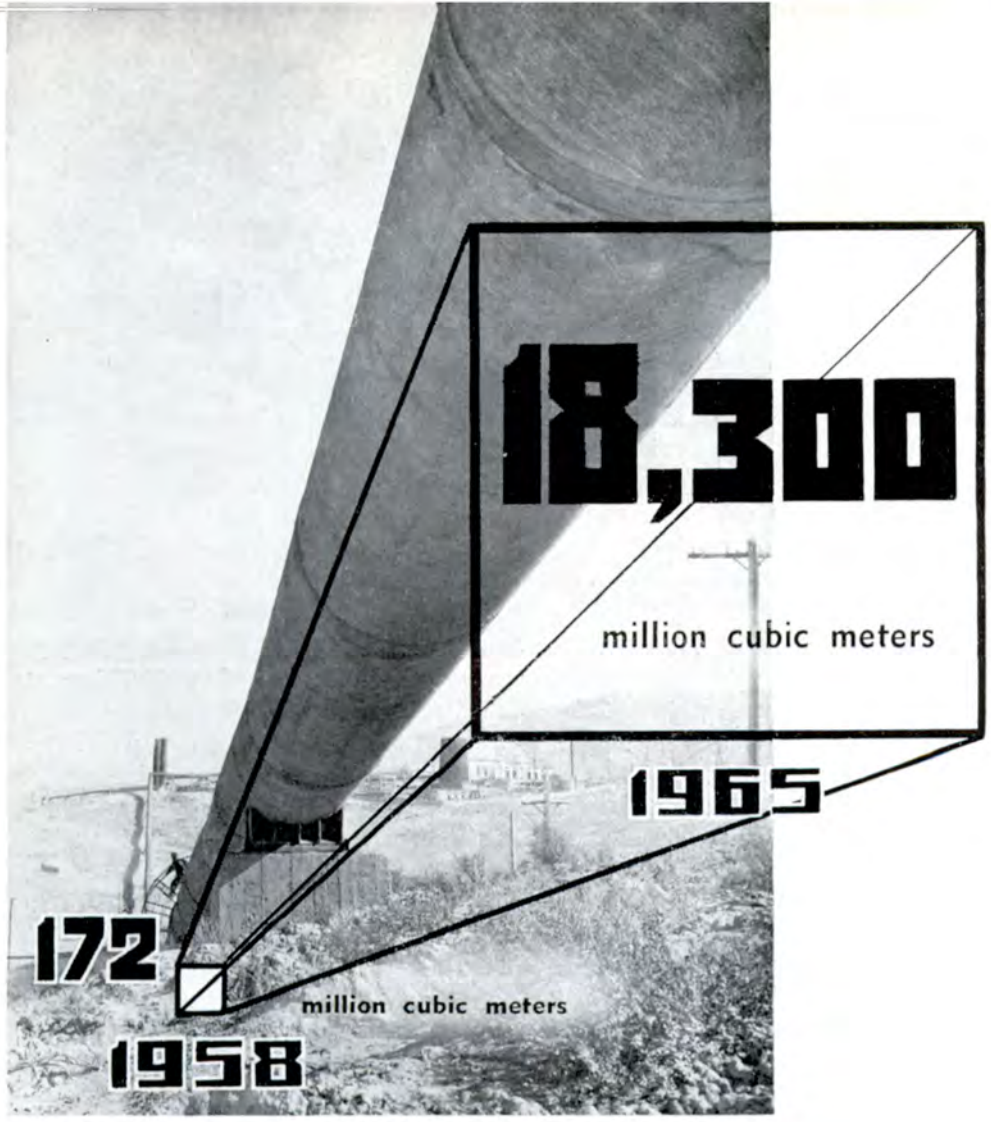
THE REPUBLIC'S BIG CROP IS COTTON—3 MILLION TONS OF IT LAST YEAR.



ZINC AND LEAD ORE FOR UZBEKISTAN'S GROWING METALLURGY INDUSTRY.



# UZBEKISTAN




New section of a natural gas pipeline. Uzbekistan will be extracting more than 18 billion cubic meters of gas by the end of the 7-year plan.

lion tons it is scheduled to produce by 1965.

By that year the growing chemical industry is scheduled by the seven-year plan to quadruple its present output. The plan also projects new factories for the manufacture of mineral fertilizer, building materials, plastics, rayon, wool and leather as well as a big housing program for the cities and the countryside.

Capital investments during the next seven years will be almost 2.5 times as large as for the seven years preceding and will total 35 to 36 billion rubles. This is very nearly the entire sum spent for building under all the earlier five-year plans started in the late twenties.

### Water Means Life

There is an ancient Uzbek saying, "Where the water ends, the earth ends." Irrigation is no academic question in arid Central Asia. For centuries it has meant the difference between starvation and plenty.

Prior to the Socialist Revolution only a small fraction of the land, principally in the river valleys, was irrigated. But there are abundant water sources, and with the wealth



Cable-way buckets carrying zinc and lead ore for refining from the Altyn-Topkan mines, the republic's big nonferrous metallurgy center.




Boarding a passenger liner at the Tashkent airport en route to one of the republic's many industrial cities built in the past few decades.

New housing for chemical workers in suburban Chirchik. This booming town has one of the largest electro-chemical plants in the country.



Inside the thermal electric station at Angren. Uzbekistan generates double the power produced by all of Russia before the First World War.



of sunshine—250 sunny days a year—Uzbekistan's fertile soil can grow almost anything. The old farm adage is, "Thrust a stick into the earth and watch a tree grow."

Despite this potential richness, Uzbekistan's farmers lived in poverty for centuries. Before the Revolution, two-thirds of the cultivated land and the water belonged to the feudal aristocracy and the clergy, while the million and a quarter landless peasants toiled for a crust of black bread and a cup of tea. All the farming was done by hand on tiny plots.

This is ancient history now. Prosperous collective farming and large-scale irrigation is the present order of things. Paraphrasing the old proverb—we know where the water begins, at the Syr-Darya or Amu-Darya, Zeravshan or Angren, Chirchik, Naryn or the Surkhan-Darya rivers, but it is much too soon to say where the water ends. With every passing day new canals carry water further and further into the deserts, transforming them into cotton plantations and orchards.

The new irrigation systems of Uzbekistan reach for 100,000 miles, with a collector-drainage network 12,500 miles long. More than two million acres of wasteland have been brought under cultivation with work under way to irrigate the virgin lands of the once aptly-named Hungry Steppe, of Central Fergana and other regions.

Uzbek farmers have reason to be proud of their big crops of peaches and figs, apricots, grapes and pomegranates of a quality that they will match with fruit grown anywhere in the world. The republic takes first place in the country for its silk, karakul and rice.

Our people call cotton white gold. It is the republic's major crop and our growers have been doing phenomenal things with it. Look at these figures:

The year—1913; planted to cotton—1,100,000 acres; crop per hectare—12.2 metric centners; gross cotton crop—518,000 metric tons.

The year—1958; planted to cotton—3,320,000 acres; crop per hectare—21.7 metric centners; gross cotton crop—almost 3 million metric tons.

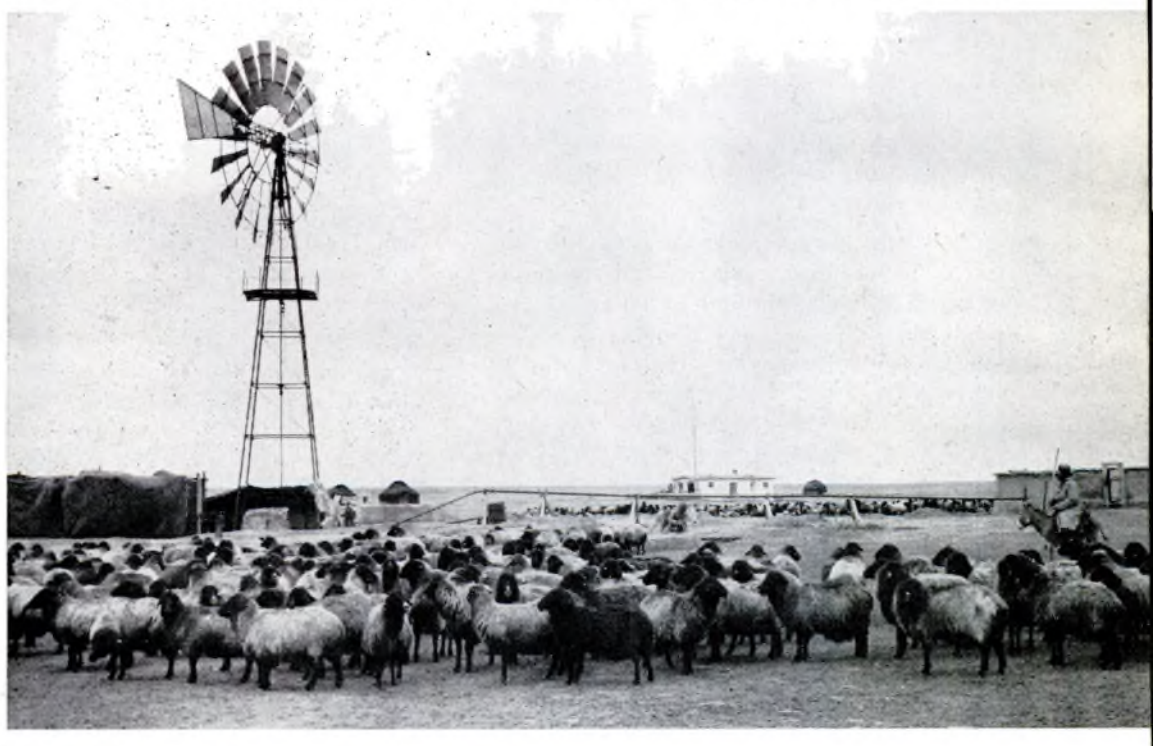
Uzbekistan now grows more cotton than Pakistan, Turkey, Iran and Brazil taken together.

Great progress has also been made with



THESE COTTON PICKERS AND TRACTORS ARE PART OF THE MOTOR FLEET OF A COLLECTIVE FARM.

UZBEKISTAN SHEEP MEN ARE WORKING TOWARD A 50 PER CENT INCREASE IN WOOL CLIP BY 1965.

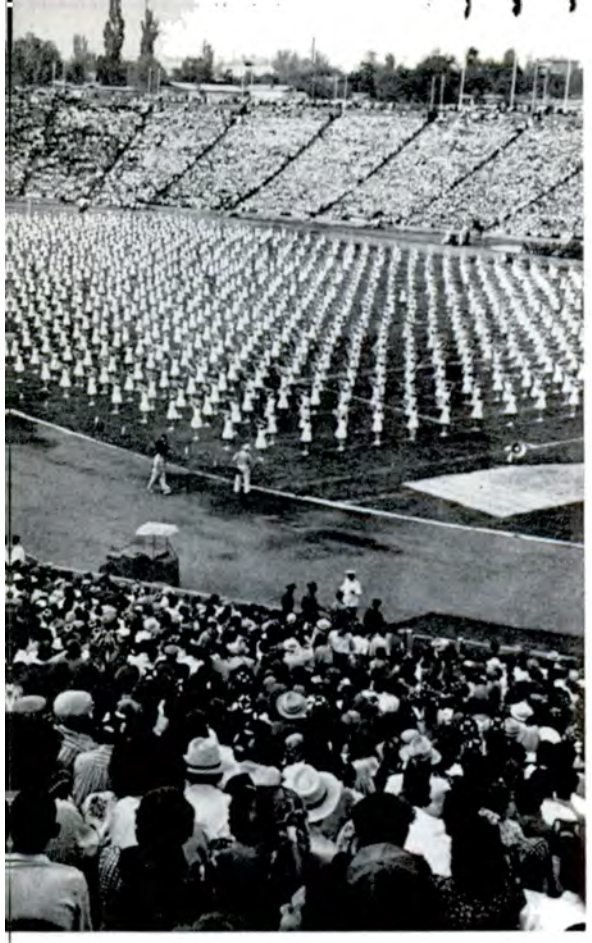


Uzbek farmers grow most of the country's supply of raw cotton. They call it "white gold." The highly mechanized plantations have been producing phenomenal bumper crops.



Scores of Uzbek researchers are looking for ways to grow finer varieties of pest-resistant cotton.





No empty seats in the Tashkent stadium at major sport events.



A SQUARE IN TASHKENT, A GROWING CITY OF PARKS, TREE-LINED AVENUES AND MODERN BUILDINGS.

# UZBEKISTAN

livestock. To use statistical language again —since 1918 the number of head of cattle has grown by half a million, the number of sheep and goats by almost five million and pigs by 220,000.

As to farm prospects for the future—by the end of the seven-year plan period the cotton crop will hit a record figure of 3,800,000 tons, production of meat will double, vegetables will triple and the wool clip will go up by 50 per cent.

## Every Field of Study

There is no branch of modern science to which Uzbek researchers have not contributed. Experimental work with controlled thermonuclear reactions, the use of radioactive isotopes in industry and medicine, the creation of living cells, new surgical methods, the origin of ancient oriental cultures—this is the spread of research being done by more than 7,000 Uzbek scholars. The republic has its own Academy of Sciences and 100 specialized research institutes.

At the time Uzbekistan became a Soviet Republic, more than 95 per cent of its people were illiterate. Needless to add, there were no colleges or research institutes. In this brief historical period the Uzbeks have made the great leap from complete illiteracy to the most advanced modern learning.

Our 1,300,000 children now study in 5,589 elementary and secondary schools in all parts of the republic. In 1918 Lenin signed the decree founding Tashkent State University, the first university in Central Asia. Now Uzbekistan has 35 schools for higher education with a student body of 70,000. More than 60,000 boys and girls attend junior colleges and specialized secondary schools.

Our colleges train engineers, agronomists, physicians, teachers, orientalists, artists, writers, musicians—specialists for any profession

Statue in Tashkent of Uzbekistan's famed poet, Alisher Navoi.



BEAUTIFUL LAKE KOMSOMOLSKOYE IS ONE OF TASHKENT'S FAVORED PICNIC SPOTS.





LARGE NUMBERS OF MAGAZINES, PAPERS AND BOOKS ARE PUBLISHED IN THE NATIVE LANGUAGE.



Prize-winning cotton grower Khamrakul Tursunkulov and his son.

you can think of. The republic now has twice as many college trained people per 10,000 of the population as France; seven times as many as Turkey, and 28 times as many as Iran.

Books are no longer the property of the favored few. Uzbekistan has about 3,400 libraries today as compared with 14 in 1913. Each year about 25 million books are published in the republic, which has its own novelists, poets and journalists. Writers like Khamza Khakim-Zade, Gafur Gulyam, Abdullah Alimjan, Musa Aibek, Kamil Yashen and others have won millions of readers in the Soviet Union and abroad.

Fifteen of the republic's eighteen magazines and 162 of its 208 newspapers are printed in the Uzbek and Karakalpak languages. The circulation of periodicals is more than a million. The contrast with czarist times is striking—of the 14 papers then published in Uzbekistan, only one was in the native language.

For use by the people are 4,000 cultural and community centers, 36 recreation parks in cities and towns, scores of theaters, concert halls, museums and art galleries. Tashkent has a large radio station and a first-rate television center. These are all products of the Soviet period.

Our people carried nothing over from the czarist days except the will to create. All we have, we built with our own hands, and the building goes on.



Farmer Chini Sharapova is a deputy to the USSR Supreme Soviet.

THE REPUBLIC HAS 3,400 PUBLIC LIBRARIES TODAY. THERE WERE A TOTAL OF 14 IN 1913.



Preventive medicine and widespread medical services have sharply reduced the once very high disease rates.





THE SECOND UZBEK ART AND THEATER FESTIVAL WAS HELD RECENTLY IN MOSCOW. THIS IS A NATIONAL DANCE ACCOMPANIED ON THE "DOIRA."

# THE ARTS IN TODAY'S



"SPRING," A DANCE PERFORMED AT THE FESTIVAL BY THE FOLK DANCE ENSEMBLE OF UZBEKISTAN.



A SCENE FROM THE UZBEK NATIONAL OPERA *DILOROM* BY COMPOSER MUKHTAR ASHRAFI SET DURING THE SASSANID DYNASTY, 226-651 A.D.

# UZBEKISTAN

UZBEKISTAN has virtually created a national theater since the Socialist Revolution. It had no professional theater before then. Today's 26 theaters stage every kind and variety of production—operas and ballets, dramas and musicals—concerts, children's plays, puppet shows and a circus.

The republic's film industry is even younger, staffed by talented script writers, directors, actors and cameramen who have learned their crafts in the past twenty years.

The second Uzbek Art and Theater festival was held in Moscow recently, an event which attracted visitors from all parts of the country. Nineteen of the best dramatic, musical and dance productions were chosen for presentation.

Uzbek music has experienced an impressive renaissance through the work of its gifted composers—Sadykov, Babayev, Burkhanov, Ashrafi, Mushel, Leviev and Yudakov. By blending the national folk melodies with the whole body of traditional and classical music they have created fresh and stirring opera, ballet, symphony, chamber and dance music.

The republic has in the past several decades trained its own concert artists and dancers who have won enviable reputations both at home and abroad for their talented and colorful performances.



AN UZBEK DRAMA THEATER PRODUCTION OF *JULIUS CAESAR.*

UZBEKISTAN'S CIRCUS CLOWNS ARE INIMITABLE FOR THEIR SPRIGHTLY INVENTIVENESS.





It is the rare factory or collective farm in Uzbekistan that does not have its amateur dance group. "Good Cheer," a dance performed by Tashkent textile workers.

No need for artificial sets for this dance performance on a collective farm. The dance, the accompanying instruments and the national costumes are all traditional.





# THE ARTS IN TODAY'S



Zulfiya is one of Uzbekistan's best-loved poets. She is also editor of the magazine *Uzbek Woman*.

A charming and spirited courting dance performed by the boys and girls of an amateur dance group from the Khorezm Region.



# UZBEKISTAN

In the last few decades Uzbekistan has developed talented writers like Aibek (left) who have used the native themes in their stories and poems.





The music of Mukhtar Ashrafi, Uzbek composer-conductor, conveys much of the Oriental flavor so characteristic of Uzbek folk music.

Uzbek folk artisans have long been famous for the beauty and intricacy of their gold embroidery designs on wall hangings, skull caps and slippers.





Gifted artist Rakhim Akhmedov has painted dozens of canvases that portray the life and labor of the cotton growers of the Republic.



Good medical care and his own will saved Viktor Kiselyov from a life of invalidism.

# FAMILY

VIKTOR KISELYOV narrowly escaped being one of the tragic casualties of war. As it is, he is a healthy man, father of a growing family with a secure job and a future that is as bright as he himself wants to make it.

Viktor was 19 when the war broke out and took him from school into the army where he spent the next three years. In 1944 he was badly wounded and for more than a month it was questionable whether he would live or die. He recovered but left the hospital a complete invalid, unable to raise his arms or to bend his back without great difficulty.

This was the shape he was in when he went back to his native town of Zhdanov in the Ukraine on a disability pension of 600 rubles a month. He continued hospital and sanatorium treatment for two years at government expense until he took a turn for the better and finally got on his feet.

While in the hospital convalescing, Viktor fell in love with one of the nurses and after he was discharged, he and Irina got married.

In 1947 they had their first baby, Nina. By that time Viktor was in good physical shape and was tired of living as a pensioner. He was young, healthy and he wanted to work. And there was the matter of income. Although his pension was sufficient for a single man, it wasn't nearly enough to raise a family on.

## Plenty of Jobs Open

Jobs were no problem. There were plenty open and available in Zhdanov or any one of a dozen other places. But Viktor didn't want an unskilled job and he had no trade since he had gone into the army straight from school. He looked through the "trainees" section of the help-wanted ads and soon found a number of trades he could learn at government expense.

The steel mill in the neighborhood was expanding production and needed rolling mill operators. Viktor thought it over and decided to take a crack at the job, over the objection of his wife who thought his health wouldn't stand the strain. But he was checked out as physically fit by the clinic at the steel mill and enrolled in the six-month course for rolling mill operators. He got his training without charge and was paid, in addition, apprentice wages of 500 rubles a month during the training period.

When he'd finished the course, Viktor, together with other trainees, was sent to some of the other steel plants in the region to see how skilled operators worked. He came back to Zhdanov and was put on a job in the rolling mill. Before long he was making 1000 to 1200 rubles a month.

Up to then the Kiselyovs had been living with Viktor's parents but when a second child, Tanya, was born, the house became too small for two families. Viktor applied to the factory management for an apartment, his application was approved by his trade union and some months afterward the young people moved into one of the new apartment houses the mill had built.

## The Family Today

This is Viktor's twelfth year at the mill. He is one of the plant's top rolling mill operators and earns enough in wages and bonuses for labor-saving ideas so there is a tidy savings bank account to the family's credit. The family increased by one as of last year when Vasya was born.

Viktor is ambitious for his family and himself and has been going to technical school at night. He will soon be finishing his fifth and last year in the metallurgy course. It will mean qualification for a better job than the one he has now, and more money, of course.

About two months after the boy was born, Irina talked of going back to work. She felt that she wasn't making use of her background in nursing and the local hospitals were calling for trained people.

Irina had checked with the nursery in the

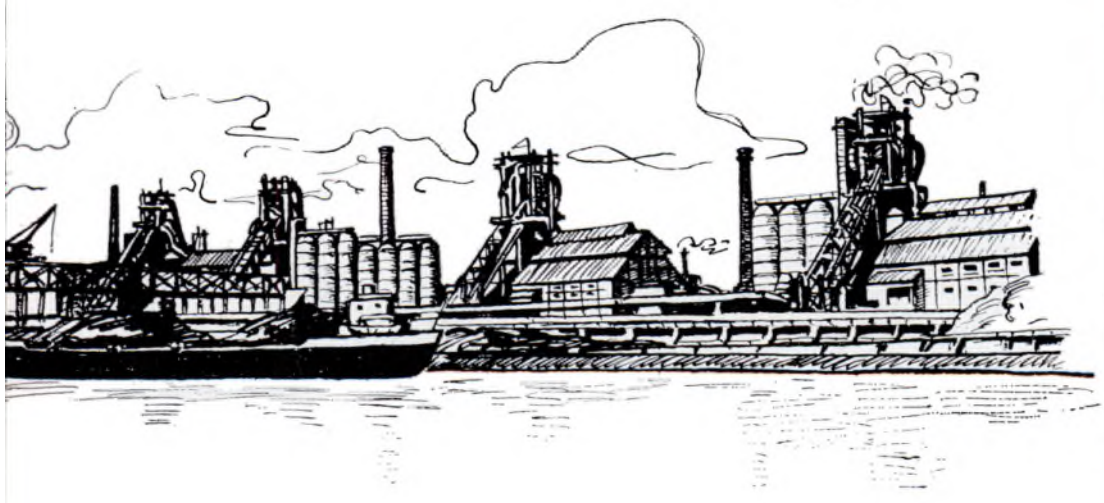


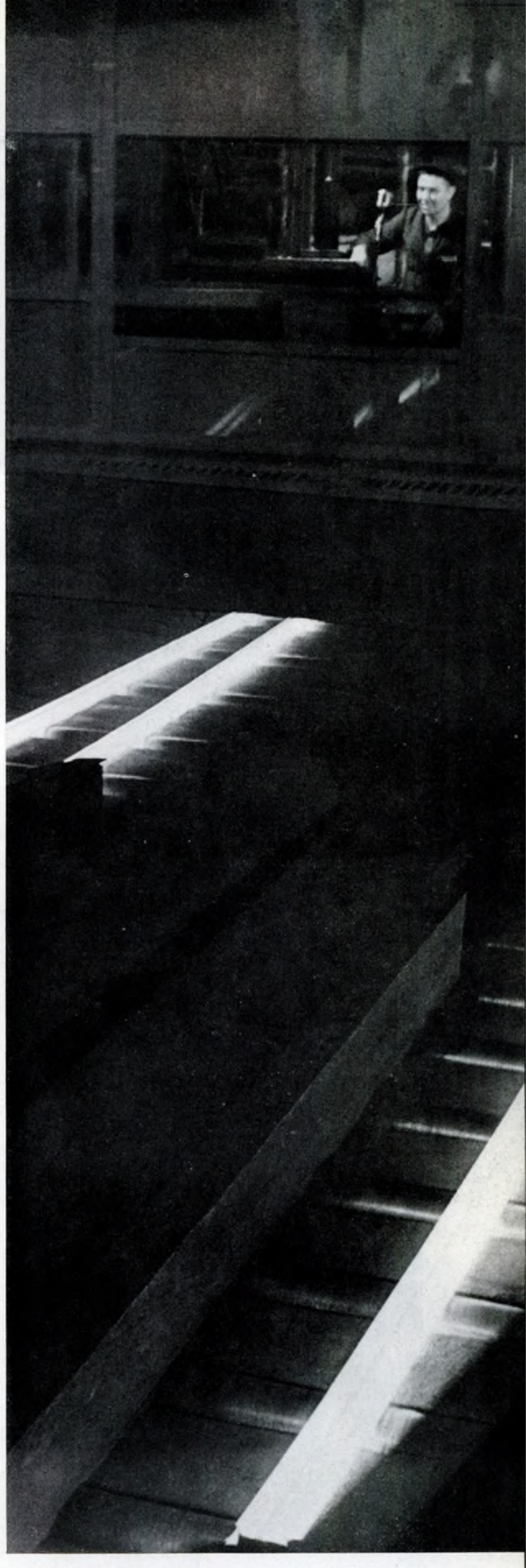


VIKTOR THINKS HE'S VERY LUCKY TO HAVE IRINA FOR A WIFE AND HE ADORES HIS CHILDREN.

# STORY

**By Lev Petrov**





In 1947 Viktor, then on pension, wanted a job. Trained at plant expense, he is now a skilled rolling mill operator.

# FAMILY STORY



Nina, the eldest girl, is in fifth grade. She spends her summers at a children's camp.

neighborhood. It had a good staff and facilities for child care and it would merely be a matter of bringing the child in every morning on her way to work and calling for him at night.

But Viktor is a little old-fashioned that way. He thinks Irina ought to be home for a while longer until Vasya is older. Irina was of two minds, and since they do well enough on Viktor's salary she didn't press the point. Not that she had abandoned the idea—Irina can't see herself a permanent housewife—she has just postponed it for a year, or perhaps two years at the outside.

### Income and Expenses

Irina keeps a running account of money that comes in and goes out. Here is how the family budget shapes up. This is for last year:

*Income (1958)*

| | |
|---|---|
| Viktor's wages for 12 months (this includes a month's paid vacation) | 27,500 rubles |
| Bonuses for ideas that Viktor turned in | 1,500 rubles |
| | 29,000 rubles |

*Expenses (1958)*

| | |
|---|---|
| Food | 14,000 rubles |
| Rent (including utilities) | 1,200 rubles |
| Clothing, furniture (this includes purchase of a washing machine), entertainment, gifts, etc. | 6,750 rubles |
| Sanatorium stay for Viktor (as a union member he paid 30 per cent of the regular price for accommodations) | 400 rubles |
| Income tax | 1,836 rubles |
| Trade union dues | 275 rubles |
| | 24,461 rubles |

Notice that there are no expense items listed for the children's education or for Viktor's schooling. There is also no expense listed for vacations. The eldest girl spent the summer at a Young Pioneer camp but the family paid nothing for accommodations.

Viktor and Irina are thinking of making a trip abroad next vacation. They will be getting a 70 per cent discount. The difference will be made up by the trade union social insurance fund.

There are no medical expenses listed either, aside from Viktor's stay at a sanatorium, for which he paid only a third of the regular cost. Viktor needed no hospital treatment in 1958 but Irina did. She was ill with pneumonia and spent 30 days at the hospital. Her stay cost an estimated 950 rubles but Irina paid nothing. Medical treatment of every sort is covered by the government.

In addition to that, Irina spent ten days in a maternity clinic when she gave birth to Vasya. She paid not a kopeck of the 500 rubles it cost the clinic. Moreover, had Irina been working, she would have been entitled to between 60 and 90 per cent of her regular wages during her 16-week maternity leave.

VIKTOR TAKES ON HIS TWO DAUGHTERS AND THEIR FRIEND IN A FAST GAME OF ICE HOCKEY WHILE IRINA GIVES LITTLE VASYA HIS BATH AND GETS HIM OFF TO BED.





Tanya has a quartz lamp treatment at the local polyclinic to help her get rid of a severe cold.



WITH THE CHILDREN TUCKED IN BED, THE KISELYOVS HAVE THE NEIGHBORS IN FOR CARDS OR CHESS.

As for education, the Kiselyovs will have no such item on the expense side of their budget even when the children go to college. Education is free all the way from kindergarten through the university.

### More Social Services

These and other such services that are not listed in the Soviet family budget should really be written in as income. More such services will be provided every Soviet family as the present seven-year plan makes progress. By 1965 the government will be spending 360 billion rubles, as compared with 215 billion in 1958, for public education, including student maintenance stipends; health services, including vacation resorts and sanatoriums; and other social services. This means an average of 3,800 rubles a year added to the income side of the budget of every working person. In addition, about 800 rubles per worker will be spent on new housing, schools, hospitals and other construction.

This greater expenditure for welfare services is made possible by the country's growing economic strength. That growth can be seen in every industrial plant, including the Azovstal mill where Viktor works. New blast and open-hearth furnaces have recently been installed and capacities of the old ones have been enlarged to turn out more steel.

Men like Viktor have been doing their bit to boost production by figuring out ways of getting more out of the equipment. Viktor has already turned in a number of valuable suggestions for increasing efficiency. Every suggestion that helps turn out more steel with less work also helps to provide more education, better housing, more consumer goods for everybody in the country.

By 1965 the Kiselyov family income should be 40 per cent higher than it is now, and the expense side of the balance sheet should be lower since more goods and foodstuffs produced will mean lower consumer prices. That is how the Kiselyovs and all other Soviet families will be figuring their household budget in the next few years.



WHEN HE GRADUATES FROM TECHNICAL SCHOOL, VIKTOR'S JOB CATEGORY WILL BE RAISED.

# RAYS FROM OUTER SPACE

By Sergei Vernov, *USSR Academy of Sciences*

*and* Alexander Chudakov, *Mathematical-Physicist*

THE EARTH is continually bombarded by very penetrating and intensive radiation from outer space. These cosmic rays were first discovered in observations taken from balloons and all studies since have been done from high-altitude flights. But it was the space rocket, reaching far beyond the earth's atmosphere, that provided the necessary vehicle for the apparatus that could collect data on this little-understood phenomenon.

For theoretical studies, these cosmic rays have very wide import. Their significance is not less important practically. With space flight in the offing, we must know what harmful effects this radiation is likely to have on the human space traveler at various distances from the earth.

The Soviet cosmic rocket launched early this year carried instruments —counters of charged particles and luminescent counters—to study cosmic radiation. These instruments registered X-rays, gamma rays and electrically charged particles of various energies. They also measured the ionization created by all types of radiation. We now have available the results of the study of cosmic rays both near the earth and at distances of more than 60,000 miles from the earth's center.

### Energies in Hundreds of Millions of Electron Volts

Figure I shows that the intensity of radiation depends on the distance from the earth's surface. The horizontal axis shows the altitudes and the vertical axis the intensity of radiation (in two scales, one of which is 100 times the other). The unit of measurement is the ionization created by primary cosmic rays.

As this figure shows, at distances greater than nine terrestrial radii the intensity practically does not change as the distance from the earth increases.

The diversity of the apparatus carried by the rocket made it possible to analyze the composition of cosmic radiation in space. The results indicate that practically all particles have enormous energy, measured in hundreds of millions of electron volts and even greater energies.

The conditions near the earth are quite different. The words "near the earth" in this connection must be understood as applying to those regions in space at a distance of several terrestrial radii. As can be seen from the curve in Figure I, the degree of harm that the radiation in this region can cause is hundreds of times as great as it is in space.

Analysis of the composition of the radiation in this region showed the presence of X-rays which originate when electrons bombard the casing of the container that carries the instruments. Thus it was concluded that a large number of electrons revolve about the earth at a distance up to 30,000 miles.

Since the instrument readings show that the energy of these electrons is quite insignificant, from 30,000 to 100,000 electron volts, they can be absorbed by small layers of substances. It is therefore possible to provide protection for the space pilot against the harmful effects of this radiation.

The intensity of cosmic rays at great distances from the earth—as seen from Figure I—is very small, only two particles flying through one square centimeter per second. This being so, there is no reason to be concerned about radiation illness.

True, one must not forget that explosive processes sometimes take place on the sun, even though they are very rare. At such times the sun becomes a source of cosmic rays and the entire solar system is filled with deadly radiation. When the Soviet space rocket made its flight the sun was in a relatively calm state. It is under similarly calm conditions that our future space travels will be taking place.

### A "Halo" of Radiation Around the Earth

At the sessions of the IGY assembly held in the summer of 1958 previous cosmic ray studies made with data gathered by the sputniks were submitted. Comparison of these studies with the present ones show that the earth is surrounded by two zones of intensive radiation.

Figure II shows how these two zones surround the earth. There is a space between the zones, and the intensity of the radiation there is considerably less than in each of the zones themselves. The composition of the radiation in the two zones also differs markedly. The electrons in the outer zone have relatively low energies. In the interior zone high energy particles dominate. There is reason to believe that they are protons.

According to the law which governs the motion of particles with an electrical charge, these particles move in the magnetic field of the

FIGURE I

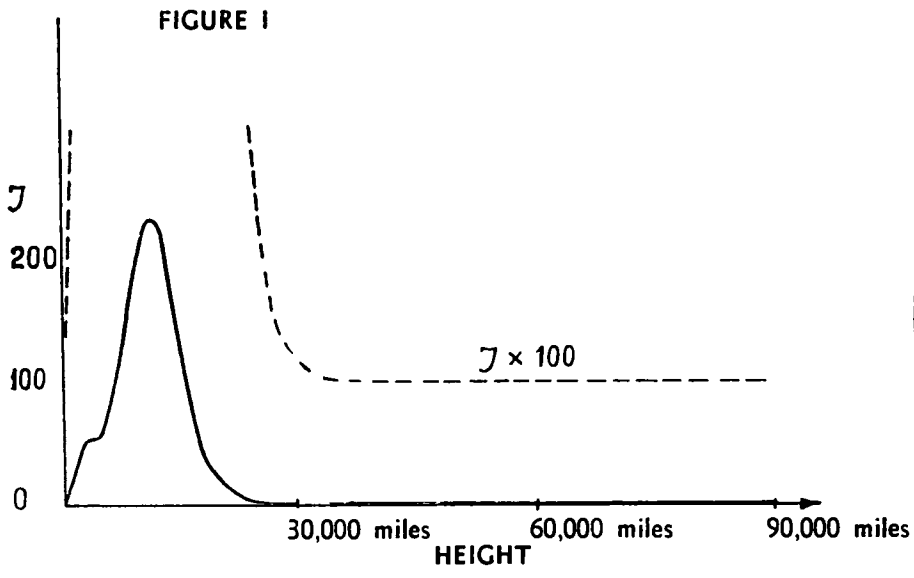
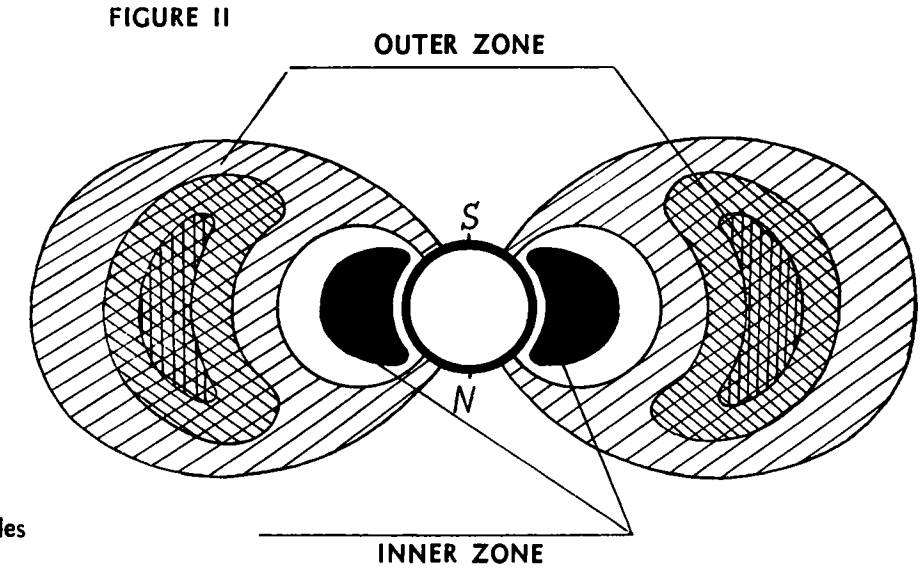



FIGURE II



THERMO-PRESSURE CHAMBERS, WHICH RE-CREATE THE CONDITIONS IN OUTER SPACE, ARE USED BY RESEARCHERS TO TEST MAN'S REACTIONS TO TRAVEL IN THE COSMOS.

earth along a closed trajectory, and wind about the lines of force of the magnetic field. With the data gathered by the sputniks and the cosmic rocket it was possible to measure these particles at various distances from the earth and in relation to various lines of force.

With the sputniks, for example, we were able to measure the number of particles at altitudes of 250 and 1,100 miles. The cosmic rocket extended our sphere of investigation very considerably. We found that the number of particles increases greatly with the distance from the earth.

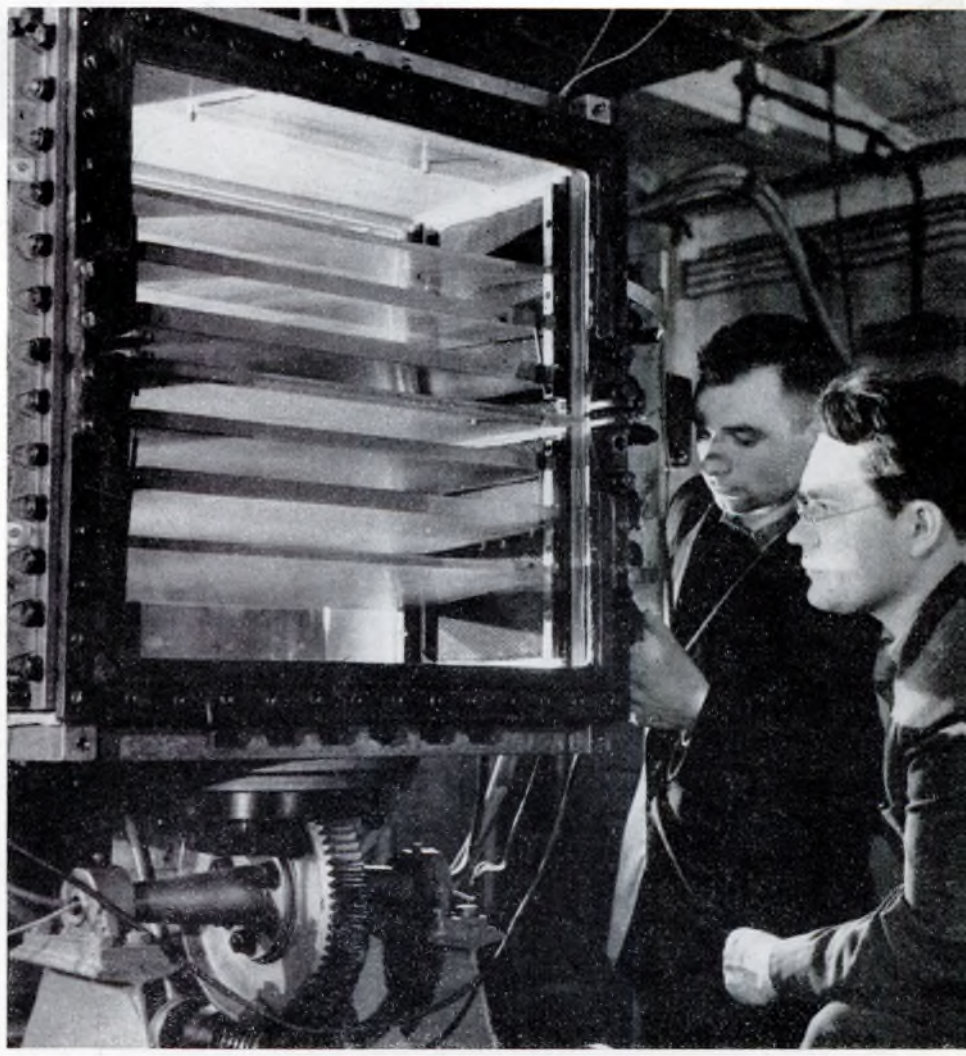
At an altitude of 9,300 miles there are 700 times as many particles as at 250 miles (along the same lines of force). This means that for every 700 particles that exist at an altitude of 9,300 miles, only one reaches the lower altitudes. All the other 699 oscillate along the lines of force, traveling from one hemisphere to the other, without reaching the lower altitudes.

This proves experimentally that the electrons which move around the earth have an oscillating motion. They roam about for a long time "locked up" in the magnetic trap which is created near the earth by its magnetic field. This phenomenon is similar to that which occurs in devices in which physicists try to start a thermonuclear reaction.

Thus, we have a kind of halo of particles around the earth that we term terrestrial corpuscular radiation. The origin of this radiation is now being studied.

Soviet scientists at last year's IGY Assembly suggested the following hypothesis: Under the influence of cosmic rays the earth becomes a source of neutrons. As they fly away from the earth these neutrons partially disintegrate. This accounts for the origin of the electrons and protons which are caught in the magnetic trap near the earth.

Further investigation will supply the complete explanation for the phenomena which occur in space and in that part of space which is adjacent to the earth and is altered under the influence of the terrestrial magnetic field. Apparently similar halos of particles surround other celestial bodies that have a magnetic field. Future space rockets will be proving whether this assumption is true or not.



STUDYING COSMIC RAYS IN A WILSON CHAMBER AT THE ACADEMY OF SCIENCES.



The war was over at last. With the Nazi invaders defeated, the soldiers returned to civilian life. Other demobilizations followed and from 1955 to 1958 the Soviet Armed Forces were reduced by two and a half million men.

# THE SOVIET UNION
# The Postwar Period

*By Leonid Papin, Historian*

**This is the fifth and final article in a series on the history of the Soviet Union. The first, issue No. 11(26), described the events of 1917 leading to the establishment of the Soviet state. In issue No. 2(29) the period of civil war, foreign intervention and reconstruction was covered. The third article, issue No. 4(31), dealt with the first three five-year plans by which the Soviet Union built its modern economy. The fourth, issue No. 5(32), told about the Second World War. The series is concluded with the following article which takes the reader through the postwar period and the adoption of the current seven-year plan.**

THE GUNS of the Second World War fell silent at last. Fascist Germany and militarist Japan had surrendered unconditionally to the nations of the anti-Axis coalition and the world was at peace again.

The soldiers went home. As many as 30 classes of men and officers were demobilized from the military forces of the Soviet Union immediately after the war. Moreover, from 1955 to 1958, the armed forces were further reduced by more than two million men.

The Soviet people had reason to be proud of the victory. They had carried the main burden of the war. They had not only preserved the independence of their own country but had freed many European nations from fascist slavery. Now they girded themselves for the trying tasks of peacetime reconstruction. It would take years, they knew, to heal the wounds of war.

The Soviet land had suffered frightfully from the fascist invaders. In the occupied regions, they had destroyed 32,000 factories, more than 1,500 cities and towns, and more than 70,000 villages. They had razed 82,000 schools and many colleges and other cultural institutions.

The total loss suffered by the economy, added to war expenditures and loss of revenue from industry and agriculture in the occupied regions, came to 2,569 billion rubles. The losses from direct destruction of property came to 679 billion rubles. Could these colossal sums have been spent for peaceful building, the country would long ago have been able to provide an abundance for everyone.

"Twenty-five years—that is the time Russia will need to rebuild what we have destroyed," German Field Marshal Stulpnagel had written to Hitler shortly before the war ended. But here again the fascists had underestimated the Soviet people.

The country barely took a breathing spell after the war. Almost at once the nation set to work on a five-year plan that was designed not only to reconstruct the economy but to surpass the prewar level of production.

The work of restoration actually started while the war was in progress. As rapidly as the enemy was forced out of an occupied region, rebuilding began. But it was only the most essential and urgent steps that could be taken under wartime conditions. When hostilities ended, the greater part of destroyed and damaged industry, transport and agriculture had not been rebuilt. The sum of 115 billion rubles was allocated for the job of restoration.

## Industry Converts for Peace

The Soviet Union had built an immense armament industry to prosecute the war, mightier than that of Germany as events had clearly demonstrated. When the war ended, the factories that had been producing tanks, guns, shells and military aircraft were neither shut down nor put on a care-and-maintenance basis. They were retooled for peacetime production. Within a very short time, by the end of 1946, reconversion was complete. This accounted in large measure for the rapid rate at which the economy grew.

The all-out effort quickly restored the mills and factories, mines and power stations, the collective and state farms that had been destroyed. Leningrad, Stalingrad, Sevastopol, Odessa and many other wrecked cities, towns and villages arose from their ashes more beautiful and more modern than before the war.

At the same time new cities and towns were being settled and new industrial plants were being built. Hundreds of new plants were ready for operation in 1946, the first year after the war. By the end of 1948 the industries of the Soviet Union had not only regained but, for the most part, had surpassed their prewar levels. From 1946 to 1950 more than 6,000 large plants were either restored or built anew.

## The Farms Restored

Grave difficulties had to be overcome in rebuilding Soviet agriculture. The fascists had burned what they could not plunder in thousands of farms and machine and tractor stations. Farm machinery and livestock had been shipped to Germany. Seventeen million head of beef and dairy cattle were either destroyed or shipped out. To aggravate the problem, 1946 turned out to be a very bad drought year.

The next year's harvest, however, was so good that in 1947 the food rationing system instituted during the war could be discontinued. This was accompanied by a reform of the currency to facilitate the resumption of normal trade conditions.

Among the countries involved in the war, the Soviet Union was, as a matter of fact, the first to balance its currency and to lift wartime restrictions on consumer goods. Since the end of the war there have been seven large reductions in prices of foodstuffs and manufactured goods, evidence of the rising living standard of the Soviet people.

## Peaceful Coexistence

Both the war and the speedy peacetime recovery proved once again the stability of the government and the unity of the people. This unity was strikingly demonstrated in the first postwar elections to the Supreme Soviet, the country's highest legislative body.

The Soviet people went to the polls on February 10, 1946, and unanimously elected their new deputies—workers, farmers, scientists, scholars and people in the arts. The unanimity and the turnout of voters



**STALINGRAD TODAY BEARS FEW TRACES OF THE WAR'S DEVASTATION. MODERN BUILDINGS GRACE NEW STREETS LINED WITH BEAUTIFUL TREES AND FLOWERS.**

was an unmistakable expression of confidence in the domestic and foreign policy of the government.

The Soviet Union was one of the sponsors of the United Nations organization. Its proposal in the UN directly after the war urged general disarmament and the banning of atomic weapons and in 1946 the world organization adopted a resolution on the regulation and reduction of armaments and armed forces. Following a suggestion of the Soviet Union in 1947, the General Assembly adopted a resolution that condemned war propaganda. Other important proposals have been submitted by the Soviet delegation, among them one for a peace pact between the five great powers: the United States, China, Britain, France and the USSR.

The Soviet Union has been consistently guided by this principle, first expressed by Vladimir Lenin—that countries with different social and political systems can, and must, live and work together peacefully. This principle of peaceful coexistence was read into Soviet law in 1951 when the Supreme Soviet adopted a statute on the Defense of Peace which branded war propaganda a major crime against humanity.

### International Contacts

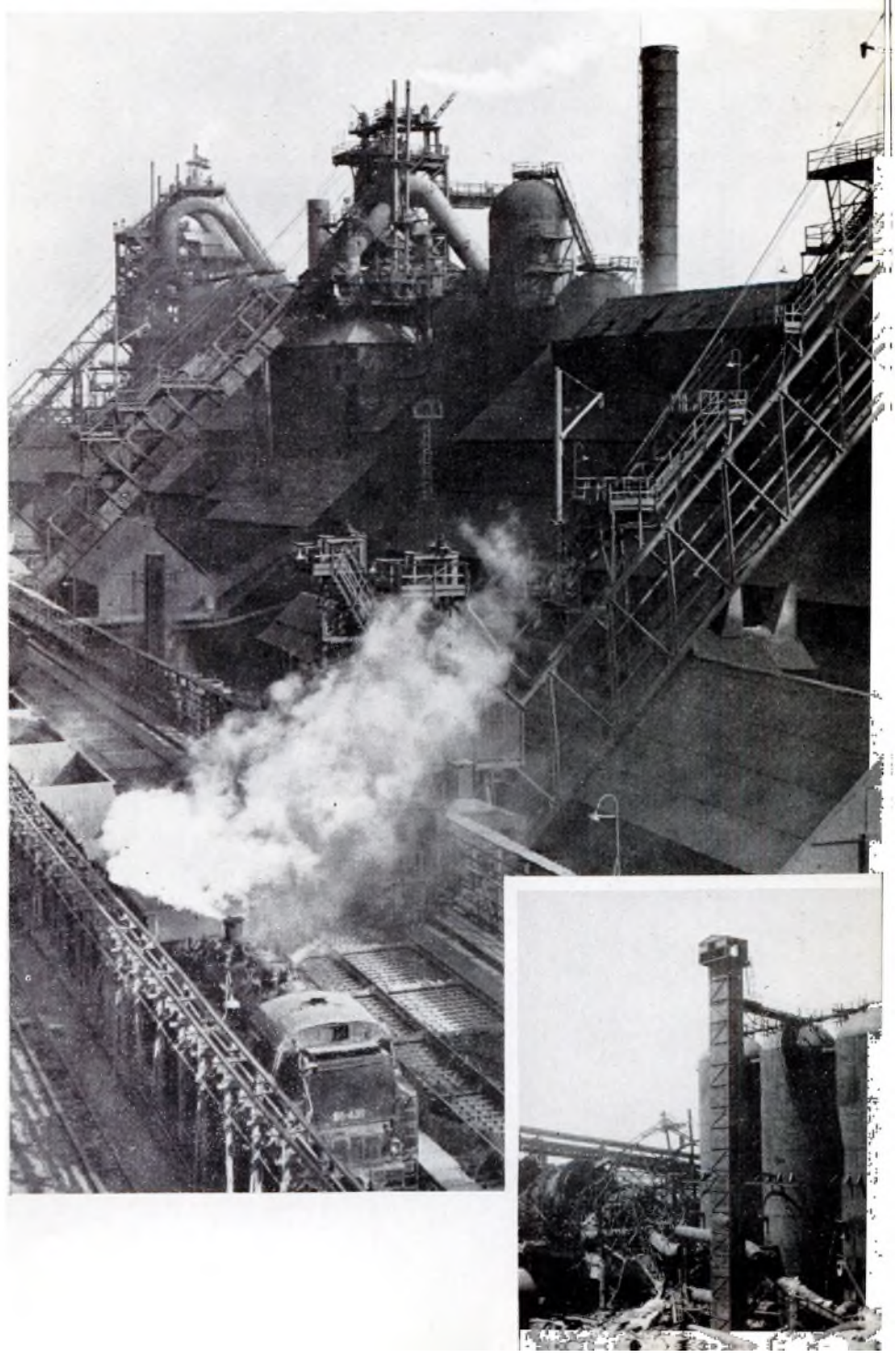
Since the war the Soviet Union has been working to foster friendly relations between countries and to reduce world tensions. Consistent with that aim it established diplomatic relations with the Federal Republic of Germany in September 1955 and signed the treaty with Austria in May of that same year which fixed Austria's position as a neutral power.

The Soviet Government has been working to reach mutual understanding by personal meetings of political leaders. From 1955 to 1958 the USSR was visited by statesmen of more than 20 countries, and Soviet leaders visited Britain, Yugoslavia, India, Burma, Afghanistan, Indonesia and many other countries.

The USSR has been steadily advocating the widest trade relations between countries, without any political conditions or limitations whatsoever and now trades with more than 70 countries. The goods bought are varied—equipment for the chemical industry from the Federal Republic of Germany, radio and TV equipment from Britain, automatic production line equipment from France. Soviet trade with non-socialist countries has more than doubled in the past five years and its export trade has grown in proportion.

By 1958 the Soviet Union had concluded some 90 agreements on cultural and scientific exchange with other countries, among them the one signed with the United States which has been working so promisingly this past year and a half.

The Zaporozhye metallurgy works, the largest in the country, and other factories destroyed by the enemy were quickly rebuilt. By the end of 1948 most Soviet industries had surpassed their prewar output.





The people registered their support of government policies in the 1946 elections. This was the first year of the five-year plan to restore the economy which had sustained war losses of two and a half trillion rubles.

# History of the Soviet Union

### Construction Everywhere

Construction during the postwar years has been nationwide, penetrating to remote corners of the country where new deposits of coal, ore, oil and gas have been found. Hydropower plants have been built along the Volga, others along the Dnieper and the Don Rivers. Thermal power plants have gone up in those sections of the country where coal is plentiful. These are units in a grand plan to create a unified power system for the European part of the Soviet Union.

Work is under way to harness the power of the Siberian rivers and to tap the natural wealth of that enormous and barely-exploited region. Industrial centers have been springing up in Kazakhstan and in other of the Central Asian Republics.

The whole country since the war has been taken with a veritable fever of construction. When there was a shortage of labor in sparsely populated regions where new industrial centers were being built, many thousands of workers volunteered to leave settled communities for these pioneering areas. They built towns and cities where there had been nothing but bare steppe and dense forest.

The results of their labors are expressed in these comparative figures. By 1955 the USSR had exceeded the prewar 1940 level of industrial output by 3.2 times. It had climbed to second place in the roster of the world's nations for production of the major industrial commodities.

### The Virgin Land Program

Agriculture has fared as well during the postwar period. To stimulate greater farm output and raise the standard of living in the countryside the government purchasing agencies paid higher prices to collective farmers for their crops. At the same time retail prices for foodstuffs were reduced.

AUSTRIAN CHANCELLOR RAAB, HEADING ONE OF THE MANY GOVERNMENT DELEGATIONS TO THE SOVIET UNION, REVIEWS AN HONOR GUARD WITH PREMIER KHRUSHCHEV.



The many thousands of experienced farm managers and trained specialists working at the collective farms and the larger volume of farm machinery turned out by industry have done much to raise productivity.

In order to get a significant increase in grain crops within the shortest possible time, the virgin land program was started. This was a bold project for breaking ground in great stretches of virgin and long-fallow lands in the East, beyond the Volga and Urals, in Siberia, Kazakhstan and elsewhere.

In 1954 a host of young people led by experienced farmers moved on these regions. These pioneering settlers lived in tents and makeshift accommodations until building materials arrived at these distant places, miles removed from railroads. Life was not easy, nor were they spared the difficulties of pioneering, but they built houses and farm buildings, plowed and cultivated this new land and harvested their first crops.

On this once bare land there are hundreds of flourishing state farms, each one with its well-planned village. Up to now the virgin land program has given the Soviet Union an additional 90 million acres of fertile land, more than is sown to grain by Austria, Belgium, Denmark, France, West Germany, Holland, Italy, Spain and Sweden put together.

As early as 1956 the virgin lands produced a bumper crop. That year 54 million metric tons of grain were gathered by the country, 16 million more than had been harvested during the best crop years.

### The Twentieth Party Congress

The Twentieth Communist Party Congress held in February 1956 was one of the memorable events of the postwar period. It defined the major goal of the years ahead—to boost industrial and agricultural per capita production to a level above that of the world's most industrialized countries and thereby provide the material means for a constantly rising standard of living.

As outcome of the Congress deliberations, the wages of a number of categories of industrial and office workers were raised. The transition to a seven-hour day was begun and the workday preceding a holiday was cut by two hours—this without reduction in pay.

The Twentieth Congress proposed the draft of a new law increasing pensions. The draft after some months of nationwide discussion was adopted by the Supreme Soviet.

The Congress also turned the spotlight on certain infringements of Soviet law in the recent past that had resulted from decisions that had been made individually and not by collective judgment. While these infringements could not alter the socialist nature of the Soviet state, they did hamper its development.

Nikita S. Khrushchev said at the Congress: "We have no need to hide our shortcomings since our general line is correct. The cause of communist construction is growing and winning out. There will be fewer shortcomings the more the masses are drawn into the struggle against them."

The Congress pointed the way toward a larger development of Soviet democracy, toward improvement in the work of government bodies, toward a greater degree of initiative for the republics and the individual citizen.

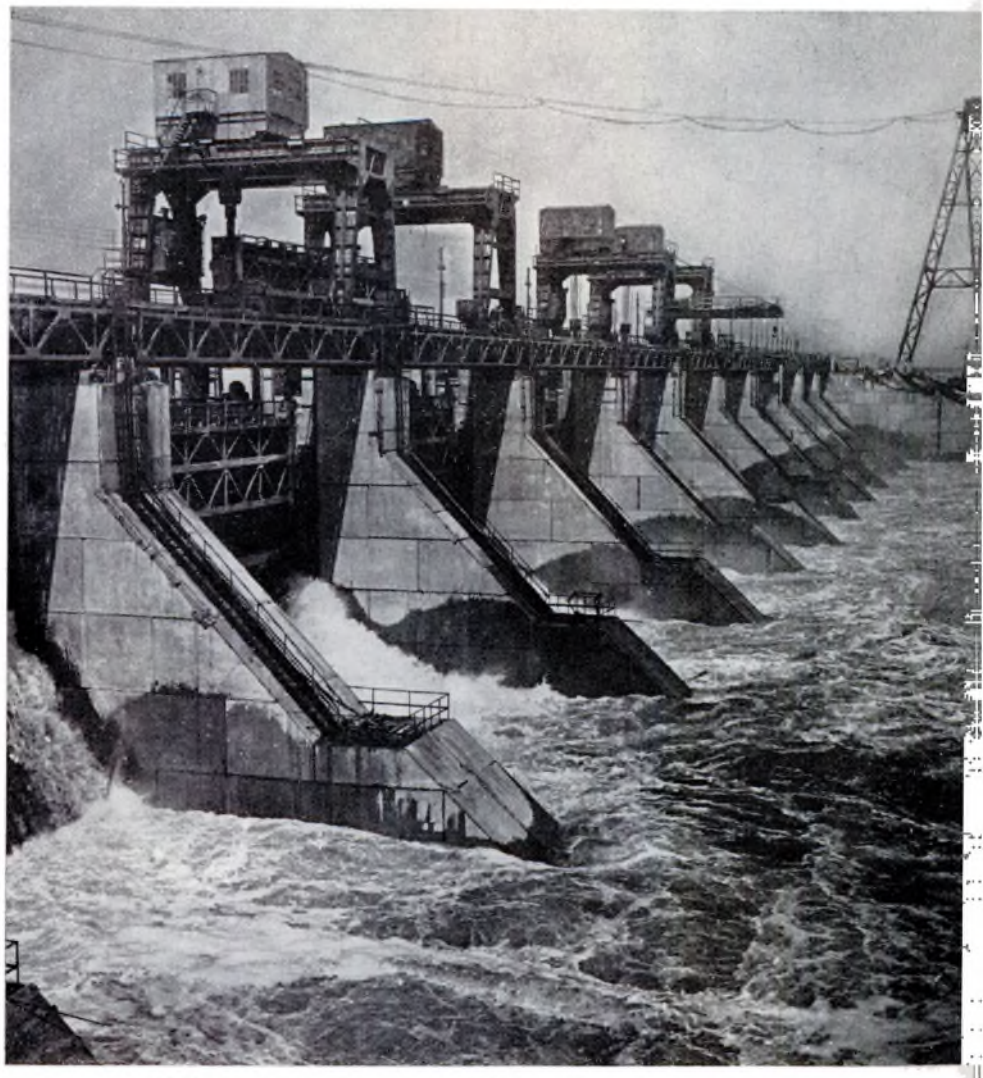
In February 1957 the Supreme Soviet passed legislation to enlarge the rights of the union republics so as to enhance their role in administering their own affairs and that of the country as a whole.

### Industrial Management Reorganized

The national economy which until then had been managed from ministries at the capital was reorganized on a regional basis. A number of the ministries were eliminated and the country was divided into economic administrative districts, each one headed by an Economic Council with coordination vested in the State Planning Commission of the USSR.

This made for more direct and more flexible management, better use of local resources, and more effective coordination between industries and economic regions. Even more important, it stimulated local initiative and local talent and drew thousands upon thousands of workers into the management of their industries. The result was quickly evident in the accelerated pace of industrial production.

In March 1958 a law was passed on the reorganization of the machine and tractor stations, making it possible for the collective farms to buy their own machinery. The machine and tractor stations had been introduced in the early thirties, at a time when there was an insufficient number of agricultural machines to supply the country's needs and when the farmers were too poor to buy their own. They helped the new collective farms by making available both the machines and the skilled technicians to run them, by popularizing modern farming techniques and efficient planning methods.



Construction of hydroelectric stations is following a master plan for a unified power system for the country. The Gorky Station is one of nine now operating on the Volga, whose annual potential is 60 billion kw-h.

As the years passed, the picture changed. Industry was turning out more and more machines for agriculture and the Soviet schools more and more skilled agronomists, tractor drivers, mechanics. Mechanization increased the farmer's productivity and his income, too. The new law acknowledged these changes and provided still another incentive for the further development of agriculture.

Economic growth brought with it a rise in living standards. There has been a steady increase in the volume of foodstuffs and manufactured goods bought by the Soviet consumer and in funds budgeted by the government for educational and cultural facilities and for welfare services. Housing has been and will continue to be a major concentration until the goal adopted in 1957 is achieved—to end the housing shortage within the next 10 to 12 years.

### Progress in Education and Science

During the postwar years phenomenal progress was made in public education. More than 160 new schools on the college level and numerous secondary schools were opened in the first decade after the war. Between 1950 and 1955 more than a million specialists in all fields of study were graduated from Soviet colleges. The number of evening and correspondence schools were greatly increased for those people who wished to attend classes after work.

Scientific research was done on a large and greatly expanded scale. Particular success was achieved in studies of the peaceful uses of atomic energy. In 1954 the Soviet Union began generating power with the world's first atomic station. A synchrophasotron, the world's fastest nuclear accelerator, was built for the Institute of Joint Nuclear Re-



The Volga-Don Canal, completed in 1952, was the final link of a vast inland shipping route joining all the seas in the European part of the country. It also made possible the irrigation of the fertile but arid Don steppes.

# History of the Soviet Union

search founded in 1956. The first artificial satellite was launched by Soviet science and in the first days of 1959 our solar system acquired a Soviet-made planet.

### The Twenty-First Communist Party Congress

The Soviet economy had progressed to the point where planning had to be done for longer periods than heretofore. Such far-reaching changes had taken place in all spheres of economic, cultural and political life that the country was ready to embark on a new period of development—the all-out building of a communist society, a society that could produce in sufficient abundance to satisfy the spiritual and material needs of every one of its citizens.

In 1957 the major features of a plan were outlined for the next fifteen years with the goal of reaching and exceeding the per capita productive capacity of the world's most industrialized countries. In November 1958 a Plenary Session of the Central Committee of the Communist Party of the Soviet Union considered the target figures for the country's development between 1959 and 1965, the first seven of the 15 years.

These were published and discussed for months at meetings held from one end of the country to the other, attended by an estimated 70 million citizens. More than 4.5 million speakers made proposals and amendments to the draft of this seven-year plan. Many were subsequently incorporated into the amended draft. In addition more than 300,000 articles and letters from readers on the draft plan were published by newspapers and magazines.

The seven-year plan was a product of the whole of the Soviet population. Many of the proposals suggested methods by which the target goals could be reached in less time or with savings in labor and materials. Workers at the Kuznetsk Metallurgy Plant, for example, showed a way of boosting output of steel in their plant by 48 per cent instead of the 17 per cent rise proposed by the draft.

The Extraordinary Twenty-First Congress of the Communist Party met in January 1959 to discuss the draft plan and the amendments that

IN PROCESS OF REBUILDING, NEW INDUSTRIES WERE DEVELOPED. RIGA, CAPITAL OF LATVIA, NOW PRODUCES ELECTRIC COMMUTER TRAINS, STREETCARS AND TUGBOATS.



had been offered by Soviet citizens. Its historic deliberations mapped the economic and cultural course of the Soviet Union for the seven years to come.

It envisaged an 85-88 per cent increase in producer goods and a 62-65 per cent increase in consumer goods in the period between 1959 and 1965 at an annual rate of increase of approximately 7.3 per cent, far in excess of that of any country in the world.

Production at that high level would supply an abundance of goods and services for every man, woman and child in the country.

Scheduled by the seven-year plan is a housing program for 15 million new apartments in urban areas and 7 million homes in the countryside, sufficient to rehouse a third of the total population of the Soviet Union.

### Higher Standard of Living

Real wages during the seven-year period will rise by an average of 40 per cent and real collective farm income by the same figure. The increase will result from direct wage increases, higher farm productivity, and from lower retail prices. Provided for in the plan are larger pensions and lower income taxes, with the prospect of abolishing all personal taxation in the near future.

Before the end of the seven years the Soviet worker will be working a shorter day. The transition to a 35-hour week and a 30-hour week for miners and others who work underground will begin in 1964 and will be completed before 1968. This reduction in the workday will not be accompanied by wage cuts. It will come hand in hand with increases in real wages.

Social services now provide every Soviet citizen with free education from the kindergarten through the university, free medical and dental service, pensions, libraries, clubs and other facilities for recreation and cultural development. These and a lengthening list of other services are to be greatly expanded during the period between 1959 and 1965.

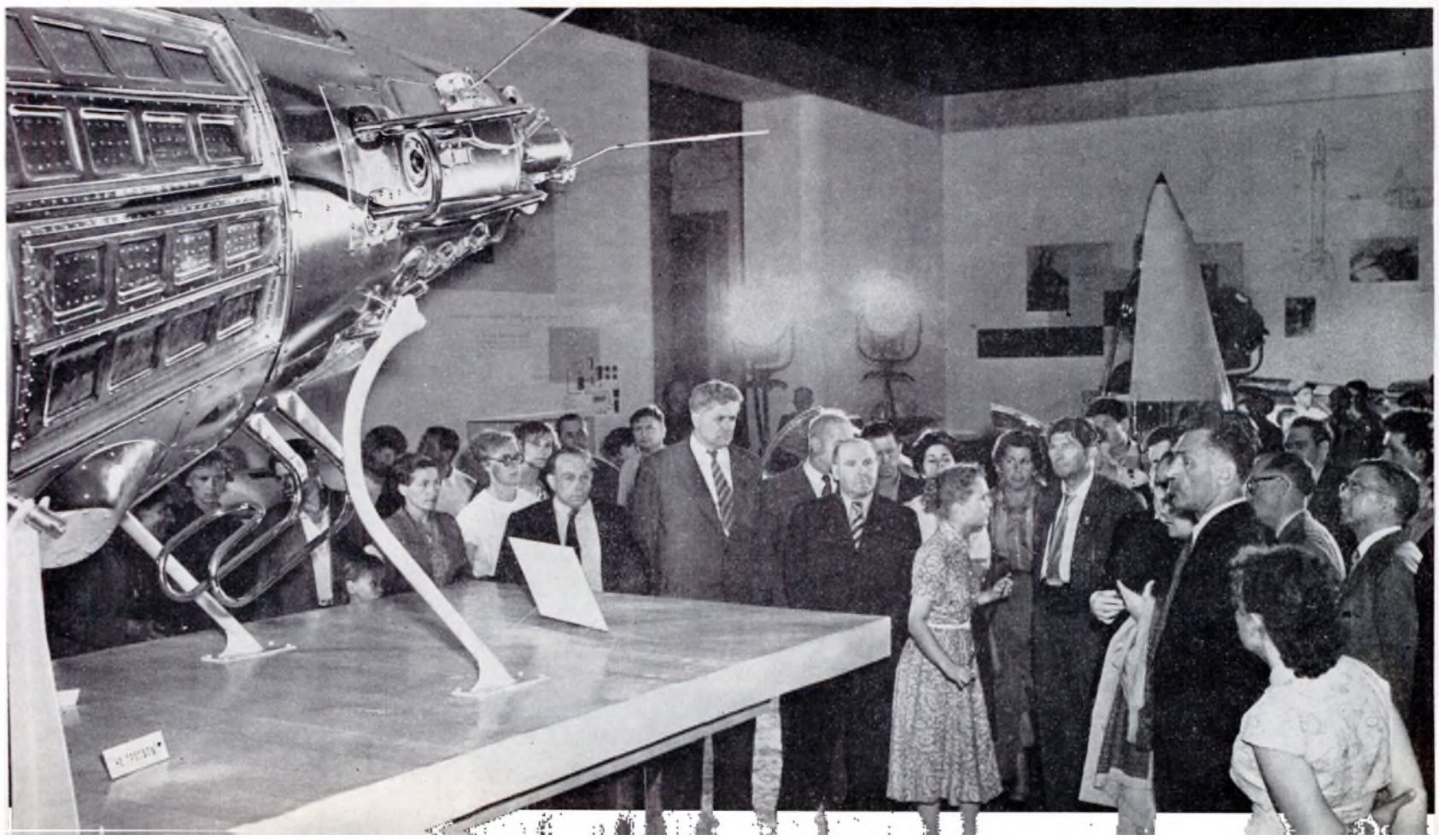
This, in essence, is the seven-year plan—to lay the material foundation for an economy of plenty, to build enough and produce enough to provide the Soviet worker with the highest standard of living in the world.

With a higher standard of living will come both the opportunities, the leisure and the facilities for every Soviet citizen to further develop his productive potentials, his creative gifts, his talents for leadership—to become the communist man in the communist society.



Thousands of young people volunteered to go to Siberia and Kazakhstan to help cultivate virgin land. Millions of bushels of grain have been added to the harvest as a result of the 90 million acres of land they plowed up.

THE SUCCESSFUL LAUNCHING OF THREE SPUTNIKS AND THE ROCKET NOW CIRCLING THE SUN WAS THE HIGH POINT OF SOVIET SCIENTIFIC AND TECHNICAL ACHIEVEMENT.



# MORE FOR





SOVIET medicine is concerned with more than healing the sick; its large emphasis is on building up people so they stay healthy. The more than 3,000 health and vacation resorts that accommodate 5.5 million people annually go far to meet that objective.

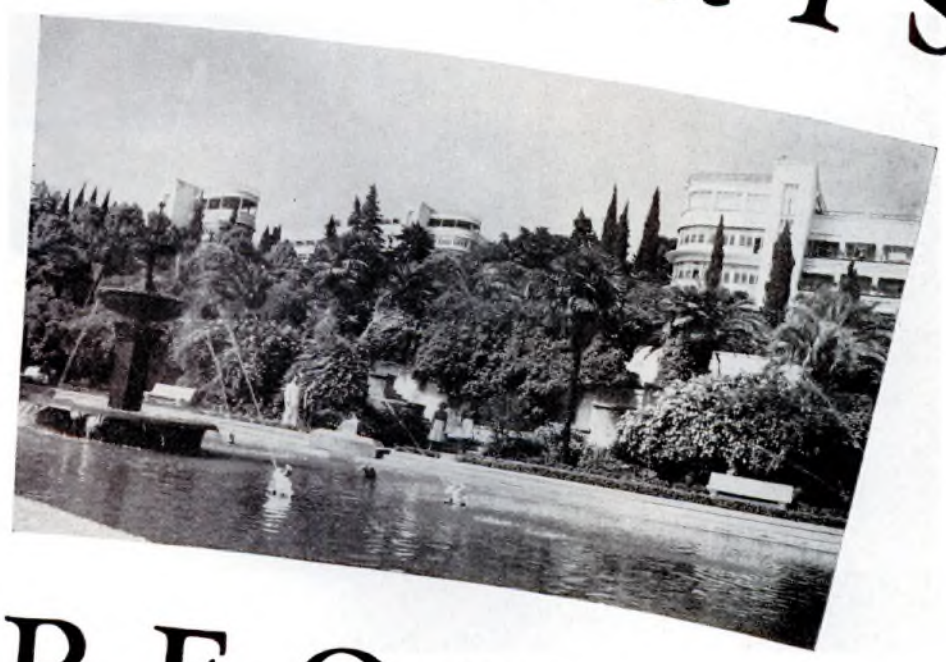
The Soviet Union with its diversified geography and climate is rich in natural health building resources. There are spas and health centers of all kinds, most of them open the year round, in climatic regions as varied as the Arctic, subtropical Caucasus, and the dry desert country of Turkmenia.

## Resort Towns

There are whole towns and cities whose major industry, if one may put it that way, is vacationing. Kislovodsk, in the foothills of the Northern Caucasus, is a first-class resort

# HEALTH RESORTS FOR MORE PEOPLE









**By Leonid Goldfail**

***Health Resort and Physical Therapy Institute***

city with 40 palatial sanatoriums—a city of flowers and parks, baths and solariums, open-air theaters and concert halls.

Before the Soviet period, Kislovodsk had a few hotels which catered to the wealthy and privileged. Now many thousands of people suffering from heart diseases, hypertension and asthma are accommodated annually at Kislovodsk's sanatoriums that have a staff of 450 physicians and 2,600 nurses.

Sochi, famous health resort on the Caucasian coast of the Black Sea, near the Matsesta sulphur springs, has been reconstructed almost from the ground up. Forty years ago it was a backwater village with unpaved streets. Today it is the finest resort city on the Black Sea coast, known for its luxuriant subtropical beauty and its bracing sea air. It has 50 sanatoriums and other health and curative facilities.

Sunny Crimea now has 300 health and vacation resorts. Many of these were mansions and palaces once owned by the czar and by titled dignitaries and financial magnates. These have all been converted into resorts for the working people. Many new ones have been built just for vacationing and also for the treatment of sufferers from lung and bone tuberculosis, rheumatism and nerve disorders.

### From the Ukraine to the Pacific

The Georgian resort towns in the Caucasian mountains have also long been popular for rest cures. Borzhomi's medicinal baths have done wonders for stomach patients and Tskhaltubo's hot nitric-radon springs for people with joint, nerve and cardiovascular disorders.

Spurred by the seven-year plan, the country's network of vacation and health resorts is now being greatly expanded everywhere, from the Ukraine and the Baltic Coast to the Far East and the shores of the Pacific.

In the picturesque foothills of the Carpathian Mountains, for example, is the Truskavets resort, famous for its mineral springs used in the treatment of kidney trouble and gastro-intestinal diseases. New medical buildings are now being built there.

The resorts on the Baltic Coast are being enlarged. Fifty new sanatoriums were recently built on the seaside near Riga, a region whose mild climate and fragrant pine forests are ideal for the treatment of cardiovascular and nerve ailments. At Kemery, some 50 miles from Riga and not far from the sea, new medical mineral springs were found and a sanatorium specializing in gastric disorders is now being constructed.



THE CRIMEA, WITH ITS AZURE SKY AND BEAUTIFUL COAST, IS THE SETTING FOR 300 RESORTS.

# MORE HEALTH RESORTS FOR MORE PEOPLE

Discovery of new mineral springs in the Urals and elsewhere in the country has stimulated resort construction. The recently built Ust-Kachka balneological resort is situated on the high banks of the Kama River in the Urals surrounded by beautiful woods and lakes. It is popular for its very salutary hydrogen-sulfide and iodobromide springs.

The Lake Moltayevo resort uses the curative muds of the Urals for the treatment of rheumatism and nerve disorders. The mineral waters of neighboring Nizhniye Sergi are beneficial in the treatment of stomach ailments and the radon-saturated water of the Kisegach resort for diseases of the joints and nerves.

Siberia has many deservedly famous health centers. Abalakh in Yakutia, Eastern Siberia, is widely known for its curative muds and is always full-up. Krasnoyarsk is another spot with recently discovered mineral springs and a new resort for gastric disorders, the Uchum.

The Talaya balneological health center on the banks of the Kolyma River serves many people who live in the industrial and farm centers that have grown up in the extreme northeastern part of the country. A dozen miles from Vladivostok in the Far East is the Sadgorod curative mud center. Near the Pacific Coast, in the Sikhote-Alin Mountains, is the year-round Vangou center whose siliceous waters are beneficial in the treatment of rheumatism and skin diseases.

These vacation and health resorts are owned by the citizens of the Soviet Union, and services and facilities are available to everyone. Guaranteed to every citizen by the Soviet Constitution is not alone a paid annual vacation and free medical service but the facilities



A HEALTH RESORT FOR WORKERS IN THE BUILDING TRADES IN ZHIGULI ON THE VOLGA RIVER.

THE BRACING BALTIC SEA AIR AND WHITE SAND BEACHES BRING THOUSANDS OF PEOPLE YEAR AFTER YEAR TO THE MANY HOLIDAY CENTERS AND REST HOMES NEAR RIGA.



through which these constitutional rights may be exercised.

### Who Are the Patients?

Take the Ordzhonikidze sanatorium of Kislovodsk as illustration. Last year it took care of 6,567 people. By occupation they were distributed as follows: 3,980 were industrial and office workers; 2,086 were people in various professions; 333 were pensioners, and 168 were non-working dependents.

These figures more or less repeat themselves for all vacation and health resorts. Foreign visitors invariably comment on the fact that vacationers and patients at Soviet holiday and health centers are ordinary working people. The comment of Professor Marchella Boldrini of Rome University in the guest book of the Ordzhonikidze sanatorium is typical of many. The Italian visitor wrote that the sanatorium was "an honor to the country that built it" and could not fail to "evoke genuine admiration from any foreigner."

The cost of treatment for a 24-28 day period comes to 960-1,300 rubles, depending upon the type of sanatorium. Climatic resorts are the cheapest, while mineral spring and curative mud sanatoriums which give treatments that require special facilities and staff are more expensive.

In both cases, however, workers pay as a rule only 30 per cent of the cost. the remainder is paid out of the annual government appropriations for social welfare. In the case of lung tuberculosis, treatment is entirely free, with the government defraying all costs.

This is true also for children's health resorts. The first children's sanatorium, Artek, was set up in the Crimea in 1925. Now it takes care of 1,200 children at a time. Similar resorts for children have since been built in many other parts of the country known for their health building qualities.

Patients are recommended for treatment at one or another health resort by physicians at hospitals, clinics and dispensaries. Treatment includes prescribed therapy for the ailment, curative physical culture, dietetic feeding and rest. Balneological and curative



THE COUNTRY'S 3,000 HEALTH AND VACATION RESORTS ACCOMMODATE WORKING PEOPLE THE YEAR AROUND

No weather problem for these water-loving vacationers with this glass-enclosed swimming pool.



The radioactive baths of the Narzan Sanatorium are prescribed for joint and nerve ailments.



Beautiful Matsesta is world-famous for its therapeutic sulphur hydrogen springs.





CORRECTIVE EXERCISE IS PRESCRIBED AS PART OF THE COURSE OF TREATMENT FOR MANY AILMENTS.



THE QUARTZ RAY TREATMENT IS CAREFULLY TIMED FOR EACH OF THE PATIENTS BY THE ATTENDANT.

# MORE HEALTH RESORTS FOR MORE PEOPLE

mud treatment is given by the general health resorts. For such specific ailments as tubercular, neurologic, cardiac and other diseases there are specialized sanatoriums. The physicians in attendance are specialists in the most advanced health resort methods of treatment.

### Therapy and Relaxation

Sanatoriums are a good deal more than medical institutions in the usual sense of the word. They are places for relaxation and entertainment besides. with well equipped libraries, movie theaters, concert halls, tennis courts, ball fields and the usual equipment of holiday resorts.

Aside from physicians, the efforts of hydrogeologists, climatologists, engineers, architects, landscape artists and specialists in a dozen other areas are directed toward the aim of getting the most out of these health centers.

As early as 1921, the Central Health Resort Institute was set up in Moscow. Its work has been supplemented since by 13 additional research institutes. Among them are the Balneological Institute in the Northern Caucasus, the Sechenov Physical Methods Treatment Institute in Crimea and the Ukrainian Health Resort Institute at Odessa.

These research institutes seek out the best climatic and geographic settings, develop methods of treatment and work out the basic requirements for planning, building and running these health centers so they can best serve the patient.

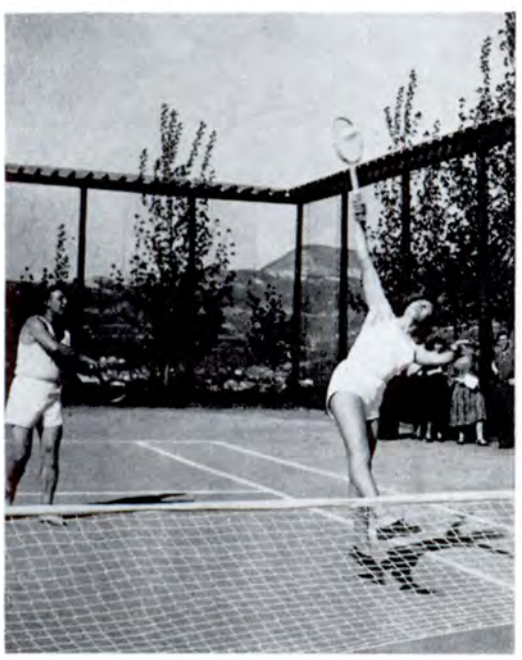
Nothing like a speedy run in a motorboat to tune up vacation appetites for a dinner.



Miner Nikolai Fedotov and his wife make a picture record of their rest home stay.



Sanatoriums are not only medical institutions, they are places for play, fun and relaxation.



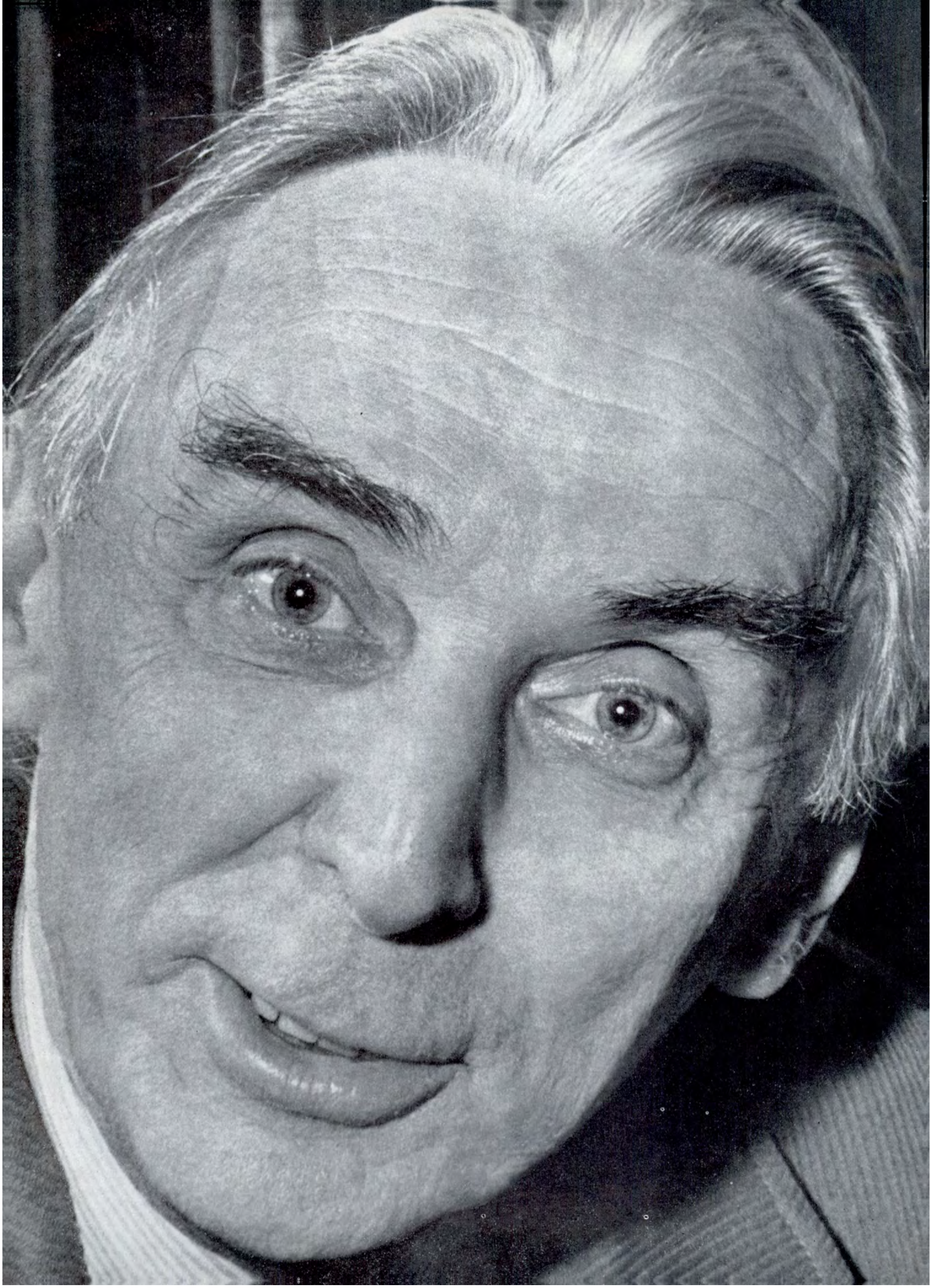
HEALTH RESORTS FOR CHILDREN HAVE BEEN SET UP IN THE MOST PICTURESQUE PARTS AND IN CLIMATIC REGIONS RANGING FROM ARCTIC TO SUBTROPICAL.

Dressed for the day's first activity—a morning dip. The camp program is planned by physical culture experts to build healthy bodies.



Artek, the first of many children's sanatoriums, was set up in 1925 in the Crimea. Its 1,200 children come from every part of the country.





# KONSTANTIN FEDIN

## SOVIET NOVELIST

By Bertha Brainina, *Critic*

A WRITER'S works do not always give you the picture of the man himself, but this is not the case with Konstantin Fedin's books, which are very much the man. He is exactly the kind of human being you would expect him to be from a reading of his novels.

Konstantin Alexandrovich Fedin was born in the old Russian town of Saratov in 1892. From early youth he rebelled against the petty bourgeois life he saw around him. He ran away from home while still in his teens and went to Moscow with the hope of becoming an artist. His father went after him and brought the prodigal son home.

He was placed in a commercial school in Kozlov. After graduating he entered the Moscow Institute of Commerce where he studied economics. In the spring of 1914 he traveled to Nuremberg to improve his German. When the First World War broke out he was interned in Zittau and there he remained until the treaty of Brest was signed.

During these years, Fedin says he "observed prewar Europe holding its breath with foreboding but still blustering and making merry; and postwar Europe, worn out by four years of nightmare and ready for revolution."

Fedin returned to Russia in the fall of 1918. a Russia liberated by the October Socialist Revolution. He worked in Moscow, in the People's Commissariat of Education and then. a while later, in 1919, moved to Syzran on the Volga where he edited the newspaper *Syzran Communar* and with the help of local people founded the literary journal *Otkliki (Response)*.

That fall, at the height of the offensive launched by Yudenich and his Whiteguard forces, Fedin went to the front as correspondent for the newspaper *Boyevaya Pravda (Militant Truth)*. He remained at the front until early 1921. The experience gave him the background material for his literary efforts—short stories. theater, film and book criticism and topical articles for the *Petrograd Pravda*.

### A Search for Realism

It was pride in his country and sympathy for its oppressed that moved Fedin to the revolutionary side, but he carried along with him the remnants of petty-bourgeois attitudes. romantic, individualistic and at variance with socialist thinking. That was perhaps a motivating reason for his joining a group of young writers who styled themselves the "Serapion Brothers," after a novel of that name by Ernst Hoffman, nineteenth century author of romances.

The "Serapions" preached revolt against the great realist tradition of nineteenth century Russian literature, against the tradition of Tolstoy, Chekhov and Dostoyevsky. Theirs was an "art for art's sake" literary school which judged a book not in terms of its relevance to life but in terms of "inner laws" supposedly independent of social reality.

Fedin's *Wasteland*, published in 1923. set largely in the prerevolutionary period, mirrors the struggle which he was waging with himself during this period between realism and decadence.

Fedin later spoke of his temporary abandonment of realism as his period of "literary measles." "It is easy," he said, "to follow the course of the illness in my first book with its fever of imagery, rhythmic chills and fairy-tale delirium."

It was at this time of sharp inner conflict when Fedin was searching "to understand everything" that he began his correspondence with Maxim Gorky. For Fedin, Gorky was not only a great writer but a man whose life was inseparably tied to the Revolution.

He wrote his first letter to Gorky, he says. "in a fever of hope. I searched for sonorous. ornate words . . . and proudly declared that I did not seek to be healed, nor did I require a doctor. But the meaning of the letter was very simple. I had to know where, in what direction, and how, I should find myself."

This was the beginning of a friendship which had a decisive influence in maturing the young writer, both as thinker and craftsman. "Gorky's principles," wrote Fedin. "so helpful a moral and aesthetic support in the early years of my life, have influenced me significantly ever since."

Gorky offered him sympathy, understanding and encouragement. Their meetings always gave Fedin an extraordinary sense of exhilaration, as though out of the window of Gorky's studio overlooking Kronverk Street the older man was showing him a bright new world that he could help create.

The novel *Cities and Years* appeared in 1924. It was one of the earliest Soviet novels to deal with the intellectual and the Revolution, but it still moves the reader today. The book has the quality of a harsh, austere symphony, the music, explosive and dissonant, of the old Russia smashing down to ruin and of the rising new Russia of the Revolution.

The many-faceted novel centers on Andrei Startsov, the intellectual altogether divorced from life and oppressed by his own vacillation, by the gulf between his words and his actions. Reared on the sterile abstractions of philosophy, his "mind is out of harmony with his heart." His heart urges that he take his stand with the people and the Revolution; his will is paralyzed by the doubt and hesitation fostered by a spurious and delusive individualism.

Three years after *Cities and Years* Fedin published another novel, *The Brothers*. The protagonist is Nikita Karev, a musician of talent searching for a musical language that will be comprehensible to the people and convey their moods and longings. But when he shuts himself off from them in a world of his own building, a "speck of a world," his contact is broken and he can write no music at all. It is with the help of those who are building the new society that he gropes his difficult way back to the world of people.

### Europe and the War

In 1928 Fedin made a tour of Norway. Holland. Denmark and Germany. There he saw a West "making merry, with its eyes closed to the world's misery." He visited Europe again during the economic depression of the late twenties and early thirties. He observed the trend of political affairs in Germany, before Hitler came to power, in fascist Italy, and in Paris when the city, mustered in defense against the "Croix de Feu," marched under the banners of the Popular Front.

"That trip," he wrote, "gave me the material for two novels. *The Abduction of Europe* (1933-1935) and *Arktur Sanatorium*. In the first I wanted to show Europe contending against the new society that was being irresistably built in the Soviet Union. In the second I tried to give a picture of the depressed Western life of the period."

Romain Rolland, whom he met through Gorky, gave him background material on European life in the early thirties. Their first meeting took place at Villeneuve, a Swiss town, in May 1932, at Rolland's invitation. Fedin was then being treated at a tuberculosis sanatorium in nearby Davos. They continued to correspond afterward.

He remembers Rolland with affection. He admires him as a great writer and great Frenchman who labored with all forward-looking people for justice, true democracy and world peace. Fedin has moved away from the Western themes he used in *Abduction of Europe* and *Arktur Sanatorium* but he eventually hopes to return to them with a novel built around a character in the spiritual image of this great humanist writer.

The war with all its heartbreak and tragedy was a rigorous test of character, one which not everyone came through. Fedin set an example of fortitude and self-denying concern for others at Chistopol, to which the Moscow writers' organization had been evacuated

# KONSTANTIN FEDIN

when World War II began. As head of the organization, he gave innumerable writers the moral support and the more tangible help which carried them through the trials of the time.

"The Second World War," writes Fedin, "forced the Russian to reevaluate Western Europe. My fifth trip abroad, in 1945-46, to observe the Nuremberg trials of the German war criminals, was such a reevaluation. At Nuremberg I found intact, amidst a heap of rubble, the vaulted door through which I fled in 1914 when I tried to get out of Germany. It was there that my understanding of Europe originated. There I now contemplated the fruits of European wisdom. Since my youth I had listened to cries about the salvation of Europe and convinced myself that Europe was being saved with more and more vigor. For seven weeks I looked on at the Nuremberg waxworks of these latest and most violent saviours of Europe. What the international tribunal said about those ghosts of the underworld sitting in the dock stirred a hope that perhaps someday Europe would really be saved."

The march of events both in the Soviet Union and abroad during the war helped Fedin to find answers to many problems that had troubled him up to then—the role of the intellectual, the function of art, the essential character of the new type of man growing out of a socialist environment. These and related questions he treated most fully in the novels he wrote in the late forties—*Early Joys* and *No Ordinary Summer*.

### The Communist as Hero

The setting of *Early Joys* is Saratov, a provincial town of Old Russia, a town of "printed calico, retired generals and flour kings." The time is 1910. The novel depicts the unsettled situation which followed on the defeat of the first Russian revolution of 1905, when behind the scenes of rampant reaction, a new revolution was breeding, when the working people were girding for new battles, when everything was "waiting for a sharp and life-saving change."

In *No Ordinary Summer* we meet the same characters ten years later, in 1919, shortly after the Socialist Revolution. The setting is again in Saratov.

The major figure in both novels is Kirill Izvekov, a Communist, a soldier of the Revolution, devoted to his country and the new social order it is building. Fedin develops his character in the round—his love for the young actress Annochka, his relation to friends, his reaction to books and to nature. He is an integrated character, strong and active, with subtle and complex emotional motivations. Izvekov stands in sharp contrast to Pastukhov, a writer, and Tsvetukhin, a famous actor, who stay aloof from the crucial historical events in which Fedin involves his characters. Kirill is a refutation of Pastukhov's constantly enunciated rationalization that the Revolution aims at making everyone the same. It is only the Revolution, Fedin is saying, that makes possible a richly diverse flowering of human personality.

Kirill Izvekov, interestingly enough, is the first Fedin hero to be lucky in love. He brings to that venerable emotion, so much dealt with in the older Russian literature, a new strength and passion. It is as though Fedin were testing his Communist character in an emotional area in which only the old romantic hero, with love as his major preoccupation, could triumph.

### Work in Progress

Fedin is now working on a new novel which will complete the trilogy of which *Early Joys* and *No Ordinary Summer* are the first two parts. The third part is to be called *The Campfire*, with a central Russian setting in the second half of 1941.

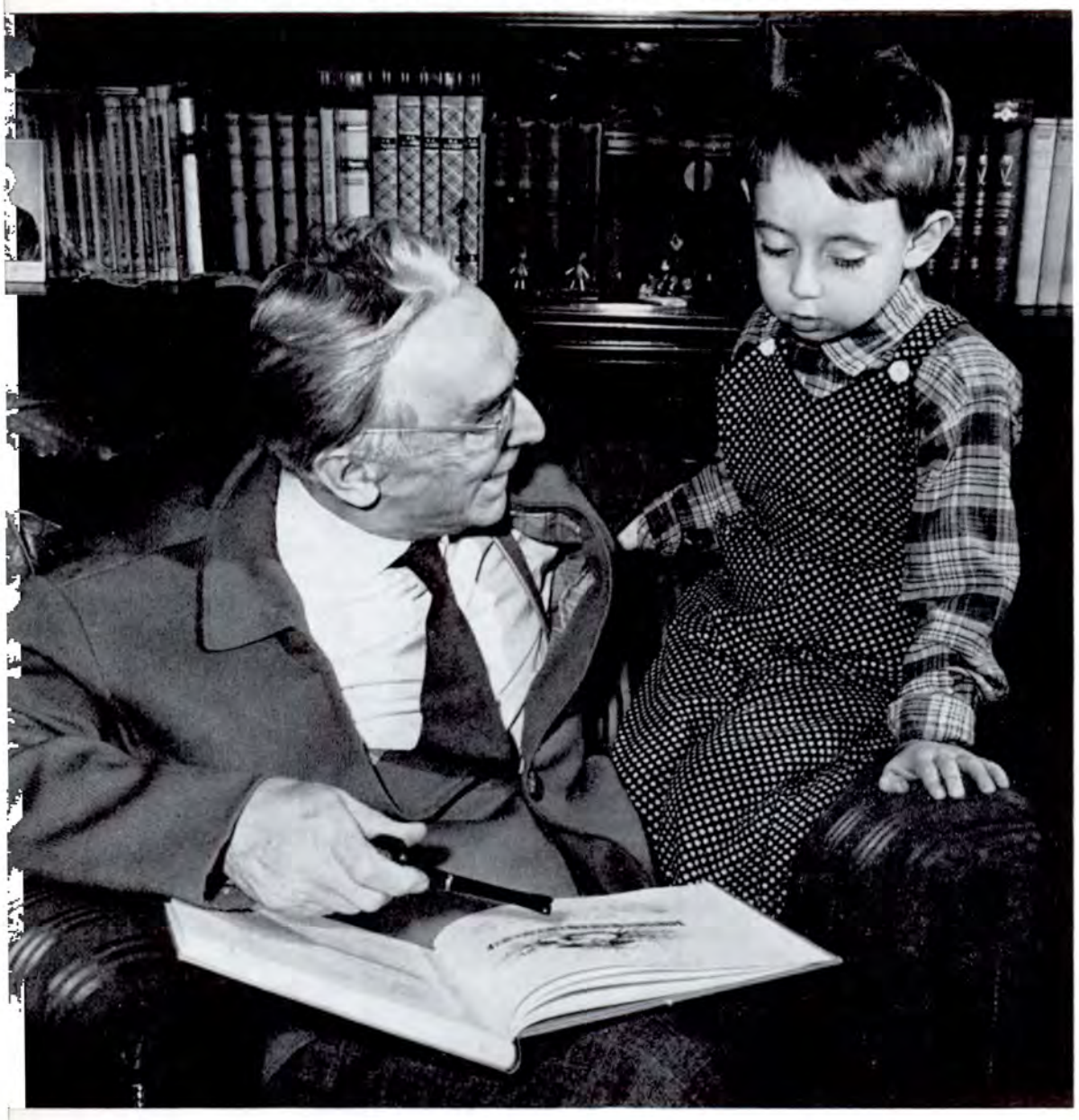
"What I am working toward," says Fedin, "is a *picture of the period*. I would like the period to have at least as much emphasis as the characters, perhaps more. I'm using this point of approach even more in the present work than I did in the two previous novels. In other words, I look upon my trilogy as one big historical novel."

This appraisal of history woven into story and character is very typical of Fedin's work. He uses the method in *No Ordinary Summer*, where a chronicle of the Civil War forms an inseparable part of the narrative. The events on the fields of battle are presented in separate scenes that greatly enlarge the novel's scope and meaning.

To order a vast amount of complex history and a large group of characters into an integrated whole is a literary task of no small dimension. Tribute to Fedin's mastery of language and understanding of character is the success he achieves in the first two books of the trilogy in making each detail—a gesture, a phrase, a description—a necessary element in the story as it unfolds.

Fedin spends most of his time at his country home in Peredelkino, near Moscow. He works nine hours a day at his writing—from ten in the morning until three, and again from six to ten at night. On Sundays he works only in the morning and spends the afternoon with his many visitors. His leisure time he divides between his orchard and flower garden and his two grandchildren.

TWO GRANDCHILDREN, A FRUIT ORCHARD AND FLOWER GARDEN VIE FOR THE WRITER'S LEISURE TIME.





# NO ORDINARY SUMMER

*By Konstantin Fedin*

**Konstantin Fedin is an esteemed Soviet novelist. This excerpt is from his novel *No Ordinary Summer*, the second part of a trilogy on which he has been working for fifteen years. The trilogy when completed will picture the past half-century of Russian history. *No Ordinary Summer* covers the period of the Civil War of 1918-1922.**

**The central characters are Kirill Izvekov, a Bolshevik who has come back to his native Saratov after many years of exile, and Vasili Dibich, a former officer of the czarist army.**

**The horrors of the First World War and the sufferings of the people which Dibich witnesses on his return from the front bring him to the camp of the Revolution. Here we meet Dibich at the crucial moment when he decides to join the Red Army.**

THE SUMMER began ominously. Natives of Saratov, who were only too well acquainted with the caprices of this fruitful region, recognized that the persistent winds presaged drought. Since the beginning of spring there had been only one rain, which ran lightly over the surface without soaking in. The winds quickly dried up the moisture and a hard crust formed over the earth. Soon the green hillsides turned gray, a sight which became more oppressive with every hour. The waters of the Volga fell, the sandbanks widened and seemed to swell above the river.

Kirill glanced up at the sky as he left the house one Sunday morning. It was white, tinged with the faintest blue, and quivering at the horizon. Mirages appeared on the steppes beyond the Volga when the heat of the day was at its height. Suddenly one would see a pale green forest of poplars rising above the riverbank, separated from the earth by a band of shimmering light. There was no telling whether the forest grew on the riverbank or rose up directly out of the water. The light kept shifting deceptively and the cool verdure lured the eyes.

The wind brought to Kirill's nostrils the faint smell of decaying fish. With every day the odor was becoming stronger. When the wind blew from the Volga, the entire city, to the farthest house on the hills, was saturated with the smell.

Rumors spread that the herring, swimming north, were jumping out of the water from the heat and shallowness and decaying on the sands. The fish appeared in unprecedented abundance, the front of the school streaming as far north as Khvalynsk, Syzran and the Samara Bend, while from down river new schools kept arriving, the fish floundering with exhaustion, dropping behind, dying on the way. The fisheries of the Lower Volga made no attempt to stop the migration, letting the vast

# NO ORDINARY SUMMER

throngs swim by to their own destruction. The Lower Volga had other things than fish to think of at this time.

With the advent of summer the White Army of the South Russian Forces began the most sweeping drive against the Red Army which the Civil War in the South had yet known. The volunteer forces of Denikin were moving along the roads to Kharkov. The command assigned a separate White corps to take the Crimea. Special volunteer detachments were to cut off the exit from the Crimean Peninsula. Further east an army of Don Cossacks was advancing northward against Donets groups of revolutionary forces. Wrangel was leading his Caucasian army over the Salsk steppes to Tsaritsyn. The forces of the North Caucasus had detailed units for the taking of Astrakhan.

These six lines of advance fanned out over the entire South like a hand of cards held in the fist of Denikin's staff headquarters at Ekaterinodar. The opening of the drive was well coordinated, and never thereafter did the coalition of czarist generals, landlords, bourgeoisie and Cossacks feel such a unifying surge of joy and hope as at the beginning of that summer's bloody campaign.

The Red Army resisted Wrangel's attempt to take Tsaritsyn, and drove back the forces of the Caucasian army in an unexpected counter-attack. In addition to the fact that Astrakhan sent reinforcements to Tsaritsyn, the city itself fought against the North Caucasus detachment of Terek Cossacks who were attacking the Volga delta in two columns, one crossing the steppes from Holy Cross, the other skirting the shore of the Caspian Sea from Kislyar. The roar of battle grew ever louder on the sun-blanched expanses of the Lower Volga. The quiet of peaceful activities became a thing of the past, and even the Volga fishermen ceased plying a trade that went back to time immemorial.

Kirill was ever conscious of the events of the war, but that morning the sultry wind from the Volga brought him an almost physical sense of the vast terrain where the struggle was taking place. He went over in his mind all the news from the front that had been reported the past few days. Although the work he was doing undoubtedly contributed to the struggle, he was oppressed by the feeling that he was isolated from events which were deciding the future. At present this feeling was particularly strong.

But the wind brought still another emotion: Kirill was suddenly overwhelmed by a desire to go down to the Volga, to find some spot on an island, closer to that pungent odor of fish and water, where he could stretch out on the hot sand, give himself up to the harsh caress of the heat, listen to the shallow splashing of the waves, and feel the prickle of wind-blown sand on his body.

But he had left his house with quite another thing in mind. He had decided to visit Dibich in the convalescent home. This was not to be postponed, for it was uncertain when he might have another free moment for this purpose, besides which Dibich had sent him a note saying that he wanted to speak with him.

Kirill had arranged to have Dibich placed in one of the best convalescent army hospitals. In the four weeks of his stay there, Vasili Danilovich had so improved that he did not recognize himself in the mirror. His eyes had cleared and the lids were no longer inflamed. His shaved face had turned more genial, younger, finer-featured. His voice rang clear and the dimple in his chin winked jovially when he laughed.

True, there were few occasions for laughter. Dibich lay in a small ward which held only four beds. The occupants of two of them kept changing constantly. The patient in the third was a former officer now attached to regimental staff headquarters, who had been in the convalescent home almost as long as Dibich himself. He was a short man with purple pouches under his eyes, high coloring, and soft, restless hands. He was prone to frequent bilious attacks, but between times he was very lively and eager to talk. He was constantly engaging Dibich in conversation—a born arguer.

Dibich had learned much during his stay in the convalescent home. Everyone who came there had his own store of knowledge, gathered during the Revolution; and the knowledge of each individual merged to form the general knowledge of those who had lived through this period of trials and suffering. These people—orderlies, nurses, doctors, barbers, attendants, and men from the front—told Dibich things he had never known before, and little by little he filled in the blank spaces of the years he had spent as a war prisoner. Dibich did more listening than speaking. By slowly absorbing the electric charge of other people's thoughts (now vague, now clear; now cold, now impassioned; now resentful, now approving) he realized that each individual had paid such a high price for his point of view that it was as dear to him as though he had acquired it through a second birth.

At the end of the fourth week a new patient was brought into the ward—a steamer mechanic from Archangel, a man just over thirty, freckle-faced, with prominent cheekbones. Everything about him gave the impression of solidity, from the ponderous gestures which he used sparingly, to his broad northern drawl. He had been injured when his unbelted blouse had caught in the cogs of a steam winch and had gotten a blow that left him unconscious. They kept him in an emergency hospital for two days and then sent him here. He said he had no mind to be landlubbering it for long. It was chance that had brought him to the Volga. Running away from the Whites in Archangel he had landed in Zaton, where the ships of the Volga War Fleet were repaired.

The fourth cot was vacant at this time so that the three were alone in the ward. The staff officer kept pumping the Northerner, asking who he was and what he was until he got him to talk.

"Have you ever taken the run to Murmansk?"

"Sure," drawled the sailor. "I was only a kid of ten when I first scrambled aboard a steamer, and there I've been ever since. When I was fifteen I was already stoking it. What seas haven't I crossed! What countries haven't I lived in!"

"Learn anything from living abroad?" asked the staff officer.

"Plenty. But I only just realized it. It all came clear on the last run from Murmansk to Archangel."

"How could you learn about life abroad while sailing Russian waters?"

"Easy enough. Russian boats in the North are flying the British flag these days."

"Well, what of it?"

"Here's what. The English spent the whole trip in the wardroom guzzling whiskey and smoking cigars, while our fellows—muzhiks and officers alike—were shut up in the hold along with some stinking fish from the moment we left Murmansk until we arrived in Archangel."

The staff officer waved his hand:

"Of course. The trouble is that some people would gladly spend a year in the hold along with some stinking fish if it meant getting rid of the Bolsheviks."

Dibich flushed and struggled to take himself in hand before saying:

"I'd be willing to sit in the hold as long as you like in order to rip the foreign flags off our ships."

"To be sure." sighed the staff officer. "The trouble is that the European countries will never agree to recognize the Soviets. According to them, the only way to come to power is through succession."

"They'll recognize any power that will pay them the czar's debts, those European countries of yours," said Dibich.

"Why mine, I'd like to know? More yours than mine I'd say, considering you spent so much time in Europe."

Dibich said nothing. The sailor kept throwing short glances at the two of them.

"I got a good look at those as would rather sit in the hold than join up with the Bolsheviks," he drawled. "A year ago the White Guards came out to give the English volunteers a big welcome on the banks of the Dvina. The troops stood snapped to attention from one end of Archangel to the other. Chaikovsky's whole damn government came out on the bridge to greet them! 'Make yourselves to home, friends, make yourselves right to home!' "

Apparently the argument had ended in a draw. But on the following day Dibich wrote Kirill Izvekov a short note and waited impatiently for an answer.

Kirill entered the ward with his quick step, stopped in the middle of the room, glanced at the occupants of all the beds, and raised his hand to scratch the back of his head. The man who was smiling a greeting from the cot near the window was not at all the Dibich whom Kirill had once brought out of a faint with valerian drops. He looked more like Dibich, the battalion commander who had given private Lomov a telling off in the unfinished dugout. But the present Dibich also differed from the battalion commander not only because he was still much thinner, but because of a certain relaxation which gave his face almost a carefree expression.

"They sure have given you a good overhauling! You look ready to get back in the ranks!"

There was no restraint in Izvekov's voice, and he did not glance warily at the other patients as visitors usually do in hospital wards.

"I myself was thinking it was about time for me to be getting back in the ranks," said Dibich with a smile.

"Oho! But aren't you rushing a bit? Are you really all right? It isn't so easy to get over what you've been through."

"I've been doing gymnastics for a week already. Yesterday I lifted up that chair by the leg."

"The front leg or the back one?"

"The back one."

"Well, when you can lift it by the front one, it'll be time for you to leave the convalescent home."

He laughed out loud. The youthful fooling drew them together, and for the first time they felt the same age. They began to compare notes about schools they had gone to, recalled playing leapfrog during recess and other games with belt buckles and locked hands to measure strength.

Suddenly Kirill cried:

"Come on, let's try it now!"

He sat down on the bed opposite Dibich.

They locked their right hands and braced elbows awkwardly on the mattress. Dibich put up strong resistance, his face becoming red with the effort, but gradually he gave way, his arm finally dropping to the mattress.

"I told you it was too soon to be leaving the place," said Kirill jovially, turning to the other patients. "Who else wants to try?"

"Out for easy laurels in the convalescent home?" laughed the staff officer.

"I'm not so sure they'll be easy. Here, you come over and try," he said to the sailor from Archangel.

The sailor waited a moment to answer, as though he were thinking it over.

"What if I take on the two of you at once?" he drawled hesitantly.

"Come on, Comrade Dibich, we'll show him!"

Kirill and Dibich joined hands and planted their elbows on the bed table beside the sailor's cot. The sailor took his place opposite them, grabbed both hands in his huge, warm fist, and bent them down to the table as easily as though he were moving a lever.

Kirill noticed a heart pierced by an arrow tatooed on the man's chest.

"Sailor?" he asked briefly. "What's your name?"

"Strashnov," answered the sailor with a nod.

Once more Kirill sat down beside Dibich's bed and studied him with a glance full of inexplicable satisfaction.

"Why don't you ask me which side I want to join?" asked Dibich.

"Why ask? I can tell by looking at you."

Dibich grinned.

"Smart, aren't you?"

"Is it definite?"

"Quite."

"Good. As soon as they let you out of here, come right to me. I'll give you a recommendation. We're going to form some units. You can help us."

"I was thinking maybe I'd have a chance to pay a visit to my mother first. Just a flying one."

"As you like," said Kirill.

"Will you fix me up with a boat passage?"

"Of course."

For the first time they both became silent.

"Do they let you see the newspapers?" asked Kirill.

"Yes. What's happening at the front?"

"It's in the papers. We've taken Ufa. Now we'll start advancing beyond the Urals."

"And in the South?"

"Things are worse in the South."

"Looks like Denikin's making a decisive attack."

Izvekov glanced at the neighboring cot. The staff officer was watching him attentively.

"We Bolsheviks are the ones who will do the deciding," said Kirill in a loud voice, waiting to see if there would be a comeback.

The room became even quieter.

"I say that because the people are backing us. Do you agree?"

"Yes," said Dibich.

"There's no question about it. Have you noticed one thing? The people realize that in the essentials we are doing just what they want. That is not a mere coincidence. Our aims serve the historical interests of Russia, and at decisive moments in the life of the people our aims and these interests become one. Take this, for instance: the people wanted to get out of the war, they overthrew the landlords and now they are driving out the interventionists. In every case we supported them, isn't that so?"

Kirill did not take his eyes off Dibich's neighbor. He noticed that the staff officer was watching him with that narrowed gaze which unconvinced listeners always train on a speaker. And suddenly Kirill felt an upsurge of that long unexperienced joy of being a professional propagandist, an occupation to which he had devoted himself for many years, both under his own name and under the name of Lomov. As he spoke he was glad that Dibich agreed with him, but even gladder that he was irritating the officer. At the front they had called this "putting salt on somebody's tail."

At last he turned to him directly.

"It seems you are skeptical about what I say."



KIRILL IZVEKOV VISITS VASILI DIBICH, A WOUNDED FORMER CZARIST OFFICER.

"I beg your pardon, but you mustn't forget that this is a convalescent home and I have a liver."

"Oh, yes. A serious complaint. . . . Well, then, Comrade Dibich, apparently you'll be going home for a visit, eh?" said Izvekov, getting up.

"I'll come see you as soon as they let me out of here."

"I'll be expecting you. But see you don't overdo it," he said, pointing to the chair. "And don't go casting any glances behind, or you'll be turned into a pillar of salt like Lot's wife," he laughed.

On his way out he stopped for a second beside the bed of Strashnov.

"Would you mind telling me who you are?" asked the sailor.

"I'm Secretary of the Soviet. Izvekov."

"Oh-h-h," said the sailor. "I've heard of you. Hm, of course!"

"Why of course?" smiled Kirill.

"Simply of course," repeated Strashnov, returning the smile and holding out his mighty hand.



Aram Khachaturyan (left) and Dmitri Kabalevsky are welcomed by settlers of the Altai's virgin lands with the traditional offering of bread and salt.



The composers visited several music schools in Siberia's newly developed areas. A group of miners are enrolled in this evening class in the Kuzbas.

# COMPOSERS on a MUSICAL TOUR of SIBERIA

**By Dmitri Kabalevsky**

ARAM KHACHATURYAN and I recently made a concert tour of Siberia—Novosibirsk and other cities, the mining towns of the Kuzbas and the rich farm regions of the Altai. It was a truly unforgettable experience.

How shall I put it into words? There are so many things we come across in day-to-day living that move us to joy or sorrow, that arouse new thoughts and feelings. When we try to put them down in black and white, they seem dull, even trivial. What we do most often then is to take the easy way out and talk about the exterior facts—the outside of things, people, places. The trouble is that this is not what we want to say, the outside is not what really matters. What I want to do is to give you something of the inside of our Siberian trip.

Khachaturyan and I have toured many cities where we gave performances of our works. During these concert tours we usually met local music teachers, students, performers, other composers. And, of course, we went sight-seeing and talked to many people.

But our concert tours heretofore generally took us to cities that had symphony orchestras of their own, where the musical taste of the public had been trained for decades and where there were many professional musicians as well as amateurs. Our Siberian tour did not follow the customary pattern and so we saw and experienced much that was new for us.

It took us to Novosibirsk, the mining towns of Yurga, Kemerovo, Leninsk-Kuznetsky, Prokopievsk and Stalinsk in the Kuzbas Region and to the towns of Pavlovsk and Barnaul in the Altai Territory. It was the first time that we toured not only with soloists—the violinists Rosa Fein and Victor Pickeisen in this case—but with a symphony orchestra, the Novosibirsk Philharmonic.

None of the towns in the Kuzbas or the Altai Territory have orchestras of their own, so that in these communities there are relatively few people who attend symphony concerts regularly. Our audiences were made up in the main of factory workers and collective farmers with a sprinkling of students from music schools.

Our programs, nevertheless, followed their usual pattern. We made no attempt to simplify or to trim them down to suit less cultivated audiences. Khachaturyan conducted his suites *Masquerade* and *Gayane*, his *Memorial Ode to Lenin* and his violin concerto. My program was made up of musical sketches from *Romeo and Juliet*, a violin concerto, the suite *Comedians*, and the overture from the music for the film *Sisters*.

## Music Schools and Coal Combines

There were all sorts of impressions we carried away with us from these places we were visiting for the first time. Near Novosibirsk we saw the great ice drifts on the Ob River, the immense reservoir and the almost completed hydropower station, a breath-taking construction project, it seemed to us. We were very pleased to learn that even while the construction gangs were living in temporary quarters, they had built a community cultural center with a music school for the younger children.

At Leninsk-Kuznetsky we were taken down to one of the coal pits and for several hours we walked through the mine workings 500 feet underground. There we watched a coal combine on the job—an amazing machine that has taken over the old hand drudgery.

In Kemerovo and Novosibirsk we heard concerts given by amateur music groups made up of workers. We went to performances at the Novosibirsk Opera House, the Kemerovo Musical Comedy Theater and the Stalinsk Drama Theater. We managed to hear two recitals by the wonderful Siberian Folk Chorus conducted by composer Vladimir Levashov. And, of course, we took the time to visit music schools wherever we stayed. At the Novosibirsk Conservatory and the music schools in Barnaul, Yurga and other cities we saw much that was commendable.

We were especially impressed with the Prokopievsk school. It has two concert halls, one seating 300, the other 150, and 28 classrooms

Dmitri Kabalevsky in Pavlovsk. Soloists and orchestra toured with the composers.



in a fine modern building. Instruction in every one of the orchestral instruments is given to the 500 children enrolled. The school has five student orchestras—a symphony orchestra, a wind ensemble, a Russian folk instrument ensemble and two accordion ensembles that give more than 50 concerts during the academic year. Those we heard proved that the teaching was on a very high level. Besides classes for children, courses in music appreciation for adults are given at the school building and in five extension branches located in the residential neighborhood.

### The Asides of the Tour

No small part of the very gratifying recollections of our tour are the talks we had with all sorts of people. In Pavlovsk, Khachaturyan and I went for a stroll before one of the performances. A woman, well on in years, stopped and introduced herself, thanked us for coming to play in her city and asked us to tea at her home. Later we found that it was she who had embroidered the napkin on which we were presented with the traditional welcoming bread and salt after the concert.

Then there was the old miner in Stalinsk who came backstage after the performance to thank us for the first symphony concert he had ever heard. He had traveled a long distance to hear it, he told us.

A group of young music lovers attended our concert in Prokopievsk and rode with us the next day to Stalinsk when they learned we were to give Khachaturyan's violin concerto.

These are only a few of the asides of our trip, so to speak, but they are recollections which sketch the tour out for us in a way that we are not likely to forget for a long time to come.

In all we gave some twenty concerts. Without exception, we found every one of them rewarding. And it was not simply the fact that our playing was appreciated—every artist is pleased at that—but because we had the very strong feeling that the people listening to us loved the music we were playing. To us every concert was repeated proof of the fact that our people are reaching to a high musical level, much higher than we musicians sometimes realize.

We were especially struck by this fact at two concerts we gave, one at a miners' club near Prokopievsk and the other in Pavlovsk, a farm center. Both concerts were attended by impressively large audiences and their response would have been enough to convince anyone that the fairly widespread notion that a musically untrained audience is not receptive to symphonic music is a much exaggerated belief.

After the concert in the miners' club, one of the young people in the audience, a miner—and, it turned out, an amateur musician—asked us a question about modern Western music. We answered in a rather general way, thinking that it was not necessary to talk musical detail to an audience without a music background. Our explanation was much too superficial, we found out, when such questions as these were thrown at us: "Please tell us in greater detail what the dominant trends are in modern Western music." "Do the composers use folk melodies and rhythms in their compositions?" "How does the public respond to modern music?"



500 children study music at the Prokopievsk school, which has 5 local branches.

In Stalinsk we were asked about the International Tchaikovsky Contest in Moscow at which the American pianist Van Cliburn and the Soviet violinist Valeri Klimov won first prizes. We were surprised and pleased by the great public interest in this musical event.

### Wonderfully Receptive Audiences

Khachaturyan and I have talked about our Siberian tour many times since we returned. Neither of us remembers ever playing before such wonderfully receptive audiences, with people so taken with music. And I am not talking in terms of packed houses and many encores. That is the more usual concert atmosphere. No, I am thinking of a rather special and very rare atmosphere which made this tour so memorable—a kind of mutual gratefulness, the audiences to us, we to these unforgettable audiences. This is something for a musician to treasure.

In Leninsk-Kuznetsky and Prokopievsk we were given miner's lamps as keepsakes, and in the virgin soil territories of the Altai we were presented with the traditional new-baked bread and salver of salt.

The miners told us, "May these lamps symbolically light your creative path as they light our work underground." And the farmers told us, "Your music helps us to grow big crops."

We tried to tell them how deeply grateful we were that they had shown us these great farms and mines and power stations they had built. We thanked them for the warmth, generosity and understanding with which they had applauded our concerts and for the valuable insights they had given us in the talks we had after the performances. They probably have no idea how important all this is going to be for our future work; how very much our music will be reflecting the impressions and influences of our Siberian tour.

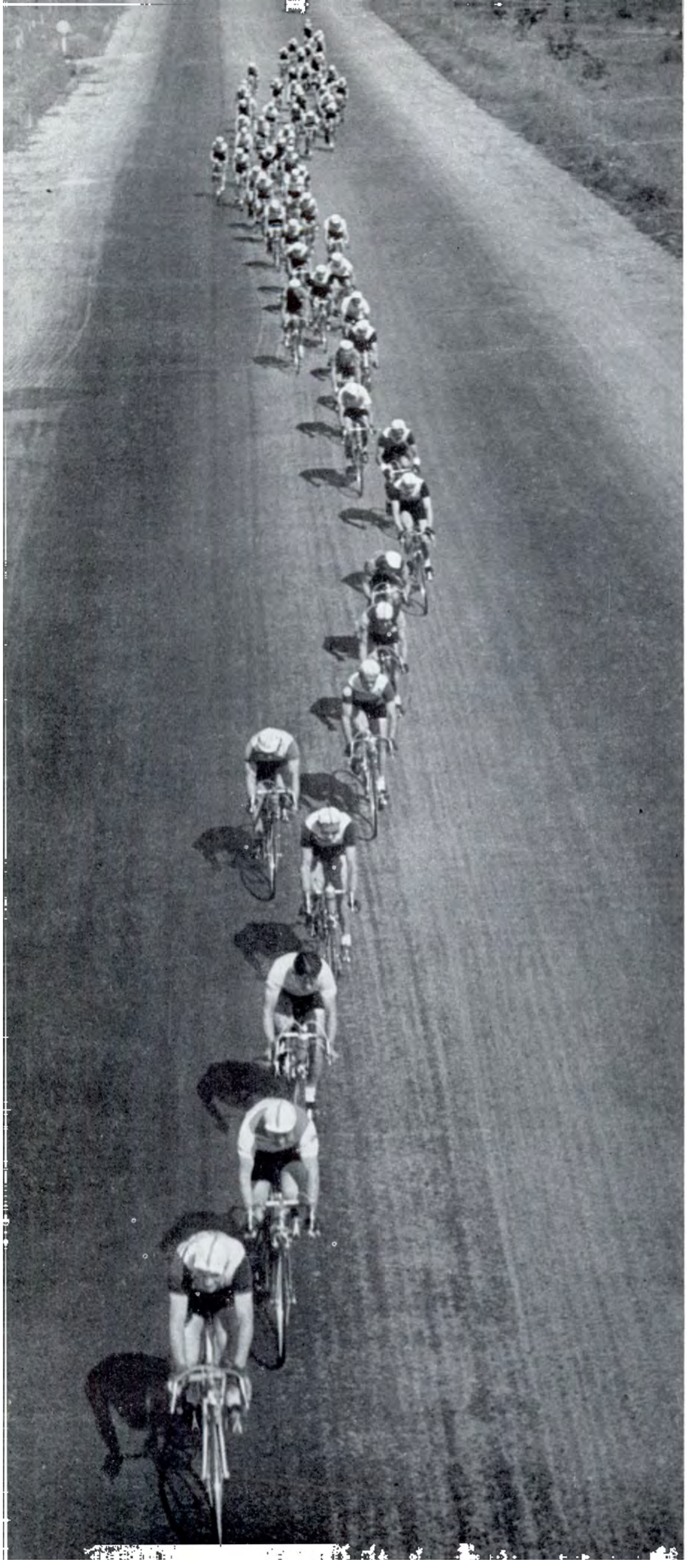
—From the magazine *Musikalnaya Zhizn*

Souvenir of the trip to remind the two guests of the miners' warm reception.



The composers found that Siberian audiences are well informed on world musical trends and events.





# CYCLING

CYCLING is a major sport in my country for young and old both, with thousands of fans joining the pedaling clan every year. There are now 850,000 of them, members in good and active standing of the cycling clubs.

As for contests, there are very few sports, with the exception of field and track, that match cycling for distances run and numbers of events. As many as 33 gold medals are fought for in Soviet championships.

There are three types of matches—track racing, road racing and cross-country runs. Each sets its own distances. Those on the track, for example, run from 200 meters to 100 kilometers.

The national title holder is Rostislav Vargashkin with a record of 200 meters in 11.3 seconds—only a tenth of a second short of the world mark held by Australia's Richard Plug.

In 1956 Gennadi Martynov set a global record in the 100-kilometer race, clocking 2 hours, 28 minutes, 31 seconds. A few months later, however, this record was broken by Italy's G. Zucchetti, who clipped 3 minutes, 2.4 seconds off the time.

The motor-paced track races are the spine chillers, with cyclists racing along behind motorcycles at speeds better than 45 miles an hour. Yuri Smirnov has held the USSR title in this event for four years now. But he and his pacemaker, Mikhail Zaitsev, have a lot of training ahead of them before they are likely to threaten the world champions. In the last international matches in Leipzig they only managed to place sixth.

A much better showing was made by our women racers in the world track racing championships run in Paris. Galina Yermolayeva won the 1958 world title in the 1,000 meters and Lyubov Kochetova finished first in the 3-kilometer pursuit race.

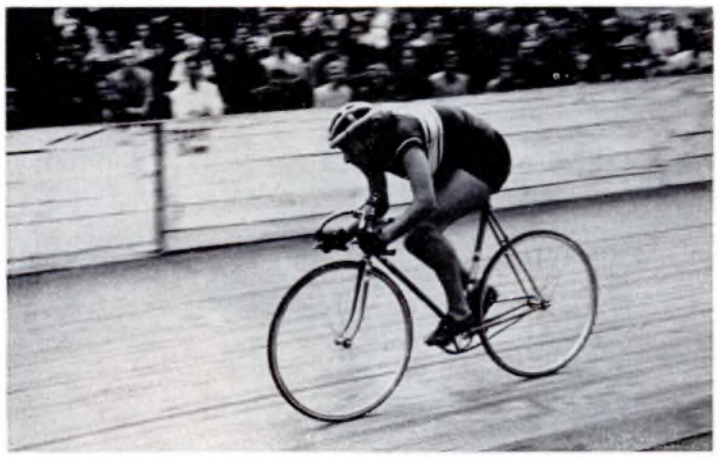
One-day and long-distance races are popular with Soviet cycle enthusiasts. Young cyclists usually begin with individual contests and work up to group and team events. A group run demands something more of a contestant than speed and stamina. It needs the kind of spirit that will sacrifice personal glory, if necessary, for team victory.

Our cyclists have done well in long-distance road races in international matches. Both in 1956 and in 1958 they placed first in the traditional Warsaw-Berlin-Prague Peace Race. In 1958, too, they won the Tour of Egypt.

Women road racers have also not done too badly. Tamara Novikova, national champion

## By Igor Ippolitov

*USSR Cycling Champion, 1939-1951*



LYUBOV KOCHETOVA, 1958 WINNER OF THE 3-KILOMETER PURSUIT RACE.

USSR FIRST, BELGIUM SECOND, IN GROUP CYCLING AT 1957 WORLD YOUTH GAMES.






CINDER TRACK RACING IS THE TAMEST OF THE THREE TYPES OF CYCLING CONTESTS.

CROSS-COUNTRY RACES ARE PLOTTED THROUGH A LOT OF ROUGH TERRAIN.





Maria Lukshina, one of the country's top women racers, helps a fellow cycler with road trouble.



THE SOVIET TEAM CAME IN FIRST IN THE WARSAW-BERLIN-PRAGUE PEACE RACE IN BOTH 1956 AND 1958.



VETERAN CYCLISTS CELEBRATE THE SEVENTIETH ANNIVERSARY OF THEIR FAVORITE SPORT.

## CYCLING

a couple of times over, and her teammate, Maria Lukshina, finished second and third respectively in last year's matches. This year they are after the scalp of Jakobs of Luxembourg, who won the title.

**Soviet cyclists are not overly pleased with their international showing. None of the men** won a world championship—as yet. Training conditions present something of a special problem. The French and Italians, for instance, can train in the open even in the wintertime. But many of our roads are snow-covered as much as five months out of the year and racers train indoors.

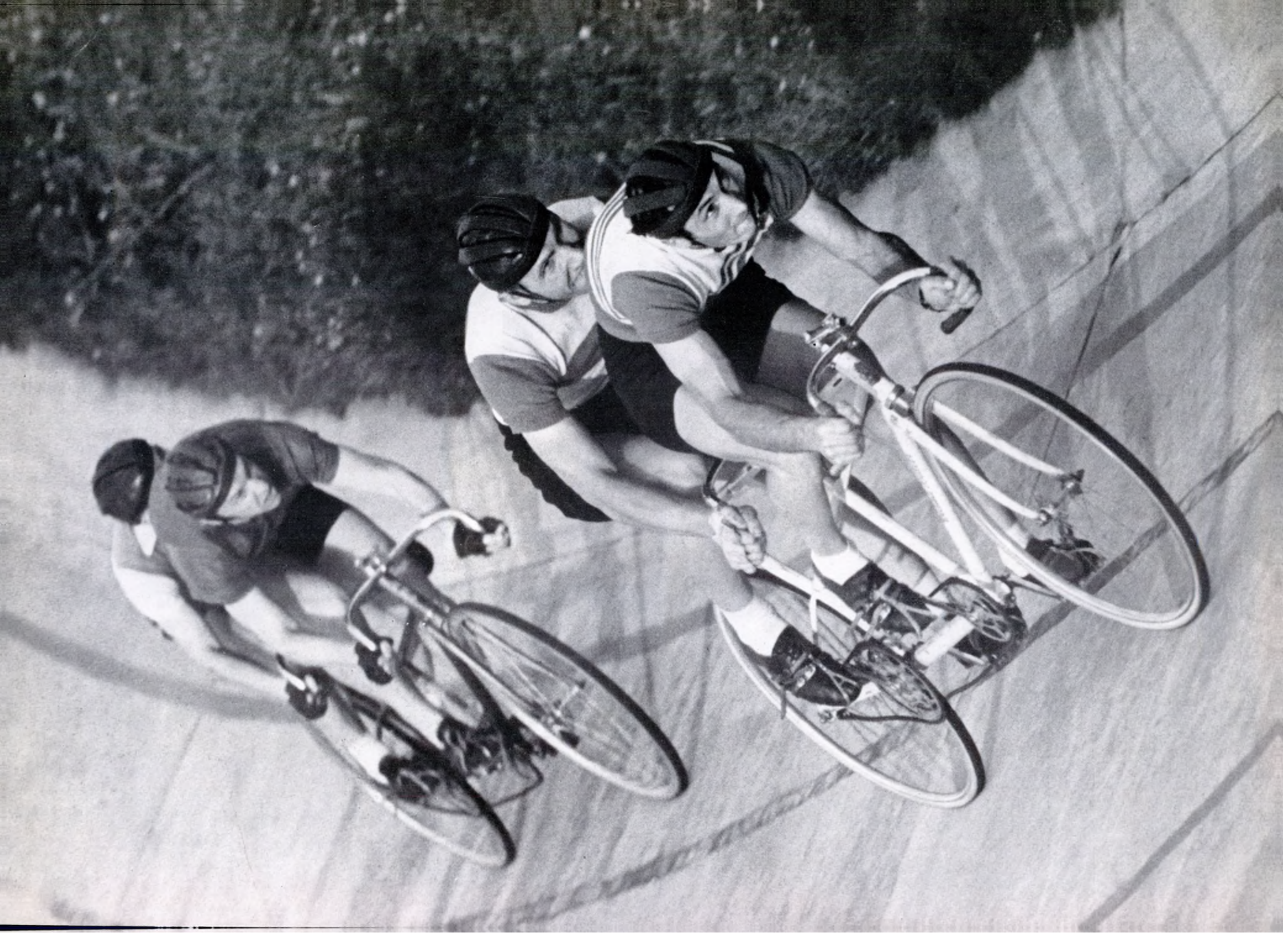
But snow or no snow, our cyclists have been training away like fury, and they may be offering very keen competition for the next world matches.



In the motor-paced track races, the cyclists do 45 mph and better. Below is the Tula track during the event.



Tandem racing is new in the country. Leonid Khmel and ▶ Anatoli Cherepovich are winners in the Moscow matches.



HEALTH RESORT IN SOCHI ON THE BLACK SEA COAST



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# USSR

**VISIT SOVIET EXHIBITION IN NEW YORK**

—See page 6

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## WIDE CHOICE FOR SCHOOL GRADUATES —see page 39





THE SOVIET PEOPLE ARE OFF TO A GOOD START IN FULFILLING THE FIRST 6 MONTHS OF THE 7 YEAR PLAN.


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A new automatic coking unit for the expanding oil industry being built near the city of Grozny, one of many that will be going up in the next half dozen years.

# PROGRESS Report On The Seven-Year Plan

THE SEVEN-YEAR plan has gotten off to a flying start. It has taken only these few months since the January Congress of the Communist Party when the target figures were adopted to demonstrate that this ambitious and challenging plan to make the Soviet Union the world's number one producer is thoroughly hardheaded and realistic. The plan forecasts an average annual increase of 8.6 per cent in industrial production for the period between 1959 and 1965. Figures for the first months of this year show an increase of 11 per cent.

This is a national average. The figure for some of the republics is much higher. For the first three months of 1959 Lithuania, to cite one example, has topped last year's comparable period by as much as 19 per cent. This is nine per cent over and above the republic's target figure for industrial output.

The pace has been rapid in all the republics and in all economic areas, including such basic industries as metal, power, coal, oil and machine-building. Gas output for the same three months went up 28 per cent, production of diesel locomotives 45 per cent and chemical equipment 22 per cent above last year's level.

All this quickening economic activity tends to be self-accelerating. It makes for still greater economic activity, still higher output, larger national and personal income and still greater demand for consumer goods met by increasingly higher output—a healthy and desirable economic cycle motivated by the primary goal of a constantly rising standard of living.

## New Techniques

What we see now is a push forward by workers in many industries to cut the time schedule for the seven-year plan, to reach the planned objectives in less time. This, too, is a real possibility based on the use of latent production potentials, the know-how of the most efficient plants and the application of the most advanced technological methods.

The general level of industrial efficiency is rising sharply. Equipment is constantly being modernized, production processes improved, new techniques perfected. All this contributes to greater output in less time at lower cost.

Offhand, a small improvement in a production detail in one factory would seem to be hardly worth publicizing. Multiply this by some hundreds of thousands of factories in which the innovation is introduced and you have a significant production factor.

That is why the techniques worked out by the most efficient workers are given daily coverage by a great number of Soviet newspapers. They are themes for magazine articles, lectures and frequently whole books.

Examples can be cited by the thousands. Engineering plant workers in Riga are now making use of lathe techniques devised by Alfred Klyava, a machinist at the Compressor Works. He has been able to get 30 per cent more work out of his lathe by innovations he has introduced. As result Riga machinists have reason to believe they can hit their seven-year target figures well ahead of schedule.

Steelmakers Muhammed Zinurov and Ivan Semenov, of the Magnitogorsk Iron and Steel Works in the Urals, have been responsible for the plant's output above and beyond the scheduled target figure. They worked out an improved production process.

Mikhail Kenibas, Ivan Stryuk and Vladimir Stan, steelmen at the Zaporozhye plant in the Ukraine, have been getting what is probably a record output from their 185-ton open-hearth furnace. Instead of the scheduled 9.72 metric tons of metal for every square meter of furnace hearth, they get 16.92.

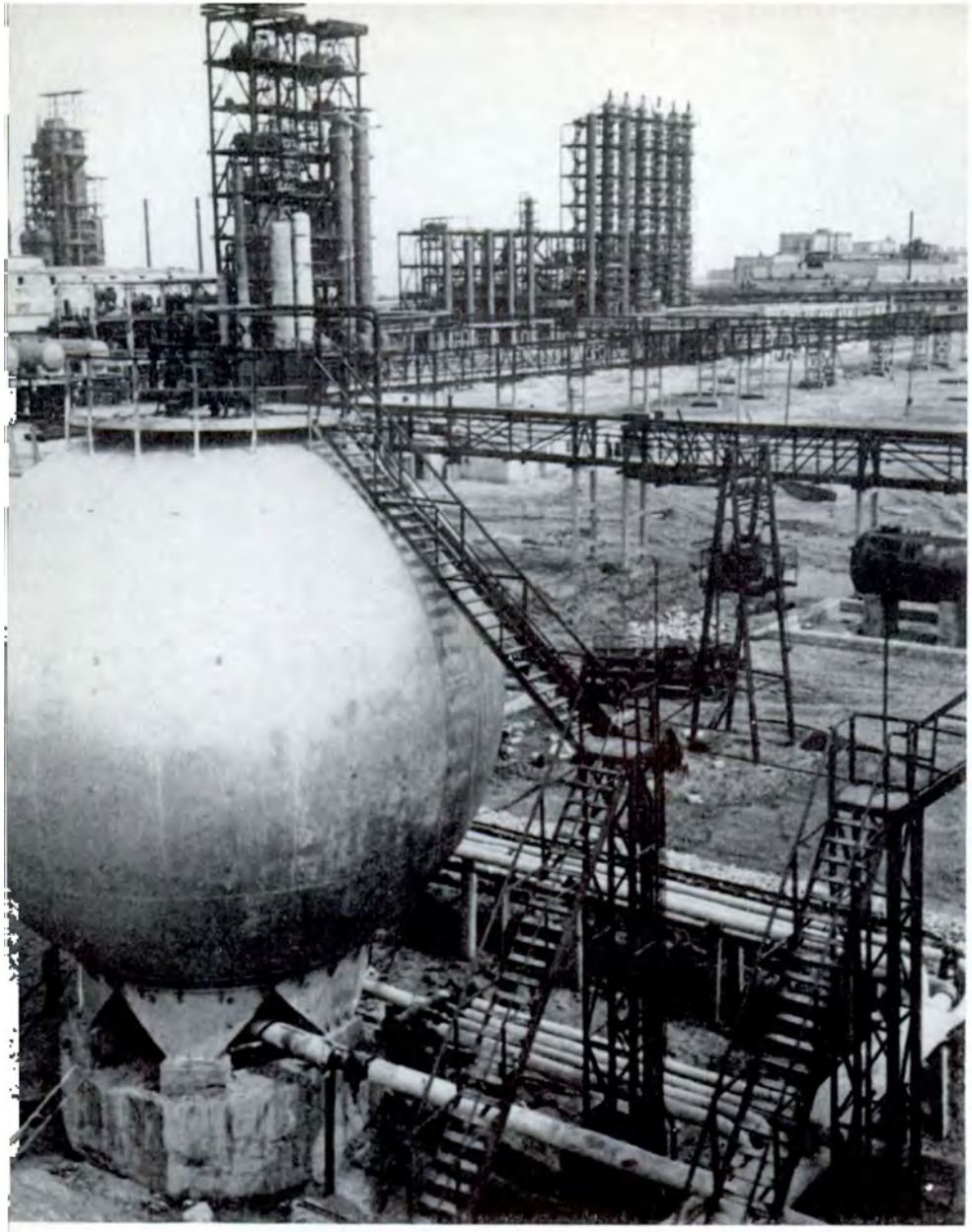
The Zaporozhye plant has been producing 17.3 per cent more steel than it did for the comparable period last year. This is a very considerable achievement and is reflected in the steel average for the Ukraine as a whole. While the nationwide average increase in steel production is nine per cent, that of the Ukraine is 11 per cent.

When the country's steelmakers met last April to share production experiences and explore new possibilities for turning out more metal, they agreed that the target figure for steel could be hiked up substantially. They have been finding these new possibilities. The Russian Republic is a case in point. Its steelmakers fully expect to top the target figures for this year by 600,000 additional tons of steel and more than 500,000 tons of rolled stock.

## More Machines for the Farm

Larger steel output spells more machinery for industry and farming. Agriculture is already showing the effects in greater mechanization. Compared with the same period last year, there has been a sizable expansion in farm equipment manufacture since January.

Production of modern tractor-mounted plows went up 84 per cent, tractor-mounted mowers 43 per cent and self-propelled grain harvester combines 75 per cent. These figures convert themselves into more foodstuffs and raw materials for light industry grown by the collective and state farms.



PLASTICS AND ARTIFICIAL FIBER PLANTS ARE GOING UP IN AZERBAIJAN.



STEELWORKERS STAN AND KENIBAS HAVE SET RECORD PRODUCTION TOTALS.

# *PROGRESS Report On The Seven-Year Plan*

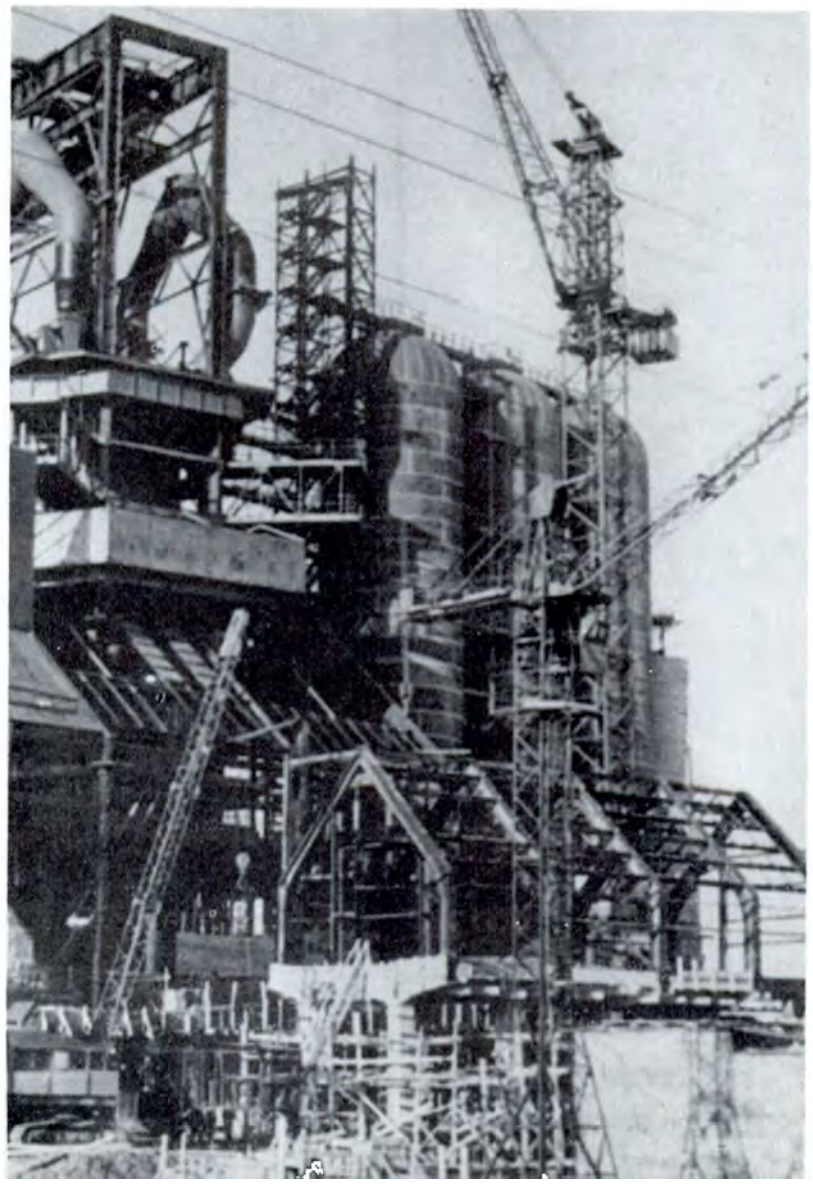
Soviet farmers have been figuring out ways and means of speeding up their seven-year plan. The prospects look very bright. Many, like the Lenin's Memory Collective Farm in Cherkassy Region, have already committed themselves to a new time schedule. The farm expects to fulfill its animal husbandry plan in five years instead of seven. Its goal is 250 pounds of meat and better than 1,000 pounds of milk per acre.

For the Russian Republic as a whole, in the first three months of this year state procurement of milk bettered the target figure by 5 per cent, of eggs by 14 per cent and of meat by 46 per cent. The comparison with last year's figures is even more striking—increases of 21, 44 and 70 per cent, respectively.

For the Lithuanian Republic the farm growth figures are 127 per cent for meat and 32 per cent for dairy products. More or less comparable figures obtain for every one of the republics.

In general, food production is much in excess of the target figures. This holds for meat, sugar, dairy products, fish and canned foodstuffs. It is interesting to note that in many areas the rate of growth in farm output was substantially higher than that of heavy industry for the first three months of this year.

ASSEMBLING ONE OF THE BLAST FURNACES OF A STEEL MILL IN KAZAKHSTAN.



## Consumer Goods

Both the target figures and last year's figures covering the same period were surpassed in the output of such consumer goods as cotton, woolens, linen and silk fabrics, leather footwear, radio and TV sets and furniture. Many of the light industry plants are being streamlined and new ones built. By way of illustration, Ivanovo, the country's oldest textile center, was completely overhauled recently. Twenty thousand looms and other machines were replaced. The capital invested is on the way to being returned with a large margin of profit. The first three months of this year Ivanovo turned out eight million more yards of fabric and 480 more tons of yarn than the plan called for.

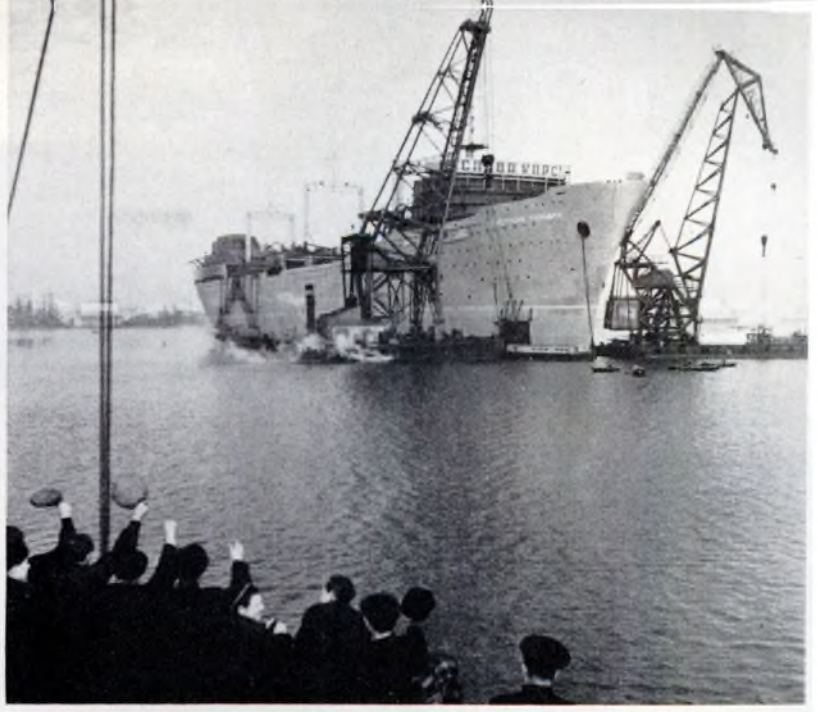
Astronomical sums are being spent for renovation and for construction. New apartment houses, factories, roads, school buildings are being built all over the country.

Many of the new industrial projects went into service during the first three months of the year. The 400,000-kilowatt Novosibirsk Hydropower Station on the Siberian river Ob began generating electricity, as did two of the turbines in the nearly completed Tom-Usinsk Thermal Power Plant in Kemerovo Region. The capacity of the Usinsk station when fully built will be 1,300,000 kilowatts. On the Volga, new sections of the Stalingrad Hydropower Station have been completed and are generating power.

The power generated by the big thermal and hydropower stations is being supplemented by a larger number of small-capacity power stations in the rural areas that the collective farms are constructing. In Turkmenia more than 30 such plants will be operating by the end of this year.



IVAN TSIMBAL LEADS THE BEST SMELTING TEAM AT THE ZAPOROZHYE MILL.



THIS BIG FREIGHTER, THE *SOVIETSKAYA UKRAINA*, WAS LAUNCHED THIS YEAR.

### Streamlining the Factories

The big Magnitogorsk Iron and Steel Plant is being enlarged and modernized. A completely automated mill equipped to handle 24-ton steel ingots was recently commissioned.

At the Ilyich Iron and Steel Works in the Ukraine a rolling mill for spiral pipe welding has been added to boost the plant's productive capacity.

The automobile industry is growing fast. Byelorussia has built a new plant near Minsk which turns out 40-ton dump trucks. The Gorky Auto Plant will soon be manufacturing pick-up trucks in addition to its regular line of passenger cars. Small cars are rolling off the assembly lines of the new Zaporozhye plant in the Ukraine and the Irbit plant in the Urals.

The chemical industry is being streamlined, with many newly-built plants already in production. Progress is especially evident in tires, sulphuric acid, and artificial and synthetic textiles. The Ukraine is supplying the country with polyvinyl chloride resin derived from natural gas, the source for a multitude of synthetic products.

During this first year of the plan many of the railroads will be changing over to electric traction, among them the Trans-Siberian trunk line which will be placing its steam locomotives in permanent storage early in 1960.

### Industrial Research

The research work being done by Soviet scientists and scientific bodies is closely affiliated to industry and agriculture. This holds true for the USSR Academy of Sciences, the academies of all the republics, and the research divisions of the universities.

The cooperation between science and technology takes many forms. For example, the Machine Research Institute of the USSR Academy of Sciences has worked out the plan for a comprehensive research laboratory at the First Moscow Ball Bearing Plant. The project is sponsored jointly by the institutes of automation and telemechanics, economics and mathematics. In cooperation with plant personnel, scientists will be working on problems of process automation.

Cooperation between science and technology was the keynote of the recently held Eighth Mendeleyev Congress on general and applied chemistry, a pivotal area in the seven-year plan. The Congress was attended by 2,000 scientists and technologists and foreign guests who heard 1,500 papers, many of them bearing on the rapidly developing chemical industry.

The annual meeting of the USSR Academy of Sciences had as its basic theme "Science at the Service of the Seven-Year Plan." This meeting heard a detailed report of the projected work of the Academy's Siberian branch, set up recently to help develop the resources of that fabulously rich area.

The Siberian Academy already has a Hydrodynamics Institute and will soon be setting up research institutes for geology and geophysics, nuclear physics, electronics and radio physics. The branch now has a staff of 11 academicians, 28 corresponding members, 14 doctors of science, 129 candidates of science and 114 junior researchers. By the end of the year, 200 additional researchers, mostly young people, will be joining the staff.

Building under the seven-year plan is by no means confined to industry and housing. New schools, clubs, libraries, theaters are rising by the scores in all parts of the country.

Cultural facilities are being built on a large scale in Irkutsk Region in Siberia. There are new motion picture theaters in many of the Siberian communities, new music schools in such places as Bodaibo, a gold prospectors' town, new cultural centers and stadiums in towns like Taishet, the new Siberian iron and steel center.

Adult education centers for study of the fine arts, literature, science and technology have been founded at factories and farms, in large and small communities. Millions of Soviet men and women are members of growing amateur theater groups, folk choirs and dance ensembles.

For this, too—more knowledge and a widening horizon of culture for greater numbers of people—is very much a part of the seven-year plan.

PRIZE WINNING SPINNER VALENTINA GAGANOVA.



SINCE JANUARY THERE HAS BEEN A VERY SIZABLE BOOST IN THE PRODUCTION OF BIG FARM MACHINES.





NIKITA KHRUSHCHEV—outstanding Soviet statesman, who is carrying out the Leninist principle of peaceful coexistence of states with different social systems.



WILLIAM DU BOIS—champion of the national liberation movement of oppressed peoples, outspoken opponent of war and fighter for friendship among nations.

# 1959 WINNERS of the International Lenin Peace Prize

FOR ALMOST a decade now it has been the custom in the Soviet Union to single out for recognition each year up to ten people who have made outstanding contributions to world peace.

The International Lenin Prize Committee, charged with choosing the men and women to be honored by the award, is headed by Soviet Academician Dmitri Skobeltsyn, Chairman, Vice Chairmen Kuo Mo-jo (China) and Louis Aragon (France). Members of the committee are Grigori Alexandrov (USSR), John Bernal (Britain), Jan Dembrowski (Poland), Anna Seghers (German Democratic Republic), Pablo Neruda (Chile), Mihail Sadoveanu (Rumania), Sahib Singh Sokhey (India) and Ilya Ehrenburg (USSR).

That the fight for peace is not the responsibility of a single country nor of a special group of people is confirmed each year by the list of winners. This year the Lenin Prize for the Promotion of Peace among Nations was awarded to the Soviet public figure and statesman Nikita Khrushchev, the American scholar William Du Bois, the German labor leader Otto Buchwitz, the Greek writer Kostas Varnalis, and the English publicist Ivor Montagu.

When the prize was presented on May 16 to Nikita Khrushchev, Chairman of the USSR Council of Ministers and First Secretary of the Central Committee of the Communist Party of the Soviet Union, he said that since in his activities he carries out the will of the Soviet people, the committee's choice should be regarded as an acknowledgement of the tremendous efforts of all Soviet men and women to establish firm and lasting peace. He pointed out that the Leninist ideas of peace and friendship among the peoples have always been the foundation of Soviet foreign policy and vowed that the Soviet Union would continue to do everything in its power to avert war and improve relations among the countries of the world.



OTTO BUCHWITZ—prominent figure in the German labor movement, renown for his courageous fight against fascism, for peace and European security.



KOSTAS VARNALIS—Greek poet, novelist and playwright, who is admired for his lofty humanistic ideas and his principled stand on behalf of world peace.

IVOR MONTAGU—who uses his literary talents to expose reaction and his energy to unite the efforts of the British people in their struggle to avert war.



# New Census of Soviet Population

THE POPULATION of the Soviet Union is now 208,826,000. In spite of the tremendous loss of life during World War II, both at the front and in the occupied areas, and a sharp drop in the birth rate during the war years, this represents an increase of 18,100,000 over the prewar 1939 figure.

These figures were published by the Central Statistical Board of the USSR Council of Ministers and were based on the national population census taken on January 15, 1959.

There are 94,000,000 men (45 per cent of the total population) and 114,800,000 women (55 per cent) in the country, according to the census. This ratio is accounted for by the older age groups and is a result of war, particularly World War II. As regards the population under 32 years of age, the number of men and women is now equal.

The urban population, which was 60,400,000 before the war, has increased to 99,800,000, a rise of 39,400,000. In the same twenty-year period the percentage of urban population has risen from 32 to 48. This growth was due both to a natural increase in the urban population and the migration of a considerable number of rural inhabitants to cities and urban-type localities.

The movement of the rural population to towns and cities is the result of considerable industrial expansion and the successful mechanization and increasing productivity of socialist agriculture.

According to the figures in the report there are 1,694 towns and 2,922 communities which resemble towns in their structure but are somewhat smaller. Since 1939 the number of towns in the Soviet Union increased by 503 and that of smaller communities by 1,354. Twenty-five cities in the Soviet Union have a population of more than 500,000. There are 123 cities with a population of 100,000 to 500,000, and 151 towns with 50,000 to 100,000 inhabitants. Three cities have a population of more than one million: Moscow (5,032,000), Leningrad (2,888,000) and Kiev (1,102,000).

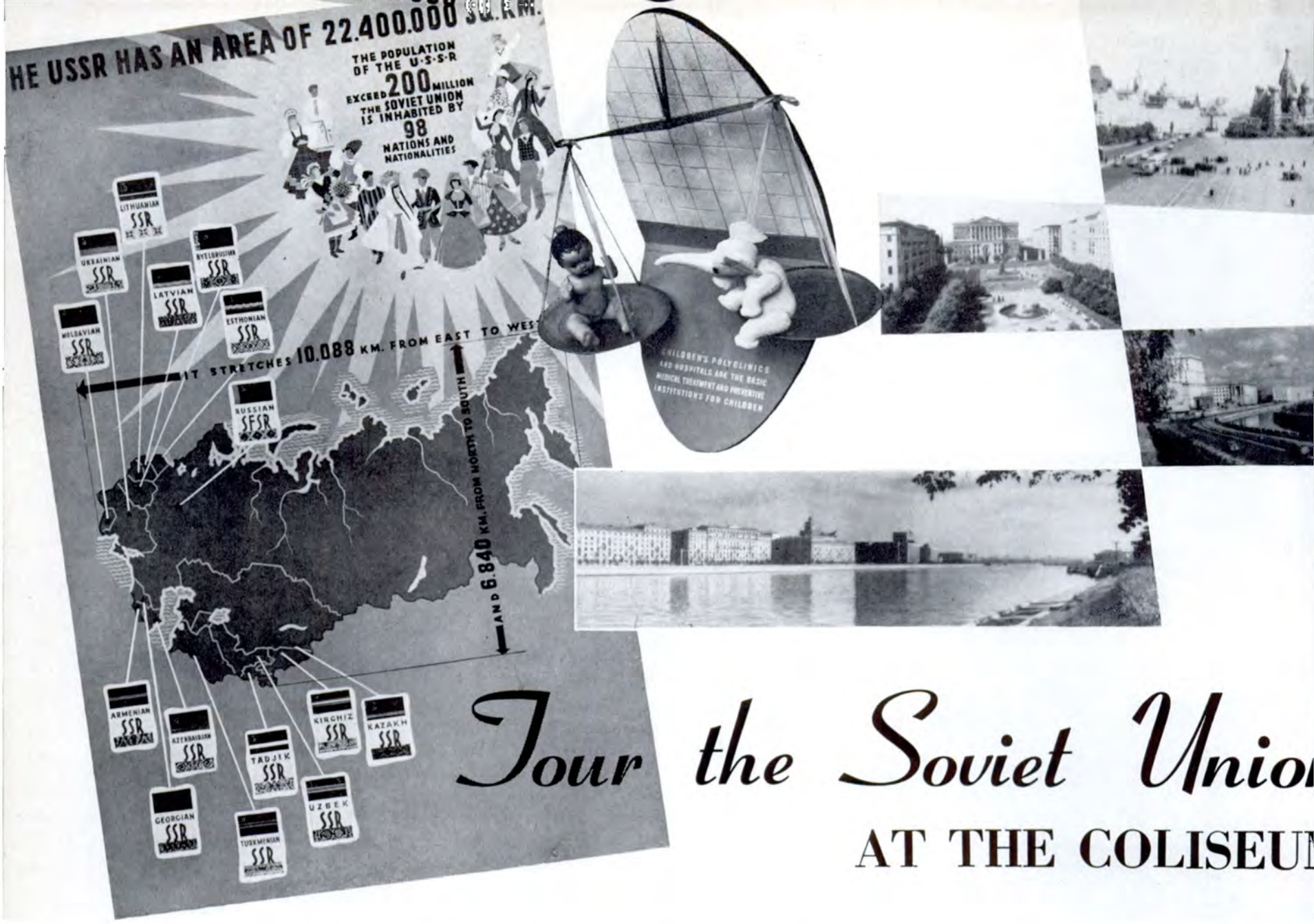
The computer stations are now compiling census data on population distribution according to sex, age, nationality, language, education, family status, vocation or profession, and income.

According to the census figures the population of the Soviet Union is distributed among the national republics as follows: the Russian Federation—117,494,000; the Ukraine—41,893,000; Byelorussia—8,060,000; Uzbekistan—8,113,000; Kazakhstan—9,301,000; Georgia—4,049,000; Azerbaijan—3,700,000; Lithuania—2,713,000; Moldavia—2,880,000; Latvia—2,094,000; Kirghizia—2,063,000; Tajikistan—1,982,000; Armenia—1,768,000; Turkmenia—1,520,000; and Estonia—1,196,000.

The population of the Urals increased by 32 per cent, West Siberia by 24 per cent, the Soviet Far East by 70 per cent, and Central Asia and Kazakhstan by 38 per cent.

The Soviet Union has the highest marriage rate in the world, more than twelve marriages a year for one thousand of the population. It has the world's lowest death rate, 7.5 per 1,000 of the population, and a high birth rate—more than 25 per 1,000. Compared with prerevolutionary times the total death rate diminished by 75 per cent while the rate of infant mortality dropped by nearly 86 per cent.

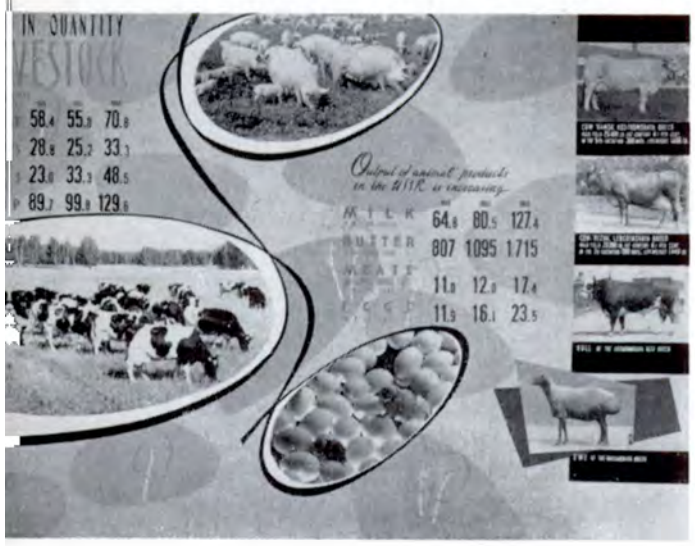
In the past few years the mean annual natural increase in population in the Soviet Union exceeded 3.5 million.




# Tour the Soviet Union

## AT THE COLISEUM

STORY OF SOVIET AGRICULTURE IN CHART AND PHOTO.




STEP on to the escalator in New York's Coliseum — get off in the Soviet Union. Travel time? A minute or so, and a comprehensive tour of Soviet cities and villages, farms and factories, theaters and art galleries begins.

Thousands of Americans are taking the trip this month to the Soviet Union via the exhibitions on display on the second and third floors of the Coliseum. The fair, to run through August 10, is designed to give Americans a picture of how people in the Soviet Union live, work and play; to show what the country has accomplished and how it sees the future. A second but no less important purpose is to show the possibilities and mutual values of larger American-Soviet trade.

A comparable American Exhibition, opening the end of this month in Sokolniki Park in Moscow, will be giving the Soviet visitor a bird's-eye view of life in the United States.

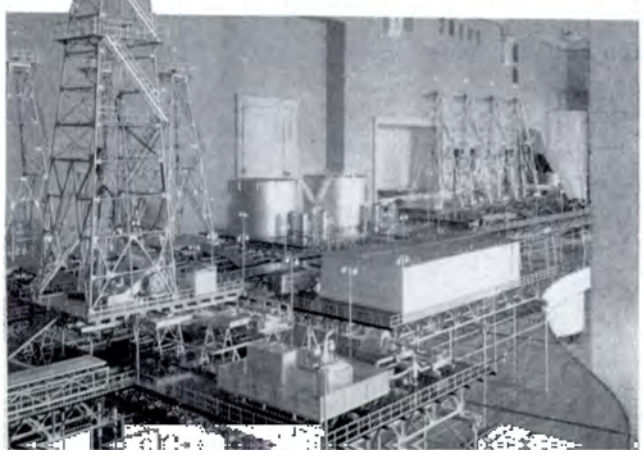
This is the first such exchange and the first real opportunity that large numbers of American and Soviet citizens have had to learn about each other. It is welcomed by people of good will in both countries.

The USSR Exhibition was designed by Konstantin Rozhdestvensky with the assistance of Boris Rodionov. Both these decorative artists jointly designed the Soviet pavilion at the Brussels Fair.

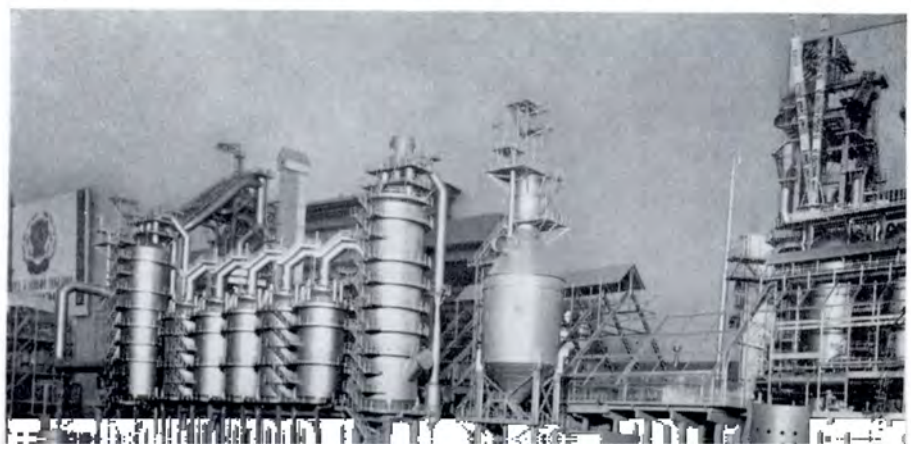
### Ten Thousand Exhibits

The ten thousand displays at the Coliseum range from a Soviet-made television set to an operating model of a new suburban town being built outside of Moscow. The approximate 162,000 square feet on the two floors assigned for the Exhibition are divided into nine display sections, each covering a different

AN INSTALLATION FOR OFF-SHORE OIL DRILLING.



THE POTENTIAL OF SOVIET INDUSTRY KEEPS GROWING. MODEL OF A NEW STEEL MILL.









# XHIBITION

phase of life in the Soviet country today.

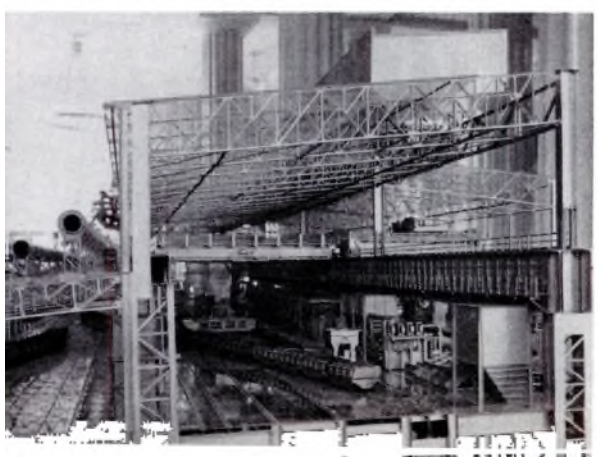
The first of the displays, in the central hall, is a geographical tour of the Soviet Union. Through photos, working models and life-size exhibits backgrounded by a thousand-square-foot map, the exhibition tourist is given a graphic picture of the extent of the country's territory, its multinational population, its governmental system and the progress of its industry and agriculture.

The large section devoted to science will include full-size models of the three Soviet sputniks and the equipment they carried. Layman and expert will each find his own level in the explanations and materials available on this subject at the Coliseum.

An interesting part of the exhibit will show how atomic energy is serving man—in industry, agriculture and medicine.

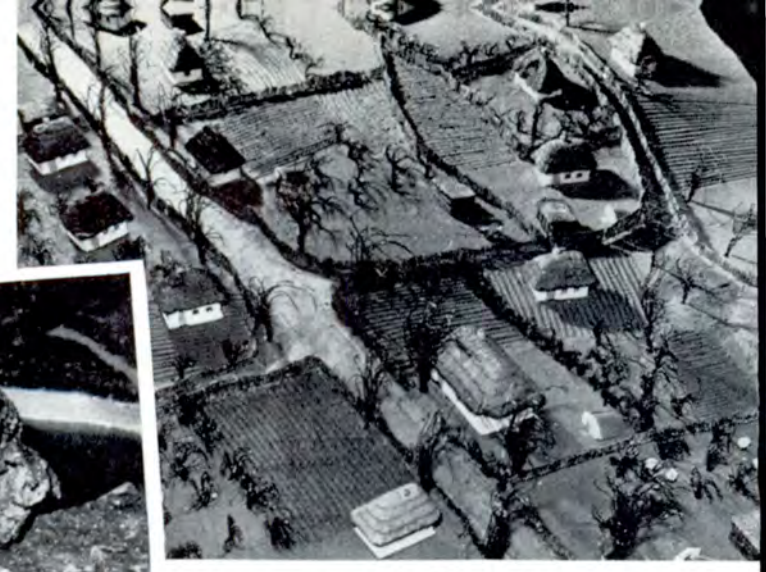
Another group of displays takes the visitor

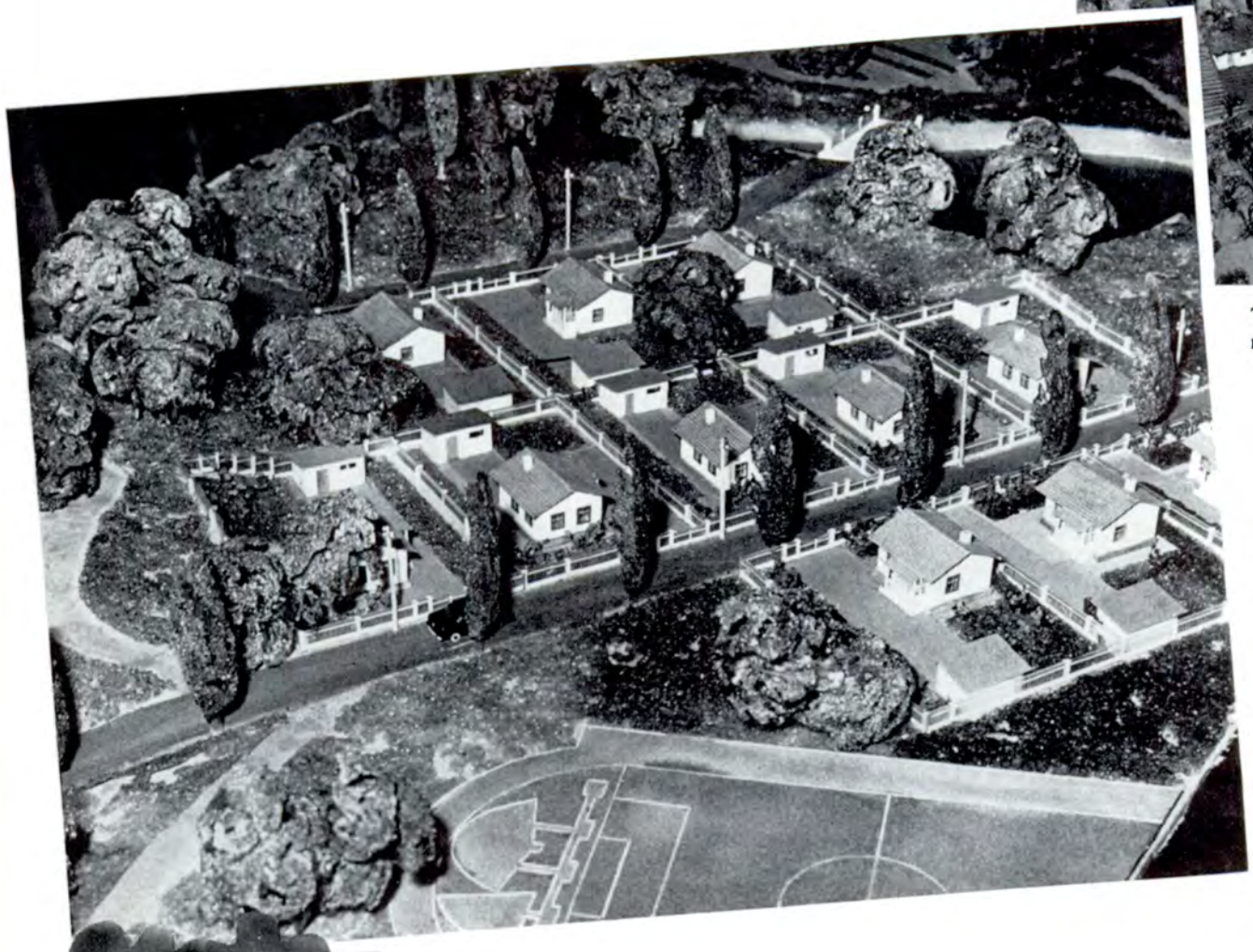
**DETAIL FROM MODEL DEMONSTRATING AUTOMATION.**





# Tour the Soviet Union





The prosperous Ukraina Collective Farm in miniature and a prerevolutionary village.





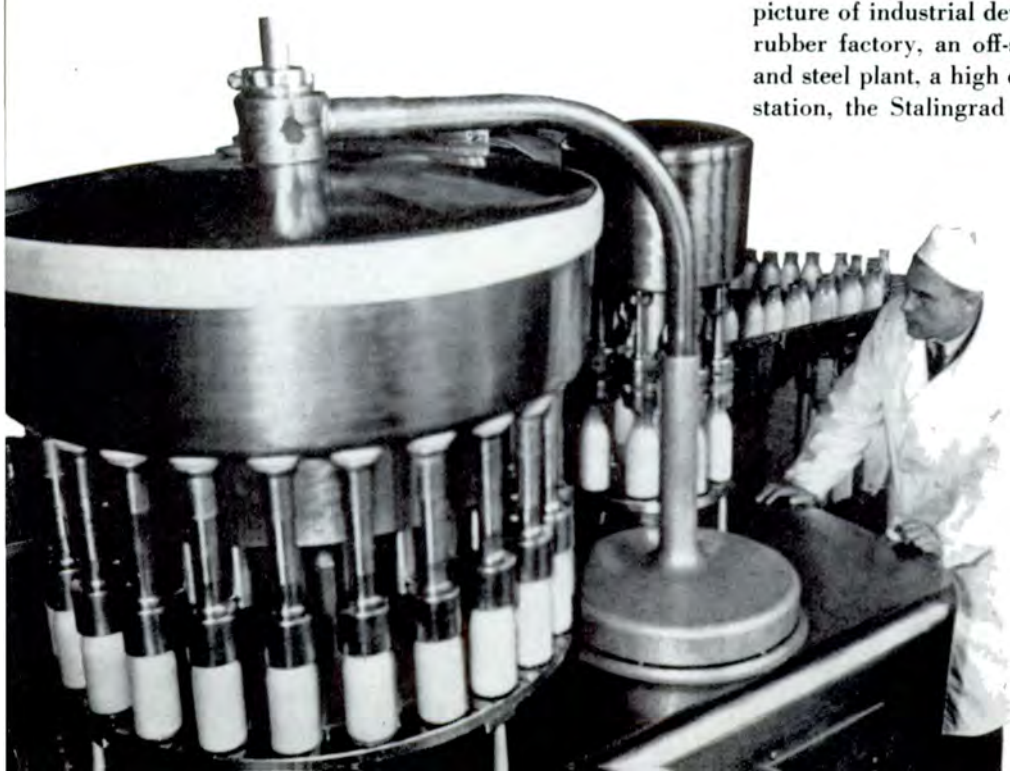
on a chronological tour of the Soviet Union. To show how the country has grown industrially and culturally, the exhibits are grouped around three important years—1913 as index for the prerevolutionary period; 1958 to show development prior to the current seven-year plan; and 1965, the concluding year of the plan, to show the shape of the future.

The displays were planned by outstanding Soviet graphic artists and use a variety of materials—copper, brass, iron and fabrics—in brilliant decorative effects.

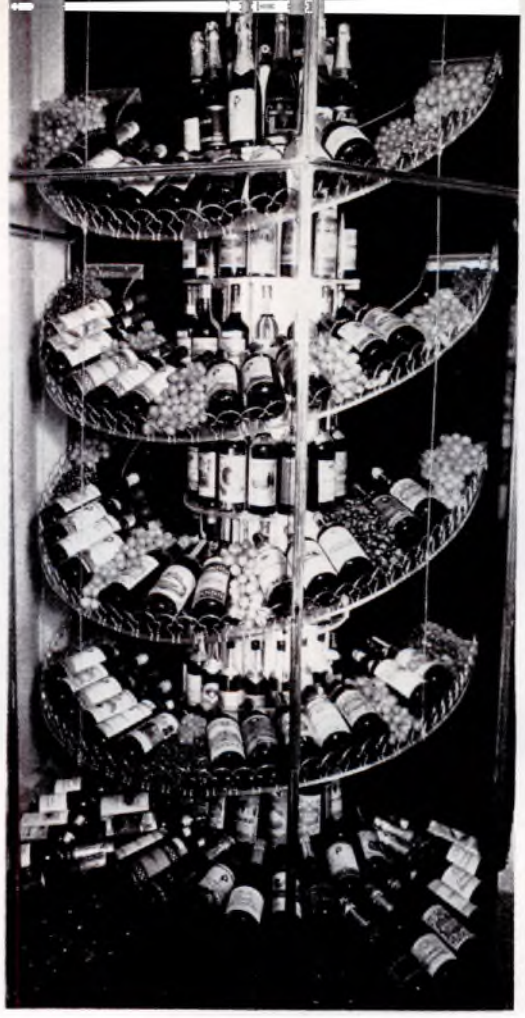
Working models serve to fill in the visual picture of industrial development—a synthetic rubber factory, an off-shore oil field, an iron and steel plant, a high capacity thermal power station, the Stalingrad Hydropower Plant, as well as models of diesel locomotives, hundred-passenger airliners and helicopters.

### A Farm Village in Miniature

The next section tells the story of the Soviet farm, its transformation during four decades from the marginal peasant holding worked with primitive tools and muscle power into today's highly-productive and mechanized cooperative enterprise. A model of a typical collective farm village—the Ukraina—shows the rich diversity of present-day rural community life. Ukraina is a 7,500-acre farm that grows wheat, sugar beets and grapes and raises livestock. Its income last year was 10 million rubles; by 1965 it will climb to 25 million.







SOVIET WINES FOR THE WELL EDUCATED PALATE.

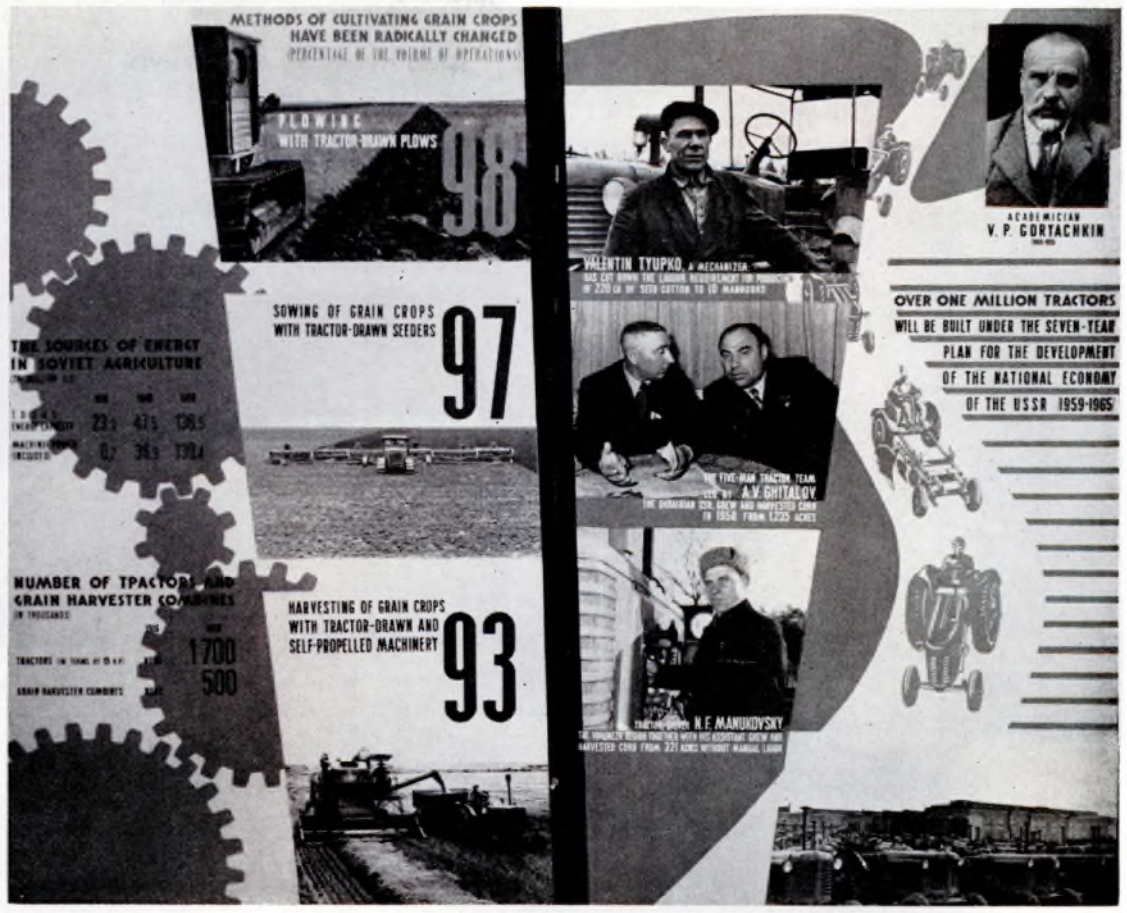



PHOTO CHART OF THE SWIFT PROGRESS IN SOVIET FARM MECHANIZATION AND A FEW OF THE MECHANIZERS.



A contrasting model shows how the poverty ridden peasants of this village lived before the 1917 Socialist Revolution.

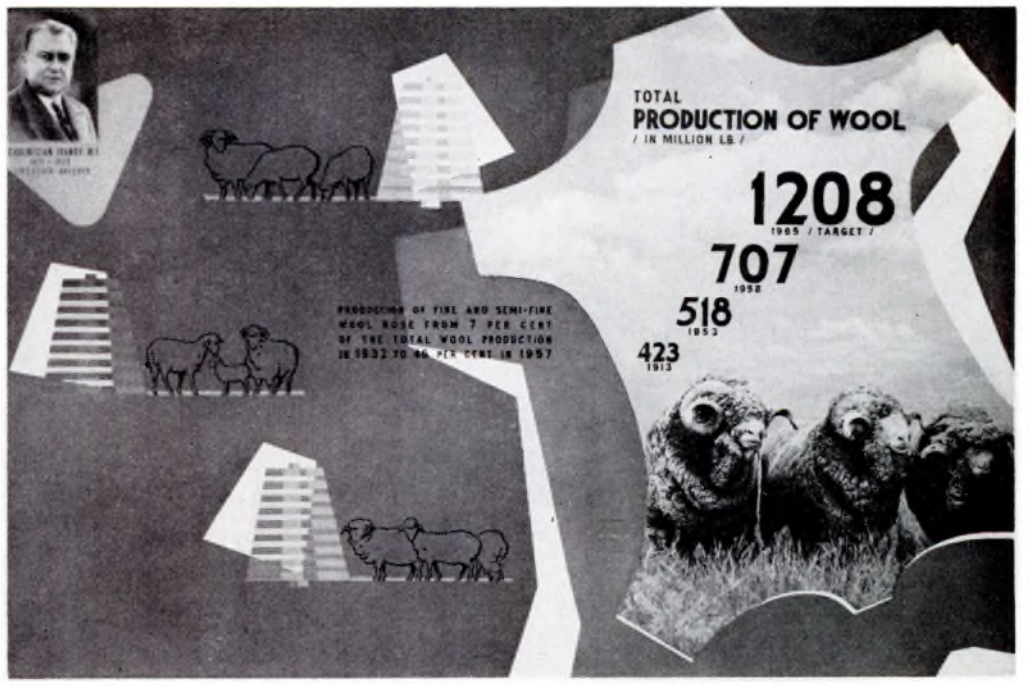
An appropriate subtitle for the Exhibition would be "For the Welfare of the People." This is the theme followed through in the design and layout of the displays—to show that the one purpose and function of these achievements in agriculture, industry and science is to provide a fuller and richer life for every Soviet man and woman.

This is particularly evident in the large display of consumer goods of all kinds—from kitchen appliances to the low-priced Moskvich car. The food industry will display foods in a simulated birch grove picnic setting.

There are a variety of exhibits to show the



WOOL PRODUCTION—PAST, PRESENT AND THE TARGET FIGURE AIMED AT FOR THE NEAR FUTURE.

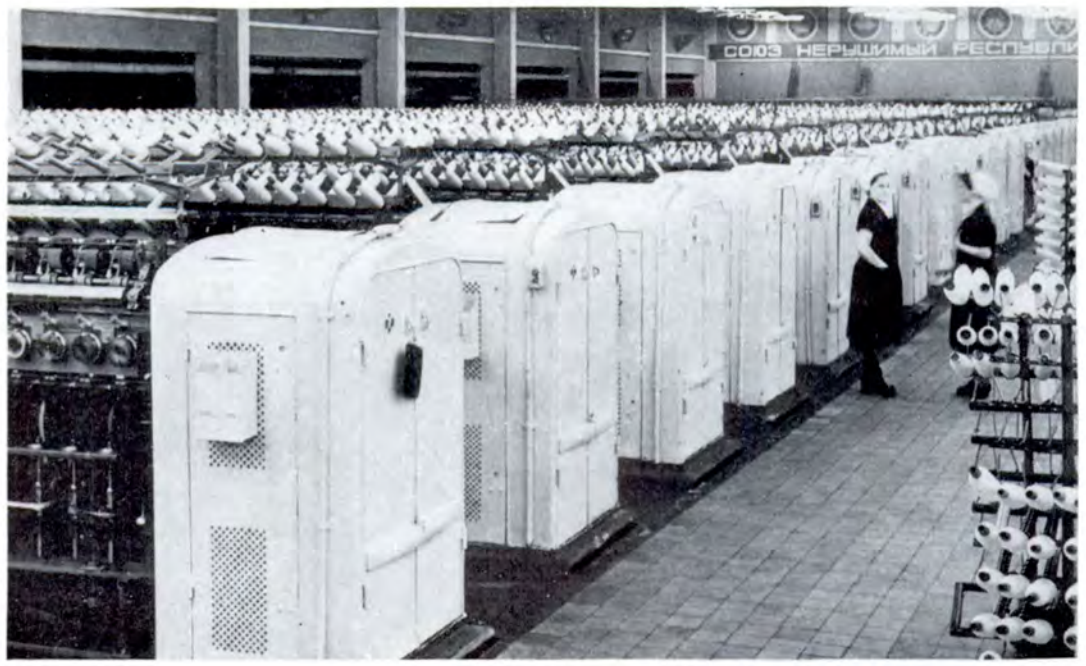



PROCESSED AND ATTRACTIVELY PACKAGED MEATS AND MEAT DELICACIES IN EVER-INCREASING QUANTITIES.





Among the scores of Soviet fabrics on display are these lovely silk shawls.




VISITORS WILL SEE DRESSES FOR EVERYDAY AND PARTY WEAR WOVEN FROM SYNTHETIC FIBER.

# Tour the Soviet Union



development of public education from kindergarten to university; the spread of medical services; the comprehensive social insurance and pension system.

The striking display on housing uses three dimensional panels in color, photo montage and operating models to show the scope of housing construction under the seven-year plan.

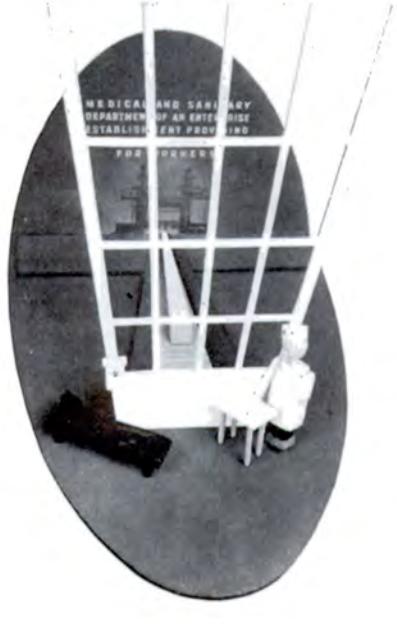
Every day 25,000 city people and 3,000 collective farm families move into new apartments and cottages. By 1965, close to 40 per cent of the population will be living in newly-built dwelling units. At the present pace, say Soviet builders, the country will have licked the housing problem within the next ten to a dozen years.

### Apartments Built on a Belt Line

A model of a mass-produced three-room apartment shows new developments in Soviet building. Another demonstrates the conveyor belt system used to build standard apartments in a Moscow district. Industrial building construction is shown by a replica of a new type of rolling mill which turns out reinforced concrete slabs, each as large as a room wall. Alongside is a model of a house built of these panels.

**Producing the many kinds of winter and** summer footwear shown at the exhibit.





A COLLECTION OF NOVELTIES, OBJETS D'ART AND PATTERNED DECORATIVE GLASSWARE MADE BY SOVIET CRAFTSMEN.







A COMPLETELY FURNISHED APARTMENT, TYPICAL OF THOSE NOW BEING BUILT.



FURNITURE AND MODERN ELECTRICAL APPLIANCES ARE NOW MASS-PRODUCED.

Trends in city planning—garden cities designed for light and air; suburban districts with self-contained marketing, medical and school centers; tree belts to separate off factory and residential districts—are shown by exhibits from 18 cities, some of them venerable towns like Kiev in the Ukraine, others like brand-new Kohtla-Jarve in Estonia that are spotted only on the latest maps.

The cultural display provides the visitor with a passing look at Soviet book publication, theater, opera, ballet, puppet stage and circus. There is a gallery show of the work of Soviet painters and sculptors.

During the exhibition period two Soviet motion pictures, *Wide Is My Native Land* and *The Magic Mirror*, will be shown at mid-town theaters. These are Sine-Panorama films, comparable to American Cinerama. At the Coliseum there will be short film showings of various aspects of Soviet life.

This obviously is a run-through of only a few of the exhibition's highlights. But even a listing of each item on display would be inadequate to impart the sense of dynamic activity that the exhibition conveys. Second only to an actual visit to the Soviet Union, it gives an illuminating view of the way of life of a socialist country.

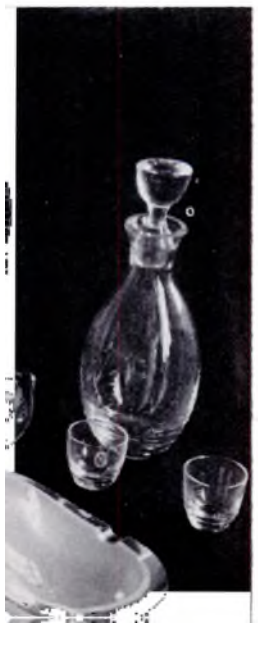












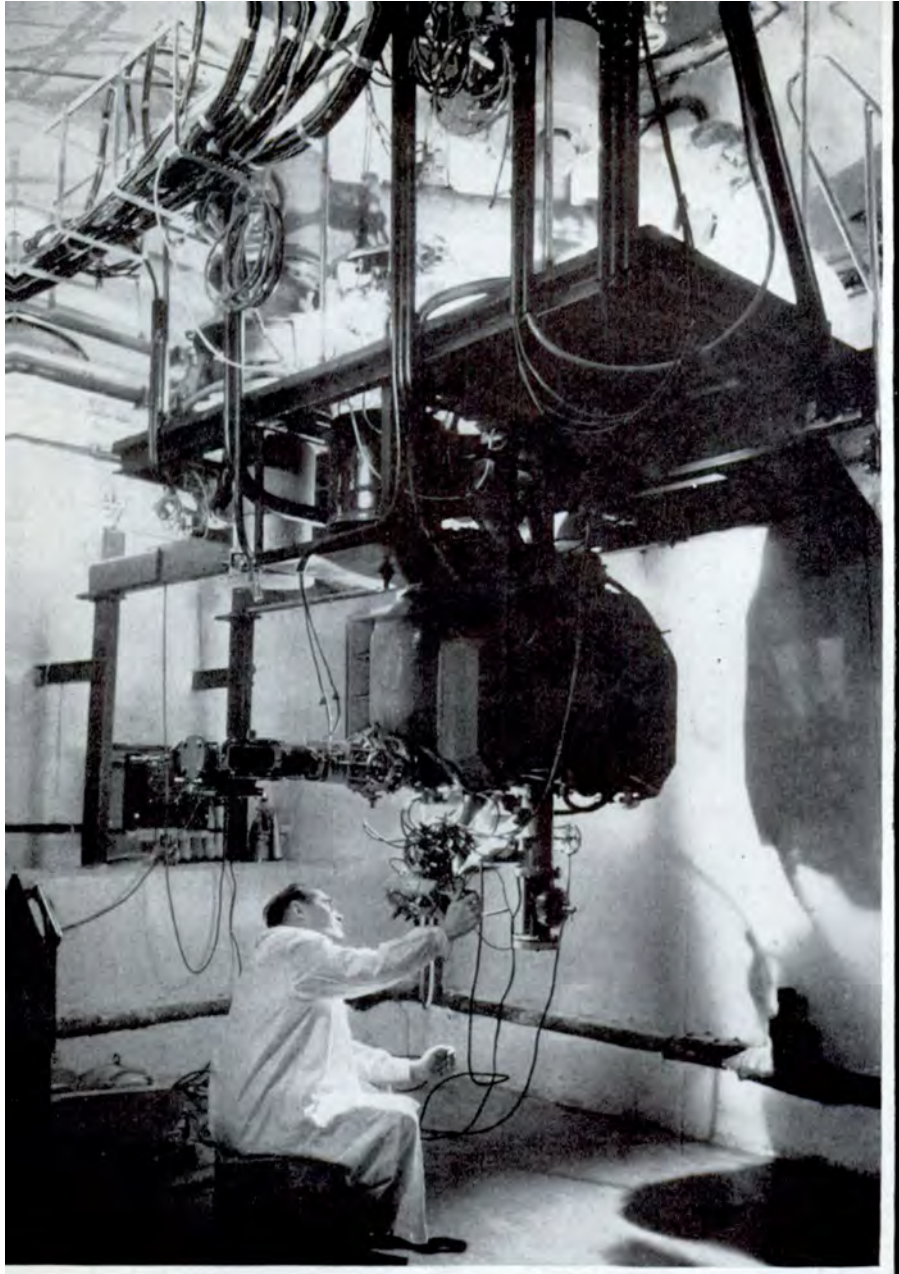








# ATOMS for PEACE and



*Changing the structure of organic materials by nuclear radiation.*

*Experiment on direct conversion of atomic energy into electricity.*

ATOMIC energy in man's service—this is the theme of the exhibit which shows the work Soviet scientists are doing to harness the atom for peaceful purposes.

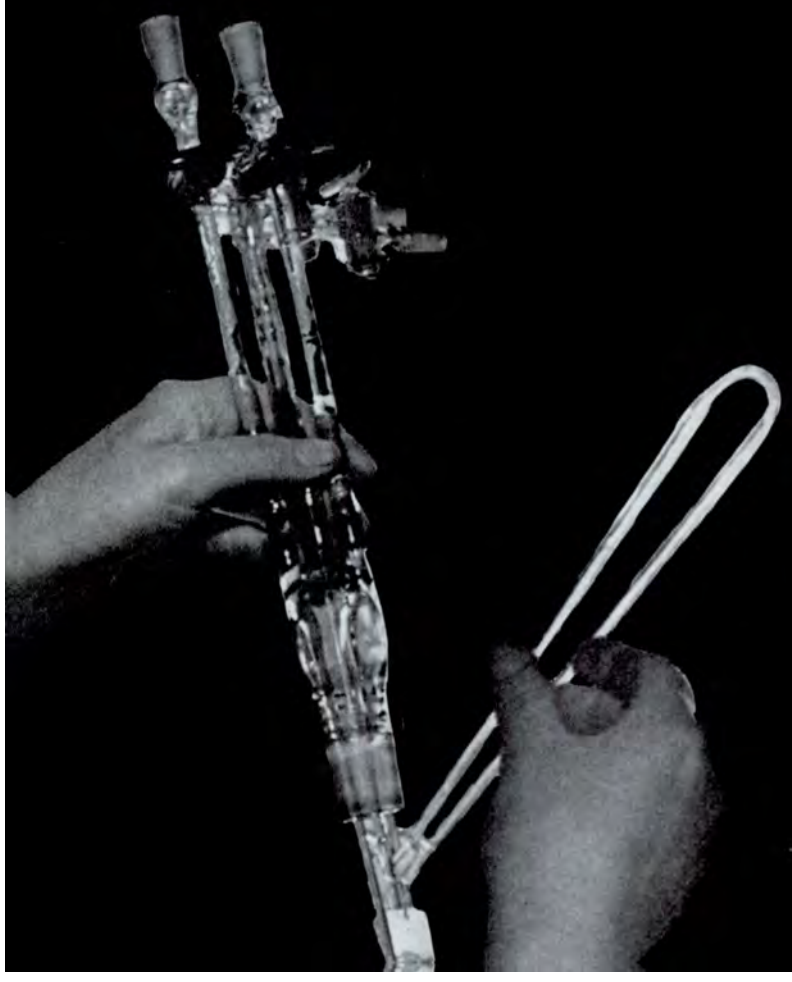
One of the displays illustrates development in the very young science of radiation chemistry. Under radiation, chemical substances go through unusual transformations to change their properties. Experimentation in the field ranges from such down-to-earth matters as the processing of longer lasting automobile tires to methods of abstracting chemical products from the air.

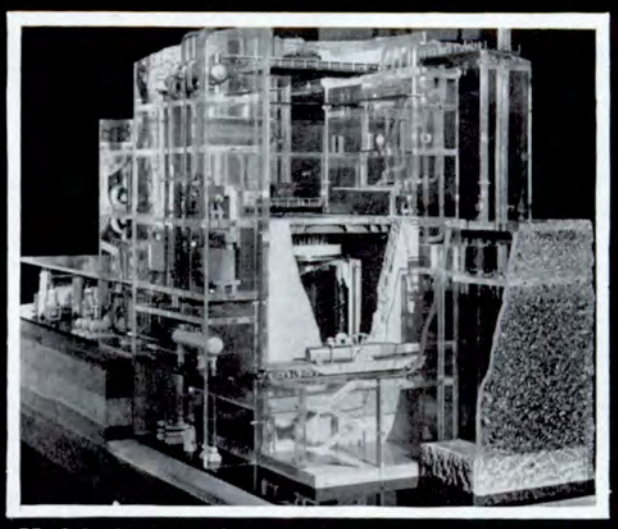
Nuclear apparatus used today by the geologist and mining engineer to "see" what is going on deep inside the earth is shown. A knowledge of the nuclear characteristics of the rock enables engineers to study in detail the geological sections of wells and their technical state. This is done with a special apparatus made up of a very sensitive instrument for measuring the radioactivity of neutrons or gamma rays and an electronic circuit which transmits the radiation to be measured to the surface where it is recorded by automatic devices.

These methods make it possible to determine more accurately the geophysical structure of many oil fields in the Soviet Union and even to locate new oil fields. An important achievement and one that has saved much money is the development of neutron methods for separating oil-bearing and gas-bearing rock from water-bearing rock.

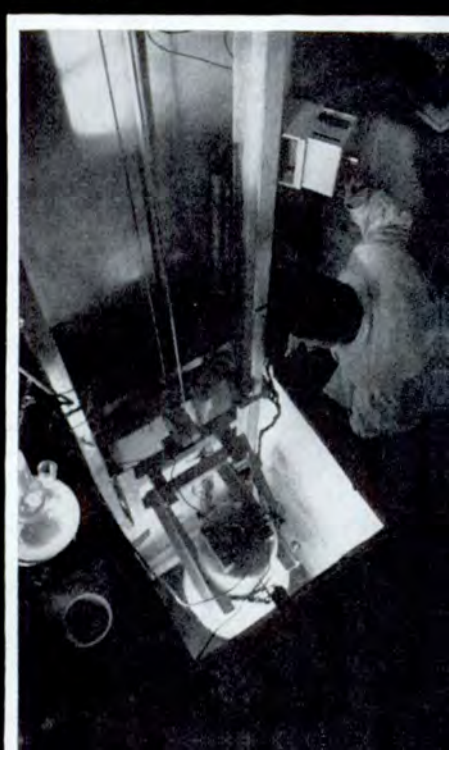
The progress of nuclear physics and radio-geochemistry also makes it possible to prospect for oil and gas with the aid of radiometering and radio-chemical apparatus directly from the surface of the ground and even from the air.

A special compact mobile neutron multiplier ( a variety of atomic pile) has been developed for studying the geological records of wells. The device makes it possible to determine on the spot many of the chemical elements contained in the rock.



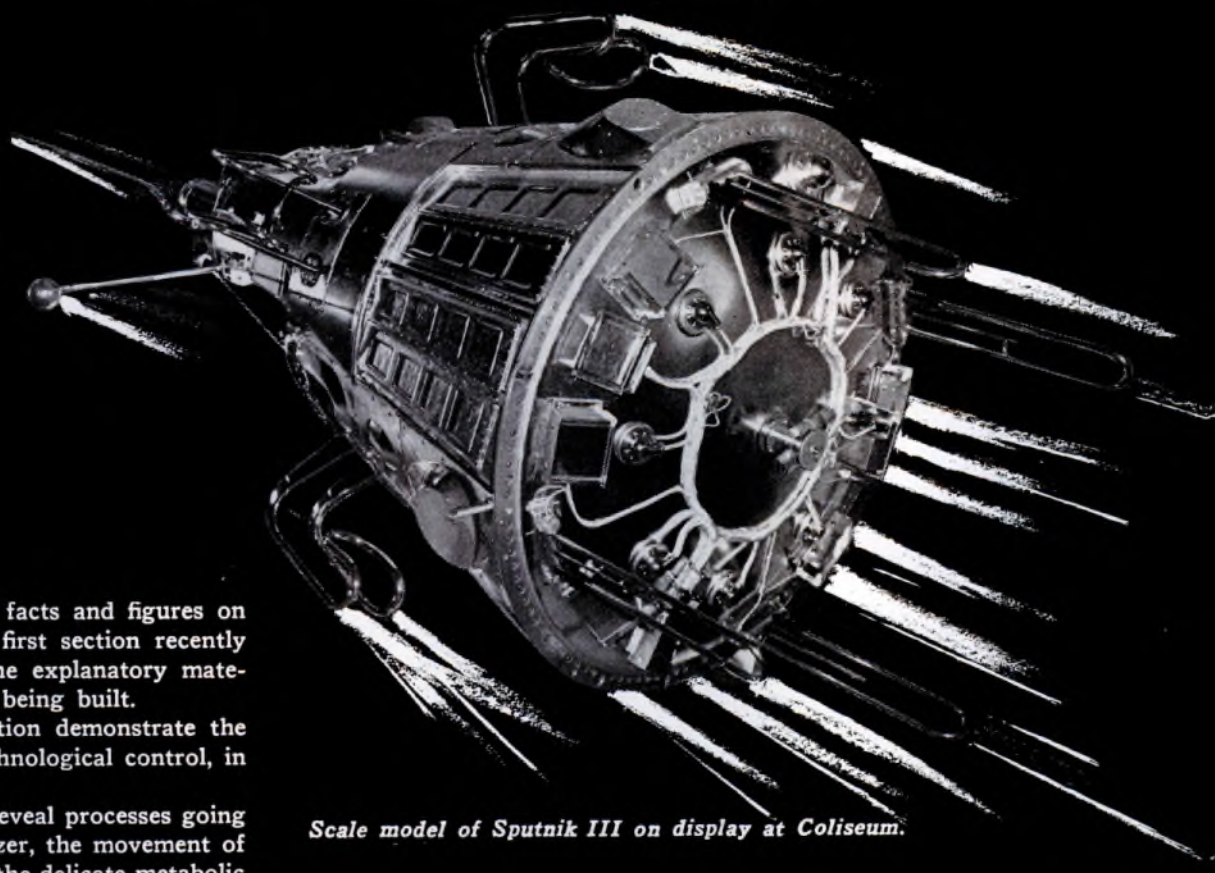


*Model of an atomic station with a graphite reactor will be shown at the Soviet Exhibition in New York.*



*Apparatus for accelerating petroleum cracking, whose*

# SPUTNIKS



*Scale model of Sputnik III on display at Coliseum.*

The display on nuclear power gives graphic facts and figures on the world's largest atomic power station. Its first section recently began generating electricity. Accompanying the explanatory material are models of atomic power stations now being built.

Other displays in this section of the exhibition demonstrate the wide applications of radioactive isotopes in technological control, in metallurgy, agriculture, biology and medicine.

In agriculture the use of radioactive tracers reveal processes going on in the soil, the interaction of soil and fertilizer, the movement of nutritive substances in the tissues of plants and the delicate metabolic reactions of plant and animal cells.

Superphosphate tracers used as top dressing enable scientists to observe the penetration of fertilizer into the plant through the leaves and its distribution in the tissues.

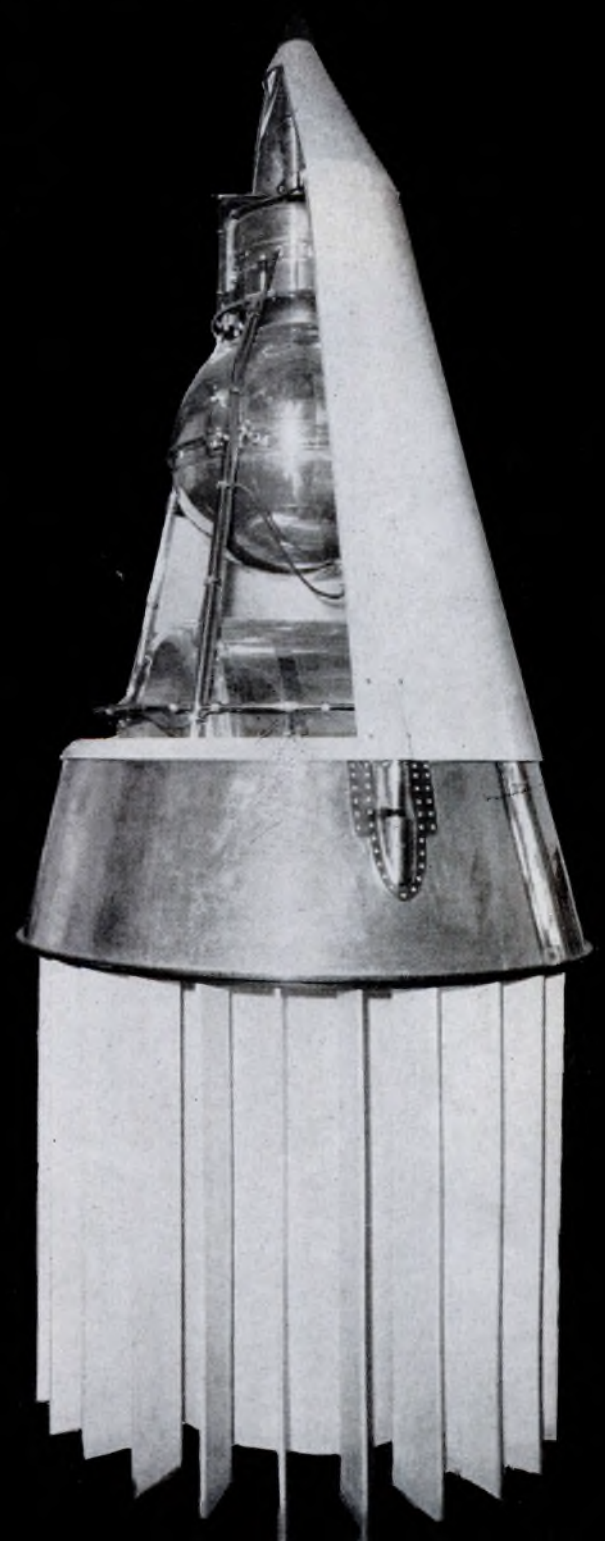
Exhibited are models of various nuclear reactors, including the world's largest—now in operation—the proton synchrotron of 10 billion electron volts. A model of the atomic icebreaker *Lenin* is on view.

Considerable space in this section of the exhibit is given to cosmic rocket development, work with new fuels and power sources, and space satellite instrumentation—miniature radio tubes, condensors, resistors and semi-conductor devices.

Dominating this display is an airy floating metal structure as tall as a five-story building in the shape of a celestial arc against which are outlined the orbits of the three Soviet sputniks. Alongside are full-scale models of the space satellites and exhibits summarizing the scientific data which their instruments telemetered back to earth.

A portion of the exhibit is devoted to world cooperation in the peaceful uses of atomic energy and shows the type of assistance given by the Soviet Union to other countries in setting up atomic centers, building nuclear reactors and training of foreign students in Soviet research institutes.

***Model of first earth satellite successfully launched.***

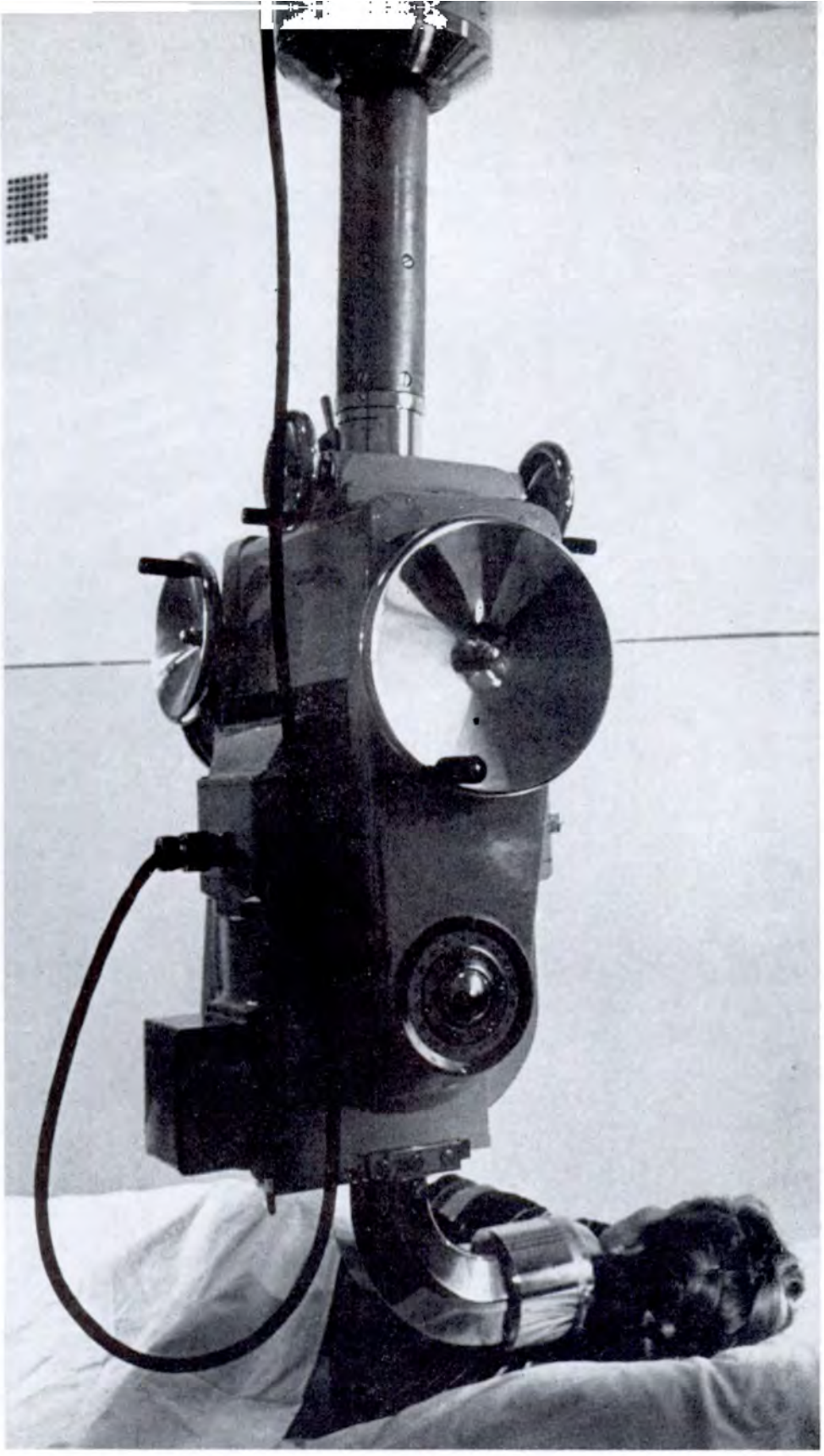




*Radioactive cobalt charge of this industrial re-*

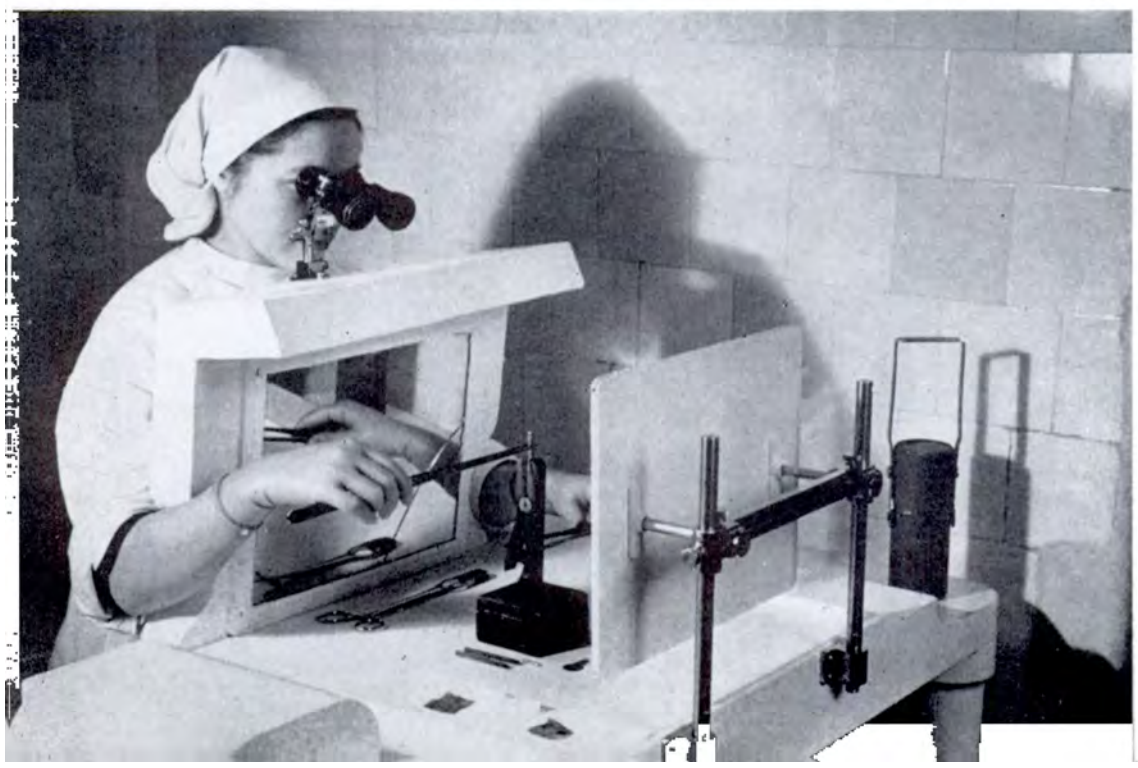


*An instrument for tracing the movement*



ATOMIC GUN USED IN TREATING CERTAIN TYPES OF MALIGNANT TUMORS AND VARIOUS SKIN DISEASES.

A TECHNICIAN PREPARING RADIOACTIVE NEEDLES, WHICH ARE EFFECTIVE IN CANCER THERAPY.



# New INSTRUMENTS for Healing

AMONG the many interesting displays in the "Public Health" section of the Soviet Exhibition are new medical instruments to help the physician diagnose ailments. They make their diagnoses with an almost unbelievable accuracy.

One is a medical "radar" unit which detects a malignant tumor in its very earliest stages, long before it can be discovered by X-ray. It operates by supersound. A narrow pencil of supersonic waves, directed into an organism, will record the variations as it passes through tissues of different densities. An incipient tumor changes the density of the tissue in which it is growing. This change is recorded on the instrument screen as a zigzag image.

Another piece of medical apparatus is called the "electrogastrograph." It records the biocurrents generated in the stomach when the organ contracts. Different diseases will record differently on the tape. Deciphered by the physician, they enable him to diagnose with great accuracy.

In surgery of the heart and other delicate operations the amount of anaesthetic administered is likely to be critical. An extra drop of ether may mean a fatality. The critical limit previously was determined by external, and not always reliable, symptoms.

A new control instrument now being installed in Soviet operating theaters is infallible—it makes no mistakes. Used in more than 100 complex operations, it performed with complete success. It can be used with all types of anaesthetics.

An electroencephalograph records the biocurrents of the brain and determines the amount of anaesthetic to be administered with unfailing mathematical accuracy. The patient on the operating table is asleep but his brain is continuously registering signals for the anaesthetist's guidance.

For a long time Soviet technicians tried to design an instrument that would suture very small blood vessels, a case where the old needle and gut do not serve. One of the engineers working on the problem saw a fire hose being stitched together one day and decided to try the same idea. It worked.

By now the idea has been used to design 22 different types of suturing instruments, some of them on display at the fair. One is a universal vessel stitcher which does miracles in the hands of the surgeon. It sutures the tiniest of blood vessels and is used even to suture nerves.

Among the other instruments shown are a supersonic dentist's drill which works on the teeth painlessly, an automatic blood-testing apparatus built like an electronic computing machine, and an instrument which reads pulse-frequency in two or three seconds.

# An AUTOMATION Story

THERE are probably very few engineers and industrial executives visiting the automation display at the Soviet Exhibition who do not stop for a long look at one of the exhibits, a new type of lathe. This machine tool with a hydraulic tracing system controlled by program was made by the Krasny Proletary Plant. The original model was shown at the World's Fair in Brussels and won a Grand Prize. Valentin Levshunov, who demonstrates the lathe at the Coliseum and who had a hand in its creation, tells this interesting story of the collective growth of an engineering idea into a complex automatic tool. Levshunov is a designer at the Krasny Proletary Plant.

The idea of creating a machine tool of this type that would not only run but direct itself originated about 20 years ago with Vladimir Dikushin. He was then chief designer at the Experimental Research Institute of Metal-Cutting Machines; now he is a member of the Academy of Sciences.

Valentin Levshunov was one of a number of plant engineers who were working with the staff of the Experimental Institute. He suggested a design for a new tool which used some of the elements of the usual screw-cutting lathe and improved on others. He worked in a hydraulic tracing device which the Institute had developed and invented an original unit for controlling the device by program.

The orders are recorded on a punched card. A blank is inserted into the lathe and is machined to order. To reset the lathe, you change the order on the punched card. What it means is a two- to four-time boost in production.

But Levshunov's original was a number of inventions removed from the model he demonstrates at the Coliseum. Practically every shop in the Krasny Proletary Plant had a hand in making the various units of the machine.

It was assembled and set up at the plant's experimental laboratory. In process, research engineer Semyon Shemansky worked out many improvements in the tool. So did assembly fitter Vladimir Sharonov and a number of other engineers and mechanics. The present operating lathe is so much a joint creation that when exhibition visitors ask Levshunov who invented the lathe, he says the only answer he can give is this story we've just told here.



Fitters Vladimir Sharonov and Yuri Sokolov worked on the assembly of this collectively designed lathe.





Valentin Levshunov, design engineer, who worked out the general lines of the lathe.



Rodion Solovyev, expert mechanic, who adjusted the new automatic machine tool.



Semyon Shemansky, research engineer, who added improvements to the original model.

# *200 Singers and Dancers from*



THE MAIN ATTRACTION AT THE SOVIET MUSIC AND DANCE FESTIVAL IN NEW YORK IS THE PYATNITSKY CHOIR.

SONGS are national history, living, vivid, replete with color and truth, revealing the whole life of a nation — these words, penned by Nikolai Gogol more than a century ago, might well have been written to describe the refreshing authenticity of the melodies sung by the Pyatnitsky Folk Choir. The choir will appear at Madison Square Garden this month as part of a music and dance festival which will include stars of the Bolshoi and Leningrad Ballets, the Ukrainian, Georgian, Armenian and Uzbek Folk Ballets and a full symphony orchestra. Coupled with the Exhibition at the New York Coliseum, their performances will round out the picture of Soviet life which Americans will have a chance to see this summer.

The folks songs and dances of the Soviet Union, with roots deep in the traditions of the Russians, Ukrainians, Byelorussians, Kirghiz and the many other nations of the country, are richly diverse. Visitors will see them being sung and danced by national ensembles in traditional dress.

The Pyatnitsky Folk Choir is the oldest of the 48 professional choruses and 55 song and dance ensembles in the Soviet Union. Its full-bodied and resonant singing, its fresh im-



The choir's orchestra, one of the country's best, provides musical background for the captivating performances, with Russian horns and the traditional wooden spoons beating a gay rhythm.



THE FLIRTATIOUS HAND-BELL DANCE IS ONE OF THE GROUP'S FAVORITES.



# 15 Republics

provisations which retain all the robust vigor of the originals, have captivated audiences at home and abroad. The Choir has that rare blend of professional artistry and the artlessness of the folk singer which the more academic ensembles rarely achieve.

### The Founder

The Choir has an interesting history. It was founded by Mitrofan Pyatnitsky, an altogether unique figure in Russian music. Pyatnitsky grew up in Voronezh Province and, as a child, learned many of the folk songs for which the region was famous. He had a fine voice and unusual musical gifts and a determination he came to early to be a singer. He set off for Moscow and there got work as a clerk in a hospital office. The son of poor parents, he had no means to pay for expensive musical training at the Conservatory.

Subsequently he managed to earn enough for private lessons, but he never did get a formal musical education. Whatever free time he had from making a living he spent at what was then the unusual avocation of folk-song collecting.

### The First Success

He began to sing for audiences and won himself a wide reputation as popular singer in the music halls of Moscow and other Russian cities. But Pyatnitsky had a more ambitious goal. He wanted to create a professional folk chorus. After searching in the villages he found the singers he wanted and managed, not without difficulty, to bring them to Moscow.

The first "Concert of M. E. Pyatnitsky with Peasants of the Voronezh, Ryazan and Smolensk Provinces," as the handbills phrased it, was in February 1911. It proved to be the



THE CHARM OF THE ORIGINAL FOLK DANCE IS PRESERVED IN THE PROFESSIONAL PRESENTATION.



THE GOLDEN CHAIN DANCE, FILLED WITH ROBUST VIGOR, IS PERFORMED IN DAZZLING FOLK COSTUMES.

THE PYATNITSKY CHOIR IS FAMED FOR ITS IMPROVISATIONS AND CONSTANT QUEST FOR FRESH THEMES INSPIRED BY THE NEW WAY OF LIFE.





SOVIET MUSIC AND DANCE FESTIVAL WILL FEATURE ARTISTS FROM VARIOUS REPUBLICS. HERE ARE MEMBERS OF THE GEORGIAN ENSEMBLE.

# *200 Singers and Dancers*



THE *LEZGIAN DANCE* TELLS THE STORY OF A MAN WOOING A MAID, A THEME AS OLD AS TIME ITSELF.

forerunner of many successful performances.

Sergei Rachmaninov and Fyodor Chaliapin, the great basso, attended one of the concerts given in the Grand Hall of the Moscow Conservatory and spoke highly of the chorus and of Pyatnitsky's work. So did others of his contemporaries.

But this was Russia under the czar. The chorus could expect no financial support from the government. The concerts were attended by faithful but relatively small audiences of folk song lovers and brought in very little money—hardly enough to carry two or three performances a year. In between, most of the singers went back to their villages.

Some months after the Socialist Revolution, Pyatnitsky was able to have most of his chorus move to Moscow to stay. The singers performed more frequently, although for the period of the Civil War and some time thereafter they worked to rebuild the ravaged country and sang in their spare time.

FOLK INSTRUMENTS ACCOMPANY THE KIRGHIZ DANCE GROUP.



A MALE GROUP PERFORMS THE TEMPESTUOUS DANCE OF THE OLD GEORGIAN WARRIORS, CALLED *KHORUMI*.





Folk music and dances of Armenia, with their Oriental flavor, will be performed for American audiences by the Republic's leading artists.

### A Professional Company

In 1936 the Choir became a full-time professional company affiliated with the Moscow State Philharmonic Society. Pyatnitsky continued to work with the group and to collect and record folk songs. After his death in 1927, his nephew, the folklore specialist Pyotr Kazmin, and composer Vladimir Zakharov took over the job.

The company grew as young collective farm people joined. They brought the choir new folk songs that had grown out of the new way of life. Songs inspired by the great changes that socialism had brought to the countryside were written by Zakharov and other composers and were also added to the repertory. Many of them have become as popular as the traditional songs.

The choir sings without a leader to the accompaniment of balalaikas and other folk instruments. The orchestra is conducted by Vasili Khvatov, an authority on Russian folk instruments. The company of one hundred men and women includes a dance group led by Tatyana Ustinova.

The choir, in the past few years, has toured twelve countries. Folk singers and dancers speak an eloquent international language, as American audiences were so pleased to find when the Moiseyev and the Beryozka companies performed in New York and other cities of the United States. The Pyatnitsky Choir speaks with an especially compelling grace.



THE CARPET-MAKER'S DANCE IS RENDERED WITH ARDOR BY THE ARMENIAN SONG AND DANCE ENSEMBLE.



THE UKRAINIAN DANCE ENSEMBLE WILL BRING THE BEST OF THAT REPUBLIC'S ART TO THE EXHIBITION.

BALLET STARS WILL PERFORM RUSSIAN CLASSICS ALONG WITH THE FOLK DANCE PROGRAM.





Working with elected shop and factory committees are some 3,500,000 active trade unionists.



A new worker at an automobile plant wants to join the union's local. Lathe operator Alexander Filimonov (left), one of the organizers at the plant, hands him an application card.

# SOVIET TRADE



At a trade union congress. Fifty-three million workers, a quarter of the population, belong to 23 industrial trade unions of the Soviet Union.



Work with children is an important activity. The unions' Educational Committees have two million members.



Through regular conferences like this one unionists help to solve the factory's production problems.



A doctor's certificate verifying the nature and duration of illness is turned in to the union's Welfare Committee for payment of sick benefit.

# UNIONS



A member of the Wages Committee discusses a problem with his fellow workers. The Committee makes sure that the wage scales worked out jointly by the union and management are strictly adhered to.

**By Boris Burkov**
Editor of the Trade
Union Newspaper *Trud*

FIFTY-THREE million factory, office and professional workers are trade union members in the Soviet Union. All people employed in a given industry are members of one and the same union, regardless of their particular skill or trade. Workers in machine building, auto and related industries, for example, are members of the Machine Building Union. There is a union for the oil and chemical industries, one for metallurgy and coal, one for textile and light industry. Some trade unions confine their membership to a single branch of the national economy. All told, there are 23 country-wide unions.

With a membership that embraces a quarter of the population, the unions obviously have a most important role to play in the current seven-year economic plan. Their tasks were outlined in the Twelfth Trade Union Congress held in Moscow in March of this year.

The Congress, which meets at least once every four years, is the highest and most authoritative trade union body. It elects the USSR Central Council of Trade Unions which functions on its behalf between Congresses. This is the organizational pattern followed through at every level, from the shop committee through to the factory, district, city, regional, republic and central committees. The general membership is the final and decisive body. It delegates authority to elected committees that are responsible to the membership.

Inter-Union bodies—the Trade Union Councils—coordinate and guide the trade unions within each of the republics. Their powers have recently been much expanded. They participate in the work of the government economic councils and planning agencies on matters of production, wages, safety engineering, distribution of housing, retail trade, cultural and social facilities and all other matters that relate to labor welfare within a particular republic.

The factory committee is the basic link in the Soviet trade union organization. Any citizen working at an industrial or commercial establishment, in transportation or at a state farm may join the union in his trade. There is no obligation to enroll; membership is entirely voluntary. Nevertheless, nine out of ten workers are union members.

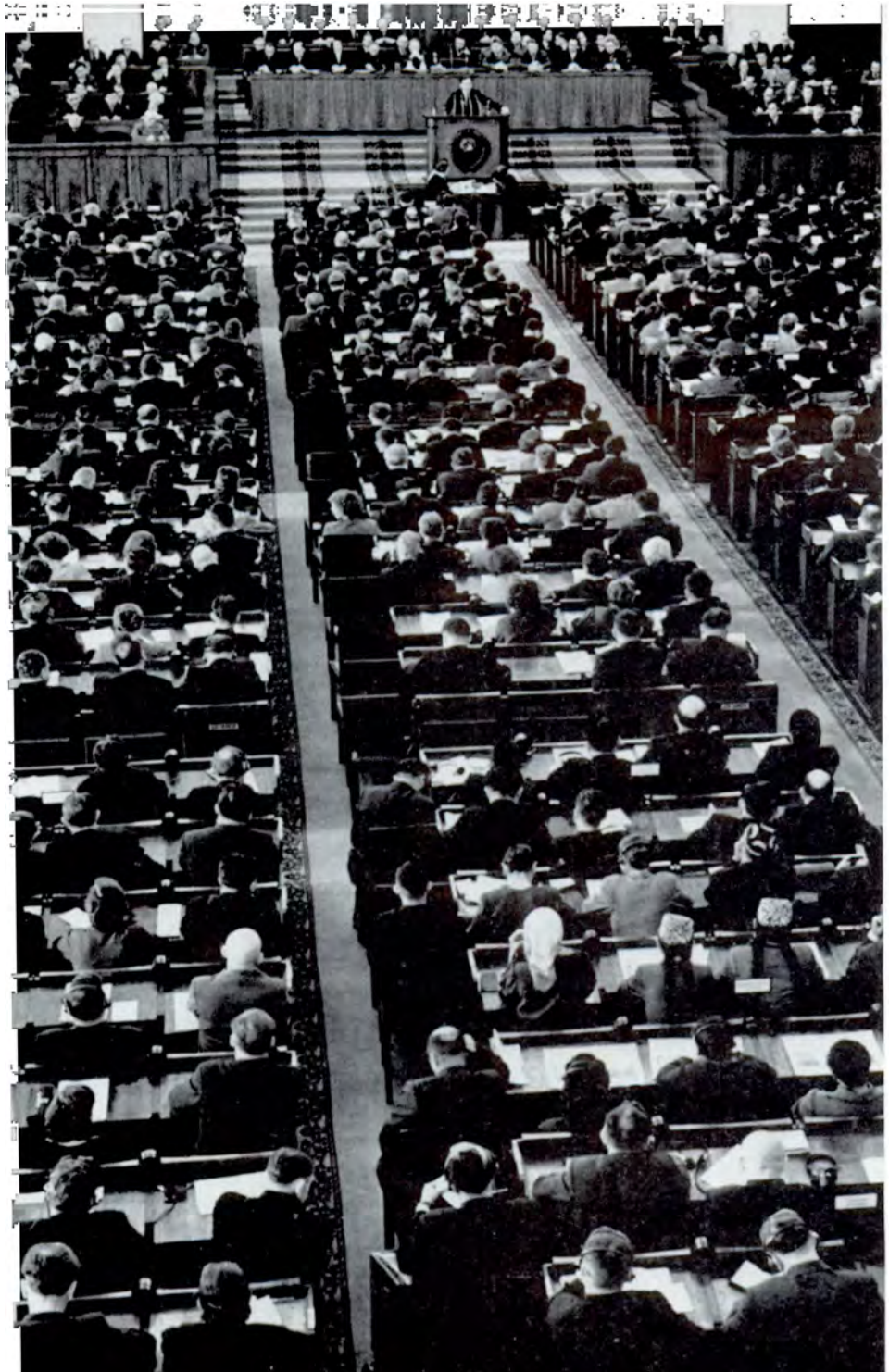
A new man on a job very quickly becomes aware of the fact that the union is the organization that will defend him in a disagreement with the management if he has the right on his side. It is at union meetings that he is expected to speak his mind on all matters pertaining to his work. In addition, as a union man, he is entitled, among other things, to such benefits as resort accommodations for himself and summer camp accommodations for his children at lower rates. So that a newcomer at a factory or office will most usually apply for membership.

The factory committee office is a busy place, visited by a constant stream of workers, their wives, pensioners and others with a diversity of matters to be discussed, many of them unrelated to wages, hours and working conditions. But so long as they have to do with the welfare of the worker and his family they are questions for the union to resolve.

Here is a typical hour in a local union office. A woman, the wife of a worker in the plant,

A worker submits a new idea to the union's Inventors' Committee. The Committee follows up suggestions for new devices and method of work and sees that those which have merit are immediately put to use.











The Twelfth Trade Union Congress held in Moscow early this year. The Congress is the leading trade union body in the country. Exchanging impressions during a recess (upper right). Two Congress delegates—Ukrainian miner Nikolai Mamai and civil aviation pilot Alexander Zyl (center). A French guest chats with Congress delegates (lower right).

# SOVIET TRADE UNIONS

wants her child transferred to a kindergarten closer to home. Another wants the union to make arrangements for a place at a summer camp for her boy. A worker drops in to apply for one of the apartments in a housing development the factory is building.

For the relatively small union committee in a plant employing some thousands of workers to follow through these innumerable requests is obviously an impossible job, quite aside from carrying on union business that has to do with labor-management matters.

The work is done largely through various commissions made up of active union members, each one headed by a committee member. These people are not full-time paid functionaries. They work at their regular jobs in the plant, as do most of the committee members. The number of paid officials is very small and has been declining from year to year. There are 440,000 primary organizations —local trade union committees—in Soviet plants and other enterprises. Only four per cent have paid officials.

The major part of the union income on a national scale—almost 85 per cent—is spent for cultural services, sport and entertainment facilities, vacation accommodations and other union benefits. Only a small part of income—less than 15 per cent—goes for administrative and organizational expenses.

The chief source of revenue is from initiation fees and monthly membership dues. The initiation fee is one per cent of a month's wages. Dues are low and depend upon earnings, the basic rate being a half ruble for every hundred rubles earned, rising somewhat at the higher wage levels. Dues are not deducted from wages but are collected by union representatives at the factory.

### Worker and Management

An American going through a Soviet factory will find it does not look much different from one he might see at home—the same buildings, shops, machines. And the goods produced are not different—essentially a tractor is a tractor and shoes are shoes.

The relationship of the workers to the factory management, however, is quite different. Walk through the shops, listen to the men talk, sit in at a production conference or a shop meeting and you find that you are visiting a cooperatively working industrial unit to which the American definition of a trade union cannot be applied wholesale.

There are no privately owned factories in the USSR. They are all publicly owned and operated. The profits they make go back to that same public in the form of higher wages, lower prices and a rising standard of living. Owners, managers and workers are one and the same people.

In this situation, which is basically different from that which obtained before the 1917 Socialist Revolution, the function of the trade union will necessarily be different. The managers and workers are not in hostile camps. They are both concerned with increasing out-

put and raising productivity since this means more public wealth and greater prosperity. The nation's industries belong to the working people; the wealth produced by their labor is theirs alone. The basic cause for the bloody strikes and demonstrations which marked so much of Russian labor history no longer obtains.

Does this mean, then, that the Soviet trade unions have given up their fundamental obligation of defending the worker's job, wages, hours and working conditions? By no means. This is very much a function of the union, but not the only one.

The Soviet unions have a larger and broader role in the factory and the community than this basic defense of a worker's job rights. They propose legislation on wages, hours and other related matters. They participate in drafting plans for the country's economic development. They advise governmental agencies. They supervise labor protection and see that labor laws are not violated. They administer the social insurance fund.

Functions exercised by government bodies are being increasingly taken over by the trade unions in order to involve more and more people in the management of the country's affairs. This is in accord with the basic definition of the Soviet trade union given by Lenin as "a school of administration, a school of management, a school of communism."

### Participating in Production

The Soviet trade unions are not controlled by nor are they accountable to the government. They have their own constitutions and by-laws, their own officials elected by the membership and their own finances. Both legally and in fact they are independent organizations of working people.

The director of a Soviet factory is a representative of the government. He is personally responsible for the factory's operation. The trade union does not take over his job nor encroach on any of his duties as administrator. But it does play an extremely important role, nevertheless, in production.

This is done through production conferences at which workers are free to discuss any aspect of the factory's work—whether it relates to an individual, a shop or the plant as a whole.

These are not merely critical sessions. The suggestions made at the conferences frequently are incorporated into factory operation and have done much to raise output, improve working conditions and eliminate shortcomings. At each session the management will be asked to report on whether the suggestions made have been utilized or the criticisms checked on.

Major discussion at the Twelfth Trade Union Congress centered on ways and means of involving greater numbers of workers in the management of production through these conferences. They have been serving as "schools of management" in a very real and practical sense. Within a year's period some seven million factory and office workers, engineers and technicians participated.

The new relationship between worker and management gave rise to a new attitude toward work, which expressed itself in the socialist emulation movement. The movement was initiated many years ago by the workers themselves and was developed by them within their trade unions. Worker challenged worker, factory challenged factory, and one section of the country challenged another to compete in increasing labor productivity, in improving the quality and quantity of goods turned out and to surpass the goals set by the country's economic plans. This competition was an incentive for finding more efficient methods of work and even for inventing new kinds of machines.

Today, with a burst of creative enthusiasm sparked by the seven-year plan, many hundreds of thousands of people in every field of endeavor are working hard to achieve the goals outlined before 1965. More than 60,000 groups, called communist work teams, are taking part in this rivalry for the common good. Hundreds of thousands of individuals have voluntarily pledged themselves to work better and harder, to learn more so they can be more effective workers and citizens, to strive to live up to the high ideals that communism asks of its adherents.

This is socialist competition on a higher and more mature level. Its effects are already apparent in the very large enrollment in adult evening and correspondence schools and in greater industrial and farm productivity.

Soviet trade unions, recognizing that the resultant increased labor productivity is actually the key to a higher living standard and a more cultured life for all of society, have encouraged workers to devise new forms of competition. This was one of the main points discussed at the recent Twelfth Trade Union Congress.

The Soviet trade unions guide the inventors' and rationalizers' societies which have a membership of more than a million. The proposals and suggestions that have come from these societies to expedite work has saved the country's industries 35 billion rubles in the past five years.

The unions are also responsible for the work of the scientific and technical societies which are organized in many of the larger plants. Their present membership runs to 800,000. Together with the trade unions and economic agencies of the government, these societies exchange experiences with newly-introduced production methods.

An interesting aspect of Soviet trade union activity is the work of local inspectors, trade union members assigned to check the operation of retail stores, restaurants, tailoring shops and other service facilities in the immediate neighborhood of a plant. They look into such matters as quality of goods sold and the character of the service given the public. Visits by union inspectors tend to keep store managers on their toes. It is the rare manager who does not hasten to correct an abuse brought to his attention by an inspector.

### Collective Agreements

A collective agreement is concluded annually between the trade union and the management. In the larger factories it will be printed in booklet form and a copy given to each worker. The contract lists in very specfic detail the obligations of both the management and the personnel and will cover such matters as piece work rates and wage categories, production quotas, training facilities, labor protection and safety measures, housing, lunchrooms, cultural facilities. The union may, if it thinks there are grounds, bring charges against a factory executive who fails to carry out his obligations as defined by the collective agreement.

If a worker feels that his rights have been violated by management—that he has been unfairly discharged, or has been transferred to work without his consent or has not been paid his full wages—he goes to the factory grievance committee. There is one in every plant, made up of union and management representatives in equal numbers. The committee must look into the complaint within five days after it has been brought and the worker must be present when the complaint is considered.

If the worker feels that the decision is unjust, he may appeal to the trade union directly. There the case is reviewed and a final decision, binding on both parties, is reached. Further appeal must be carried to the courts.

It is the duty and obligation of the management to make sure that working conditions are safe. In a typical five-year period as much as 11 billion rubles will be spent nationally for

VISITING BRITISH UNIONISTS PRESENT A BANNER TO THEIR HOST, THE SOVIET MACHINE BUILDERS' UNION.



# SOVIET TRADE UNIONS

labor protection and safety devices. A score of research institutes study safety technique and industrial hygiene.

The scope of research may be shown by citing the permanent commission of the USSR Academy of Sciences which works jointly with the Metallurgy Workers' Union to improve working conditions in the hot shops of the ferrous and nonferrous industries.

This commission of eminent scientists and trade union representatives recently made a study of the project to renovate the big Novo-Lipetsky Metallurgy Plant with an eye to labor safety needs. Their findings have been very fruitfully applied in the construction of other metallurgy plants.

Each union has a group of engineers and technical men who serve as inspectors. The trade union groups at the shop level supervise safety work through voluntary inspectors. There are some two million unionists in Soviet factories checking safety guards and equipment, ventilation, lighting and cleanliness.

The trade unions pay special attention to the protection of women and young workers. They are not employed on heavy work or at hazardous jobs. Young workers under 18 have a shorter workday and are required to have regular physical checkups.

### Wage Scales

Equal pay for equal work is the rule for everyone in the Soviet Union regardless of sex, age or nationality. The wage scales and piece rates are worked out by joint union-management committees and are then fixed by law.

This whole complex problem of wage scales has been undergoing reexamination in the last half dozen years. Steps have been taken to make the system uniform by adjusting inequities which developed during the war and postwar period. In some cases the same work done at different construction jobs was paid a different rate. A uniform scale was adopted after consultation with the trade union concerned.

New scales were adopted in such industries as coal mining, adjusting the rate to the amount of coal mined instead of to the number of yards of seam worked, which had been used previously as index. A uniform bonus was adopted for fulfilling daily, weekly and monthly quotas. Wage and hour differentials were established for those working above and below ground. The same rescaling has been going on now for some considerable period for workers in all categories and on all levels up through the managerial personnel.

### Union Benefits

The unions administer the social insurance fund. The fund is derived entirely from employer contributions and goes to pay for pensions, sick benefits, vacation accommodations, children's summer camps, clubs and cultural centers, athletic facilities and a score of other benefits which accrue to the Soviet worker.

Some two million trade unionists are elected by their factory groups to serve on the social insurance committees which grant benefits to temporarily disabled workers, send members to health and vacation resorts at much reduced rates, check into the work of factory clinics and dispensaries, and see to it that the management makes its required payments into the fund.

The trade unions play a vital role in education. They have helped millions of young workers to go through secondary school, college and university without having to give up their regular jobs.

The unions publish 11 newspapers including a daily paper with a national circulation—*Trud (Labor)*—22 magazines, numerous books and pamphlets on various aspects of working life in the Soviet Union. They maintain more than 26,000 libraries, 11,000 clubs and 115,000 reading and game rooms in factories, offices and farms.

Some five and a half million men and women belong to the many union sport clubs with thousands of stadiums, gymnasiums, swimming pools, ski runs and other facilities at their disposal.

The unions maintain the Young Pioneer camps which in the past five years have provided 14 million school children with summer vacations.

Ever since they were founded forty-odd years ago the Soviet trade unions have worked to strengthen fraternal ties with unions of other countries. They are affiliated with the World Federation of Trade Unions and at congresses meet with union representatives from countries in all five continents.

One most important area of contact has been the exchange of trade union delegations. In 1956 the Soviet Union was host to 168 delegations from 47 countries and in 1957, to 360 delegations from 78 countries. In turn 138 Soviet delegations visited abroad in 1956 and 154 in 1957.

Exchanges with the American trade unions have unfortunately been much less frequent than with those of other countries. The Soviet trade union movement is very much interested in strengthening ties through a series of exchanges. They could do much to improve the climate of understanding between the two countries.

Soviet trade unions have been a prime mover in raising living standards. In the past few years they have been able to chalk up a very considerable record of accomplishment. Wages were raised for lower paid workers. The workday was reduced on Saturdays and the eve of holidays. In many industries the workday was cut to six or seven hours with no reduction in wage. There was a considerable boost in old-age pension payments.

During the past five years government spending for social and cultural services has increased by 60 per cent. This has meant better social security coverage, larger pensions, free education through the college level, more medical services supplied without cost and more nursery schools, kindergartens, health and vacation resorts built.

This progress chart will show a constantly rising line as the seven-year plan moves along —further wage increases, further cuts in working hours, more consumer goods at lower prices, more housing at low rents and more social benefits of every kind.



# TRADE



# UNION LOCAL in the MOSKVICH PLANT



**By Georgi Pavlov**

AMERICAN engineers helped build the Moscow Auto Plant some 30 years ago. At first the factory only assembled passenger cars from parts bought in the United States and other countries. Then it began to make its own cars and before the Second World War tooled its production to small-car models. It now turns out the small, low-priced Moskvich for domestic sale and export.

The Moskvich is as popular in the Soviet Union as the Ford, Plymouth and Chevrolet are in the United States. It has a big export sale in Argentina, Belgium, Ethiopia, Greece, Iceland, Iran, Norway, Sudan and other countries. The advertising slogan of one Greek Moskvich agency is "Sputnik in the sky; Moskvich on the ground."

This Moscow plant, like all others in the Soviet automobile industry, turns out new cars every year in larger numbers. And as production expands it needs more and more workers. A Soviet auto worker has no job problem, he is very much in demand. And the






AT A UNION MEETING IN THE ENGINE SHOP. IVAN SAFONOV, THE SHOP COMMITTEE CHAIRMAN, HAS THE FLOOR.

# TRADE UNION LOCAL IN THE MOSKVICH PLANT

Moscow Auto Plant is typical of this industry. Its gates are always posted with help-wanted signs for assemblers, electricians, engineers, welders, any of a dozen trades.

If a man has no trade, the factory will teach him one and will pay him a monthly allowance while he learns. In the past few months Moskvich has taken on more than 1500 new men. As the factory staff grows, so does the trade union local at the plant. It is part of the Machinery Workers' Union which takes in auto and machine plant workers.

### The Local's Duties and Responsibilities

The Moskvich local has a wide range of powers. Its rights were enlarged by a decree adopted by the Presidium of the Supreme Soviet in July 1958 that redefined "The Rights of the Trade Union Local Committee."

The aim of the decree was to shift responsibility to the local level and thereby develop greater local initiative. The labor decree was a companion piece to the law on the decentralization of industrial management, also passed last year, which shifted management of industries from ministries at the capital to the local areas.

These are the major functions of the Moskvich local, as defined by the 1958 decree:

To represent workers in discussions with management on all matters relevant to wages, working hours, grievances and dismissals.

To follow through violations of the union contract.

To work with the management in planning production, setting quotas, wage scales and incentive payments.

To supervise work of the factory scientific and technical societies.



Apparently he didn't make his point clear when he spoke from the floor at the union meeting.

FITTER VICTOR IVANOV (RIGHT) WAS CHOSEN VICE CHAIRMAN OF THE LOCAL AT THE LAST ELECTION.





IRINA KOROLYOVA AND OTHER ENGINEERS DISCUSS A PRODUCTION TECHNIQUE.



The local's grievance committee in session. Committee members must look into a complaint within five days after it is brought to their attenion.

To see to it that inventions, innovations and suggestions submitted by workers are given proper attention.

To see that the labor laws are not violated, that safety legislation is enforced and that proper working conditions are maintained.

To approve candidates for managerial positions.

To provide social security benefits and cut-rate accommodations at rest homes and vacation resorts maintained by the government.

To decide with the management on proper distribution of new housing available.

### How the Local Is Organized

The local's executive committee of 17 is elected by the general membership for a term of one year. Voting is by secret ballot. At the last election 40 persons were nominated from the various shops. Among these elected were fitter Mikhail Kuznetsov; press operator Barbara Akimtseva; lathe operator Alexander Serezhinkin; job-setter Alexander Sloshenikin; Alexandra Tikhomirova, who works in the chroming shop; as well as several engineers, one of whom, Sergei Kropov, was elected chairman.

Four of the 17 executive committee members, including the chairman and vice chairman, are full-time officials and are paid by the union. Their salaries are the same as those they were previously paid on the jobs they held at the plant. The other members of the executive work at their regular trades.

There are 30 union shop groups in the plant, each one headed by an elected executive called a bureau. Each of the shop groups is divided into units made up of several dozen members. Each unit elects its own organizer whose function, among other things, is to collect union dues.

All decisions at whatever level are by majority vote, and officials are subject to recall if they do not justify the confidence of the membership. A fairly recent case was the removal of foreman Pavel Koltashkov from his post on the shop bureau. The union people in his shop felt that he was not doing the job they had elected him to do.

### Rank-and-File Participation

It is obvious that the 17 members of the local's executive committee would need a dozen hands each if they alone tried to direct the activities of this big trade union local with its thousands of members. A good deal of the responsibility is farmed out to committees, volunteers from the union membership.

PYOTR SCHUKIN, PLANT EXECUTIVE, TRIES TO EXPLAIN TO THE UNION COMMITTEE WHY HE FAILED TO COME THROUGH ON AN ITEM SPECIFIED BY THE UNION CONTRACT.





A class at the plant's evening secondary school for worker-students in automotive engineering.

The trade unions defray part or all of the cost of health resort accommodations for members.



The plant's clinic is staffed by 45 doctors who provide free medical and dental treatment.





MEMBERS OF THE LOCAL'S HOUSING COMMITTEE LOOK OVER NEW APARTMENTS FOR MOSKVICH WORKERS.

# TRADE UNION LOCAL IN THE MOSKVICH PLANT

Each of the committees—labor protection, housing, cultural activities, social insurance and several others—is made up of 15 to 20 active union members.

Two of the committees, because of the importance of their duties, are elective—the grievance committee, whose official title is the Labor Conflicts Committee, and the Auditing Committee, which supervises the finances of the union.

Annually the union executive signs a collective agreement—a union contract—with the plant management, after the draft of the agreement has been discussed and approved by the membership. It becomes the responsibility of the executive to see that both the union and the management carry out their mutual obligations under the agreement.

The trade union devotes considerable attention to safety measures. At the initiative of the union's labor protection committee, ingenious foolproof automatic devices were installed on the machines that needed them. All the presses are equipped with photoelectric safety devices.

The union will not tolerate any infringement by management of safety regulations. Not too long ago, on the insistence of the union, a foreman in the press shop, Nikolai Inshutin, was discharged and two of the shop superintendents, Alexander Krylov and Anatoli Lepilin, were severely reprimanded and lost a substantial sum in bonuses for negligence.

### Everything from Housing to Vacations

Another of the jobs done by the union is to help workers make the most of their annual vacations. Last year, for example, one out of every eight workers at the plant spent his vacation at a health resort with all expenses paid by the union. In other cases the union paid transportation and a part of the cost of accommodations at holiday resorts. The local spent about a million rubles in 1958 on these vacation items.

Workers also get help from the union in arranging summer vacations for their children. The union maintains two nurseries and four kindergartens the year round. In the summer these schools pack up and move to the country. For children of school age, the union runs a summer camp located in a lovely country spot not far from Moscow. Parents pay only a part of the cost of their children's summer vacation, the remainder is covered by the union.

All these expenditures are met from the social insurance fund. The fund is made up entirely of employer contributions and is administered by the union through its social insurance committee. About a hundred rank-and-file union members help the committee do its job. In 1958 the union's social insurance fund came to 6.5 million rubles, in 1959 it amounts to about 8 million.

Another of the union's functions is to provide the plant's workers with better housing. It prevailed upon the Planning Commission of the Council of Ministers to double the 1958 appropriation—from 6 to 12 million rubles—for housing construction for the plant's workers.

The union also got the Moscow City Soviet to provide more of the newly-built apartments than had been originally scheduled for the factory's growing staff. The plant itself built two five-story apartment houses and for the current year it has allocated 7 million rubles for additional building.

The apartments built by the plant and those provided by the City Soviet are assigned by the union's housing committee to those who need them most. Workers with large families and newlyweds usually come first. More than 400 rank-and-file unionists are active in the housing committee's work.




THE "POP" SONG ENSEMBLE PUTS ON A SHOW AT THE AUTO WORKERS' CLUB.



BOLSHOI BALLERINA MARIANNA BOGOLUBSKAYA DANCES FOR MOSKVICH WORKERS.

### The Grievance Committee

The union devotes considerable attention to its grievance committee, not because grievances pile up but because it considers this area of union activity of primary importance. Considering the size of the Moscow Auto Plant, there are comparatively few worker-management difficulties. There can be no basic conflict over wages and hours since these are established by law, but human nature being fallible, differences, misunderstandings and, on occasion, injustices will crop up. This is where the grievance committee steps into the picture. Its job is to protect the interests of the worker.

Here is a case record. Vladimir Pisarev works as a fitter on piece work. He files a complaint with the grievance committee. He was paid less than his usual wage over a 20-day period. The management answers the complaint with the rejoinder that he had turned out less work. The committee looks into the matter and finds that Pisarev was idle part of the time through fault of the management. They decide in his favor. The decision goes to the local's executive and, once approved, it is binding on the management.

The management, if it thinks it has a case, can appeal to the courts. Thus far the plant management has never appealed the union's decision. Of a total of 202 complaints filed by workers with the union's grievance committee last year, 156 were settled in favor of the worker.

At regular intervals the trade union calls production conferences at which all manner of problems that relate to the workers and the factory are considered. The 161 production conferences last year were attended by 13,000 workers. More than a thousand proposals were made for improving production.

Through these production conferences, which have become important decision-making bodies, increasing numbers of workers are being drawn into active management of the country's industry. A recent production conference, one rather typical, considered the feasibility and value of adding two new automatic production lines. While the lines were being built, the management, acting on the union's proposal, organized special courses to teach new skills to the 200 workers replaced by the new lines.

From production lines to apartments for newlyweds, from soccer to libraries, from kindergartens to labor-saving devices—everything that has to do with the health and welfare of the men and women who work at the Moscow Auto Factory is the union's concern.

ADMIRING FANS AT ONE OF THE SOCCER FOOTBALL GAMES PLAYED IN THE AUTO FACTORY'S STADIUM.



PAINTERS ON SUNDAYS AND AUTO WORKERS WEEKDAYS.





*Waiting For the Signal* by Vladimir Serov



*Letter From the Front* by Alexander Laktionov

*At the Seashore* by Alexander Deineka





*In the Fields* by Andrei Milnikov

# Soviet Art on Display

A HIGHLIGHT of the Soviet Exhibition in New York is a representative display of the country's painting, illustration and sculpture selected to show art trends of the past four decades. The works on view are by artists from the various republics of the Soviet Union —Armenia, Latvia, Russian Federation, Georgia, Kirghizia and others —which show the influence of the diverse national cultures.

In the twenties, soon after the Civil War, artists like Alexander Deineka, Sergei and Alexander Gerasimov and Boris Ioganson began to depict the life of the time—the hardships and the hopes of that early period of Soviet construction. Pyotr Konchalovsky began to make his way from formalistic meanderings to a highly expressive realism. The Armenian painter, Martiros Saryan, embarked on his long and gifted career with canvases that portrayed the national character.

These artists are all represented at the Coliseum gallery. Especially noteworthy are the portrait and two still lifes by the very original Pyotr Konchalovsky and Martiros Saryan's *Byurokan* and *Flowers*.

Sculpture of the twenties is represented by Ivan Shchadra's towering figure of a revolutionary worker, completed in 1927.

There was considerable maturing in the thirties, with work that was probing social comments on history past and present. Typical of the best work of the period is Boris Ioganson's *Interrogation*.

Artists like Sergei Gerasimov and Arkadi Plastov painted studies of collective farm life distinguished for more than their beauty of line and color. There is a radiance that comes through; they were painting the new-found dignity and hope that socialism had brought to the Russian peasant.



*After the Rain* by Alexander Gerasimov

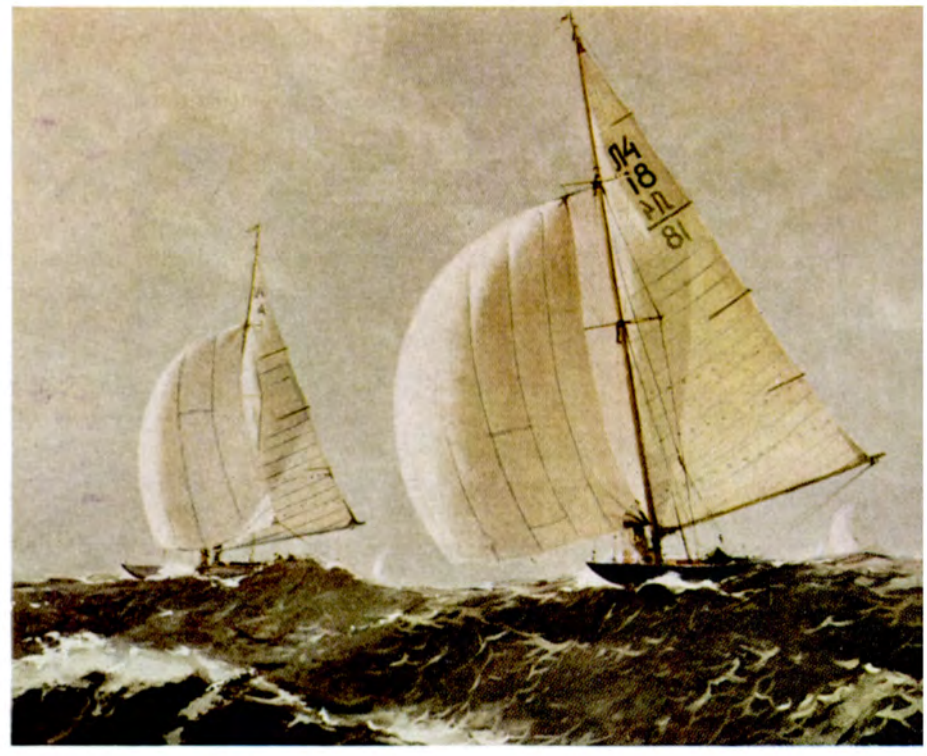


*Byurokan* by Martiros Saryan

# Soviet Art on Display



*Lights of Talgar* by Nurbek Tanchikbayev



*Baltic Regatta* by Eduard Kalnin



***Tractor Drivers at Supper*** **by Arkadi Plastov**



***Daughter of Soviet Kirghizia*** **by Semyon Chuikov**

Book illustrations of the thirties are on display—many of them lasting contributions to the graphic arts—Dementi Shmarinov's drawings for the works of Dostoyevsky, Lermontov and Tolstoy; Yevgeni Kibrik's for Romain Rolland and de Coster, the Kukryniksy's (a group of three very talented artists who work cooperatively) for Chekhov, Gorky and Cervantes.

Vera Mukhina's sculptural group *Worker and Collective Farmer*, done in 1936 for the Soviet Pavilion at the Paris World Fair, has become almost a symbol for the new type of men and women that socialism has evolved. A copy is on display.

During the Second World War Soviet artists used their art as a weapon in the country's defense. The war and postwar period saw a particularly flourishing development in graphic illustration and related techniques. Paintings with war as a theme are represented at the exhibition by the Kukryniksy's *The End* and Alexander Laktionov's *Letter from the Front*, among others. Laktionov is something of a debatable figure in Soviet art circles. While there is general appreciation of his brilliant technique and vivid imagination, there is heated difference of opinion about his almost photographic effects.

More recent genre paintings at the show are Arkadi Plastov's *Tractor Drivers at Supper*, Tatyana Yablonskaya's *Grain* and Semyon Chuikov's *Daughter of Soviet Kirghizia*. Landscapes include Sabur Mambeyev's vivid *In the Mountains*, Eduard Kalnin's *Baltic Regatta* and works by Georgi Nissky, Alexei Gritsai and Yakov Romas.

The eminent sculptor Sergei Konenkov is represented at the show by his *Fyodor Dostoyevsky* and the self-portrait for which he won a Lenin Prize. Monumental sculpture is experiencing a real renaissance in the Soviet Union, witnessed by the fact that Lenin Prizes were recently awarded to Mikhail Anikushin for his statue of Alexander Pushkin done for the city of Leningrad and to Alexander Kibalnikov for his sculptural portrait of Vladimir Mayakovsky.

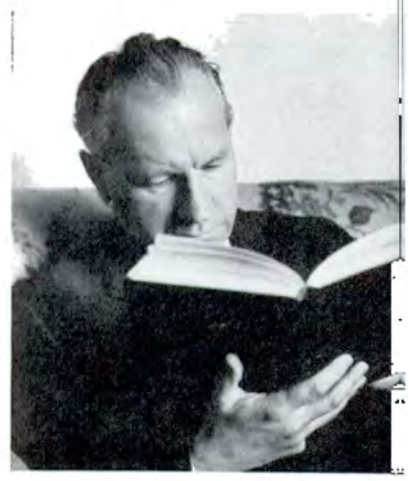


***In the Mountains*** **by Sabur Mambeyev**

# CONVERSATION WITH AMERICA



PREPARING A JULY 4 BOOK EXHIBIT OF TRANSLATIONS OF AMERICAN WRITERS.



Writer Nikolai Mikhailov made many American friends on a recent visit.

**Nikolai N. Mikhailov is the popular Soviet author of *The Land of Russia*, *Following the Meridian* and other entertaining accounts of the geography and people of the Soviet Union and other countries. A number of his books, among them *Land of the Soviets* and *The Russian Story*, were written especially for American readers.**

**The 54-year-old writer is a Stalin Prize winner and member of the executive committee of the Writers' Union of the Russian Republic.**

**He visited the United States as part of his round-the-globe tour recently and made many American friends, to whom he dedicates this improvised July 4 trans-global telephone talk.**

AMERICAN EDUCATORS CHAT WITH STUDENTS OF A MOSCOW TEACHERS' COLLEGE.



"HELLO, hello! This is Mikhailov. Yes, I can hear you very well, my friend. It's hard to believe that you're five thousand miles from here. In Moscow the day is well on the way; for you in New York it's still early morning, I suppose.

"I've phoned to give you my best wishes for the Fourth of July—you and your charming wife and lovely children. It's pleasant to be able to get together for your Independence Day, even if it's only by telephone. Just as it was when you phoned me on our national holiday.

"It seems to me that there's a good deal these two holidays have in common. Our 1917 Revolution that we celebrate on November 7 was also a fight for independence. If we hadn't won our independence, our country would have been swallowed up by foreign powers and we should never have been able to set up the form of government we think best for us. We chose the socialist way of life rather than a system based on private enterprise, much the same way that your forefathers made the choice between king and republic in 1776.

## We Study American History

"Do our people know what your July Fourth means? They certainly do. They learn about it in grade school. George Washington, Benjamin Franklin, Thomas Jefferson and other of your founding fathers figure very prominently in our history books. So does your Revolutionary War. Vladimir Lenin, the founder of the Soviet state, considered your fight for independence a truly liberating war.

"I wonder how many Americans know that Russia was on your side in the war against George III. Russia refused to send the mercenaries that the British asked for, and her declaration of neutrality, to all intents and purposes, lined her up with the fighting colonies. This set the pattern for the friendly Russian-American relations that followed. I remember that your President, speaking in Geneva in the summer of 1955, commented that historically our two countries have always lived together peacefully.

"I enjoyed my stay in your country and grew very fond of Ameri-




LEARNING ENGLISH VIA *THE NEW YORK TIMES* SUNDAY SPORTS SECTION.

cans. Everybody was most hospitable. I still remember with pleasure the dinner we had at the old tavern near the New York Stock Exchange. I liked that ancient three-story building with the pitched roof, the red-gold decor and the memorial plaque that said Washington had dined there just before he took the oath of office as first President of the United States.

"And I'm sure you remember the turkey dinner we had. My wife still scolds me for being so clumsy with the carving knife. She says I should have learned from you. But we did carry back with us one of your customs—now we always have a pitcher of ice water on the dinner table.

### Good Books Make Good Friends

"I was pleasantly surprised to find that so many Americans are interested in studying the Russian language that lessons are given on television. There are a great many people in my country learning English, so many that there aren't enough teachers to go round. Even in distant Siberia our young people on the construction sites have formed English language study circles and have been reading your books in the original.

"A great many of your writers have been published here in translation. I checked on the figure and found out that during the 40-odd years of the Soviet period we have published translations of more than 200 American writers in printings totaling more than 80 million copies! A pretty good record, wouldn't you say? If you like to play with statistics, it comes to one American novel for every Soviet family.

"People here take a great interest in American publications. Last fall one of your big publishing houses, Prentice-Hall, held a book fair at the Moscow House of Scientists which drew very big crowds. Our Social Science Library in Moscow gets books from a hundred different American libraries and publishers and lends its own books to American scholars on request.

"I was glad to see books about the Soviet Union in the homes of a number of my American friends and the *Big Soviet Encyclopedia* in your public libraries.

"There isn't any question that there are many interests we have in common and many more that we could have. The preservation of world peace depends mostly upon our two countries. That's why it is so important for us to understand each other. This matter of developing friendly ties is a responsibility each one of us has.

### Working Together

"Recently I read an article by an American scientist that described work being done by Soviet scientists. It appeared in our newspapers in translation. I thought when I read it, 'That's one more brick in the structure of mutual understanding.'

"There was also an article I came across in your magazine *Saturday*



## A FRATERNITY OF KNOWLEDGE

*By Nikolai Zhavoronkov*
*Professor, Mendeleyev Chemico-Technological Institute in Moscow*

I SPENT last Fourth of July in the United States with a group of visiting Soviet chemists. Together with the gay holiday crowds we admired the fireworks on the Potomac. A few days earlier, in Boston, our colleague, Professor T. Sherwood, had shown us Concord Bridge where the shot was fired that was "heard round the world"—the first shot in the war for American independence.

We looked at the majestic monuments to the great men of America—Washington, Jefferson, Lincoln—symbols of reverence and of faith in the ideals of freedom and fraternity to which these men had been dedicated. They would, I am sure, have subscribed with the same devotion to the global fraternity so imperative for our times.

I was glad to be able to visit the United States, to renew the friendships we had made with American chemists at the Seventh Mendeleyev Chemical Congress in Moscow. In many fields we work along parallel lines and base our studies on the work done by earlier chemists—Russian, American and those of many other countries. The more we are able to break down the barriers which keep men of science apart and the faster we form a world fraternity of knowledge, the better for the world's peace and progress. My heartiest greetings and those of my co-workers to our American colleagues on Independence Day.



## HEALING ON A GLOBAL SCALE

*By Nikolai Blokhin*
*Director, Institute of Experimental and Clinical Oncology*

LIKE many other Soviet surgeons I have been in professional contact with American scientists for many years. I have been to the United States twice. These meetings, besides being very pleasant, are extremely useful. Science, and medicine in particular, is called upon to serve mankind everywhere, it must not fence itself in.

Our Soviet medical men follow the activities of your hospitals and research centers with great interest. And we take the occasion of your national holiday to congratulate you on your achievements in healing.

Among the many colleagues I met in the United States I should like to greet in particular Dr. Blocker, the Texas plastic surgeon; radiologist Dr. Lawrence; and microbiologist Dr. Mayer of California. My hearty congratulations also to Dr. Alexander Brunschwig of New York, whose brilliant surgery we are informed of here; and to Dr. Joseph Burchenal, whose work on chemiotherapy we have been following with great interest. Both Drs. Brunschwig and Burchenal have been welcome guests in Moscow. And more generally, but no less heartily, my best wishes to the surgeons of the Mayo Clinic and the National Cancer Institute at Bethesda, Maryland, who so cordially showed me around when I visited.

It is, I think, a truism that the problem of eliminating killing diseases like cancer needs the joint work of scientists of all countries. Research in cancer is being coordinated by the International Union Against Cancer which will be holding its next meeting in Moscow three years from now. We hope to meet many of our American colleagues at the Congress.

The UN has taken steps to hold an International Medical Year in the near future. We Soviet scientists will certainly be participating in this global effort to pool research for man's benefit.

From joint efforts of this kind will come the answers to many of our unsolved medical problems. Healing is a global problem, let us handle it on a global scale.

# CONVERSATION WITH AMERICA

*Evening Post* written by Gordon Cartwright, the American meteorologist who spent fourteen months at the Soviet scientific base in the Antarctic. He writes about the Russians he worked with and concludes from his own experience that our two peoples get along very well and that they can contribute much to mankind's progress by working together. I liked his article—with a few minor reservations here and there. I'm sure you would, too.

"Our magazine *Around the World (Vokrug Sveta)* carried the impressions of Soviet meteorologist Astapenko who lived for a while at the Little America base. You get the same feeling from his article—that prejudices fade away when people get to know each other.

"One of the things Cartwright said in his article struck me as very true, indeed. It's what I myself felt when I visited the United States. His point was that the Russians were most like Americans—even more so than older friends and allies.

"I've been thinking this over, and wondering what made it so. The similarity comes, I think, from certain things both our peoples have lived through. We have both had to settle vast continents, reaching from ocean to ocean. In a comparatively short time span and under pioneering conditions you trekked thousands of miles westward with ax and plow, while we moved eastward—both our people reaching the shores of the Pacific.

"There is much in our histories that is quite different, of course. The very principles of our societies are different, but there is one thing common to us both, we have fought the same battle with a rich but unyielding nature. This battle has served to broaden our views, widen the scope of our activities and temper our courage.

"An American book I read not long ago described work on the St. Lawrence Seaway—a great undertaking. We too have done a good deal to change the face of nature and we can therefore appreciate the scope of this big project.

### The Same Kind of Geography

"We have much in common even in simple geography—almost a mirror image there if you look at it. Your country and ours are both half mountain, half plain, the only difference being that your mountains are in the west and ours are in the east. Your plain country is divided north to south by the ancient Appalachian range, and our plain land is similarly divided by the ancient Urals.

"We can go on to compare the Mississippi with the Volga, for both flow almost through the heart of our respective countries from north to south. You have your scorching deserts in the southwest while we have ours in the southeast. Your lake region is in the northeast, and our very similar lake region is in the northwest. There are many other such areas of geographical resemblance. Walt Whitman once wrote an essay around the same idea; the title, if memory serves me right, is something like *Letter to a Russian*.

"But the greatest resemblance, I think, is in national character. Leopold Stokowski said when he visited here that Americans and Russians resemble each other greatly and that we should and must find a way to closer friendship.

"This grand old man charmed us with his conducting. And he won our hearts, too, by planting a young oak in the garden of the house where Tchaikovsky once lived—as a token of respect from the composer's admirers in America. We were particularly touched when we heard Roy Harris' *Stalingrad Symphony* dedicated to our people. The symphony was conducted by the composer himself.

"We also had a visit from the Philadelphia Orchestra led by Eugene Ormandy. The most applauded works, naturally, were Russian compositions. I was reminded of Rachmaninov's comment, 'The Philadelphia orchestra—the best of the best.'

### Memory of a Visit

"One of the very warm memories I have of my visit to the United States was an evening I spent in the home of an American friend. Someone switched the radio on and the room was filled with the music of Tchaikovsky's *Reminiscences of Florence*. It is a heart-warming experience to find one's native music so well-loved in another country.

"I should have liked you to have been present in the Grand Hall of the Moscow Conservatory when your Van Cliburn unexpectedly played the very popular 'Moscow Suburb Nights' at his final concert. It brought the house down.

"I imagine the same thing must have happened in New York when the Moiseyev dancers suddenly broke into a *Virginia Reel*. The applause, our newspapers reported, was something to listen to.

"Everybody here, of course, is delighted with the success our dancers have enjoyed in your country. All sorts of stories have been floating around, to wit: that Broadway was a deserted thoroughfare when the



*KROKODIL* CARTOONIST IVAN SEMYONOV TELLING FRIENDS ABOUT HIS U.S. TRIP.

AN EXHIBITION HELD IN A LENINGRAD GALLERY OF THE WORK OF AMERICAN ARTIST ROCKWELL KENT DREW A LARGE NUMBER OF STUDENTS, CRITICS AND JUST VIEWERS.



Moiseyev dancers appeared on TV, everybody stayed home for the program.

"And this one I've heard—supposed to be true—that one New Yorker bought a stack of tickets for the Bolshoi that he expected to sell at fantastic prices. But he couldn't bring himself to part with them and went to the Metropolitan Opera House himself fifteen times in a row!

"We had a visit a while ago from theater man John Mitchell who told us that American theater was very much like ours in style, acting and even props. He attributes this to the influence of Stanislavsky. I don't have enough theater background to judge, but if it's so, it's a gratifying fact. I, and all of us here, are very much for interchange of ideas, visits, books, music, science, sports and whatever else will contribute to better understanding.

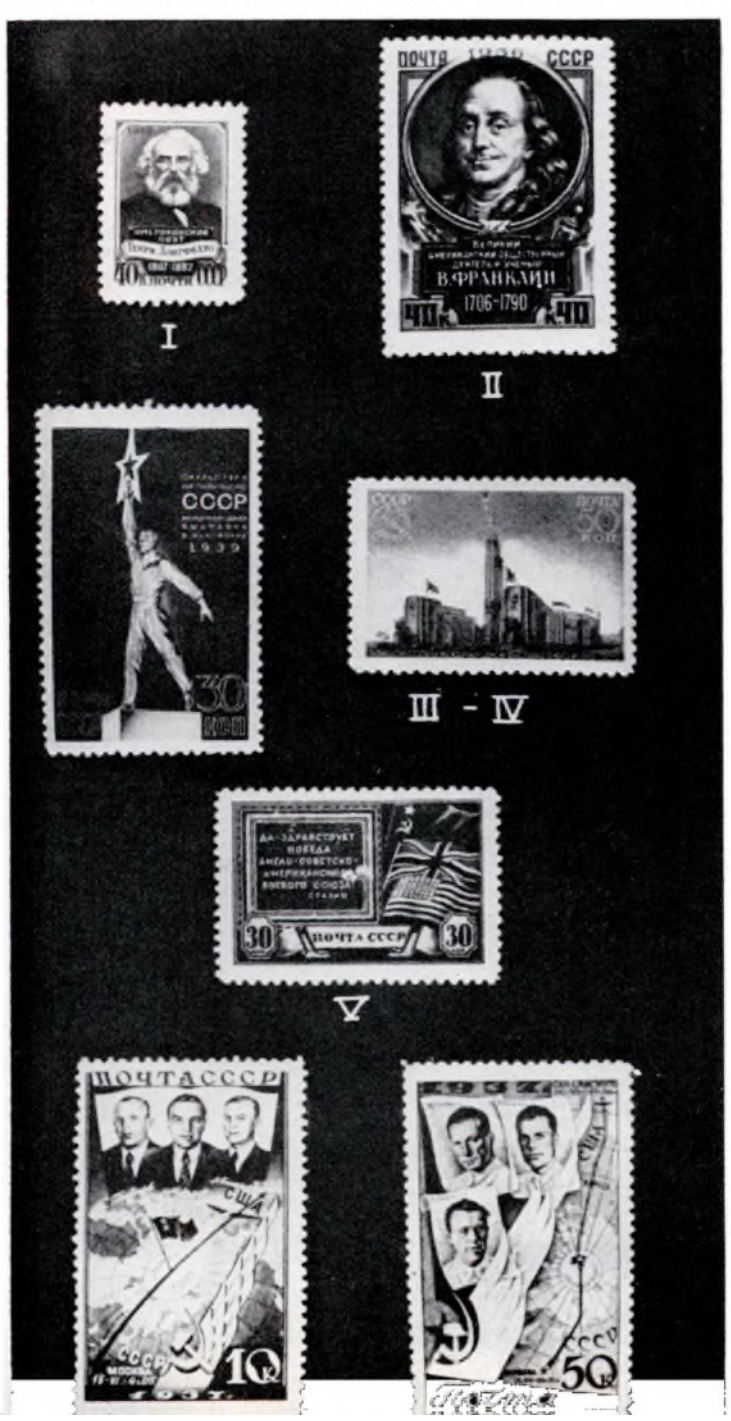
"When Robert Richards, your pole-vault champion, visited us last summer, he remarked that our public was 'fantastically well wishing.' I wish you could have heard how 15,000 Muscovites applauded your *Holiday on Ice* ballet at the Sports Palace, especially when our skaters joined yours in a friendly, symbolic performance.

"We are certainly keeping step in many fields of work. Detlev Bronk, the president of your National Academy of Sciences, was very pleased to find on his visit to our Biophysics Institute that his methods of studying the rhythms of the brain were being used.

"Our medical men were no less pleased to find that Professor Ghent and his associates at the Johns Hopkins Medical School were continuing the studies of conditioned reflexes begun by Pavlov. It is heartening that scientists in both our countries have been working on the same problems. It would be even better if they worked as collaborators.

"About time I hung up. But before I do—my best wishes for a good and happy Fourth of July from all of us in the Soviet Union. Good-by, my American friends, until we meet again. Soon I hope."

**SOVIET COMMEMORATIVES TO FAMOUS AMERICANS AND US-USSR RELATIONS.**




## A FILM TO REACH THE WORLD



*By Vladimir Shneiderov*
*Film Director, Popular and Scientific Shorts*

AMERICAN film-makers have contributed a great deal to the development of motion pictures, our most modern and very likely our most telling medium of communication. On their national holiday, I send greetings to my American colleagues and my wishes for their continued creative contributions.

Perhaps the greatest service the film can provide in this troubled world of ours is to photograph the potentials of peace rather than the threats of war, to document the space ship rather than the intercontinental ballistic missile.

Our two countries appear to be moving toward that very desirable goal. We Soviet cinema people were very happy when the film exchange between the Soviet Union and the United States got under way. Our feeling is that there is nothing more important than this kind of cultural getting-together.

Neither of our countries lacks gifted artists in every area of cinematography. We are neither of us threatened by any impoverishment of talent. Why not then pool our talents—script writers, directors, actors, designers—and work on a joint production? In process, I am certain, we will be exchanging more than technical know-how; we will be exchanging understanding of each other's way of life. If we were able to get that understanding into a film that would reach the world's millions, what a contribution it would be.

## HISTORY TEACHES CO-OPERATION

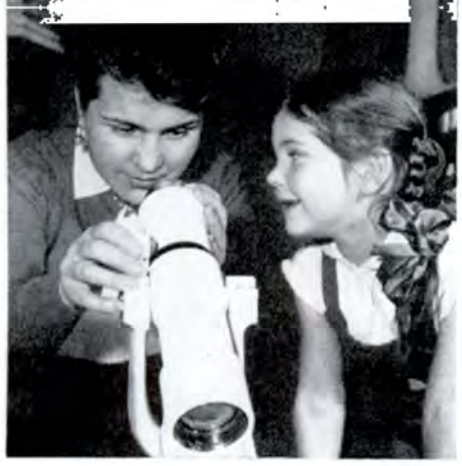


*By Alexander Guber*
*Historian, USSR Academy of Sciences*

IT IS a real pleasure to greet my Transatlantic colleagues on the Fourth of July. On my visit to Washington to meet with the International Committee of Historians, I was impressed with the reverence Americans showed for everything that related to the War for Independence. I visited many of the historic sites of the period—the home of George Washington, Valley Forge, Bunker Hill, Boston Common and, of course, saw the Declaration of Independence and other American documents which changed the course of history.

Interest in American history is widespread in the Soviet Union. It was even in old Russia among enlightened people as far back as the American revolutionary period. As a matter of historical fact, progressive public opinion had a large share in shaping the friendly policy of the autocratic czarist government toward the republic at such critical periods in its history as the War for Independence and the Civil War.

Soviet historians attribute great importance to movements for national independence and democratic rights. Your history, geography and literature are studied in our schools. Original material relating to Russian-American relations is carefully preserved in our archives and reproduced for study by historians and the interested public. We believe that the democatic world outlook is provided not only by teaching our own democratic traditions but those of other countries as well.



# CONVERSATION WITH AMERICA

## LET US REACH FOR THE STARS TOGETHER

*By Professor Alla Masevich*
*Astronomer, USSR Academy of Sciences*

TO MY colleagues over the ocean, my greetings on this national holiday on behalf of Soviet astronomers and astrophysicists. Those of us who have visited your country carried back warm recollections of places visited and friends made.

I saw America in its changing seasonal dress. In Florida I met with spring; in Arizona, that wonderful world of nature, I met with early summer; in New York, with fall; and in Chicago, with real winter.

But no matter what the temperature, everywhere I met with a hospitable and cordial welcome, whether in scientific centers or in the homes of people with whom I stayed. I visited the Lowell Observatory and the observatory at Princeton where Drs. Harold Johnson and Martin Schwarzschild are doing interesting work in my own field of research—the evolution of the stars.

We did not share the same views on all the many astronomical questions we discussed, but we found even our disagreements helpful in arriving closer to the truth. This is the method of science.

The stars are no longer out of reach. We have taken the first giant step out into the cosmos. The horizon of knowledge is limitless. Let us pledge to move toward it together.

## TO MY ATHLETIC FRIENDS AND RIVALS

*By Alexei Medvedev*
*Weightlifting Champion, World Record Holder*

I MET with a cordial welcome from sport fans in New York, Chicago and Detroit during the weightlifting matches last year. In spite of language differences, we exchanged a lot of good talk on the finer points of the sport. They were as much interested in Soviet sports as we were in American.

The impression I came away with is that the United States is a country with a rich athletic tradition and a fine spirit of fair play. The high scores made by American sportsmen places them among the world's best. And that goes for my sport, too.

We weightlifters in the heavyweight division are supposed to be the strongest men in the world. This, of course, is very flattering but it also gives us a special responsibility—to use the strength to build friendship, not enmity.

When we match muscle and skill in fair competition, we build friendship. That was certainly true of our matches in the United States. I'm looking forward to a chance to vie with your Paul Anderson, whose phenomenal record we all envy, and to say hello again soon to Tommy Kono, Dave Ashman and the other American strongmen whom I have met in the stadiums of 15 different countries. And until that meeting, my best wishes for a happy Fourth of July.





## URALS STEELWORKERS SEND GREETINGS

*By Alexander Korneyenkov*
*Chelyabinsk Metallurgy Engineer*

WE IRON and steel men in the Urals send holiday greetings to our colleagues in Pittsburgh, Cleveland and other American steel centers. We have long admired the work they are doing and have been complimented by their comment on our progress.

I did not get a chance to meet American steelmen who visited the Soviet Union. But I read their appraisals in newspaper interviews. Steelmen Edward L. Ryerson and Stephen M. Jenks spoke highly of our iron and steel plants and thought that more regular contact and exchange of ideas would be mutually helpful.

I had met Mr. Ryerson when I visited the United States with a group of Soviet iron and steel men. He and Dr. Earle C. Smith, chief metallurgist of Republic Steel, and other steel industry people, had been most cordial.

When we were taken through the Massachusetts Institute of Technology in Boston, I was pleased to meet Professor Chipman and Dr. Grant, who had visited my part of the country, Chelyabinsk, in 1957.

During our month's stay we visited 16 iron and steel plants, 20 iron ore mines and 4 research laboratories—a strenuous but very interesting itinerary.

This was not a one-way exchange by any means. We learned, and have since applied, American methods of producing their cold-rolled sheets. Our American friends wanted to know about our use of heat-proof magnesite-chromite roofs in open-hearth furnaces, and we were glad to supply the information.

Since my return from the United States I have given about 20 talks to iron and steel workers in various cities on American methods. Hardly a day goes by that I'm not asked to talk of my trip.

My wife and I have been corresponding with Mr. and Mrs. Stephen Jenks and with Mr. and Mrs. Stevens. Mr. Stevens is assistant director of the American Steel Corporation. I send these good friends and the others I made in the United States my best wishes and hopes for many more such exchange visits as the one I so heartily enjoyed.



# A YEAR after GRADUATION



YURI PANOV TOOK A JOB AS ASSEMBLER AND IS CONTINUING HIS EDUCATION AT EVENING SCHOOL.

By Yuri Grafsky

JOB OR COLLEGE? MOST YOUNG PEOPLE COMBINE BOTH AFTER HIGH SCHOOL.



STAVROPOL is a steppe town nestled in the northern foothills of the Caucasian Mountain chain. The highest spot in the town is Komsomolskaya Hill. On a late spring night some little while after graduation, the seniors of Stavropol's High School No. 3 gather on the hill to watch the sun rise. It is a traditional ceremony, symbolizing the end of childhood, the beginning of adult life.

Last year 156 boys and girls—the largest graduating class in the school's history—watched day break from Stavropol Hill while they traded plans for the future.

The plans were as different as the boys and girls present. Some were waiting for their army draft call, others were going to one of the big cities to continue their studies. There were some young people who had already made their choice of vocation and were anxious to get to work.

Here are the stories of some of the graduates of School No. 3 a year after that sunrise vigil:

# A YEAR after GRADUATION

LUDMILA MASLOVA IS STUDYING NURSING WHILE WAITING FOR MED SCHOOL EXAMS.





### Aviation Engineer

Stalina Rolich's friends couldn't understand why she was so reticent about what she wanted to do after graduation. When they asked, she shrugged off the question. They didn't know that Stalina kept so quiet because she thought her plans might sound overly ambitious. What she wanted most was to study aviation engineering and have some part in this bold project to conquer space. She had gotten the idea when the first sputnik was launched.

When Stalina did finally open up to her close friends and say very firmly and positively, "I'm going to Moscow to take the entrance exams for the Moscow Aviation Institute," all sorts of discouraging objections were raised. Her friends kept insisting that the competition was very keen and the exams very difficult—that Stalina was willing to accept. They also kept insisting that aviation was a man's job—but that Stalina refused to accept.

She applied for admission and buckled down to the hard work of preparing for the examinations—and work it was. But she passed. Stalina gives credit to the encouraging help of her mathematics teacher, Konstantin Svidersky, and her physics instructor, Ivan Chupik. They would rather credit the hard study she put in on her class and laboratory assignments and her determination that what a man could do, a woman could, too.

Now Stalina is a student at the aviation institute, doing very well and it may be that her contribution to science will be a decisive factor in the design of some future space ship to the stars.

### Doctor

What prompted Galya Peresypkina to choose medicine as a career? She was frequently ill as a child and spent a good deal of time in bed with compresses and hot water bottles. One of the things she promised herself when she grew up was to find ways of keeping children healthy.

Also, she says, it was her good fortune to be born into the same family as her elder brother. He was a doctor and she loved listening to him talk about the work he did healing people.

Probably the most important influence, though, was a dark, lanky boy by the name of Yevgeni Ginter who shared a desk with her in high school. Yevgeni had a real passion for medicine, carried over, perhaps, from some member of his family—his father, mother, grandfather, aunts and uncles were all physicians. No question in his mind about what his life work was going to be.

Yevgeni talked medicine on all and every occasion and made such prosaic matters as the way bones were articulated or the digestive system functioned sound like adventure stories. He knew scores of true tales about fearless doctors who had saved thousands of lives during a plague or defied snowstorm to bring relief to the afflicted.

Galya doesn't deny the fact that it was not only Yevgeni's interest in



Svetlana Isaenko is a salesgirl in a big retail store. She plans to attend a commercial secondary school and then enroll at the institute.

medicine, but perhaps Yevgeni himself, that may have been the decisive factor in her choice of vocations. It got so that whenever he told one of his stories about intrepid physicians, she would see him in the title role.

It was no great surprise to their school friends when Galya and Yevgeni both decided to go to the Stavropol Medical Institute, which has very high academic standing. They are now first-year students and still do their studying and reading together, with Yevgeni still bringing her his latest story about courageous doctors.

### Radio Engineer

Vladimir Statsenko has been stubbornly traveling a more difficult road toward his career objective than Galya had to. Vladimir decided to become a radio engineer long before he graduated from school and worked hard to prepare himself. In addition to his class study in mathematics, physics, chemistry and electronics he was an active member of the physics and electrical engineering clubs. School No. 3 has more than 20 of these after-school clubs—for those interested in literature, history, language, science, sociology and other fields. Each one is guided by a faculty member. Physics teacher Boris Kuvichko is advisor for Vladimir's clubs and the members have learned many interesting things from him that are still too new to be in the textbooks. The club members have carried through some very informative projects—they made a number of original kinds of gauges, designed a working model for an atomic power plant and set up a public address system for the school.

Last summer Vladimir took the entrance exam for the Novocherkassk Polytechnical Institute. He chose, of course, the radio engineering faculty. Unhappily, he was not able to hurdle all the examination requirements for that particular specialty. He could have qualified for one of the other faculties, but when he was offered that as alternative Vladimir declined. It was radio engineering and no compromise.

Since 1955 the Stavropol schools have been giving students the elements of a trade as part of the regular ten-year curriculum. This has been part of the countrywide school reorganization program to combine theoretical study with manual labor.

At school Vladimir had learned how to handle a lathe, a planing machine and how to do basic electrical work. He took a job as apprentice electrician in the town building department and is doing very well. His present teacher, team captain Alexei Rybalko, says, "Vladimir is a good lad. What some other worker needs a week to learn, he picks up in a couple of days. The background of theory and practical work he got at school accounts for that."

This doesn't mean that Vladimir has given up his idea of becoming a radio engineer. Not by any means. He's going to work for a couple of years and meanwhile continue his studies.

At the present time he's taking a three-evening-a-week course that makes a quick review of the secondary school syllabus. It is designed especially for those who want to take the Institute entrance exam.

**ELECTRICIAN VLADIMIR STATSENKO IS AN EVENING STUDENT AT THE INSTITUTE.**



# A YEAR after GRADUATION



YEVGENI GINTER AND GALINA PERESYPKINA (RIGHT) ARE AT MED SCHOOL NOW.



MAIL CARRIER YEVGENIA SUBACHEVA IS STUDYING COMMUNICATION ENGINEERING.

### Mechanics

One of Vladimir's classmates at the review course is Yuri Panov, who works at the Krasny-Machine Building Plant. He's an assembler on electric drives. His job and study both are preparatory to a career as an electronics engineer. Yuri's choice of vocation was planned at a family gathering—his is a very closely knit family.

Victor Karpov is another of Vladimir's classmates. His family wanted him to go on with his studies but he wanted to buckle down to a real job. He likes machines, particularly lathe work. He has always been fascinated with the way a machine can turn a shapeless piece of metal into a formed and finished article for use. Victor went to work as a lathe operator and is taking courses to improve his job qualifications. His future is as wide as he wants to make it—all the way up to plant superintendent.

### Nurse

Ludmila Maslova is a rather independent girl, accustomed to taking care of herself and making her own decisions. Her mother is a civil engineer and Ludmila got used to moving about with her on construction jobs all over the country. The last few years mother decided that all this moving was not doing Ludmila's education any good, so that Ludmila settled down in Stavropol during the time her mother was building a road in Magadan in the Far East.

Ludmila wanted to be a doctor and took the entrance exams for the Rostov Medical Institute. She did not make the grade. But that did not stop her. Instead of sitting with her hands folded, waiting to take the exams the next year, she has been working as a nurse in the local hospital. It hasn't been easy, this way of learning her profession from the ground up, but Ludmila finds the work very rewarding.

The patients like her, the supervising nurses have been teaching her surgical nursing techniques not ordinarily taught to newcomers—and the doctors predict that she'll undoubtedly make a first-class surgeon after she gets through medical school. And that is precisely what Ludmila intends to do.

### Salesgirl

Life hasn't been easy for Svetlana Isaenko, another graduate of school





EMMA GRITSENKO STUDIES MUSIC AND HAS A JOB SINGING WITH AN ORCHESTRA.



STALINA ROLICH IS A FULL-TIME STUDENT AT THE MOSCOW AVIATION INSTITUTE.

No. 3. She and her elder sister grew up without a father—he was killed at the front. Svetlana, a tall, pretty girl, knew that she would have to make her own living once she graduated from high school. The problem was what sort of job to look for.

Svetlana went to the school director, Semyon Krasovitsky, for advice. He suggested that since she was interested in a business career, she take a job as a salesgirl and he recommended her to the manager of a nearby clothing store. It's a big store which gets about 4,000 customers a day and does an annual business of between 15 and 30 million rubles.

Svetlana seems to have a real gift for selling. The manager is pleased with her progress and Svetlana is pleased with herself. She has begun to go over her old textbooks for review and plans to enroll in a commercial secondary school and then go on to the Institute.

### Letter Carrier

Yevgenia Subacheva works for the post office as a letter carrier. She is studying for a career as communications engineer. Being postman—or postlady, if you prefer—is an interim job. She likes making the rounds. She hasn't been on the job long but she has already made friends with any number of the 2500 tenants in the 450 apartment houses on her delivery route.

Yevgenia knows that Mrs. Ivanov in 5 Nekrasov Street is expecting a letter from her daughter who is working on the virgin lands in faraway Kazakhstan and that the girl in 15 Nevelsky Lane is eagerly awaiting a letter from her young man who is doing his army service. It's like living through 2500 biographies, she says.

### Singer

Emma Gritsenko is the celebrity of last year's graduating class. She used to sing at the concerts the school put on. A few months before graduation she was offered a job singing with a jazz orchestra in Stavropol—her first and very successful professional appearance.

But Emma wasn't satisfied with that. She wants a thorough-going music education. So she enrolled at the local music school and is studying voice, piano, choral conducting and music history.

In the evening she sings on the variety stage. Emma has a promising voice and her many admirers and friends are certain that she has a bright future as a concert star.



# LENIN PRIZE WINNERS

**EACH year Lenin Prizes, the Soviet Union's most honored award, are bestowed on those men and women—industrial workers and farmers, scientists and engineers, scholars, writers, musicians and painters—who have made the most notable contributions in their fields of work and study.**

**The prize winners are chosen from among a large number of nominees whose names are submitted by scientific and cultural groups throughout the country. The final choices are made by two award committees—one for science and technology, the other for the arts—composed of distinguished authorities in their fields.**

**These are the Lenin Prize winners for 1959.**



Vladimir Veksler and a group of scientists who worked with him won prizes for designing the world's most powerful unit for the study of elementary particles, the 10 Bev proton synchrotron.

### Radio Physics

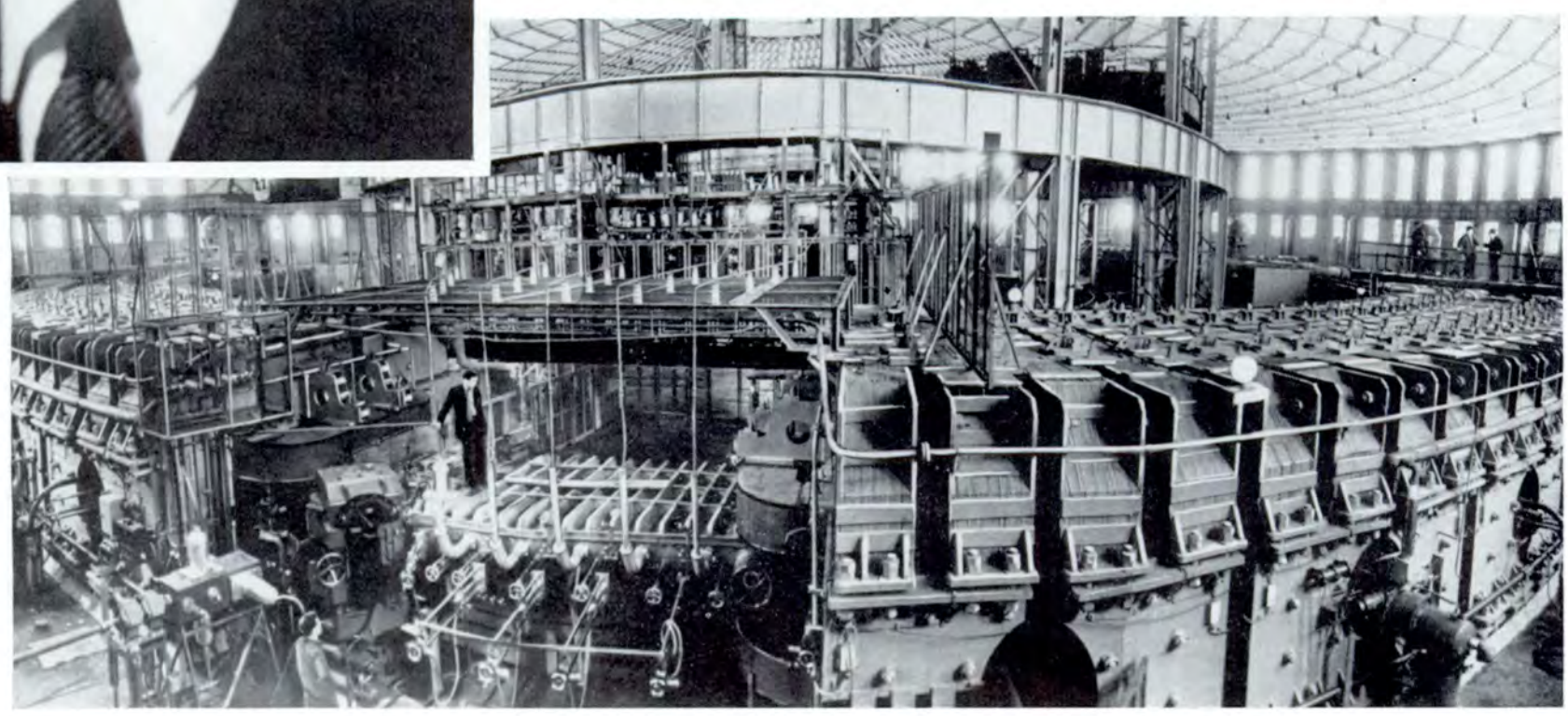
The scientists Nikolai Basov and Alexander Prokhorov were awarded a Lenin Prize for their discovery and elaboration of a new principle in the generation and amplification of radio waves. Their principle of molecular generators and amplifiers will do much to develop quantum radio physics, a new branch of science, and speed progress in radio engineering. Molecular amplifiers utilize the energy generated during the transition of atoms and molecules from one state to another to multiply the sensitivity of radio receiving many hundred times over. The principle opens new approaches in radio location and navigation, radio communication and radio astronomy. Molecular generators possess superstable oscillation frequency and can therefore be used as frequency—time—standards in astronomy and radiogeodosy.

### Nuclear Reactor Design

For their design of the ten Bev proton synchrotron, the world's largest unit for the study of elementary particles and their interaction, a group of scientists headed by Academician Vladimir Veksler—Leonid Zinovyev, Yevgeni Komar, Alexander Mints and others—received the Lenin award. Vladimir Veksler is the Director of the High Energies Laboratory at the Joint Nuclear Research Institute.

A model of the nuclear reactor, which works on the autophasing principle discovered by Academician Veksler, will be on view at the Coliseum Exhibition in New York. The huge accelerator provides the super-high energy required for study of the atomic nucleus.

In the proton synchrotron, which functions with remarkable accuracy, the particles of matter circulate millions of times in a constantly growing magnetic field, their energy gradually increasing. In 3.3 seconds these particles describe 4.5 million revolutions inside the chamber, traveling a distance of one million kilometers at a velocity approaching that of light.





KHABIB ABDULLAYEV, LEADING UZBEK GEOLOGIST.

### Ore Formation

Lenin Prizes were awarded to a number of scientists working in various fields of geology. Khabib Abdullayev, President of the Uzbek Academy of Sciences and corresponding member of the USSR Academy Sciences, was cited for his studies of the part played by granite in the formation of post-magmatic ores. His research was responsible for a new development in rock description and classification of prime importance in exploration for minerals. Applied to the foundation and distribution of ore deposits in Central Asia, his studies led to the discovery of large ore deposits.

### Iron Ore Basin Located

Prizes were awarded to geologists Alexander Dubyansky, Mikhail Kalganov, Semyon Chaikin, Mikhail Dobrokhotov, Ivan Rusinovich, Nikolai Schmidt and Mikhail Yakovlev for locating rich iron ore deposits in the Belgorod area of the Kursk Magnetic Anomaly south of Moscow. This unique iron ore basin is a metal source superior both in quality and quantity to many of the world's largest reserves. The potential of the seven deposits that have been located and partly prospected to date is estimated to exceed 20 billion tons.

### New Gas Deposits

For finding and prospecting the largest gas field in the Soviet Union, Lenin awards were presented to geologists Nikolai Balukhovsky, Boris Vorobyov, Nikolai Gorev, Vladimir Litvinov, Leonti Palets and Samuil Cherpak. The Shebelinka field they located in the vicinity of Kharkov is important for its great gas deposits, estimated at 130 billion cubic meters; the high yield of its wells; and its proximity to large industrial centers. It is already supplying gas to Kharkov, Dniepropetrovsk and other cities in the Ukraine.

### Improved Machine Tool

A group of designers of the Ordzhonikidze Machine-Tool Plant in Moscow—Yakov Mezivetsky, Boris Korobochkin and others—received the award for their high-efficiency, semi-automatic hydraulic copying lathe. On the production line these new lathes have proved their decided superiority over the customary multitool lathes and copying machines. They turn out machine parts three to five times faster and, when used with hard alloy and ceramic tools, guarantee reliable and accurate work at modern cutting speeds. The ease and speed with which these lathes can be reset makes it possible to introduce them into small-series production and to automatic industrial processes in which automatic and semi-automatic machine tools were not previously used.

Lenin Prize laureate Sergei Mitrofanov devised another method of automating and mechanizing small-series and single-unit production by an adaptation of a special technological flow-sheet method used in large-serial production.

### Power Engineering

Contributions made to modern power engineering won Lenin Prizes for scientists Mikhail Vukalovich, Vladimir Kirillin and Alexander Sheidlin. As a result of their theoretical and experimental study of the thermophysical properties of water and steam at high parameters, they were able to compile detailed tables of the thermo-dynamic properties of steam at pressures up to 1,000 atmospheres and at temperatures of 1,000 degrees centigrade. These tables are unequaled for accuracy, completeness and parameters reached, and are now in general use by Soviet research institutes, design laboratories and machine-building plants.

MIKHAIL VUKALOVICH COMPILED POWER TABLES.



### New Gear Drive

Engineer Mikhail Novikov was posthumously honored with an award for his gear drive with an original engagement that functions according to a theory he developed for a new type of dimensional point gearing. This is an important advance in gear drive design and opens the way to new work in the field.

### Hydropower Turbine

In the field of hydropower construction Nikolai Kovalyov, Victor Orgo, Yakov Degtyarov, Abram Kolton and Zelman Gamza received prizes for a self-adjusting-vane hydroturbine. Designed for the Lenin Hydroelectric Station on the Volga, it is unique for its reliability and high power indices. The capacity of the unit, after it had been subjected to exhaustive tests, was defined at 115,000 kilowatts instead of the rated 105,000. At a pressure head of over 22 m., the capacity of the units exceed 126,000 kilowatts.

NIKOLAI KOVALYOV DESIGNED A NEW TURBINE.



### Blast Furnaces

A radical improvement in the construction of blast furnaces won the award for Vasili Kanishchev, Alexander Kaplin, Pyotr Kononenko and other specialists. By the use of their method, seven large blast furnaces with a total annual capacity of some five million tons were built at less than the estimated cost and placed in service ahead of schedule. The furnace at the Orsk-Khalilovo Works was built in eight months, a record time in the Soviet Union.



# LENIN PRIZE WINNERS



PAVEL LUKYANENKO, NOTED PLANT GENETICIST.



FYODOR KIRICHENKO BRED FROST-HARDY WHEAT.



VASILI PUSTOVOIT, SUNFLOWER SEED BREEDER.



PRIZE WINNING STATUE OF POET MAYAKOVSKY.

## Awards in Agriculture

A number of Lenin Prizes were awarded for contributions to agriculture. Fyodor Kirichenko, director of the Institute of Plant-Breeding at Odessa, and Pavel Lukyanenko were cited for their work in breeding frost-hardy, high-yield varieties of winter wheat with excellent milling and baking qualities. The new varieties are now being sown over an area of 25 million acres in the Ukraine and the North Caucasus. Both these plant geneticists had previously made important contributions in this field.

A Lenin Prize was conferred on Vasili Pustovoit, whose work in breeding varieties of sunflower seeds with a high oil content was described in an earlier issue of this magazine. Pustovoit has now developed varieties of seed with an oil content of 46-51 per cent, with some biotypes running as high as 57.8 per cent.

For his book *Livestock Feeding*, a basic study of the metabolic process in the animal organism, Professor Ivan Popov of the Moscow Timiryazev Agricultural Academy was awarded one of the esteemed prizes. His work began a new trend in feeding which has been adopted by livestock farms all over the country.



IVAN POPOV, AN AUTHORITY ON CATTLE FEEDING.

## Sculpture

Each year Soviet contemporary work in the arts is reviewed for outstanding achievement. For his statue of Vladimir Mayakovsky that now adorns the busy Moscow square that bears the beloved poet's name, the eminent sculptor Alexander Kibalnikov was awarded a Lenin Prize.

EMINENT SCULPTOR ALEXANDER KIBALNIKOV.





ALEXANDER VLASOV, ARCHITECT.



A STADIUM LARGE ENOUGH FOR OLYMPIC GAMES.

## Architecture

A Lenin Prize was awarded this year for architecture and city planning. A group of builders and architects that included Stepan Adyasov, Moisei Bass and Alexander Vlasov were honored for their work in planning the Luzhnikl District in Moscow and designing the Lenin Stadium in record-breaking time—18 months. With its complex of structures, the stadium is sufficiently commodious for Olympic games and other international matches.



VASILI SOLOVYEV-SEDOI, POPULAR SONG WRITER.

## The Novel and Play

In literature, awards were presented to novelist Mukhtar Auezov and to playwright Nikolai Pogodin. Auezov's epic novel, *The Path of Abai*, which has already been translated into 25 languages, centers on the poet and teacher of the Kazakh people, Abai Kunanbayev. It is a brilliant portrayal of a period during which the Kazakh tribal system was disintegrating in the people's struggle against the all-powerful feudal beys.

Nikolai Pogodin received the award for his dramatic trilogy begun in 1937 with *The Man with the Gun*, continued in 1940 with *The Kremlin Chimes* and now concluded with *The Third Pathetique*. The linked central characters of the trilogy are Lenin, the leader, and the people, makers of the revolution and the Soviet state.

For their impersonations of Lenin on stage and screen, awards were presented to the actors Maxim Shtraukh and Boris Smirnov. Shtraukh is an extraordinarily gifted artist whose portrayal captures the inner life of the founder of the Soviet state. Smirnov plays the central role in *The Third Pathetique*.

MUKHTAR AUEZOV, LEADING KAZAKH NOVELIST.



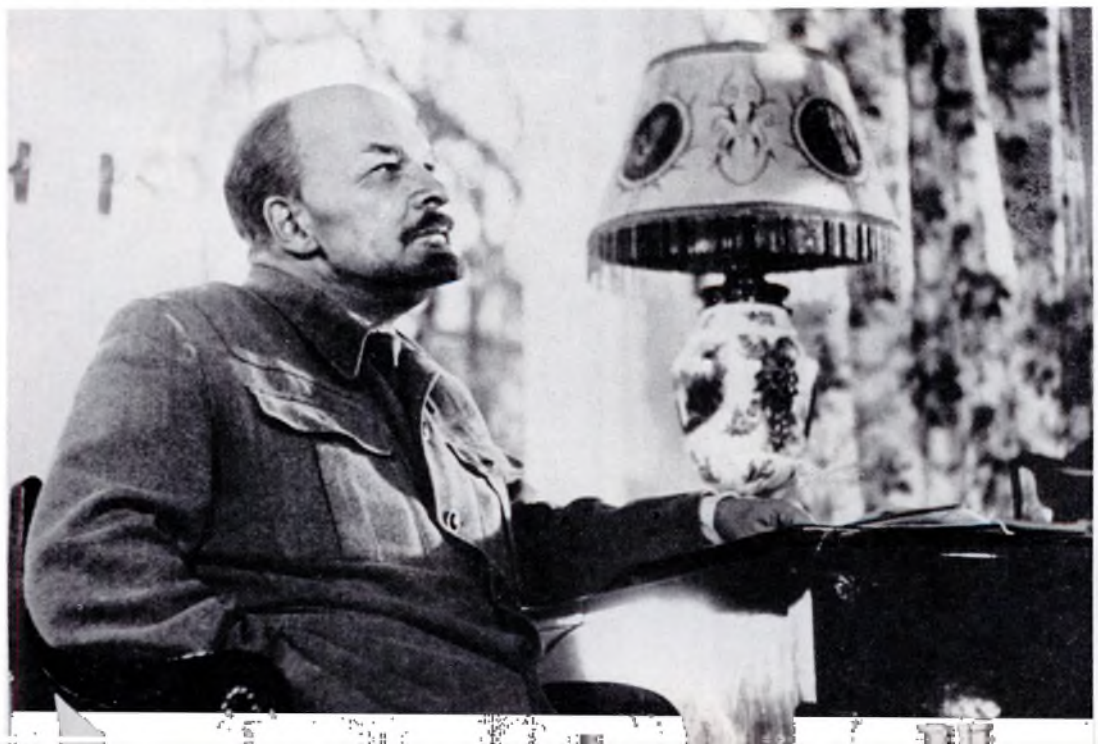
## Music

Two Lenin awards were made in music. Aram Khachaturyan won one of the prizes for his ballet *Spartacus*. For the heroic theme of days long past—the slave revolt led by the gladiator which shook ancient Rome — the composer has created music with brilliant dramatic impact. The ballet is a torrent of expressive melodies, contrasting rhythms and colorful harmonies.

Khachaturyan's music has a strength and passion—derived from an interweaving of folklore with symphony — which has deeply stirred audiences both at home and abroad. Although *Spartacus* has just begun its stage life, it has already achieved an honored place in contemporary ballet.

The second award in music went to Vasili Solovyev-Sedoi, whose popular songs are played and sung all over the Soviet Union. They combine originality, high artistic merit and great simplicity. Among the best of his songs are *Onward*, a soldier's ballad, the very popular *Moscow Suburb Nights*, which Van Cliburn played as a surprise number to a delighted Moscow audience at his final concert, and the peace song, *If the Lads of All the World*.

MAXIM SHTRAUKH RECEIVED THE AWARD FOR HIS BRILLIANT STAGE AND SCREEN IMPERSONATIONS OF LENIN.



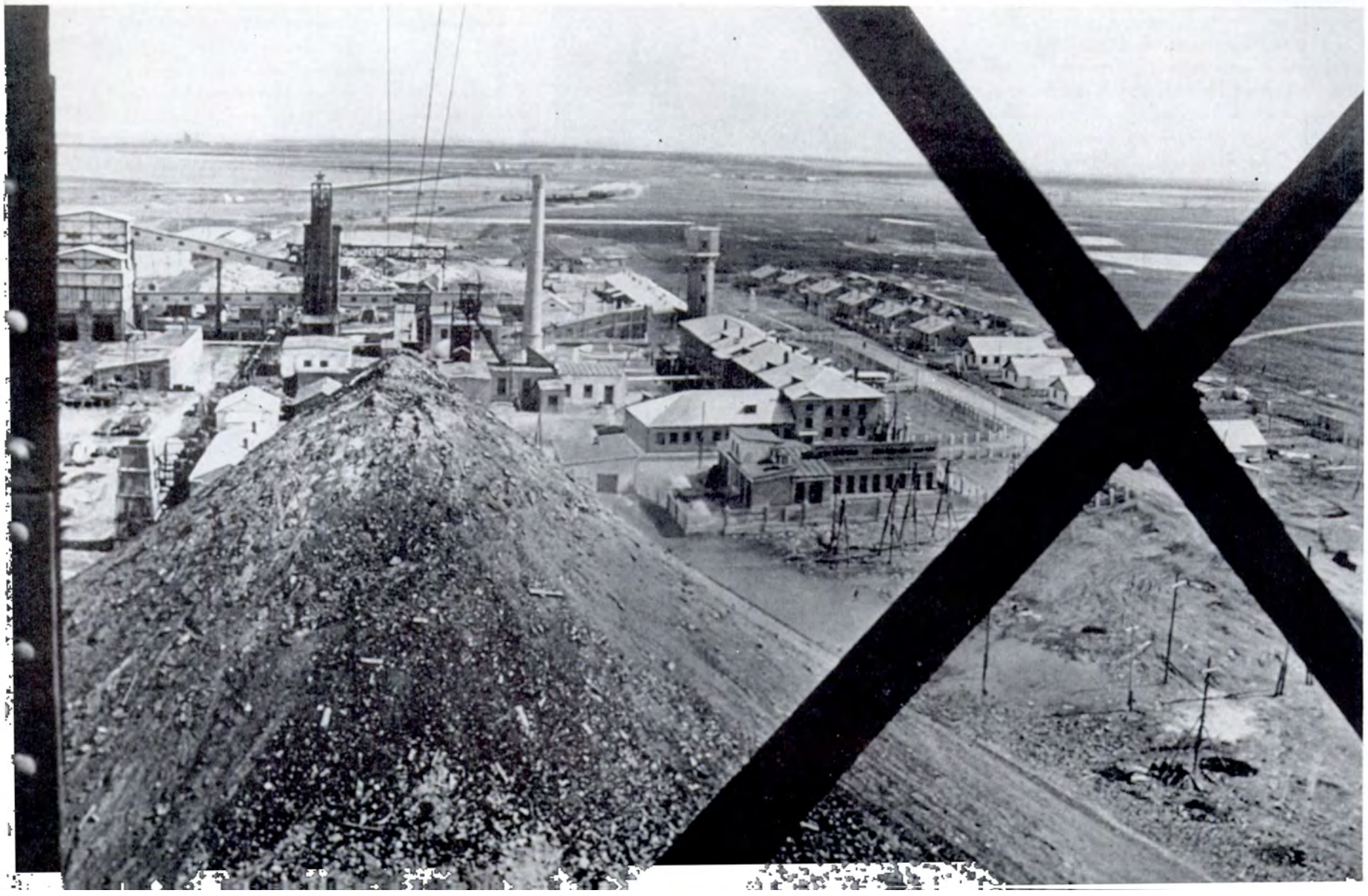
ARAM KHACHATURYAN, DISTINGUISHED COMPOSER.





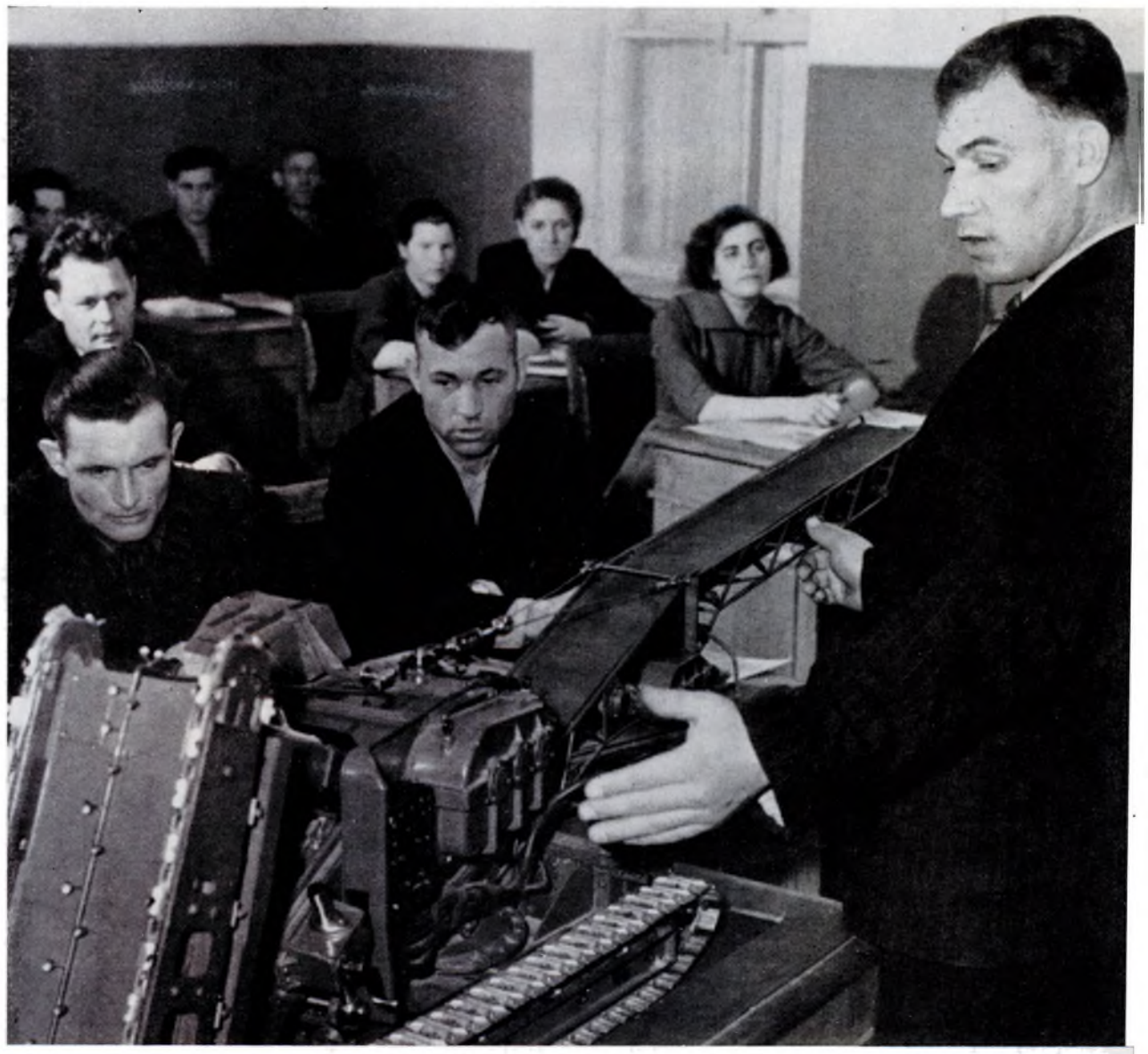
VASILI KOCHETOV PERSONIFIES THE NEW KIND OF WORKER WHO IS ALWAYS ON THE LOOKOUT FOR QUICKER, CHEAPER AND MORE EFFICIENT WAYS TO GET THE JOB DONE.

MINE 66 IN THE TULA COAL FIELDS WHERE VASILI KOCHETOV AND HIS TEAM OF MINERS CUT A PHENOMENAL 5500 FEET OF TUNNEL A MONTH INSTEAD OF THE NORMAL 500.



# Miner Vasili Kochetov

*By Georgi Yuryev*



Kochetov telling students at the Bogoroditsk Mining School how he was able to set an all-time high at tunneling. He used production line techniques after training each member of his 42-man drift team.

ALTHOUGH Vasili Kochetov does not hold public office, he is the leading citizen of Bogoroditsk. Everybody in this mining town of 40,000 knows him by sight. You can see his portrait in the town hall, in the lobby of the local motion picture house and in the administrative office of the 14 coal mines of the Tula field which the town serves. This is the tribute usually paid to Soviet workers who have made a particularly noteworthy contribution to the country's welfare.

People who know what coal mining is—and that holds for everybody in this one-industry town—still shake their heads in wonderment at the job Kochetov has been doing. He is a senior drifter and cutterman at mine No. 66 just outside the town. Drifter is trade lingo for the man who cuts the tunnel or heading parallel to the course of a coal seam.

The team of 40 coal miners that Kochetov leads has been setting an all-time drifting record. They have been cutting 5,500 feet of heading a month instead of the normal 500.

Vasili Kochetov came to work at Bogoroditsk when the mine opened in 1954 with ten years of experience as timberman, loader and drifter. He had ideas about the way drifting ought to be done and No. 66 was the ideal setup to put them to test. The mine used the most modern kind of equipment—powerful Donbas cutter-loaders which mechanized loading, the hardest of the mining operations.

Mechanical supporting shields suggested by Soviet designers were being tested then to eliminate the hazards of timbering. Besides being risky, timbering is an expensive operation, it makes up about three-quarters of the production cost. Now the mine has three of these mechanical supporting shields in regular operation and saves on thousands of feet of timber, not to mention man power.

## Picking a Team

Kochetov was asked to take over a team of drifters. He insisted on hand-picking the men himself. He wanted to try something that hadn't been done before and he made sure, much like the mountaineer who picks his fellow-climbers, that here were men he could depend upon.

His 42-man team was made up of cutter-loader operators, timberers, men who laid track sleepers, and electric locomotive drivers. He worked out three six-hour shifts instead of the usual eight, with fourteen men in each of the shifts.

The old work-cycle was to have the cutter-loader fill the empty mine cars with coal. Then the cutter stopped working until the next batch of empty cars came. In the meantime, the sleeper and track layers got to work. Then the cycle repeated itself.

It was a wasteful procedure since it meant that the cutter stood idle for considerable periods. What Kochetov wanted was a production line method that would keep the cutter going all the time.

It meant a good deal of change, and Kochetov worked hard trying to convince the skeptics. There was much arguing and debating but with the support of the trade union committee and the local Communist Party organization, Kochetov's idea won the day.

But that was only the beginning. Now began the task of training his team-members. What he had in mind was a close-knit team of jacks-of-all mining skills—each man a timberer, sleeper-layer, locomotive driver and cutter helper.

He did his teaching after shift hours. He began with two of his best men, Victor Yurakov and Pyotr Lapshin, and taught them to operate the cutter-loader. Then with their help, he taught every one of the team-members a number of skilled operations so they could double and triple in brass if they had to. By the time he was through, he had trained a team that meshed like a set of finely-machined gears.

## A Close-Knit Team

By November 1955 the team had worked up from the monthly average of 500 feet of heading to more than 1,700. Six month later they hit the 2,400-foot mark and two months after that, 3,100. Their record as of June 1958 was a phenomenal 5,500 feet.

The team has been rewarded with more than admiration. The record has brought each of them very sizable wage boosts. Mining in the Soviet Union is considered one of the arduous trades and is better paid than most. In addition, a miner who tops his quota gets a larger bonus than do other workers.

For Kochetov's team in particular — the month they set the all-time record, each of the men earned from 8,000 to 10,000 rubles, a very high wage.



Vasili Kochetov and some of the other men who have learned to handle a number of mine operations. Mining is a well-paying trade in the Soviet Union and each of these record-breakers has been earning high bonuses besides.



Miner Kochetov browsing at the local bookshop. It's a job keeping abreast of the mass of technical material that comes out each month, not to speak of the general cultural reading he tries to get to.

A relaxing evening at home with the family and TV. Kochetov manages very few of these free evenings. Besides the talks he's constantly asked to give at mining institutes, he's studying mine engineering.



# Miner Vasili Kochetov

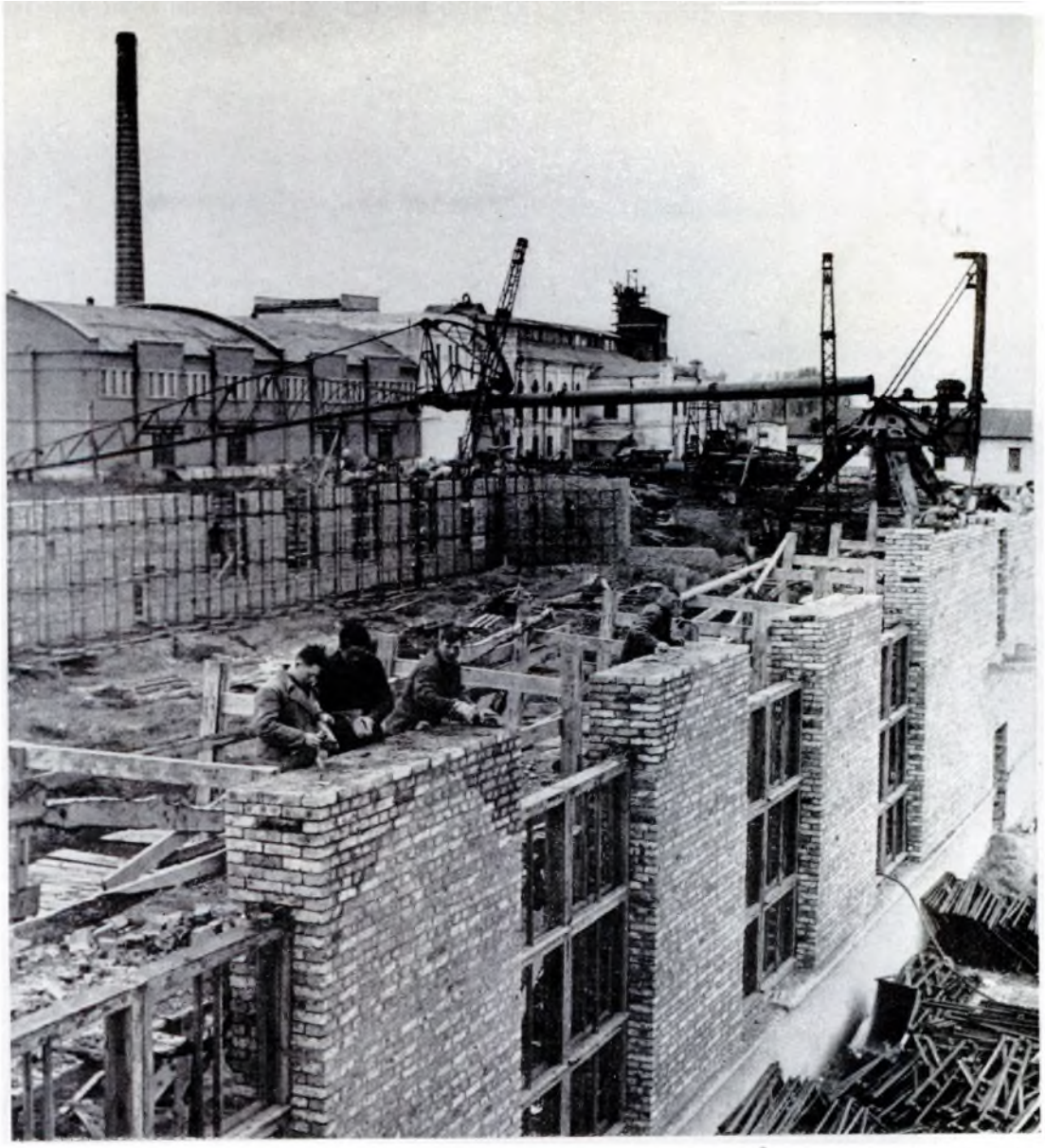
## The Team Goes to School

A word on Pyotr Krivolapov, Kochetov and education. Krivolapov is one of the men on the team. He is grateful to the team leader for more than his present high wages. Kochetov, he says, got him started learning again and now he's embarked on an ambitious course at the evening mining school in Bogoroditsk. He plans to become a mine technologist and then go on from there for a degree in mine engineering.

The school has 200 students, 20 of them from mine No. 66. The course includes the fundamentals of mining and electrical engineering, geology and mine survey. The lecturers for the most part are specialists who work in the local mines — men like Victor Makarevsky, senior geologist, and Sergei Dezhin, chief mechanic. Vasili Kochetov has been lecturing on the method his record-breaking team uses.

Since the day Pyotr Krivolapov enrolled at the mining school, he has been holding forth on the values of education and has persuaded others of his teammates to follow suit.

His latest convert is Kochetov himself. After being subjected to one of Krivolapov's sermons, to wit: that he, Kochetov, although he lectured to people at the Mining Institute of the Academy of Sciences in Moscow, hadn't done any specialized study himself, and what kind of a team leader was it who didn't set an example, etc. etc. To make a long speech short, the 32-year-old team leader is now a student at the mining school and undoubtedly hatching up other ideas that will be breaking other production records.



The Tula coal fields are gradually being worked out. Some of the men are moving on to the mines in other parts of the country but many prefer to retrain for jobs at one of the local construction projects.

## A Bright Future

This group of 42 miners have grown to be close friends. Their families know each other and they spend most of their leisure time together. Not long ago, when the Lapshins moved into their new apartment, the whole crew christened it at a night-long party, dancing and singing to the music played on the accordion by their delighted host.

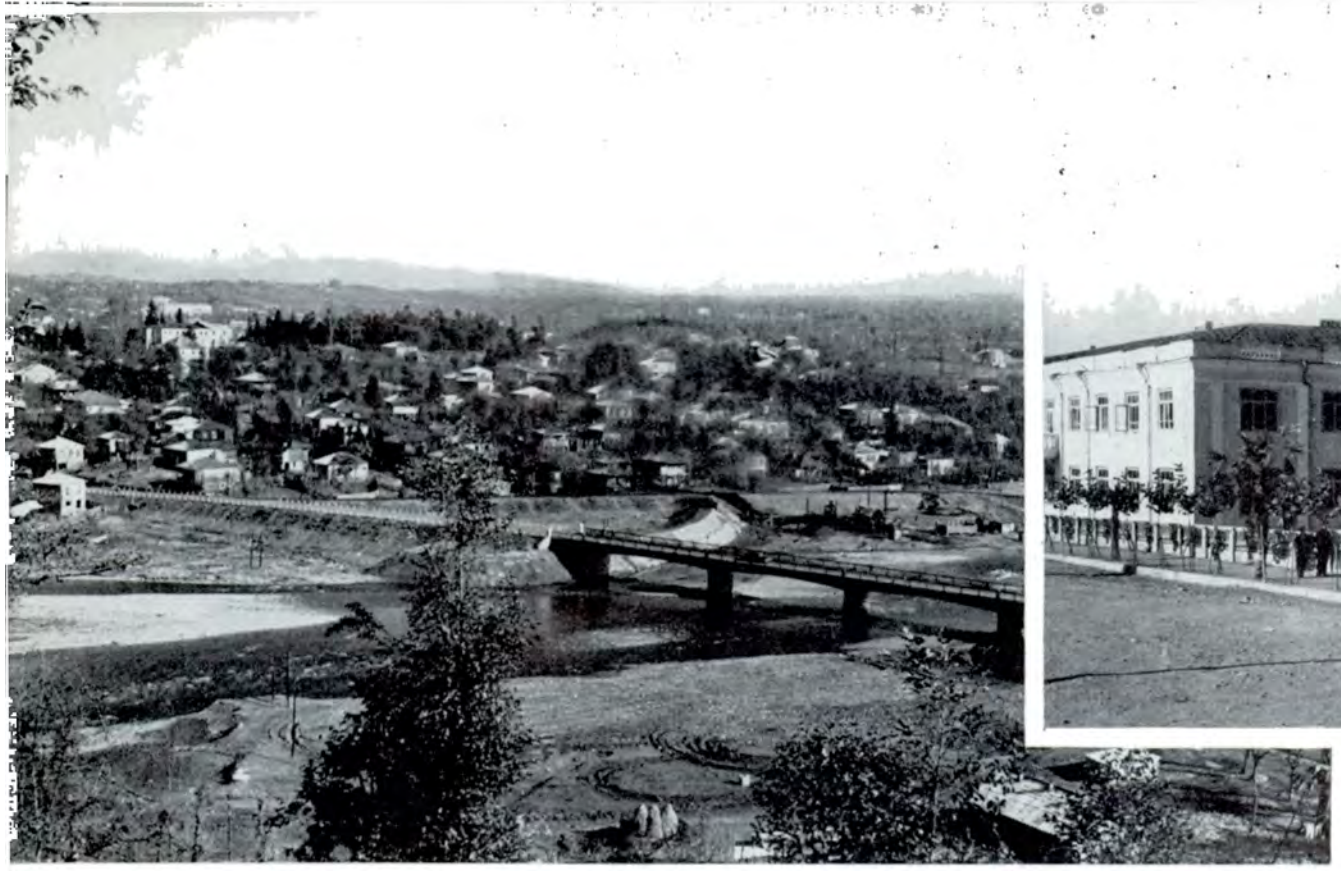
A return engagement took place at the Kochetovs when they had a farewell party for Ivan Mochalov, who was leaving to work in the Kursk Magnetic Anomaly, the fabulously rich ore deposits in the southwestern part of the country. The mine in which Ivan had worked had been abandoned because there was no coal left in it.

As a matter of fact, more mines in the Tula fields will be closing in the next few years for the same reason. The guests were speculating on what they'd do when the time came. Some of them were determined to stay on in Bogoroditsk even if it meant giving up mining. The local sugar refinery was being enlarged and would need more workers. A rubber-asbestos plant was being built and a few chemical plants were scheduled to go up. So nobody was worried about being left without a job.

Even the dyed-in-the-wool miners weren't worried. True, there'd be nothing for them in Bogoroditsk, but there were innumerable mines beckoning all over the country, what with the ambitious plans afoot in the industry for the next seven years.

These are displaced coal miners Egor Izgarshev (right) and Yuri Gusev who have been retrained and are helping to build the refinery, one of four big plants to go up within the next few years.







This is the community center for the members of the Makvaneti collective farm.

The villages of Makharadze District in the Georgian Republic are vast construction sites, with new housing, farm buildings, schools, clubs, hospitals, roads and bridges going up at phenomenal speed.

# CONSTRUCTION

**By Andrei Ionov**

**Photos By Alexander Mokletsov**

A NINE-FOOT map is posted in the main square of the town of Makharadze, the regional center for a district of the same name in the Georgian Republic. Pinpointed on the map are construction projects scheduled by the three-year plan for the collective farm villages in the district.

Officially the plan got under way in January, but the district did not wait for official word and some of the projects have already been marked off on the chart as "Finished." This one is a village school, and that one a library, and this other a community center or store or theater.

The local papers published in Makharadze and in the larger villages carry daily progress reports on new housing, nurseries and kindergartens, hospitals, roads, bridges, and a sizable list of other construction projects under way. Alongside these items are progress reports on the builders—who is doing the best and the fastest job and how. Every so often one of the masons or electricians or carpenters works out a short cut or figures out a more ingenious working operation, and both he and the idea will get first-page billing.

All this is news for the district's collective farmers, and important news. Every project marked "Finished" means that much higher living standards. So that it's rare that the map posted in the main square will not have a cluster of the local people around it in earnest discussion or argument.

Like all other farm regions in the country, the Makharadze villages have been growing by leaps and bounds. Makharadze takes in a relatively small area from the Black Sea Coast to the southern foothills of the Caucasian range. The collective and state farms in the district grow tea, fruit, wheat and industrial crops and breed livestock. In the past few years, what with greater farm mechanization, improved cultivation, larger use of chemical fertilizers and better trained farmers, there has been a very considerable boost in collective farm income and, consequently, in the individual income of the collective farmers.

The 36 Makharadze collective farms bear witness to that fact. Their cash income increased from 163 million rubles in 1956 to 190 million in 1958. The rate of increase for the larger farms was even better. Thus, the collective farm in Natanebi, one of the villages, increased its income from 10 to 13 million rubles during this same period and the collective farm in the Dzimiti village boosted its income by 33 per cent.

### Higher Incomes—More Building

Some 80 per cent of these incomes were distributed among the individual collective farmers, the amounts varying with the character

Higher farm incomes and a shift upward in the intellectual level of the countryside are reflected in the demand for more cultural facilities.



New farm buildings are being constructed and old ones modernized. These are for the livestock of the collective farm in the village of Shroma.





New building in Dzhumati village. Construction is following a coordinated district-wide plan to provide rural inhabitants with urban-type communities.



School in Shroma. The Tbilisi Institute helped design the public buildings so that when completed they would form an architectural ensemble.

# OOM IN THE SOVIET COUNTRYSIDE

and quality of the work done. Quite a number of the farmers in the Natanebi, Dzimiti and other villages made over 20,000 rubles in cash last year, not counting the value of the crops and the foodstuffs they raised in their own kitchen gardens. These high incomes are, of course, reflected in the way the farmers live. Take Dzhumati, for example. In the past few years almost all of the 425 families in the village put away enough in savings to build new homes. There are only seven more left to be built and these are now being worked on. The cottages are owned by the individual farmers.

If the farm makes more money, more can be spent for capital expenditures—farm buildings, additional machinery, livestock—and for improving community facilities. Construction projects now under way in Makharadze are paid for out of this fund for capital expenditure that is owned by the collective in common. This expenditure has quadrupled in the past two years due to the steady increase of collective farm funds.

In Dzhumati village it is paying for a new road through the mountains to the nearby villages and for eleven public buildings, among them a new three-story school, a community cultural center and a 300-seat open-air theater.

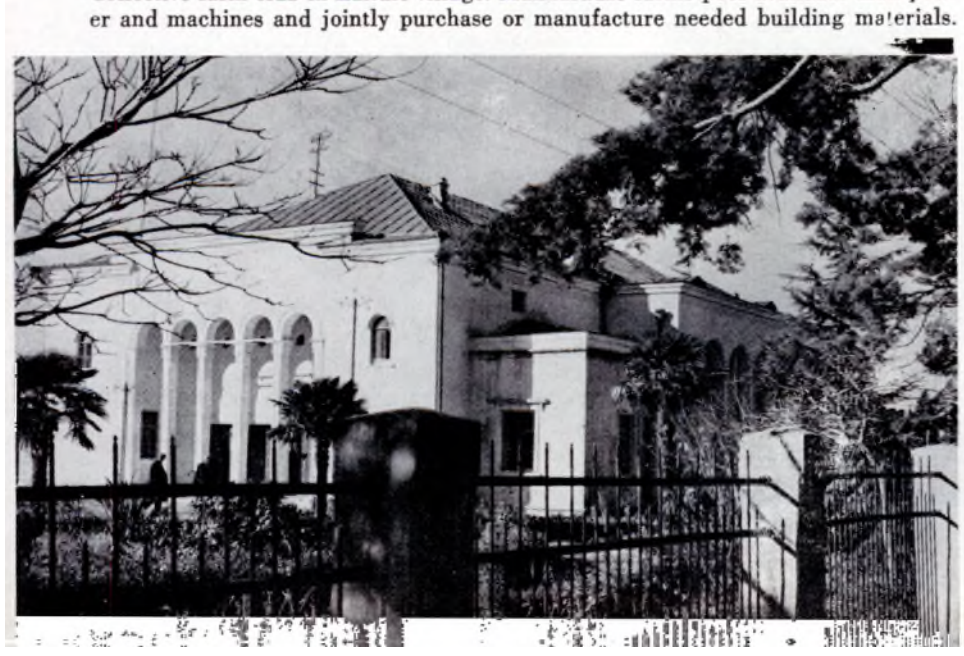
A generation ago the whole of Makharadze District had fewer than a dozen schools, four modest reading rooms and a single 10-bed hospital. Compare this with Makharadze's present 70 schools, 80 large community centers with well-stocked libraries and 20 hospitals with 430 beds. The district is growing so fast, however, that even this is hardly enough to meet present needs.

The Makharadze villages employ the services of some 2500 agronomists, engineers, teachers and doctors. Most of the farmers have had a high school education and their children are going on to the country's colleges



Municipal building in Natanebi. The over-all area plan includes 85 buildings like this one.

Collective farm club in Laituri village. Makharadze farms pool available man power and machines and jointly purchase or manufacture needed building materials.



A village residential street. In three years 651 houses, 72 nurseries and 21 schools will be built for the inhabitants of Makharadze District.





Four generations of Kogotoshvilis have grown up in Natanebi. The family has seen a lot of changes and expects to see many more in the next 7 years.



Grigori Kogotoshvili likes to listen to his daughter-in-law play the piano after a good dinner. She is one of the farm's horticulturists.



Great-grandfather Epifan Kogotoshvili is happiest playing host to the neighboring farmers whom he regales with stories from the past.



Amateur art groups have become a standard feature of village clubs. This is a Georgian dance presented in the traditional national dress.

# CONSTRUCTION BOOM

and universities. More and more of these college-educated youth return to their native villages to live and work when they have completed their schooling. The shift in the intellectual level of the rural population has created a tremendous demand for cultural facilities in the countryside. This, coupled with the farmers' prosperity, is the reason for all the construction shown on the chart.

### Cooperative Building

In the past 18 months the district has built so fast it is more than a year ahead of the schedule originally worked out. The operations are pooled. If there are not enough building workers in the smaller villages, more skilled men are sent out from the bigger collective farms. Machinery is used jointly and building materials are either manufactured or bought centrally. The public buildings are constructed to standard architectural designs. Roads, bridges and power networks are built jointly.

The planning and building of housing and public works is centered in the Makharadze District Soviet, the regional administrative council. The council set up a committee for this purpose 18 months ago. Similar committees were set up by each of the village Soviets.

These committees held public discussions at each of the collective and state farms to consider the kind and amount of construction needed for each village. The village plans were then coordinated.

The building plan finally approved for the district as a whole covers a three-year period. It includes the following: 651 cottages and 132 apartments, 72 nurseries and kindergartens, 44 community centers, 21 schools, 20 hospitals and clinics, 9 vacation resorts on the seacoast and in the mountains and 6 stores. About a third of the total construction budget is to go for completing electrification and for road building.

### Farmers Organize Construction Teams

The builders are local people for the most part, collective farmers and workers from the state farms. In Natanebi village 60 collective farmers have learned various building trades and have organized themselves into a construction team. They have been doing so good a

# E SOVIET COUNTRYSIDE

job that they inspired the organization of similar teams in other villages. Their work is paid for out of collective farm funds.

The young people in the villages are especially active. Last year some 6,000 members of the local Young Communist League put in about 200,000 hours of voluntary building work. This was an immense contribution to the common effort and relieved skilled workers for the more requiring jobs.

In a number of villages where cultural centers have already been finished, the best of the builders have been honored with permanent seats in the auditoriums, their names engraved on metal plates attached to the seats.

Architects and engineers of the Tbilisi State Designing Institute helped on the design of the buildings, and the local industries helped by increasing their output of building materials. Besides this, the collective farms set up a pooled fund which manufactures building materials in large quantities and does the basic construction for the smaller villages.

This type of cooperative inter-farm construction is going on in thousands of rural areas all over the country. It has been stimulated by the increasing prosperity of the collective farms.

The villages in the Krasnodar Territory of the Russian Federation last year spent 650 million rubles for construction of farm buildings, dwellings, hospitals and schools. This is six times the amount they spent in 1953.

The collective farms of the Moldavian Republic during the past two years built schools to accommodate 13,000 additional pupils and 50 community centers with library and movie facilities. This small republic plans within the 1959-1965 period to build 700 more schools and 500 additional community centers.

The large-scale rural building called for by the seven-year plan—besides public buildings, seven million rural dwelling units are scheduled for the 1959-1965 period—offers the possibility of radical transformation of the traditional type of farm village into a well planned, modern urban-type of community.

There are designing institutes in the Ukraine and other republics now at work on this kind of village reconstruction. They have already worked out plans with some extraordinarily interesting features that will soon be bringing to farm communities all the amenities and services provided by modern urban living.



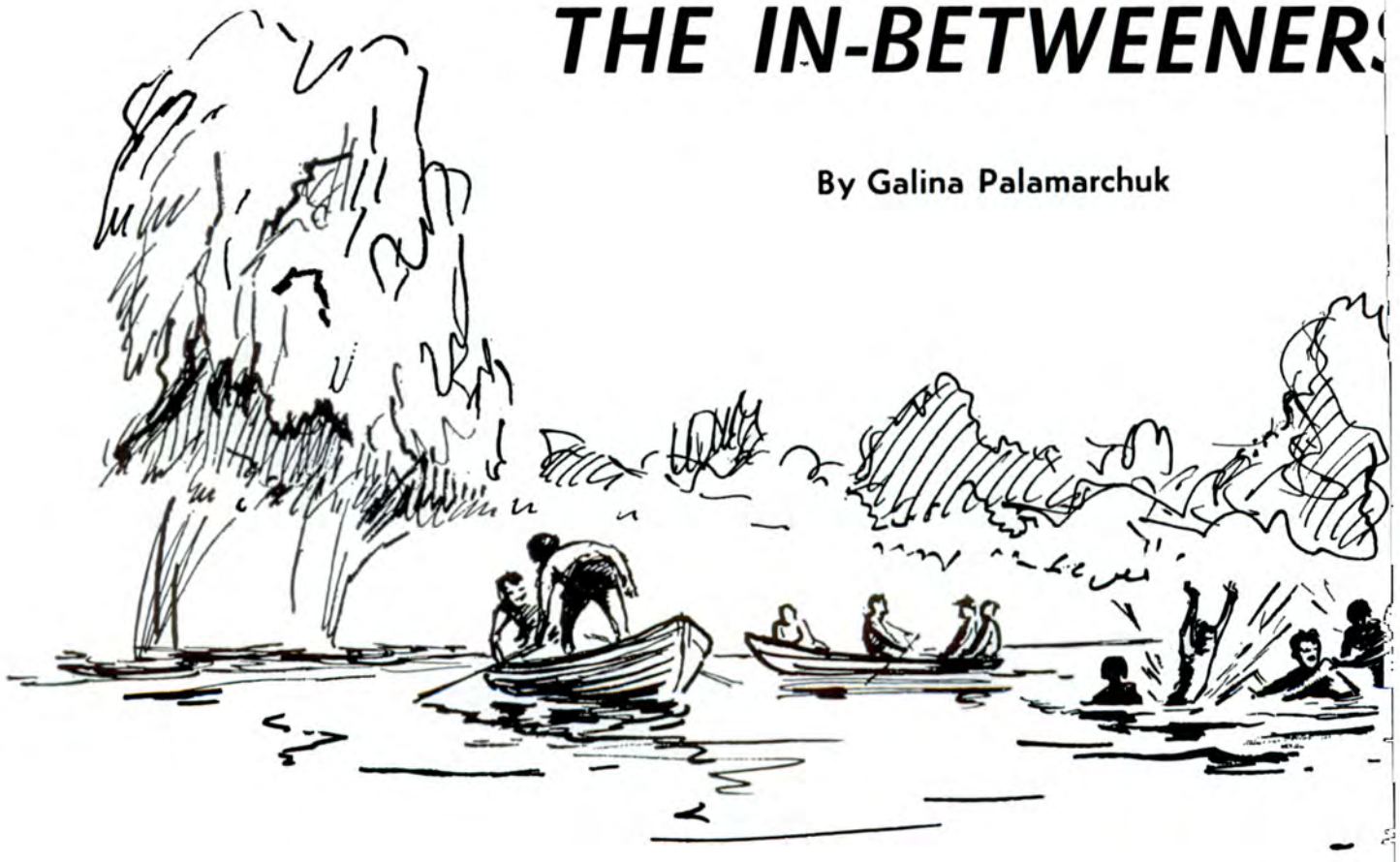
THERE ARE 70 SCHOOLS IN MAKHARADZE DISTRICT. MANY OF THEIR GRADUATES GO ON TO COLLEGE.

WITH INCOME RISING RAPIDLY, COLLECTIVE FARM CONSTRUCTION COMMITTEES DON'T HAVE TO CUT CORNERS.



# THE IN-BETWEENERS

By Galina Palamarchuk



IT WAS the kind of day that starts everyone talking vacation, one of those early spring days that makes you feel summer is just around the corner, that school number 23 in Moscow hatched the idea of setting up its own summer camp.

Many of the younger children had their plans all set. Some were going to Young Pioneer camps, others were going to holiday resorts or on trips with their parents.

A group of seniors were talking excitedly about making a hiking trip through the Caucasian Mountains. Listening enviously was one of the in-betweeners, 14-year-old Vladimir Vasilyev.

"You seniors have all the luck, traveling around the country on your own, seeing all the interesting sights. But we. . . ." And he waved his hand to include a couple of other in-betweeners like himself standing there listening to the talk about tramping through pine woods and climbing mountains. He didn't have to finish the sentence, his gesture was expressive enough.

"Cheer up," said one of the seniors, "in a couple of years you'll be doing it, too."

"Who wants to wait?" said Vladimir glumly.

One of the other seniors joined in, "Who says you have to wait? Plenty of hiking and climbing country closer to Moscow than the Caucasus."

Vladimir perked up all of a sudden as though he had been hit by a bright idea. He gestured to the other in-betweeners and in a minute they were off in an excited huddle of their own.





### Unanimously in Favor

Chapter one of the saga of School 23's camp—a group of the in-betweeners make a call on Lev Gordin, physical training teacher. Lev Gordin thinks it's a wonderful idea. He speaks to Alexandra Zakharova, the school principal. So does she.

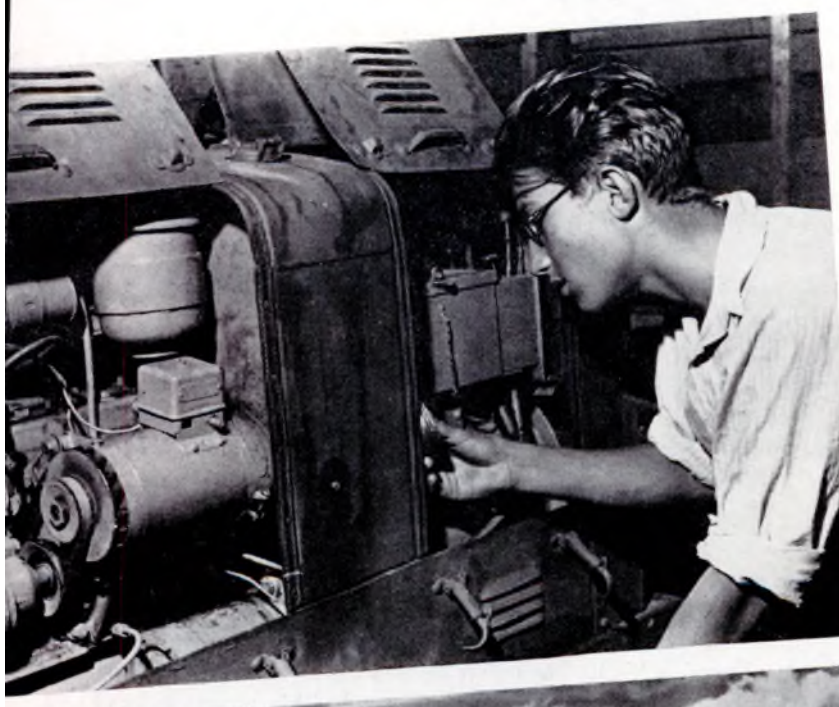
A conference is called of teachers, members of the Parents' Committee and representatives of the Radio Research Institute—the Institute is patron for the school. Everybody present thinks it's a fine idea, for more reasons than one.

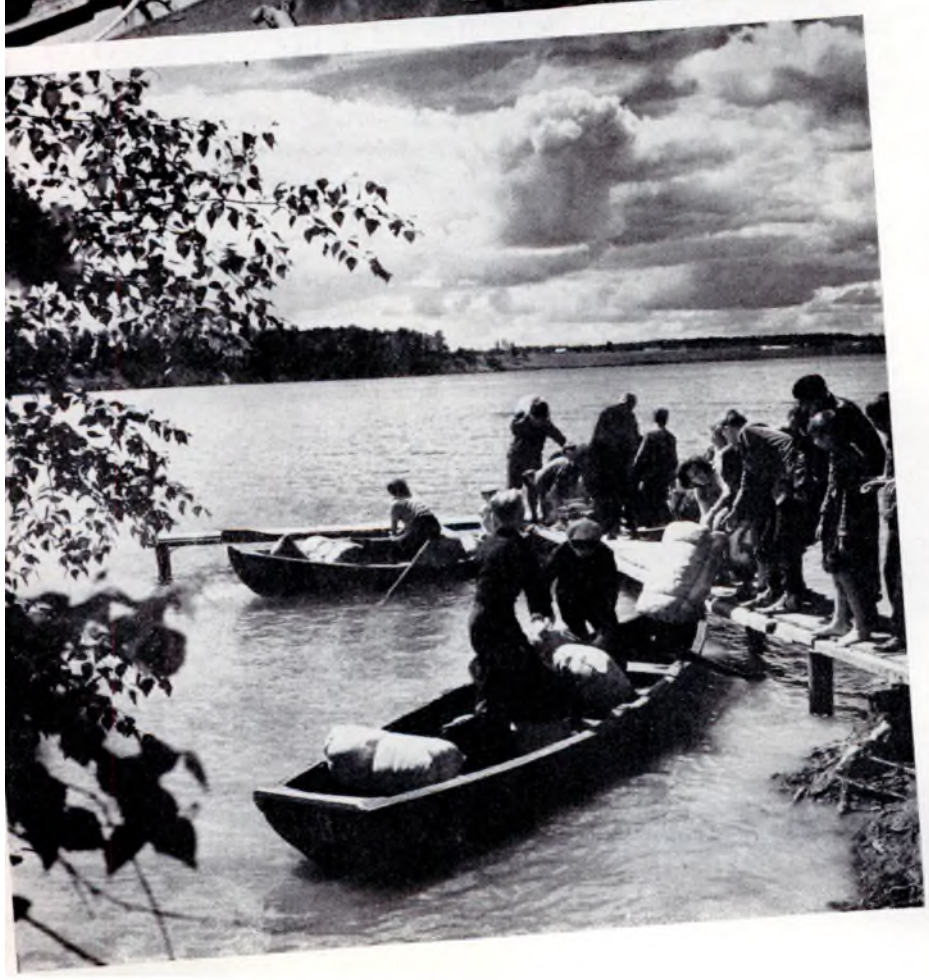
First is the fact that it's a project the children thought up for themselves. Second is the fact that they want to set up the camp on their own, and, says Principal Zakharova, there are educational values involved—it will teach them independence and self-discipline. Third is the fact that it will cost the parents very much less than even the low fees charged by already existing camps.

The maintenance cost for a Soviet school child at the usual summer camp runs from 366 to 450 rubles a month, depending upon whether

# BUILD A SUMMER CAMP







the camp is a stationary or a tourist camp. The parents, however, pay only a part of this cost. About half the places are given to parents at half fee, about 40 per cent at a quarter of the fee and the remaining 10 per cent without charge at all. The trade unions cover the difference.

The decision being unanimously in favor, Lev Gordin was chosen to head the project. "You pick out ten or a dozen of the seniors to help you direct the work of the younger children," the principal tells him. "And you, doctor," turning to Nadezhda Kulikova, the school physician, "yours is the job of choosing the first group of campers."

### All Aboard

Came the bright day for departure and 78 boys and girls are lined up in the shade of the tall hedges in the school courtyard, listening to a few words from Lev Gordin. He speaks of friendship and of the way they must help one another and of the responsibility they have to see that their camp is run properly, without fuss and friction.

Although the children listen intently, their eyes keep straying to the pile of camp equipment—tents, knapsacks, blankets, pots, pans, shovels, axes and what not else and to the waiting buses and trucks.

Lev Gordin calls for a cheer for a happy, busy summer and shouts, "All aboard!" There's cheering and shouting and a veritable tumult as the children load the camp gear into the trucks and then climb aboard the buses. The motors snort, the buses jerk forward and hands keep waving out of the windows until the school is out of sight.

The miles fly by and soon the apartment houses are far behind. The new horizon of dark green forest and sparkling water reflects the bright blue summer sky. Around a turn from a lake, the buses stop at a grassy stretch of level ground surrounded on all sides by birch and fir trees.

The children should be tired after the trip, but they are too excited to rest for very long. They want to get down to work. "We have a whole camp to set up before dark," they insist. And so the glade becomes alive with their voices and the clatter of equipment. It isn't long before each unit has pitched its own tent and a canvas community of sharp-peaked roofs has been laid out in the shape of a "U". By evening the children are tired but still walk up and down on the green, admiring their handiwork from every possible angle.

### It's a Beautiful Morning

At the crack of dawn, they are up. It's a beautiful day with just enough bite in the early morning air for a hearty breakfast and the next job on hand. It's to build a stove. Master stove-builder is Victor. He knows his business and gets the red bricks moving along from hand to



# THE IN-BETWEENERS BUILD A SUMMER CAMP

THESE SIXTH-GRADERS ARE ON THEIR OWN HALF A MILE FROM THE MAIN CAMP.



hand and then placed exactly squared with his tape and drop line.

In the meantime, the wood squad has been busy collecting firewood. It's piled into the newly-built and much-admired stove and then everyone watches Victor anxiously as he lights a match. "Will it draw?" It does, and well, and Victor is hugged and congratulated from all sides.

With a flourish he says, "Girls, we're turning the kitchen over to you." The children run for the pots and pans, water, food. It's time to get lunch started and soon all sorts of appetizing aromas are mixed in with the fresh green smell of the pines. Everybody wants to know, "What's for lunch?" The kitchen squad has only one answer, "You'll find out when it's on the table." Nobody is allowed to poke into the pots and pans simmering away with a cheerful bubble.

But in the midst of it all—a drop of rain, and then another one. And no roof over the stove yet! The girls begin to race about covering the food and the dishes, and the rest of the camp runs for the tents. Somebody yells out, "Natasha, Natasha, what's the sense of covering the empty plates? Take the soup off the stove. It's beginning to boil."

Advice—mostly useless—is thrown at the kitchen squad from every tent. The girls are too busy to listen. They have everything covered and are heaving a sigh of relief when—there's the sun again and the rain is over.

A few minutes of the hot sun and you would never know it's been raining. Lunch is a great success with practically nothing burned.

### Everybody Pitches In

Program for the afternoon? Building. One group is setting up the radio station. Another is installing the power unit that will supply lighting current. There's a hitch. The motor doesn't work and in desperation they call for Lev Gordin. He looks it over, makes his diagnosis, and the crew gets busy again.

Lev is something of a jack-of-all-trades, a useful person to have in camp. So is his assistant, Svetlana Pashchenko. She's supervising another group of children who are building a clubhouse. They are discussing a sketch for the interior—arrangement of book shelves, chess tables and shelves for musical instruments.

Outside one of the tents a very young artist, somewhat in need of a haircut and with the tip of his tongue stuck between his teeth, is laboriously painting a red cross on a piece of board. He stands back to admire his effort, yells inside the tent, "Irina, I've finished." He climbs on a stool and fastens the sign to a projecting nail. Unfortunately, he climbs down too hastily, lands on a tent peg and Irina gets her first first-aid case of the summer—not serious.

### Playtime

The first five days were spent getting the camp in shape. On the sixth day the scheduled program of activities got underway. The day began with reveille at half past seven. Then came setting-up exercises to music. Then morning wash.

Breakfast was served on tables built by the school children and was, of course, cooked by the rotating kitchen squad. During breakfast the camp radio announcer gave the weather forecast, prepared by the children's meterological bureau.

Morning activities included berry-picking for the very young campers and water sports for everyone else—swimming, fishing and canoeing.

A group of the older boys and girls took off in their "fleet"—six canoes they had built in the school workshop during the winter. The fishermen went off to secluded nooks away from the splashing and squealing and giggling where the fish could bite in peace. For the non-swimmers, Lev Gordin organized instruction. And the good swimmers worked up an impromptu water polo game.

For everyone, the "All Out" signal came too soon—just about enough time to get dressed, have lunch and to say hello to unexpected visitors who had walked over from a nearby Young Pioneer Camp. The visitors roamed around the grounds, peeked into the tents, the clubhouse and radio shack and were properly impressed by all the work that had been done.

They were invited to stay for a tug-of-war and accepted the challenge. Teams were chosen, they took position at ends of the long rope, heels digging into the ground, arms pulling. At first the visitors seemed to be gaining ground and then slowly, but surely, they were pulled over the line. Some of the campers explained it by the muscles they had acquired in the five days of setting up camp.

But the visitors got their own back in the soccer game. It was a real scuffle with the home team fighting hard, and goal-keeper Igor Monin doing a heroic job of stopping the kicks. But even Igor was no match for the visitors' teamwork and the game ended 3-1 in their favor.

## All Sorts of Projects

After the first week the days began to race along with new activities and new projects. Every Wednesday the children published the camp paper—a single sheet with articles, drawings and photos all done by camper journalists, artists and photographers.

For two or three hours a day the childen worked at the collective farm near the camp—thinning out carrots, weeding flax, picking tomatoes. They liked working at the farm and were very proud when the collective farmers sent their wages to the camp in potatoes, cabbage, milk, meat and eggs.

Saturday was campfire night with the children sitting around in a great ring, watching the sparks shoot up in fiery streaks to the sky. They provided their own entertainment. Tanya Bolshanova got to be known as the camp ballerina for the graceful dancing she did against the lovely background of forest. Eddy Savkin achieved something of a reputation for the way he recited an amusing poem about two fishermen who caught one fish between them. And a group of boys did a performance in national costume of a Russian dance to tumultuous applause. The best part of the campfire evening, so the whole camp said, was the last part. That was when everyone joined in the quiet singing and the melodies echoed off far into the distance.

## Camping Out

Periodically groups of campers with knapsacks on their backs went off in all directions on overnight or two-or three-day hikes. Junior and senior students took longer trips. One group of 22 took a 14-day trip through all kinds of bypaths. Their theme song, one which the whole camp picked up, went like this:

We cover many towns and lands,
Parallels and meridians;
No roads exist, no routes there are
Which we won't try, 'tho near or far.

The hikers came back with a vast excitement about new places seen and new things learned—rivers and streams, flowers, insects and birds. From their hikes they brought back collections of stones, leaves and plants for the camp's nature museum. The best finds were a moraine stone deposited on the Russian plain by a glacier eons ago and an ammonite, a petrified snail which, explained Sasha Izvekov, the finder, had lived many ages ago when the sea had covered all this land. Sasha, incidentally, has decided that geology is his field.

The history they had learned at school became real and tangible for these children when they stopped at a village to listen to the old folk songs or looked at the ancient monuments in the town of Vladimir not far from the camp.

All this to be talked over in the evenings at camp and to be fondly remembered the rest of the year.



THE OLDER GROUPS TAKE HIKING EXPEDITIONS TO EXPLORE THE COUNTRYSIDE.

THE PERFECT END OF A PERFECT WEEK IS THE SATURDAY NIGHT CAMPFIRE.



# "HOLIDAY on Ice" in the USSR



WHILE the ballet company of the Bolshoi Theater danced for audiences in the United States, the American ice ballet, invited to the Soviet Union by the USSR Ministry of Culture, performed for the people of Moscow. The program was called *Holiday on Ice,* and holiday it was, for the performances were a kaleidoscope of brilliant, multihued colors, a veritable festival of sport, ballet and acrobatics.

The ice arena of Moscow's Palace of Sports, the largest hall in town, provided Dick Button, Arnold Shoda, Bobby Blake, Buddy Lalonde and his four-year-old daughter, Jack Raffloer, Jerry Mapes, Guy Longpre, Rosemary and Robert Unger, Alice Quessey and the rest of the company with plenty of room to display what each had achieved in this comparatively young form of art.

Besides solo and double figure-skating numbers, the program included beautifully staged folk dances. Those little vignettes of choreography—"New Orleans Waterfront," "The Fleet's In" and "Alice in Wonderland"—performed by the versatile Arnold Shoda, Guy Longpre and Joan Hyldoft, sparkled with bubbling humor. Dick Button was the star of the program, and was given a richly-deserved ovation by the enthusiastic audiences. Throughout the performances there was a feeling that the two peoples living on different continents were glad of the chance to get to know each other better. A highlight of the American ice ballet's visit was the joint performance given by American and Soviet ice skating stars.

Genuine art always finds its way to the heart of the people, and there is no doubt that *Holiday on Ice* has helped to develop and strengthen the cultural relations between the Soviet Union and the United States. The Soviet people look forward to more visits of this kind.



American skating star Dick Button meets a future Soviet figure skating champ.





The audience crowds up to the ice stage in a spontaneous ovation to the company for a brilliant show.





The American *Holiday on Ice* company and the Soviet *Ballet on Ice* troupe join forces in Moscow to give a spectacular show for a standing-room-only audience.





Alice Quessey's son reluctantly leaves the kindergarten he was visiting (top); Dick Button talking to Muscovites.





**BESIDES VIRTUOSO PERFORMANCES OF SOLO AND DOUBLE FIGURE SKATING NUMBERS THE PROGRAM INCLUDED BREATHTAKINGLY BEAUTIFUL BALLETS LIKE *GRADUATION BALL*.**



# *Philadelphia*

# Track and Field Meet



Soviet athletes have been hard at work preparing for the July meet.



By Victor Kuprianov

LAST year's US-USSR track and field meet was called the match of the century. What is this year's going to be called? It's to take place this month in Philadelphia. And we have a feeling that both teams are going to have a lot to say.

The meet in Moscow last year was by all odds the most exciting since the Olympics. Immediately the events were run, American and Soviet forecasters swung into action on this year's results. There were just about as many forecasts as there were forecasters.

USSR coach Gavriil Korobkov declared at the time, "Next year we're going to have a stronger team." And from the looks of the performers chosen for the 1959 match, this wasn't just wishful thinking. They are all headline athletes well up in the international match class. Some of them are old-timers, some are newcomers, but all are tops in Soviet athletics, not only so far as individual performance goes but in team showing as well.

There isn't any doubt that the USSR team is stronger than last year's, but, says informed opinion, so is the American team. The big question is—which team has picked up most momentum? For the answer, see Philadelphia.

One of the things that has had the Soviet coaches worried is climate. This can be, and occasionally is, something of a problem. Coach Gavriil Korobkov, whose job it is to worry about these things, explains that Philadelphia, geographically, is at about Baku latitude, with heat and humidity that Soviet athletes are not used to. The training has been taking that into account, of course, as well as such items as the composition of the track which means readjusting stride and rhythm to suit.

Aside from climate and track conditions, there is the more formidable threat of a crack



IT'LL TAKE A LOT OF GOOD SPRINTERS LIKE ED OZOLIN (LEFT) TO BEAT THE CRACK U.S. TEAM.

American team. Comparisons of times and distances show that the U.S. has been building up noticeably this year.

Soviet athletes have been in training but under handicapping circumstances. Grandfather Frost, as he is called here, is decidedly not a track and field fan. He usually keeps us snow and icebound for three or four months. That means a long annual interruption that not only holds athletes up but sets them back. Vladimir Kutz, ace distance man. used to report for spring training with a ten-pound overweight problem each year.

This winter a new system of indoor meets was introduced. Each athlete had to compete in five events—it even included rope climbing and weightlifting—to test all-around ability and fitness. It was an experiment designed to put more muscle on the boys and girls.

Indoor track meets are still a novelty in the Soviet Union. The reason is lack of facilities. But that is gradually being remedied. Moscow, for one, is going to make use of the space under one of its new bridges on the grounds of the Lenin Stadium to build an indoor track and field arena.

Present facilities being what they are, coaches have been improvising ways of getting athletes to peak form and keeping them there. So that the Philadelphia match will not only be a test for the athletes individually but for training methods as well.

The Soviet team was seeded at qualifying tournaments in May and June, with another, and final, sifting at the Znamensky Brothers Tournament in Moscow early in July.

Most of the high caliber performers are sufficiently well known to track and field fanciers. Here are some of the new names that may be making newspaper headlines this month.

First, there is Ed Ozolin. a new luminary in the sprints. This bright young star on the Leningrad horizon clocks a smooth 10.3 at peak form. He is top hope in the sprint. Last season he turned in some spectacular performances and many people have been seeing an Olympic medal pinned on to his jersey. One good man, however, will not be enough to challenge U.S. preeminence in the short distance.

Next is Sergei Belyaev, a 20-year-old undergraduate of a teachers' training college who has zoomed up from nowhere in the pole vault to better the 15-foot mark. Fans have heard very little from him yet, but the little they have heard is very encouraging.

He does better than Bulatov, who took first place in the US-USSR meet in Moscow last season. Of course, the Americans are still up at the top in the vault but optimists already see the writing on the wall. They think it may be spelling out a familiar name like Bulatov or Belyaev in the near future.

Another contender expected to give the Americans a run for their money is 19-year-old Valentin Chistyakov, who has been hitting 14.3 in the high hurdles. While that is still a considerable distance from the high American mark, coaches think he may be shaving the fractions down.

In the javelin, there is Victor Ovchinnikov, a Muscovite who is up in the championship class. In distance running, the brightest hope is Alex Artenyuk, a Leningrad boy who is regarded as successor to Kutz. He made his debut in international athletics only last year. In Stockholm, at the European championships, he placed fifth in his first try at the 5,000-meter run.

His improvement since has been no less than phenomenal. In one year he managed





With limited indoor facilities, real training starts when the snow melts.



Coach Gavriil Korobkov says Philadelphia climate presents a problem.



Here's some indoor technique polishing that makes for outdoor records.



Cross-country running is an important part of the team's training.

Taisia Chenchik is expected to make a good showing in the high jump.





BULATOV'S 14' 9.17" WON THE POLE VAULT EVENT AT LAST YEAR'S US-USSR MEET IN MOSCOW.



The coaches are using every type of training to bring the Soviet athletes to top form for future events.



Javelin thrower Beirute Zalagaitite shows off her record-breaking style.

# Philadelphia Track and Field Meet

to whittle his time down from 14 minutes 40 seconds to 14 minutes 2 seconds. If he keeps going at this pace—and the prediction is that he will—we may soon be seeing another record shattered.

There are some new names in the women's division, too. In the high jump Galina Akimova has been shaving the record close with 176 centimeters; that was what Miss McDaniel did in Melbourne. In the hurdles, Nina Kosheleva has been coming near the 10.6 mark.

One additional heartening sign is that while the newcomers have been doing well, the oldtimers haven't been exactly resting on their laurels. It's likely they may have a surprise or two in store for Philadelphia.

All in all, it shapes up as a strong team, which means a stiff fight in every event. For the Soviet contenders the Philadelphia meet is part of a tough schedule that includes tourneys with Poland, West Germany and Britain. And both coaches and fans are going to be watching the Philadelphia games with one eye looking to the Rome Olympics in 1960.

The Soviet team has high hopes of putting on a good show—with good reason for optimism. There were 28 new national records made during the 1958 season, with 19 of them improving on European highs and 17 bettering world marks. Among the notable performers —this by general consensus of sports writers— were:

Vasili Kuznetsov (decathlon)—who set a world record of 8,357 points at the two-day athletics meeting in Moscow (May 16-17) and thus regained the title from Rafer Johnson.

Galina Bystrova (women's pentathlon)—a good performer in all the events.

Vera Krepkina (100-meter)—in the running for the record.

Igor Ter-Ovanesyan (broad jump)—who has been adding inches to his jump.

Beirute Zalagaitite (women's javelin)—with all the muscle needed to better the world mark.

These and other stars will almost certainly be around at Olympic time in July 1960. Getting back to this July, however, coach Gavriil Korobkov predicts that competition will be tight with the winning margin very slim indeed, perhaps by no more than two or three points all told.

As for the weather—no matter what the usual forecast is for Philadelphia this time of year—for the meet it's going to be: warm and friendly.

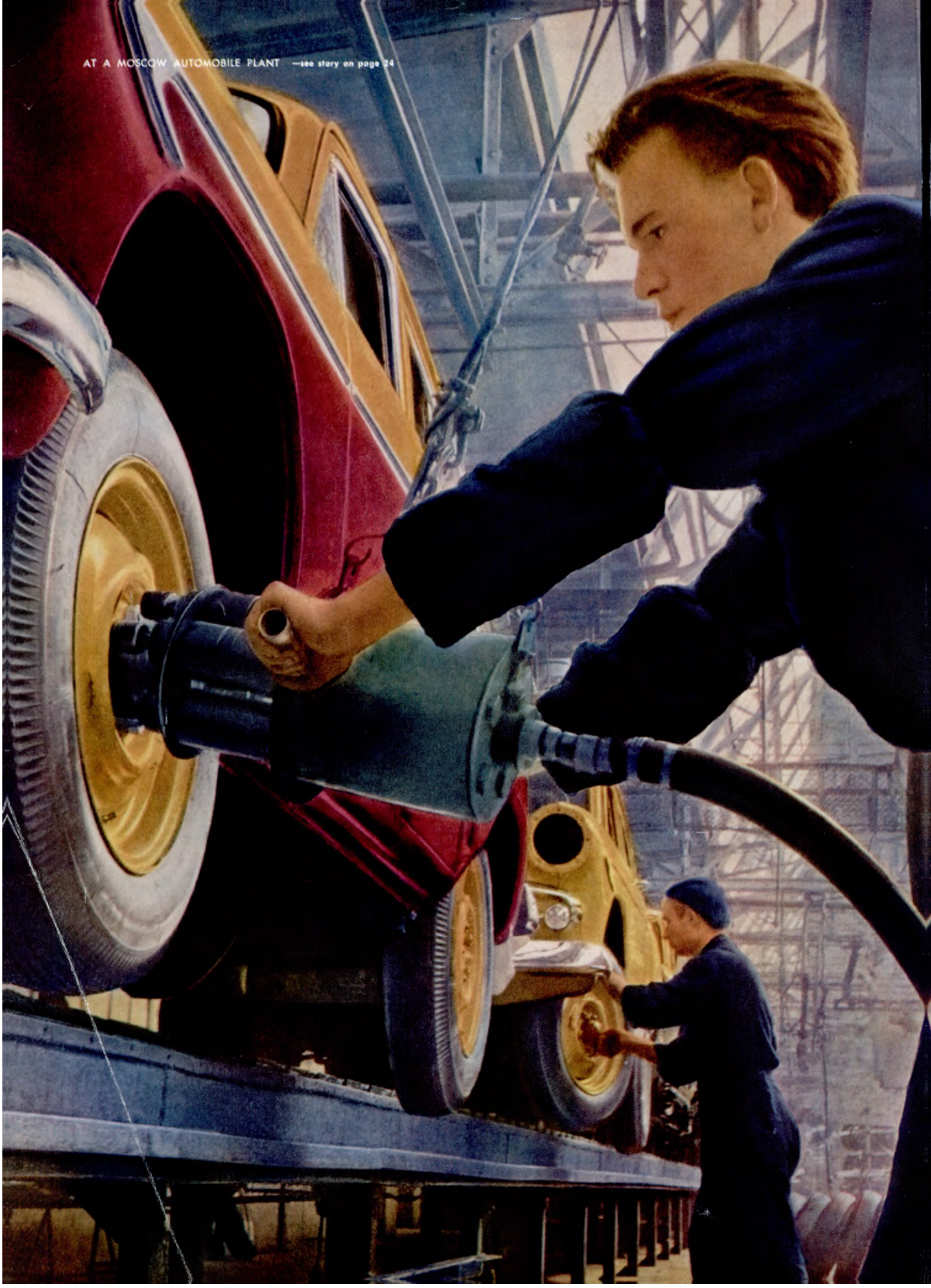


Vera Krepkina hopes to better last year's showing in the 100-meter run.

Igor Ter-Ovanesyan is the team's top broad jump and decathlon man.




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AT A MOSCOW AUTOMOBILE PLANT —see story on page 24

# USSR

**N. S. KHRUSHCHEV'S MESSAGE TO THE AMERICAN PEOPLE**

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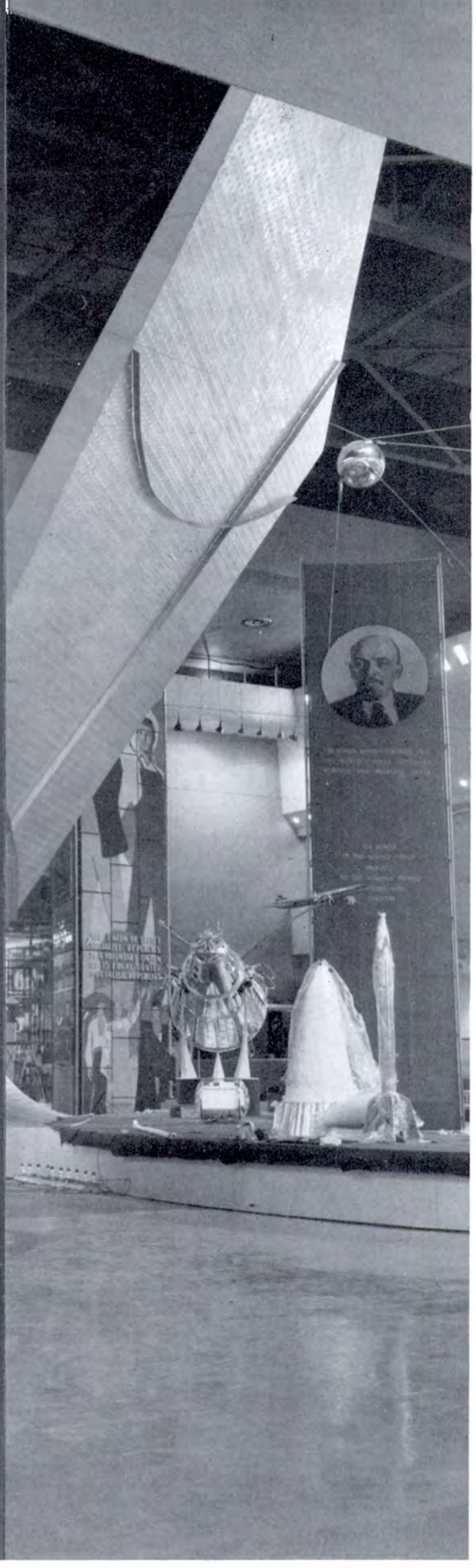
## SOVIET EXHIBITION OF SCIENCE TECHNOLOGY AND CULTURE

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## NEW YORK - COLISEUM
## JUNE 30 - AUGUST 10
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LET THERE BE BETTER FRIENDLIER RELATIONS BETWEEN THE PEOPLE OF THE SOVIET UNION AND THE UNITED STATES OF AMERICA



TENS OF THOUSANDS OF PEOPLE VISITED THE SOVIET EXHIBITION IN NEW YORK DURING OPENING WEEK.


# USSR

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# Message From Nikita S. Khrushchev

**CHAIRMAN OF THE USSR COUNCIL OF MINISTERS**
**ON THE OPENING OF THE SOVIET EXHIBITION IN NEW YORK**

**I am happy to avail myself of the opening of the Soviet Exhibition in New York to convey to the American people hearty greetings and best wishes for prosperity on behalf of the peoples of the Soviet Union and the Soviet Government, as well as on my own behalf.**

**The Soviet Government hopes that the exchange of exhibitions will help the peoples of our two countries to know each other better, which, in turn, will undoubtedly contribute to better understanding between the United States and the Soviet Union. The achievement of understanding and the establishment of friendly relations between our two countries would be the best guarantee for the preservation of world peace.**

**We Soviet people are deeply convinced that differences in our ways of life and in our political and social systems should not be an obstacle to fruitful cooperation in the interests of the peoples of the Soviet Union and the United States.**

**May competition in producing the means of destruction be replaced by competition in producing material benefits and accumulating spiritual values.**

**May the peoples of America and the Soviet Union join their efforts in safeguarding peace and creating on our planet conditions under which people will have no fear for their own future and that of generations to come.**

*Chairman, Council of Ministers of the USSR*



Frol R. Kozlov, First Deputy Chairman of the USSR Council of Ministers, (center) opened the Soviet Exhibition in New York. Vice President Nixon and Mayor Wagner participated in the ceremony, with Mikhail A. Menshikov, Ambassador of the Soviet Union to the United States, presiding.

# We Must Live and Work Together in Peace

THE SOVIET EXHIBITION of Science, Technology and Culture in the New York Coliseum was officially opened on June 29 by Frol R. Kozlov, First Deputy Chairman of the USSR Council of Ministers. Prior to the event, President Dwight D. Eisenhower had been taken on a tour of the exhibition by Frol Kozlov.

Among the 1,200 guests present at the opening ceremonies were Vice President Richard M. Nixon; Henry Cabot Lodge, U.S Ambassador to the United Nations; Robert F. Wagner Jr., Mayor of the City of New York; Yadgar Nasreddinova, President of the Presidium of the Uzbek Supreme Soviet; Mikhail A. Menshikov, Soviet Ambassador to the United States; Alexei N. Manzhulo, Director of the Exhibition; and Andrei N. Tupolev, Soviet airplane designer.

After Mayor Wagner's welcome, Deputy Chairman Kozlov and Vice President made speeches on behalf of their respective governments.

## Address by FROL R. KOZLOV

### at the Ceremony to mark the opening of the Soviet Exhibition in New York

THE GOVERNMENT of the Union of Soviet Socialist Republics has authorized me to open here in New York the Exhibition displaying the achievements of the USSR in the fields of science, technology and culture. Naturally, the Exhibition cannot reflect the entire gamut of life in such a large country as the Soviet Union. But we do hope that it will none the less help you to gain an understanding of how Soviet people live and work, of their achievements and their aspirations.

Twenty years separate us from the time when Americans visited the Soviet pavilion at the New York World's Fair. These twenty years were for us not only years of creative labor but also years of severe trials. Our country suffered an invasion that has no precedent in history and has sustained unparalleled damage. In the struggle against the fascist invaders, millions of sons and daughters of our country gave their life, man's most precious possession. Despite tremendous losses the Soviet people found strength not only to eliminate in a short period of time the aftermath of war, but also to make a big stride forward along the road of economic and technical progress. A vivid expression of the outstanding successes of our country is the launching in the Soviet Union of the first artificial satellites of the earth and the sun, which showed mankind the road to outer space.

We do not conceal that this required us to tax our strength considerably. But neither do we conceal our pride in the results of our toil. You citizens of the United States, a country that has done a lot to develop science and engineering, will surely understand more than anyone else

the ardor instilled in the Soviet people by the colossal upsurge of construction in our country, by the rapid development of science and industry, the large-scale harnessing of the vast natural wealth of our country, particularly in Siberia and the Far East.

Acquaintance with the Soviet Exhibition will show you with still greater clarity that the Soviet people, who are engaged in peaceful creative labor and who have focused their efforts on fulfilling the grand new plans for the development of a peaceful economy, cannot harbor any evil intentions in regard to other nations.

We are staunch supporters of peace. We love and cherish peace, but not, of course, the shaky peace which not without reason is called the "cold war." No, the Soviet people want a genuine stable peace, which can be ensured only in the event that states are guided in their interrelationships by the principle of peaceful coexistence.

This principle is equally just in its application to all states. At the same time, however, hardly anyone will dispute that the application of this principle to relations between the United States and the Soviet Union is of particular significance to the destiny of peace. The USSR and the USA are universally known to possess the greatest economic and military potentials. The development of international relations and the lessening of international tension depend in a decisive way on how sincere and friendly the bonds between us will be.

I can tell you in all candor that there are strong sympathies in our country toward the American people. We value highly their creative genius, businesslike approach, technical ingenuity and sense of humor. We value the contributions of Franklin, Edison and other American scientists and engineers to the development of world science and engineering. We in our country also speak with admiration of Washington, Jefferson, Lincoln and other outstanding Americans who fought for democracy and the equality of men. We appreciate the aspirations and hopes of Franklin Roosevelt, our comrade-in-arms during the years of World War II. Feelings of profound respect are engendered by his appeal to "cultivate the science of human relationships—the ability of all peoples, of all kinds, to live together and work together in the same world at peace." These are wonderful words.

After World War II relations between our countries unfortunately deteriorated, and alienation and mutual mistrust arose between us. Economic, scientific and cultural ties between our two countries decreased considerably. And as the American philosopher and poet Emerson justly remarked, "fear always springs from ignorance." In turn, fear and mistrust are a serious barrier in the way of mutual understanding and the improvement of relations between peoples.

I would like to note with gratification that recent years have seen a certain revival of the ties between our countries in the fields of science, culture and the arts. It suffices to recall the warmth and cordiality accorded to representatives of Soviet culture and science in the USA and to their American counterparts in the USSR to see how advantageous the development of such contacts can be in improving relations among nations.

Let us hope that the exchange of exhibitions, along with other measures to develop exchanges in the fields of science, culture and art, will become yet another breath of the warm wind which is destined to melt the ice of prejudices and misconceptions that cloaks American-Soviet relations.

A moment of levity for Soviet Ambassador Mikhail Menshikov, Vice President Nixon, President Eisenhower, and First Deputy Chairman Kozlov.





President Dwight D. Eisenhower was taken on a tour of the Exhibition in Coliseum a short while before it was officially opened to the public.

It is another heartening fact that of late, personal contacts between leading figures of our two countries have begun to be restored. I would like to note in this context that the Soviet Government and all Soviet people learned with gratification of US Vice President Nixon's forthcoming visit to the Soviet Union.

Certain progress has lately been made in the improvement of Soviet-American relations, particularly in the expansion of cultural ties. But these are, doubtless, only the first steps. Extremely little, for example, has as yet been done in the field of developing trade between the United States and the Soviet Union. Animated trade relations between our countries did, indeed, exist just before the war, and this trade brought both countries only advantages. Under present conditions the successful development of trade between the Soviet Union and the United States on the basis of equality would, undoubtedly, also correspond to the interests of the Soviet and American peoples, would lead to the consolidation of political relations between our countries, and would also serve the purpose of further easing international tension.

There also exist, in our opinion, objective possibilities to develop other economic ties between the USA and the Soviet Union. We both stand to learn from one another. We pay tribute to the United States as a technically highly developed country. You, however, are aware that today the Soviet Union has also achieved great successes in the sphere of technical progress. We have now launched plans for the further economic development of our country. The Soviet people have undertaken the task not only to catch up with but, let me say outright, to surpass you in the not too distant future, both as regards the overall volume of output of peaceful production and in per capita production, too.

This, then, is the "Soviet challenge," of which so much has lately been said and written in the West, our intention often being distorted in the process, to our sincere regret. But this challenge of ours is not a call to armed struggle. We want to compete so that our country can become more prosperous, so that our people can live a better life, so that they can be better fed and clothed, have more good homes, be able to satisfy more fully their spiritual requirements. Do these intentions of ours threaten anyone? All the nations of the world, including the Soviet and American peoples, can only stand to gain as a result of this sort of competition and "challenge."

There is no need to conceal that we have different social systems and that our views on many international issues often do not coincide. But we do live on one planet and, therefore, no one from any "other world" will resolve the questions of our interrelationships for us. The affairs of the earth should be solved by people who live on the earth. I would like here to lay particular emphasis on the following: It is for all of us an indisputable fact that all international issues must be solved peacefully, by negotiation. The Soviet Union stints no effort to establish good-neighbor relations with the United States and is ready to support any steps in this direction. The Soviet Government is an advocate of the idea of statesmen, including heads of government, having more round table meetings to exchange opinions on urgent problems of the day.

*Deputy Chairman Kozlov concluded his address by reading the message from N. S. Khrushchev, Chairman of the Council of Ministers of the USSR, on the Opening of the Soviet Exhibition in New York.*

# The Soviet Exhibition of Science, Technology and Culture

By Alexei N. Manzhulo
*Director General*

OUR SOVIET Exhibition of Science, Technology and Culture opened on June 30 and will be running through August 10. For the first time since the New York World's Fair in 1939, Americans in large numbers are touring the Soviet Union without having to leave their own country. At the Coliseum they have a panoramic view of the Soviet people at work, study and play.

The American National Exhibition opened in Sokolniki Park in Moscow on July 25 to give Soviet citizens the same welcome opportunity for a view of the United States.

These two exhibitions are products of the Exchange Agreement concluded between our two countries in January 1958, an agreement which has done much to foster mutual understanding.

Our Exhibition shows some ten thousand items grouped in twelve divisions to cover every major phase of life in our country: Industry and Agriculture—Science and Technology—Radio and Electronics—Atoms for Peace—Optics—Transport—Education—Health—Sports—Construction—The Arts—Social Welfare.

The displays were chosen to give a rounded picture of our country's development in the forty-odd years since it was founded, and range from a fashion show to a suburban housing development, from automobiles to coal combines, from electronic microscopes to books. Actual machinery and apparatus, working models, charts, photo montages and other varied types of illustrative devices are used.

Documentary films are being shown simultaneously at many of the displays. Authorities in each of the technical and scientific areas are on hand to provide information and answer whatever questions visitors have.

The industrial display includes models of the Stalingrad Hydroelectric Plant with its annual capacity of 11.5 billion kilowatt-hours, a typical iron and steel plant to demonstrate continuous steel pouring, an offshore oil drilling installation used on the Caspian Sea bottom, a working model of a synthetic rubber plant with samples of its products.

American engineers are being shown the new method developed by Soviet steelmen for replacing old blast furnaces without any break in the production process, and techniques recently developed for high voltage transmission of direct current. These are among the radical innovations in technology demonstrated at the Exhibition.

Various machine tools and computing mechanisms demonstrate progress in automation. On display is a model of a new coal mining machine built for the miners of the Kuznetsk basin which cuts coal on steeply pitched seams with perfect safety for the operators.

The transformation of the Soviet countryside is illustrated by a model of a typical collective farm, advanced crop-growing techniques and the latest types of farm machinery.

Three Sputniks and the model of the last stage of the Soviet cosmic rocket are part of the exhibit showing the important work Soviet scientists have been doing in charting the way for manned exploration of the cosmos.

The "Atoms for Peace" exhibit has a 20-foot replica of the new atomic powered icebreaker *Lenin*, the first of its kind; various types of nuclear reactors; models of atomic stations now generating electricity; and protective equipment to guard against radiation.

Studies in cosmic rays, production of materials with completely new physical and chemical properties, the use of isotopes in geophysical work, research in the Arctic and Antarctic regions—these are among the displays that are on view in the science section, together with published scientific papers in Russian and other languages.

In the electronic exhibit, besides mass-produced radio and television for public sale, there are displayed color television apparatus used in surgery and a new underwater TV camera. A model of an airport shows radio stations of various types employed in civil aviation.

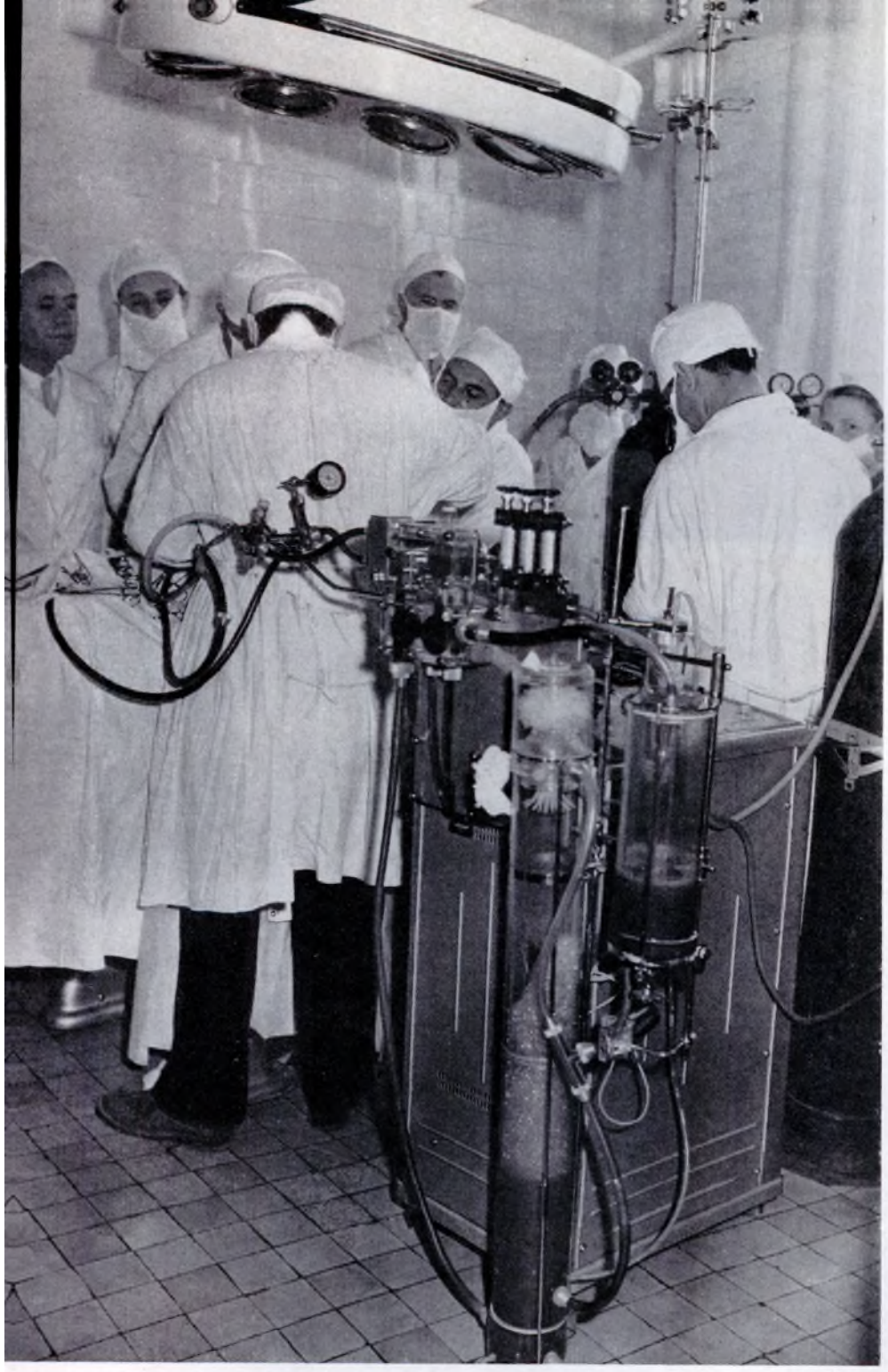
On display in the optics section are microscopes for different purposes, among them ultraviolet and electron microscopes, various control instruments, unique astronomical equipment and a large number of cameras.

THIS IS PEACE AVENUE, ONE OF MOSCOW'S WIDE, TREE-LINED BOULEVARDS.



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DEMONSTRATING THE FINE POINTS OF A RIGA-MADE RADIO.



EVERY DAY 25,000 CUSTOMERS DO THEIR SHOPPING AT THIS BIG DEPARTMENT STORE IN MOSCOW.

# The Soviet Exhibition of Science, Technology and Culture

Many of the items on view in the medical apparatus section are unfamiliar to American practitioners. Among them is the new surgical "sewing machine" for suturing nerves and blood vessels now in general use in the Soviet Union.

Other public health exhibits show the scope of preventive medicine, cancer treatment, new pharmaceuticals, the use of atomic energy in therapy.

The sports exhibit displays a model of the new Lenin Stadium in Moscow and graphic material to show the important place of athletics in the life of the Soviet citizen. A part of this section is devoted to travel in the Soviet Union with information on the most interesting tour itineraries.

School buildings, textbooks, visual aids and related displays illustrate progress in education. There is a special exhibit of sculpture, painting and craft work done by school children from all of the Soviet republics.

The book exhibit displays publications in many languages spoken in the Soviet Union.

Photos, charts and other material provide a picture of the many cultural and welfare services freely available to Soviet people.

In the consumer goods section, visitors are examining samples of natural and artificial fabrics woven by Soviet mills, household appliances, a three-room furnished apartment, food in a birch grove setting, and a host of other exhibits.

The first floor of the Coliseum is given over to daily fashion shows presenting men's, women's and children's clothing made of both natural and synthetic fibers. The fashion show is designed to acquaint Americans with clothing and textiles actually in use in the Soviet Union.

The housing display shows the grand scale of construction that aims at rehousing 75 million people before the end of the current seven-year plan and the cities designed for light, air and beauty.

A section of the Exhibition is a gallery of contemporary Soviet painting and sculpture to show trends in Soviet art.

A two-week Festival of Music and Dance is being held at Madison Square Garden during the Exhibition's run, with performances by the Pyatnitsky Folk Choir as well as by stars of the Bolshoi Ballet and other dance, song and instrumental ensembles representing the different republics. During the period the Mayfair Theatre is running two Soviet Cinepanorama films—*Wide Is My Native Land* and *The Magic Mirror*.



ONE OF THE MANY TYPES OF VACUUM CLEANERS MANUFACTURED IN THE USSR.



THIS SHOP SELLS A WIDE VARIETY OF POPULAR ITEMS MADE OF SYNTHETICS.



A FOOD SHOP TYPICAL OF THOUSANDS EVERYWHERE IN THE SOVIET UNION.

DOLLS OF EVERY DESCRIPTION TO CAPTURE THE HEART OF ANY LITTLE GIRL.



The Soviet Exhibition was officially opened by Frol R. Kozlov, First Deputy Chairman of the Council of Ministers of the USSR. The American National Exhibition in Moscow was opened by Vice President Richard M. Nixon.

We have these aims for our Exhibition. We hope first to show Americans how the Soviet people live and work. Second, we hope to acquaint American businessmen with the fact that we manufacture many items that could make for mutually profitable trade. Last—and by far not the least important—at this Exhibition we have placed on public view many of our most recent, most advanced findings in both pure and applied science—in technology, in medicine, in machine tools—in a word, our scientific and technological know-how. This we have done because we feel that knowledge must be in the public domain, that it should not be fenced in by national boundaries.

We are most happy to be able to show Americans through our country even though our Coliseum tour can necessarily be only a sampling of the things we should like to display.

I am certain that this exchange of exhibitions will be another step toward better mutual understanding and cooperation between our two great countries.

# THE STAT



Collective farmers Stepanida Vishtak (left) and Maria Lysenko are also Ukrainian legislators.

## How the Soviet People Govern Themselves

ONE OF the Exhibition displays provides a picture of the way the Soviet people govern their own country through elected Soviets. The word "Soviet" means "council" and these councils are the governmental bodies in village, town, city, the republics and the nation.

The Soviets are representative bodies of the working people, made up of deputies elected by their constituents. The number of deputies to the Soviets now totals almost two million people. Another two and a half million Soviet citizens participate actively in the various committees—budget, housing, cultural, etc.—which do the major part of the detailed work of the councils.

The right to nominate deputies is guaranteed by the Constitution to every public organization or gathering of working people. The right to canvas on behalf of a candidate is guaranteed to every citizen. Deputies are required to report to their constituents periodically. Should a deputy not carry out the mandate of his electors, he may be recalled.

All citizens of the Soviet Union who have reached the age of 18, irrespective of race or nationality, sex, religion, property status or past activities, have the right to vote.

The Soviets of Working People's Deputies are elected by 134 million electors. It has become the custom that everywhere before the elections large meetings are held. At these meetings electors meet their candidates and give them their mandate. During the election campaign this year the discussion of the candidates and the canvassing were particularly extensive and animated. In order to improve the work of the Soviets to strengthen their ties with the masses, further develop Soviet democracy and draw the working people more widely into the practical activities of the Soviets, the number of deputies to the local Soviets has been increased by approximately 350,000 people.

What kind of people are these deputies chosen by the citizens of the Soviet Union to represent them? They are workers, farmers, scientists, musicians, writers, plant managers, public officials, generals and rank-and-file soldiers.

Among the deputies elected to the USSR Supreme Soviet at the last election were Nikita S. Khrushchev, Chairman of the Council of Ministers, and Vasili Yershov, turner at a Moscow automobile plant; Konstantin Fedin, the novelist, and Anatoli Melnikov, milling machine operator; Nikolai Ignatov, member of the Presidium of the Central Committee of the Communist Party and Nikolai Tavrata, chairman of a collective farm in Yakutia; Anastas Mikoyan, the First Deputy Chairman of the USSR Council of Ministers and Antonina Lukonina, schoolteacher from Vladivostok; Serafima Kotova, weaver in a textile mill, and many others.

The very large majority of the deputies are busy people in their own trades or vocations. They continue to work as mechanics, farmers, scientists, teachers. No one makes a profession of being a deputy in the Soviet Union. It is an honor bestowed upon a citizen by the people with whom he lives and works and like all honors bestowed upon Soviet citizens, carries with it a large measure of obligation and social responsibility.

Many of the functions now performed by state agencies gradually pass to public organizations. Questions related to cultural services, public health, physical culture and sports, having been handled with the active and broad participation of public organizations.

But the transfer of some functions from state agencies to public organizations will not weaken the role of the Socialist State. It will rather extend and reinforce the political groundwork of socialist society and ensure the further all-round development of democracy in the Soviet Union.



Panteleimon Shemyakin, forgeman in the First Ball Bearing Plant in Moscow, is one of a large number of industrial workers and farmers in the USSR Supreme Soviet.

Textile worker Varvara Fyodorova, who was elected deputy to the Supreme Soviet of the USSR, is interviewed by American newspapermen. 26.4 per cent of the deputies are women.



# OF THE WORKING PEOPLE

## The Rights of the Soviet Citizen

AS THE visitor enters the main hall of the Soviet Exhibition he sees a number of giant placards. Each one carries a short quotation from the Constitution of the USSR. They cite in language which is simple and unmistakably clear the rights of the Soviet citizen. They might well serve as the basic themes for this display of four decades of socialist achievement.

The rights of the Soviet citizen are no mere legal formulations. They are guaranteed by an economic system in which the people themselves own the land and the factories, by a political system in which the people led by the Communist Party are the only authority, by a juridical system which is based upon individual rights and social duties.

The Soviet citizen is ensured freedom of conscience and worship. He is ensured freedom of speech, assembly and press. These rights are translated into reality by the fact that the people are provided with the material means of exercising them. At the disposal of the working people and their organizations are public buildings, radio, television, printing plants, stocks of paper and whatever else is necessary to make these rights meaningful.

At the Exhibition is a display of newspapers, magazines and books which illustrate the great spread of these instruments for communicating ideas. There are about 10,000 newspapers in the Soviet Union, published in 67 languages spoken by the many nationalities living in the country. There are more than 3,000 magazines published in 47 languages.

The Constitution gives the Soviet citizen the right to join others in public organizations. Such political and public bodies as the Communist Party, the trade unions, cooperatives, sports societies composed of large numbers of citizens, have been taking over an increasingly larger share of duties and services on the public behalf.

Here is an interesting current development in this regard. Volunteer squads have formed in many cities. They serve as citizen police to see that public order is maintained. Many of the cities have, consequently, been able to reduce the size of their regular police force.

A parallel development is the growth of comrades' courts. These are unofficial bodies which use moral suasion and the force of social pressure to combat law infringement. Many minor violations which in the past were tried by the formal courts of law are now tried and disposed of by these comrades' courts.

Here is the public beginning to take over a major governmental responsibility, control of crime and the maintenance of public order.

The citizen of the USSR has that most significant of rights—the right to a job and a secure livelihood. For the first time in human history it has been demonstrated in undeniable fact that unemployment is not an inevitable concomitant of industrial development. Production for use and socialist planning in these four decades have wiped out economic crisis and joblessness.

Women in the Soviet Union are accorded equal rights with men in all spheres of economic, cultural, political and social life. They receive equal pay for equal work, the same rights to a paid annual vacation, to social insurance and a pension on retirement. The law protects the interests of mother and child and grants subsidies to mothers of large families and to unmarried mothers.

The Constitution grants the Soviet citizen the right to rest and leisure. The right is implemented by the universal eight-hour day for industrial, office and professional workers, by the reduction of the workday to seven hours in arduous trades and to four hours in especially taxing jobs. The material right to leisure is provided for by the large numbers of vacation resorts, rest homes and sanatoriums in the most beautiful parts of the country.

Provided for in the Constitution is the guarantee of maintenance in old age and in sickness or disability. Workers are granted pensions when they reach the retirement age of 60 for men and 55 for women. Pension payments range from 50 to 100 per cent of previous earnings.

A free education is a right ensured to every citizen. This right is guaranteed by universal eight-year schooling with every opportunity for advanced education on the vocational, technical or college level.

The Constitution guarantees every citizen the individual freedoms—inviolability of person and of the home and privacy of correspondence.

The paramount principle underlying Soviet legislation is the equality of every citizen under the law regardless of race or nationality, social origin, sex or property status. This basic principle makes the Soviet Constitution the world's most democratic charter of rights.



Workers are granted pensions when they reach the retirement age of 60 for men and 55 for women. Semyon Filkin, a printing worker, retires on pension guaranteed him by the Constitution.

The right of a Soviet citizen of whatever race, religious faith, or national origin to a free education is guaranteed by the Constitution. An English language lesson in a Nanai school.



# WHAT THE UKRAINA COLLECTIVE FARM DISPLAYS IN NEW YORK

**The story of four decades of Soviet agriculture is told in two contrasting displays at the Soviet Exhibition at New York's Coliseum. The first pictures Lesovody, a farm village, before the Socialist Revolution. The other is a model of Lesovody today, hub of the Ukraina Collective Farm.**

**G. I. Tkachuk is chairman of the Ukraina Collective Farm, Hero of Socialist Labor. He is a deputy to the Supreme Soviet of the USSR, elected by the farm voters in his district.**

**By G. I. TKACHUK**



Aerial view of the Ukraina Collective Farm shown in model at the Coliseum Exhibition.

WHEN we learned that a model of our Ukraina collective farm was to be displayed at the Soviet Exhibition in New York, we thought that the display also ought to show what our village was like in the old days.

It was a neglected, out-of-the-way place, with poverty a permanent guest. The peasant tried to keep alive on what little his land produced and half of that had to go to the landlord.

"The best fields belonged to landowner Zhuravsky; the forest—to Zhuravsky; the pasture land—that was Zhuravsky's, also. He owned all the good horses. If one of us had a broken-down cart horse or a decent plow he felt like a millionaire. How could we grow anything?" That is Luka Gorbaty talking as he recalled the past. He is one of the village elders. He, his father, grandfather and great-grandfather all worked as hired farm hands. After the Revolution in 1917 he was one of the founding members of the collective farm.

In the old days the village had only a one-room school. But even this school with its three elementary grades was not open to the children of peasants. It was the very rare peasant child who got even the rudiments of an education.

But the saloon, remembers Gorbaty with a touch of bitterness, was open to everybody. There it stood in the middle of the village, the door wide open, as though inviting the village to drink itself to death.

### Yesterday and Today

That was the village yesterday. What is it like today? An acre of land is the same anywhere. It can't grow any bigger but it can grow more. And that our Ukraina farmers have proved without a shadow of a doubt. Last year our farm got 120 pounds centners of meat and 455 pounds of milk from every acre of arable land, a four or five times greater yield than five years ago. That is the rate at which we are growing.

So far as income goes, last year we hit the 10 million ruble mark. Our common fund—the money we allocate for capital investment and farm maintenance—is now at the 12 million ruble level.

The farmer's individual income is now larger, too. Last year for each workday unit a farmer received 16 rubles 89 kopecks in money and seven pounds of grain. A workday unit is the way we equate the quality and quanity of work on collective farms. Usually a farmer earns several workday units each day.

I can give a better idea of what that amounts to by referring to specific farmers, Nikolai Nishchy, for example. His last name, incidentally, means beggar and was handed down from his grandfather and great-grandfather, whe were poor farmers and had to resort to begging to keep from starving.

Nishchy's family, for the year's work, received 15,000 rubles and somewhat more than 3 tons of grain and sugar and feed besides.

The big collective farm uses the most advanced growing methods. Here is a newly plowed field being fertilized by plane. Ukraina raises grain crops, corn, sugar beet and vegetables.





The old hand labor is very much a thing of the past. Most of the farm work is done by machines like these cultivators. Yields of sugar beet and other crops have multiplied many times over.



The farm now owns 32 tractors, 11 harvester combines, 40 trucks and many other machines.

This was entirely for the family's personal use and had nothing to do with the common fund, which is not divided.

Or take the family of farmer Gavriil Yakimets, made up of five working adults. Last year their workday units added up to 21,000 rubles in money and four tons of grain. Besides this, the Yakimets have their own truck garden, a cow, pigs and chickens. The same picture holds for all our collective farm families.

The back-breaking hand work that we used to have to do is very much a thing of the past. Most of the heavy chores are now done by machines. Back in 1929 we had a single Fordson, imported from the United States. Today all our equipment is Soviet-built. We own 32 tractors, 11 harvester combines, 40 trucks and scores of other machines. The power output of our 62 electric motor installations is about 5,000 horsepower. The type of farm machinery we use is displayed at the Coliseum Exhibition.

### The Future

That's for yesterday and today—what about tomorrow? The future was mapped out in the seven-year plan we adopted for our farm early this year. We still call it the seven-year plan, although we are working on the assumption that we will meet our target figures in five years. By then we expect to be growing about 3400 and more pounds of grain per hectare.

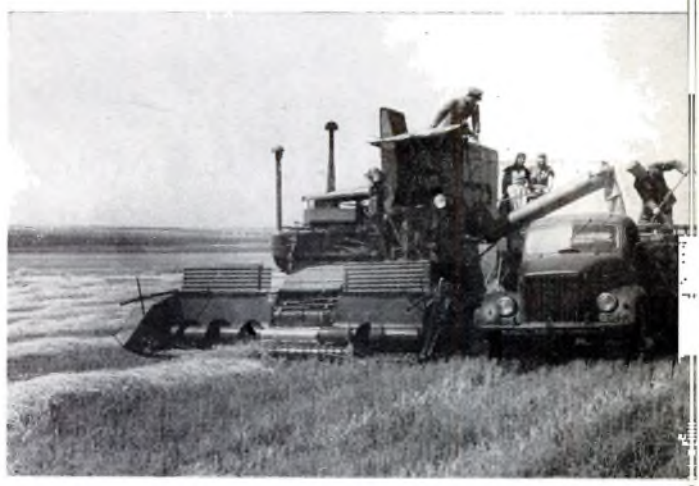
We also foresee a considerable rise in our livestock total. We propose to raise our meat output to 225 pounds and our milk output to 1,000 pounds for every acre of arable land. That will be about 1,220 tons of meat and 11 million pounds of milk a year.

Our Exhibition display shows you what we have already done and what we expect to be doing to reach these large-sized totals. Last year we worked out methods that would give us a bigger yield from each piece of land on our farm. We are moving ahead with an organized acre-by-acre plan to improve pasture and meadow land, to do a more efficient job with fertilizers and, in general, to use the most advanced growing methods for each of our crops.

For instance, this year we are growing sugar beet by the square and hill method. Our corn crop, which covers an area of 1,650 acres, will be worked by four mechanized teams made up of five or six people each. We are working for high yields all the way up and down the line—from our fields, livestock section, truck farms, orchards and beehives.

By the time our seven-year plan is fulfilled we confidently expect that the total annual income of our collective farm will have multiplied two and a half to three times. This year we set aside four million rubles for the indivisible fund; in 1965 we expect to be able to set aside 7.3 mililon—almost double this year's figure.

We expect also to increase the sum we divide as personal income, that is, payment



Wheat is the money crop, with additional income from dairy, meat, honey and vegetables.

The Ukraina dairy supplies milk in large quantities to many of the neighboring towns. The farm's output of milk and meat last year was four and five times that of five years ago.





Nikolai Shumilov is one of the young people who grew up at Ukraina. He went to school to learn to drive a tractor and is now working at the farm.



Galina Rimar began working at the farm after she graduated from the village secondary school. She's on the way to becoming a livestock specialist.

# WHAT THE UKRAINA COLLECTIVE FARM DISPLAYS IN NEW YORK



The farm has earned an enviable reputation for the prime quality of its fruits and vegetables.

for work, from the present 6.9 million rubles to 9 million rubles. Incidentally, up to now, we have been paying on a workday unit basis. Now we are switching from a workday unit basis to regular salaries.

As for our construction program, it's a very ambitious one. During the seven-year plan period we expect to spend 28.7 million rubles on building.

That's the way the future shapes up for our farm.

### Ukraina's Greatest Asset

A word or two about our most important asset—our people. We have more than a thousand farmers working in our collective farm. Every one of them has the interest of the farm at heart because it is his farm. The more our farm grows, the better each one of us lives.

Some of our farmers have been doing an outstanding job—men and women both—and have won awards from the government. Grigori Zhishchinsky heads our field-and-tractor team and is known throughout the whole region for his extra-large crops of grain and sugar beet. He was awarded a government decoration—Hero of Socialist Labor. Another of our team leaders, Maria Kozak, has won fame as a beet grower and a government award for her work. I remember when she came into my office several years ago with a plan to set a record in beet growing. She and her team hoped they would be given special conditions of work to help them achieve their goal. When they were told they couldn't count on it, they went right ahead anyhow and last year harvested almost thirty tons of beet per acre. Still another team leader, Nikolai Lupiichuk, holds the highest Soviet decoration, the Order of Lenin.

Then there is Ivan Probity, the farm's assistant manager, who is also secretary of the Communist Party organization at Ukraina farm and has been doing the kind of yeoman service that people expect from him as a party leader.

### Our New Village

Luka Gorbaty keeps repeating these days that it's getting so he doesn't recognize the village. It's been changing right under his nose. Many of our village buildings are new and more are going up. Besides the barns, garages, workshops, a mill and administration building, we have an excellent library of 12,000 volumes, a big secondary school, a kindergarten, a hospital, a home for the aged, a small-sized department store, a hotel and restaurant.

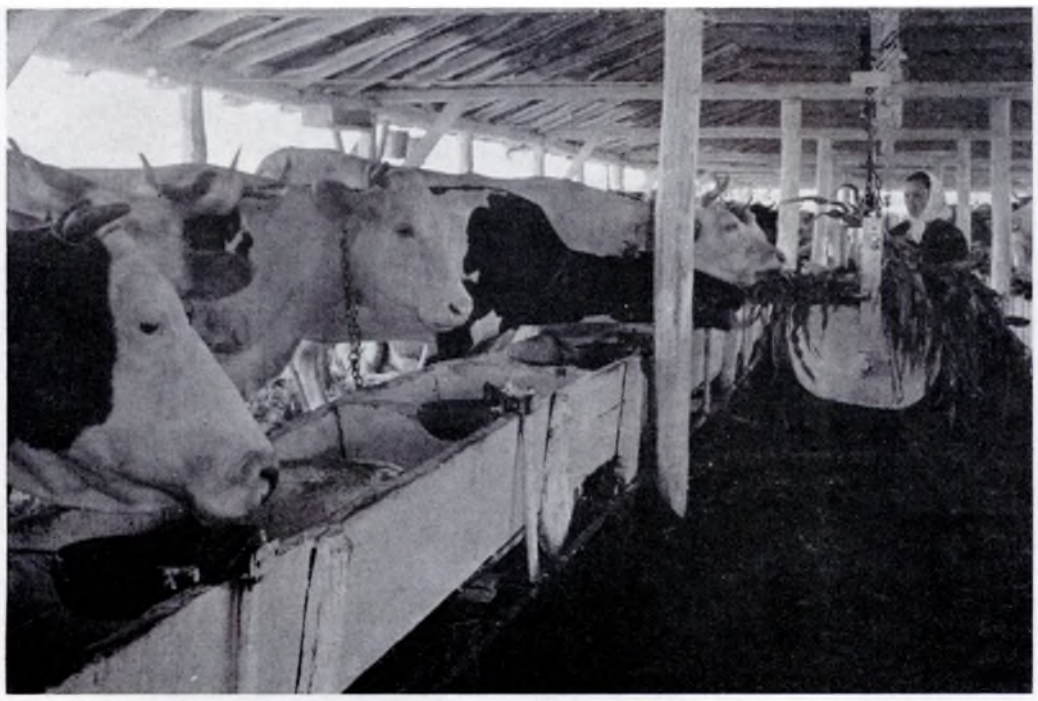
A good many cottages have been built these past few years, at the rate of 60 to 80 a year.

Last year we had a total of 75 housewarming parties. The farm administration grants building loans up to 5,000 rubles for two or three year periods. These are non-interest loans.

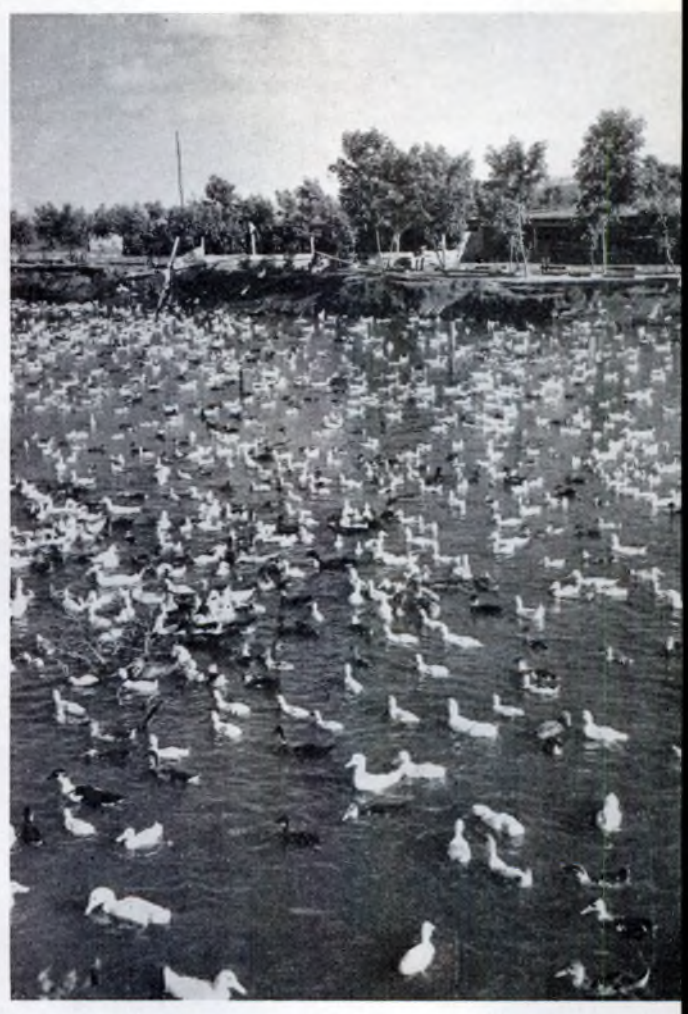
We have 240 building workers in the village and they are very busy people, indeed. Our community building plan for the seven-year period calls for a boarding school to be ready by 1960, a large community center, a kindergarten for Kremennoye, another village where members of our collective farm live, a bakery and a Park of Culture and Rest. For our young people we are building a stadium.

From time to time we have visitors from other countries interested in seeing how a Soviet collective farm functions. We extend our warm invitation to the many thousands of Americans who will be seeing our Ukraina farm in miniature at the Soviet Exhibition. We hope to have the pleasure of showing them our farm when they visit our country.

*Continued on page 14*



One of the summer cowbarns. Ukraina farmers say, "By 1965, the end of the seven-year plan, our farm will be a veritable meat and milk factory. We will produce about 1,220 tons of meat."



One of the farm's artificial ponds and a few representatives of its poultry population.

Ukrania owes much of its success to the skill of trained agronomists like Galina Zhischinskaya.



G. I. Tkachuk, chairman of the Ukraina Collective Farm, and members of the farm board. Besides his busy work schedule at the farm, Tkachuk serves as deputy to the Supreme Soviet of the USSR.





A street in Lesovody village. Lesovody is the hub of the Ukraina Collective Farm and is growing by leaps and bounds. It has a large secondary school, a community center and a modern hospital.

# WHAT THE UKRAINA

# COLLECTIVE FARM



The amount farmers receive in money and in kind depends upon quality and quantity of their work.

**ROOFING TILE FOR NEW HOUSES, SCHOOLS, KINDERGARTENS, COMMUNITY CENTERS IS MADE AT THE UKRAINA FARM. THE FARM'S 240 BUILDING WORKERS ARE ALL BUSY.**



## DISPLAYS

## N NEW YORK



The village library has an excellent collection of 12,000 volumes. Everybody in the Soviet Union reads and Lesovody is no exception.



A mid-day nap obligatory at the kindergarten in Lesovody.



CHEMISTRY CLASS IN THE VILLAGE HIGH SCHOOL. IT WAS THE RARE FARM CHILD IN LESOVODY VILLAGE WHO LEARNED EVEN THE 3 R'S BEFORE THE SOVIET PERIOD.



*WIDE IS MY NATIVE LAND*, SOVIET FILM NOW RUNNING AT THE MAYFAIR THEATER ON BROADWAY, TAKES THE AUDIENCE ON A BREATHTAKING CINERAMA TOUR OF THE USSR.

# SOVIET CINEPANORAMA ON BROADWAY

DURING the run of the Exhibition on Science, Technology and Culture at the Coliseum, two Soviet cinepanorama films are showing at the Mayfair Theatre in mid-town New York—*Wide Is My Native Land* and *The Magic Mirror*.

*Wide Is My Native Land* is a camera tour in time and space through the Soviet Union. For two hours and thousands of miles we voyage on this most modern of magic carpets—panoramic stereophonic film—over land and river and mountain.

The documentary opens with a magnificent view of Moscow's bustling streets, moves on to Leningrad with its historic buildings that recall the stirring scenes of the 1917 Socialist Revolution, cuts across to the great Donbas coal basin, the Caspian oil fields, the blast furnaces of Magnitogorsk, the booming new cities of Siberia and the Far East.

We travel by speeding car along wide automobile roads and feel the wind whistling in our ears; sail past the high banks of the Volga; almost catch our breath as our giant TU-104 passenger liner flies high over the snowy peaks of Elbrus. Our plane veers for a moment and we grab the arm of the theater seat almost by reflex.

This is the magic of Cinepanorama. "The effect of being present," as motion picture people phrase it, is created by the fact that the semicircular concave screen surrounds the viewer and fills his entire visual angle. The stereophonic effect achieved by means of numbers of loudspeakers placed in various parts of the theater to surround the viewer with sound adds to the illusion of being present.

## Wide Is My Native Land

*Wide Is My Native Land* is the first cinepanorama film to be made by a Soviet studio. It was shot in color in 1957 by a group headed by producer Roman Karmen, who has won a reputation far beyond the borders of the Soviet Union for his creative work in documentaries. He produced such films as *Battle of Leningrad*, *Morning in India* and *Vietnam*.

The shooting script was worked out jointly by Karmen and Yevgeni Dolmatovsky, noted Soviet poet and song writer. The final text, which admirably conveys the sweep of the film, was subsequently written by Dolmatovsky.

A group of brilliant cameramen worked under the direction of Zinovi Feldman. Feldman shot some of the most unusual battle front scenes filmed during the Second World War and produced a number of documentaries independently.

Music for the film was composed by K. Molchanov and was orchestrated by the well-known Soviet conductor K. Knushevitsky. The sound recording, which adds immeasurably to the depth of the film, was done by K. Bek-Nazarov, inventor of a system for recording sound on nine channels.

Roman Karmen, in an interview, touched on some of the multitudinous problems that cropped up while the film was being worked out.

"This first cinepanorama film," said Karmen, "was conceived as a documentary account of our land to show what our people have accomplished in these past four Soviet decades.

"Everything, from first to last, was real, everything was filmed from life, from nature. Our aim was to create a meaningful film, rich in facts, interesting in form, and at the same time to demonstrate the tremendous creative possibilities of the panorama screen."

## Hazardous Camera Work

"One of the first problems we ran up against was placing the cinerama camera to get the effect of being present. In shots of flying planes

we tried all sorts of positions, some of them quite hazardous for cameramen S. Medynsky, V. Ryklur and G. Kholny.

"The sound record of a speech, the roar of a plane engine, laughter and songs recorded at a festival, waves breaking against the Kuibyshev dam—these and a thousand other sounds were coordinated in a complex stereophonic composition by sound engineer K. Bek-Nazarov.

"Our cinerama technique differs to some degree from that of studios in other countries. The special technical and creative characteristics of our cinerama derive in considerable measure from the fact that we use a new type of mirror camera for scenic shots invented by Kirill Dombrovsky, a motion-picture director and gifted engineer."

*Wide Is My Native Land* was made by the stereophonic method perfected by the Scientific Research Institute of Cinema Photo using Soviet manufactured equipment and film.

### The Magic Mirror

Notwithstanding the title, *The Magic Mirror*, the second Soviet cinerama film now showing in New York, is not fantasy. It is a thoroughly realistic documentary which describes the present-day life of Soviet people. It was made in the Central Studio of Documentary Films in Moscow by directors L. Kristy and V. Komissaryovsky with score by E. Kolmanovsky and A. Zfasman and sound recording by I. Gunger.

The theme of this extraordinarily poetic film is given in this excerpt from one of the many rave reviews which appeared in the Moscow press. This is from the newspaper *Gudok*: "The makers of this film have actually used cinerama as a magic mirror to show simply and very beautifully how in our day life created by people outstrips the fairy tale."

The film has four sections—novelettes, we might call them, since each tells its own story.

The first of the four novelettes begins with *The Snow Queen* by Hans Christian Andersen and pictures the wicked sorcerer Throll with his distorting mirror in which everything good is reflected as its opposite.

The film makers comment: "Even today there are people who look at the world through the mirror of the wicked Throll. We decided that our film would look at the reality surrounding us through quite a different mirror—a truthful, honest mirror, which would show us beauty where it really is."

### The Snow Queen's Realm

Our camera travels to the realm of the Snow Queen, to the great lands verging on the North Pole, to boundless Siberia where Soviet man is altering nature to bring beauty and happiness to great numbers of people. It is of this man whose labor is building new cities, the crystal palaces of the Snow Queen, that the film tells.

A white desert of snow blankets the big screen and we almost feel the icy Arctic wind. Our plane flies over the North Pole searching for those new and powerful magicians that have replaced the ancient sorcerer Throll. The camera sights a Soviet scientific research station with its modern magic wand, a towering radio mast.

In a later scene we are transported to the Siberian taiga, in the heart of what was once the Snow Queen's realm. Here great tractors and bulldozers are scraping the bottom of the future Obsk Sea. We are no longer in our comfortable seats in the theater, we are driving a caterpillar tractor through the taiga, sitting round a campfire near a gigantic dam being built to hold the waters of some future lake and exchanging stories with these latter-day wonder workers—geologists, builders and engineers.

This novelette, *Northern Fairy Tale*, ends with a celebration of Russian winter during which a troika gallops at full speed directly at the viewer.

The second novellette is dedicated to Soviet artists. Here we see Galina Ulanova dancing the double role in *Swan Lake* and hear the remarkable voice of the Ukrainian singer Galina Oleinichenko, not too long ago a collective farm worker. We watch the lovely ballet *Seasons of the Year*, done not by a professional troupe but by 200 students from a trade school, with an adagio by draftswoman Yevgenia Mukina and plumber Yuri Urusov.

Beautifully photographed is the performance by the ballet ensemble of the Pyatnitsky Choir. On a mirror-like floor and against a background of receding darkness flash the rich costumes and the swift paced rhythms of the dancers.

### A Symphony of Labor

Hui Gun is the symbol around which the third novelette is built. Hui Gun, the fable tells us, was a poor Chinese peasant who entered into combat with a mountain. An ordinary man with a pickax in hand against a stone giant of a mountain! For many years Hui Gun and his children labored to move the mountain that blocked his way to water. When skeptics told him that his labor was futile, he answered, "We will grow in numbers, but the mountain will get no bigger."

This fairy tale has now been transformed into a wondrous reality —the descendants of Hui Gun building the Shisanlinsk Reservoir in the People's Republic of China. In a short half year more land was irrigated by these builders of a new socialist land than in thousands of past years. No Chinese fairy tale ever told of so great a miracle.

On the screen we see a view of Taniamin Square where nine years ago Mao Tse-tung proclaimed the People's Republic of China. On that day the Chinese people began changing the face of their land.

The scene shifts to the Chanchuan automobile factory, to a tractor plant, to Chinese farmers plowing their fields. This novelette *Unforgettable Cadres* might well be subtitled an inspired symphony of labor.

The fourth section of *The Magic Mirror* was filmed at the Brussels World's Fair two years ago. It is a bird's-eye view of the economic and cultural progress of the Soviet Union and will round out the picture for those Americans who go through the Soviet Exhibition at the Coliseum.

★ ★ ★

Besides the new cinepanorama films and construction of theatres for them, a circorama, the first in the Soviet Union, has been built on the territory of the countrywide Soviet Exhibition of Economic Achievements in Moscow. Many factories of Moscow, Leningrad, Kiev, Odessa, Samarkand and some other cities participated in its designing and construction.

Entering the building of unusual shape through transparent doors made of stalinite, the spectators find themselves in a circular hall 17 meters in diameter. The wall all round is covered by an original screen on which 11 synchronized projectors flash scenes shot by 11 movie cameras. The spectator can watch any part of the film he likes. If he looks at the part where the camera moved forward, he feels as though he were also moving along with the camera. But if he looks at the sides, he will see everything the cameramen witnessed as they shot the scenes round them.

In the Soviet circorama theatre there is an additional screen shaped like a truncated cone mounted over the cylindrical one. Applying the animated cartoon method the film producers will be able to feature the highlights of Soviet aviation, rocket-flying and aerial sports on this screen.

A Special apparatus has been designed for recording the sounds of the first Soviet circorama film. During the demonstration of the film, the spectator will hear the sounds coming from above, below and all round him.

**ONE OF MOSCOW'S WIDE-SCREEN MOTION PICTURE THEATERS FOR CINERAMA.**





VETERANS PRESENT NIKITA S. KHRUSHCHEV WITH MAP USED BY U.S. PATROL WHICH FIRST ESTABLISHED CONTACT WITH THE SOVIET ARMY ON THE ELBE.

# *American and Soviet War Veterans Pledge*



MUSCOVITES TAKE THEIR AMERICAN GUESTS ON A SIGHT-SEEING TOUR OF THE CAPITAL.

THE AMERICANS CHAT WITH GENERAL TULENEV (LEFT) AND VETERAN PILOT ROSINSKY.



TO COMMEMORATE the link-up at the Elbe River in Germany between the armed forces of the two allied nations in the spring of 1945, a delegation of American war veterans recently visited the Soviet Union at the invitation of the Soviet War Veterans Committee. The group was led by Joseph Polowsky of Chicago, secretary of the American Veterans of the Elbe Link-Up.

This is the fourth meeting of comrades-in-arms who first clasped hands as soldiers fighting a common battle against fascism. This one was on Soviet soil and the Soviet people extended these American envoys of good will a most hearty welcome.

During a soccer match they attended in Leningrad, a hundred thousand fans rose to their feet and cheered when the announcement was made that American veterans were in the audience.

The veterans met people in Moscow, Leningrad and Stalingrad. They saw theaters, museums, factories, farms and visited with Soviet families. In the Leningrad Palace of Young Pioneers they took part in a show the children gave.

One of the Americans, Harry Lieb, in a TV interview shortly afterward, said the children were wonderful, and that a country which could raise such children was one dedicated to a peaceful, creative future, not a nation geared to war.

The veterans were especially impressed by Stalingrad. Bernard Koten, in an article the editors of the newspaper *Sovietskaya Rossia* asked him to write, spoke with admiration of the city restored. Stalingrad, he said, was close to the heart of every person who remembered the war. The Americans were moved by a showing of the historical film *The Battle of*



U.S. DELEGATION AT THE STALINGRAD MEMORIAL MARKING THE SPOT OF THE FIERCEST FIGHTING.



PETER SITNIK (LEFT) WITH JULIA AND BORIS POLEVOI.

# *Friendship*

*Stalingrad*. Murray Schulman, a member of the delegation, was presented with a copy of the film.

The guests spent a considerable part of their visit in Moscow. Giving his impressions over Radio Moscow, veteran Alexander Lieb commented that Moscow ought to be called construction-crane town, there was so much building going on. He had gone to the roof of the Ukraina Hotel, where the delegation stayed, to get a camera shot of the city skyline and there were big crane booms everywhere he turned.

Peter S. Sitnik said he had been very much impressed with the sentiment for peace he found expressed by Soviet people in all walks of life and intended to tell his countrymen what he felt and saw. Sitnik pledged that great day when the hateful word *war* would have been lost from man's vocabulary. Mr. Sitnik's remarks were especially telling—during the war he had been awarded a Soviet decoration, the Order of Glory.

Before they left, the Americans were received by Nikita S. Khrushchev. The delegation presented the Soviet Premier with the topographical map used by the first American reconnaissance patrol to establish contact with Soviet troops at the Elbe.

Joseph Polowsky referred to the map as a symbol of the good relations which can and should exist between the two nations.

At a press conference before leaving for home the veterans expressed their pleasure at the opportunity they had had for a friendly talk with the Premier on the fourteenth anniversary of the victory over German fascism and their hope that by the fifteenth anniversary the world would be relaxing in a sunnier and warmer climate of international friendship.



MURRAY SCHULMAN CALLED ON THE FAMOUS SOVIET SNIPER LYUDMILA PAVLECHENKO.

VETERAN IVAN AFANASIEV INVITED THE AMERICANS TO VISIT HIS HOME AND JOIN HIM IN TOASTING PEACE.



# WITH THEIR OWN EYES

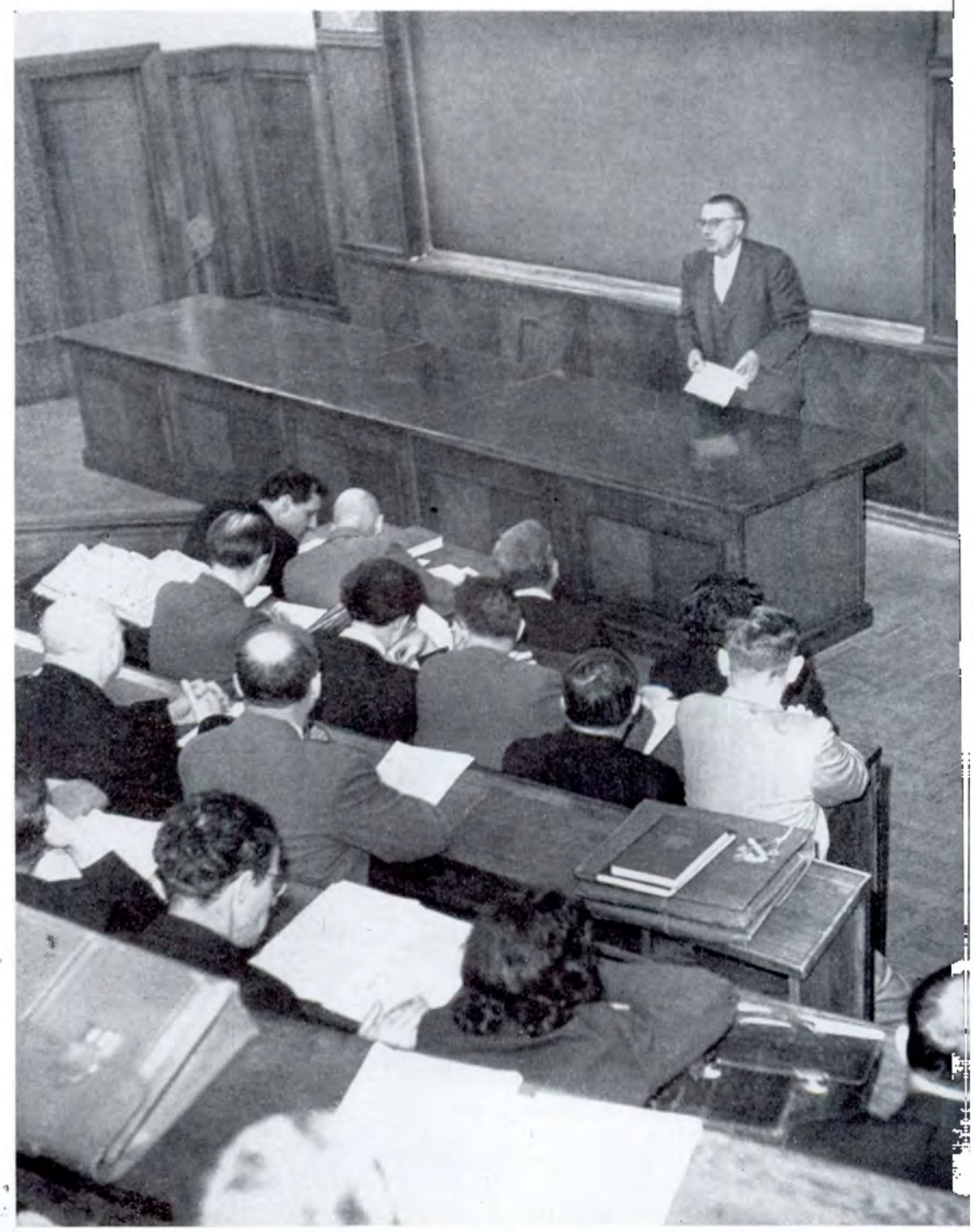
THESE bright summer days one comes on foreign tourists from every land in Soviet cities and villages. They travel wherever they care to go and see whatever they wish to see. The country is at their service, pleased that they have come to observe with their own eyes how Soviet people live.

Their itineraries crisscross the country. They travel by plane, ship, bus or in their own cars along more than forty routes traversing the most picturesque and most interesting parts of the Soviet Union.

They may, if they choose to, vacation at one of the beautiful resorts of the Crimea and the Caucasus; travel through the Central Asian republics to see the giant strides their people have made; watch the seven-year plan in construction in Siberia; visit as many of the booming Soviet cities, both old and new, as their own time schedule allows.

Wherever tourists go, they are assured of a most hearty welcome. Russians have a long and honored tradition of hospitality and the foreign visitor meeting people in museums, farms, trains, streets and wherever else is likely to get more pressing invitations to visit than he has the time to accept.

Tourist exchanges between the Soviet Union and other countries have been increasing—to everyone's satisfaction and benefit. Many thousands of new visitors have come this summer, including, we are pleased to note, a growing number from the United States. We hope to welcome many more.



American tourists of every walk of life find a warm welcome waiting in the Soviet Union. Here Professor Carl Einar Hille reads a lecture at a meeting of the Moscow Society of Mathematicians.



A group of radio electronics experts from the United States inspect the equipment of a physics lab at Moscow University.

Norman P. Auburen, member of a recent delegation of American specialists in higher education, is shown as he chats with a student of a Moscow pedagogical institute.





One of the things Blair O. Rogers (second from left), an American surgeon, found interesting was the work of the ambulance service dispatch center.



David Whittinghaim and Jack Goblin of General Electric Corporation with Professor Leonid Vereshchagin (right) of Moscow University.



American businessman Leonid Levin negotiates a contract with Soviet export organization representative Vasili Pisarev.

Americans attend services in a Moscow Baptist Church. There has recently been an increasing number of exchange visits between church delegations of the Soviet Union and the United States.





American tourists Fyodor and Irina Chaliapin, children of the great Russian basso, call on actor Pavel Massalsky (right).



# NEEDED: another 12 MILLION WORKERS

*By Mark Postolovsky*

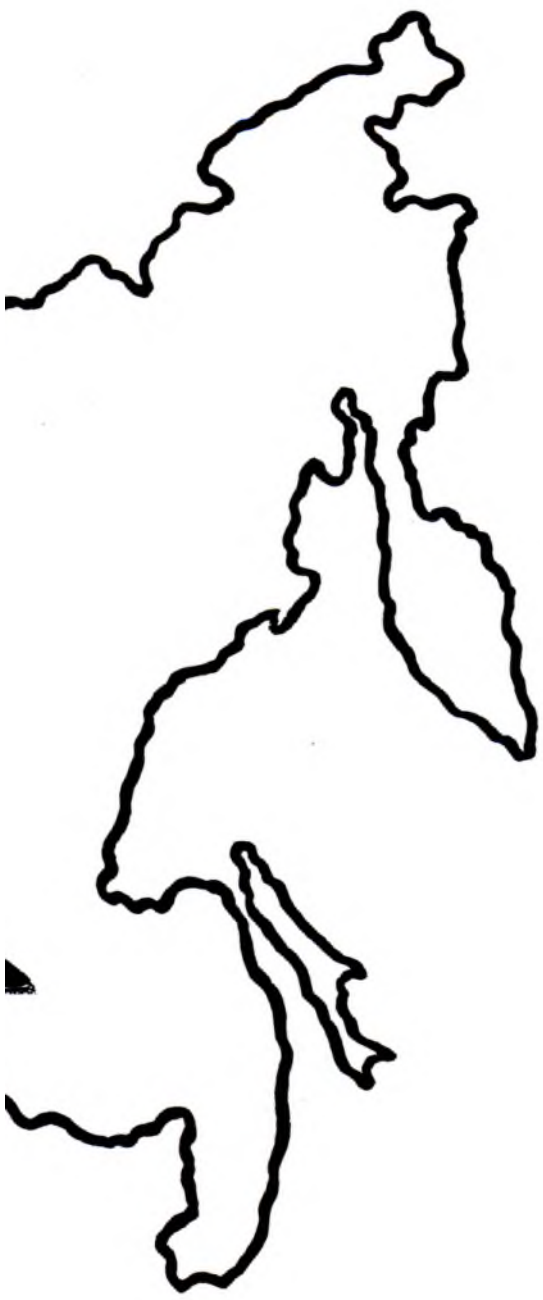
OLDER people in the Soviet Union, those who have reached the half-century mark, still retain the bitter memory of the unemployment which was so permanent a feature in the economic life of prerevolutionary Russia. It carried over into the early years of the Soviet period, aggravated by civil war and foreign intervention which left a wake of gutted factories and wasted farms.

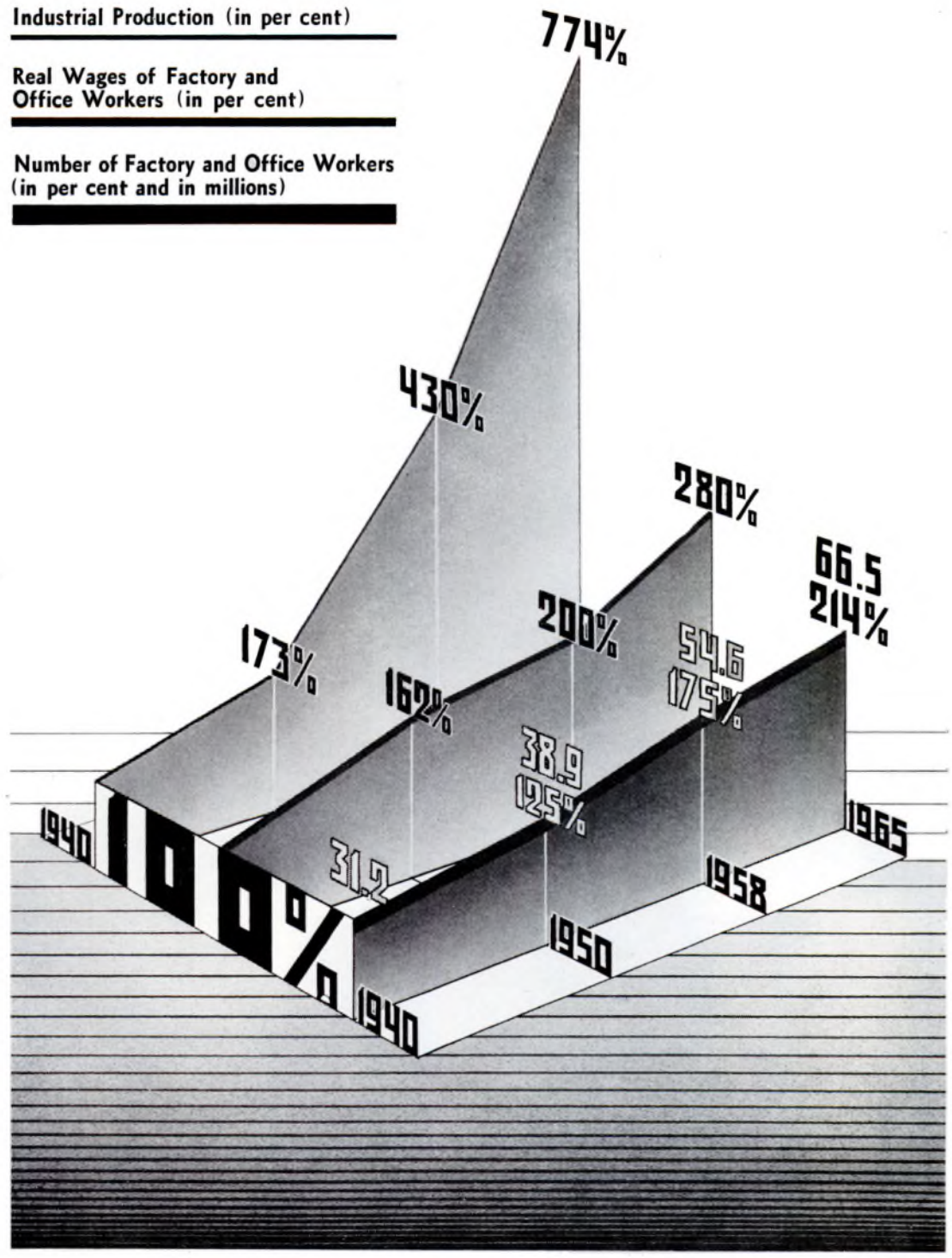
To the generation born after the Socialist Revolution in 1917 unemployment is a fact out of history. They have read about it in the literature, heard talk about it, but it has never touched their own lives.

During the years they grew up the country was building to its present industrial and agricultural level. Every hand and brain was needed for the prodigious task. In the process, unemployment as an economic factor disappeared. "Help Wanted"—this has been the permanently advertised notice in the past three decades.

Full employment—and more than that, a constant and pressing need for more skilled labor in every sphere of Soviet vocational activity—is not a transient phenomenon, nor is it an accident of economic circumstance. It evolves naturally out of production for use rather than profit, out of socialist planning aimed at an ever-rising standard of living for the worker-consumer.

Foreign visitors to the Soviet Union are struck by the spirit of con-






THE FIGURES ON THE CHART PREDICT STEADY JOBS AND INCREASING WAGES FOR THE GROWING LABOR FORCE.

fidence of the average citizen in his personal future and the future of the country. There is no vestige of that depression psychology, the fear of a jobless future.

The right of every citizen to a job is more than a phrase in the Soviet Constitution. It is guaranteed by a growing and developing economy which is not subject to crisis. The Soviet citizen may look ahead to the economic future with confidence. He is assured of a steady job with every opportunity to move ahead. If he falls ill, he pays no bills for medical treatment and is entitled to sick benefits. When he reaches retirement age, he claims his pension.

Nor does he have to worry about the economic future of his children. Free education, with every opportunity for training in the skill or profession of their choice, is open to them all the way through the university level.

### The Problem Is Labor Scarcity

Labor scarcity has been a worrisome problem for Soviet industry and agriculture for a considerable time now. With the scope and magnitude of construction and development now going on as part of the seven-year plan, it has become even more acute.

In the next seven years the country's industrial output will grow by approximately 80 per cent as compared with 1958; by comparison with the prewar level, the increase will be eightfold.

To cite specific areas—more than 1600 large plants are to be built for the light and food industries between now and 1965. For the heavy industries new mines, power plants, oil fields by the many hundreds will be put into operation. Statisticians estimate that every day of the next seven years, five or six large industrial enterprises and scores of smaller ones, as well as schools, hospitals and cultural centers, will be completed. Add to this housing construction—the 15 million new apartments in the cities and 7 million small homes in the countryside that are to be built.

For this herculean construction program large numbers of new workers will have to be found and trained. The USSR State Planning Committee estimates that nearly 12 million industrial, office and professional workers will be swelling the nation's labor force between now and 1965. (For the seven years previous the comparable increase was 14 million.)

This means that the annual labor addition—exclusive of the collective farms and the producers' cooperatives—will approximate 1,750,000.

At the end of 1958, the country's total of employed persons was



Veteran workers pass on the tricks of their trades to the newcomers.



High school graduates are being trained in the refrigerator shop of a Moscow auto plant.




Help Wanted ads posted on bulletin boards in public squares of cities and towns list job opportunities in every field of work imaginable.

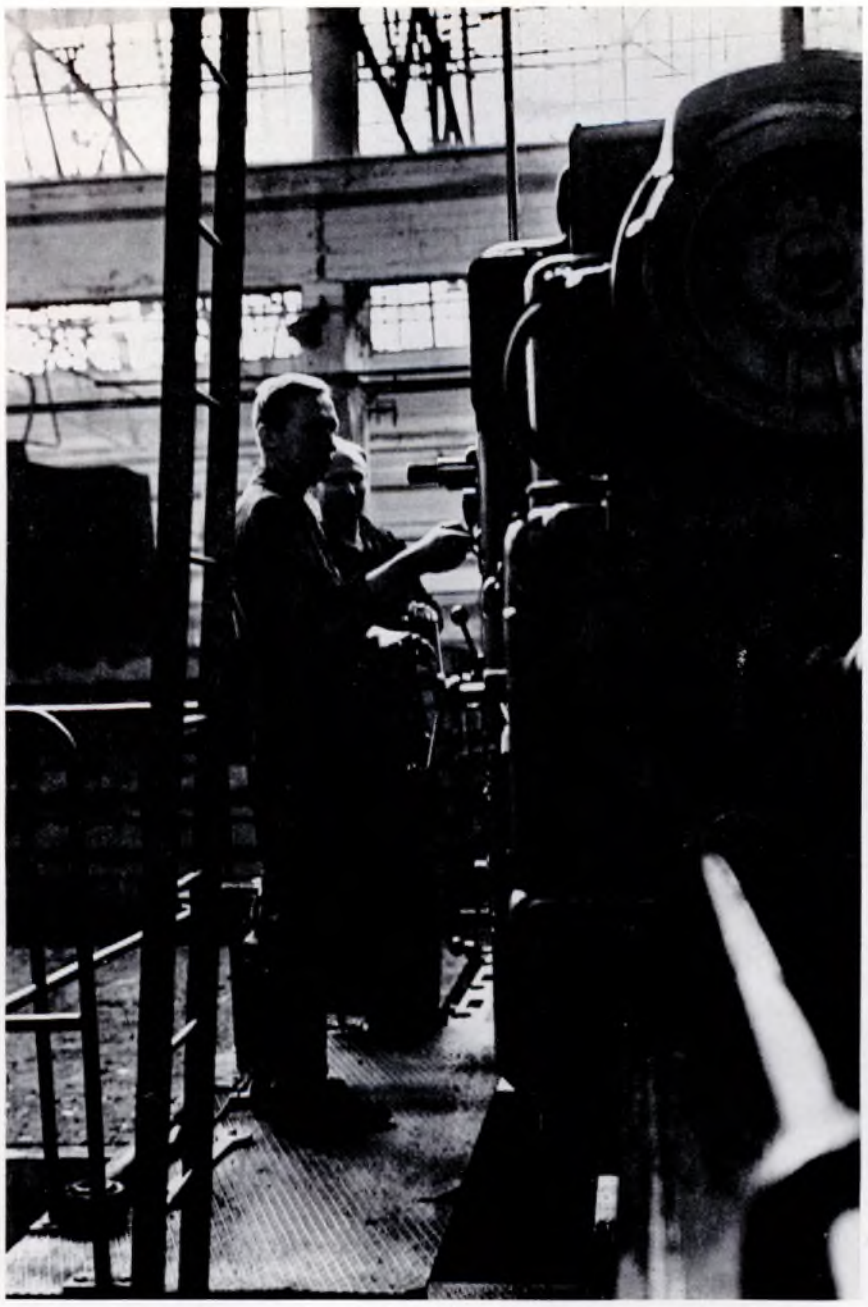
**NEEDED:**

**another**

**12 MILLION**

**WORKERS**







As a result of automation, workers are retraining for more skilled jobs at higher wages and shorter hours and more goods are available at lower prices.

Apprentices who want to become master electricians can attend this class for raising job qualifications.

54,600,000. This is almost double that of the prewar figure. By 1965 it will have reached 66,500,000.

### The Pace of Industrial Growth

Certain industries, notably steel, machine-tools and auto, are growing at a particularly rapid pace. Within the seven-year period pig iron production will have increased by a good 30 million tons—a figure equal to, perhaps topping, the entire present-day annual production of France and England combined. Steel output will increase by an approximate 31-36 million tons, also equal to the French-English present annual output. Iron ore production is expected to grow from 89 to 150-160 million annual tons.

New iron and steel mills and nonferrous metal plants are going up in a number of regions, with special concentration on the East. During the seven-year period four or five new blast furnaces, nine or ten open-hearth furnaces, several electric ovens, rolling mills and other facilities will begin producing annually. This obviously means that larger numbers of trained people will be needed for the metal trades. The same holds true for the oil and gas, power, chemical and engineering industries.

Great numbers of skilled people will be needed by the machine-tool industry. These crucial tools are necessary to turn out everything from a simple automobile gear to a cosmic rocket part. During the seven years the industry will be manufacturing 1,134,000 different high-efficiency metal cutting machines. Compare this with the 1,280,000 turned out in all the past 29 years from 1928 to 1958 and visualize the great number of skilled workers that will be needed.

The chemical industry is growing apace, especially in output potential of synthetics and plastics. Scheduled are 270 new or renovated plants for industrial chemicals and the production of raw materials for consumer goods. All this requires not only a great army of construction workers but also men to build machinery and equipment.

### Equipment Bought Abroad

The Soviet engineering industry has sufficient productive potential to supply the thousands of new plants with all the equipment and machines they need. But in order to speed operation the country has been purchasing various kinds of equipment abroad. It has placed orders with foreign firms for the machinery for entire plants in some cases. In this current year alone the Soviet Union has bought 37,000 tons of large-diameter pipe from Mannesman, a West German firm. The same firm is readying for delivery an entire pipe-welding mill with an annual output capacity of a million tons of large-diameter pipe.

During Premier Nikita Khrushchev's visit to the Leipzig Fair last spring he told Werner Feldkamp, commercial director of the West German tube company Phonix-Rhein-Rohr, that the Soviet Union might be interested in buying the firm's total output. This is one indication, among many, of the big possibilities for mutually beneficial trade.

Consider the rapidly developing Soviet chemical industry, another case in point. The country has placed an order with an English firm for

# NEEDED:
## another 12 MILLION WORKERS

the full complement of machinery for a tire plant and one with another English firm for a complete plant for production of silk acetate.

An Italian firm is now preparing to fill a Soviet order for machinery to produce highly durable cord fiber. The West German firms Friedrich Krupp and Salzgitter will be delivering equipment for several chemical plants.

The Soviet Union has also made offers to the State Department for purchase of American chemical equipment. Thus far, unfortunately, they have not been considered.

### Answer for the Labor Shortage

Where are 12 million new workers to man the new enterprises to come from? That is the large-sized problem Soviet planners are trying to solve.

First and most important is the normal population increase, fairly high in the country. In the late postwar years the annual increase has been more than three and half million. However, we must keep in mind that the birth rate dropped during the war years and we must expect years during which the population increase will be lower than the postwar average. This is a temporary drop but must nevertheless be taken into account.

It will be compensated for, to a degree, by the fact that an ever-growing number of young people will be taking jobs after graduating from high school. The curriculum of the Soviet schools is being reorganized to combine school study with polytechnical and vocational training to equip the students for practical work. Before entering college, they will be required to have actual on-the-job experience.

In addition, more young people who follow their high school studies with training in specialized trade and technical schools will be moving into industry.

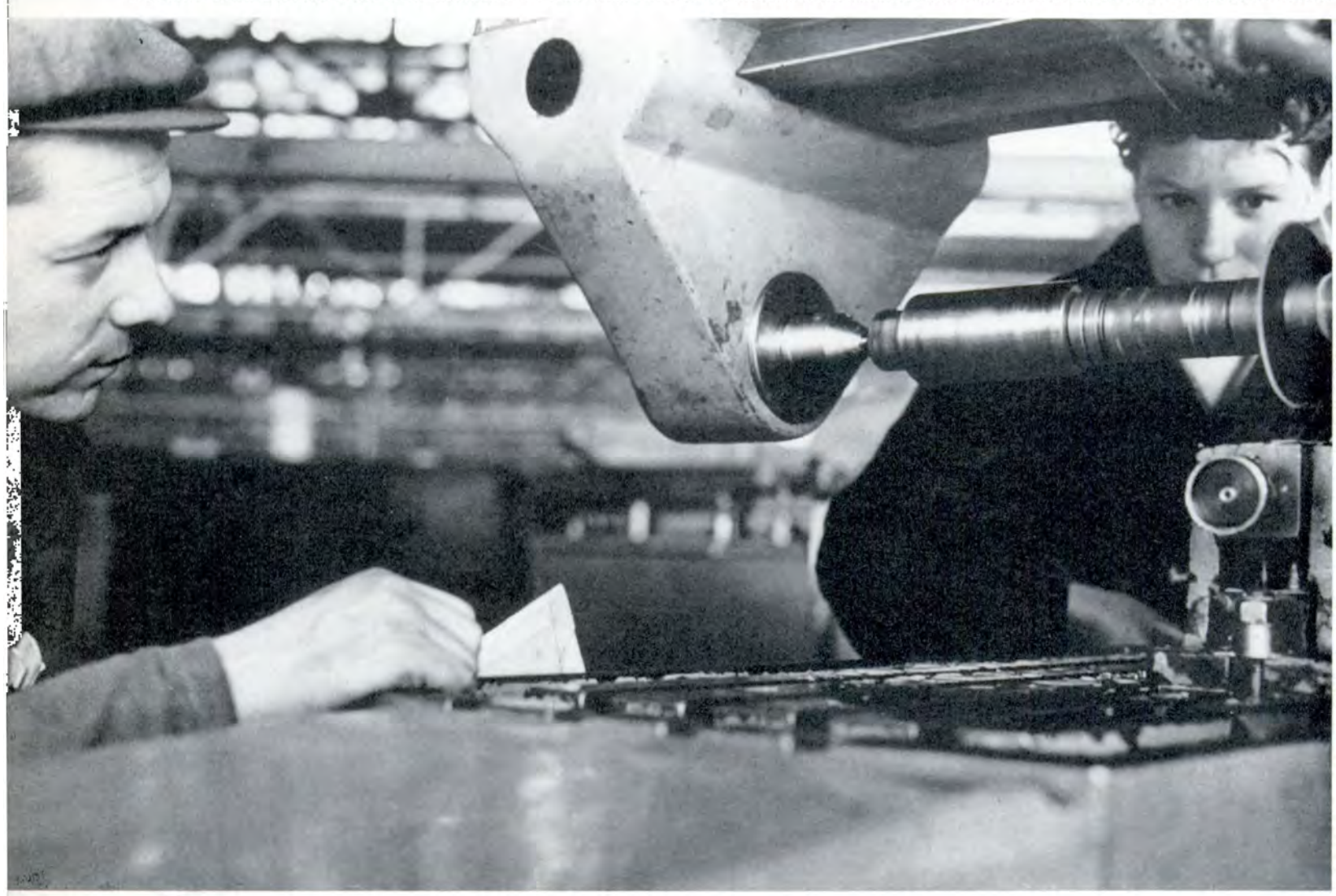
The movement of young people from the rural areas into the industrial cities will also be adding to the labor force. There is not, however, nearly as much of this flow as held true in years past. In the czarist period, the great mass of city labor came from the heavily overpopulated and poverty stricken farm regions. Unemployment was then the norm in the villages. Now, however, the collective and state farms, in constant process of expansion, could use considerably more workers than they have. This situation will be eased by the intensive farm mechanization called for by the plan and it is expected that there will be some movement of workers to the cities to swell the industrial labor total.

### For Automation: More Workers Needed

Mechanization and automation will be a most important factor in increasing the labor available to industry. In a socialist society, with unemployment done away with, automation is no threat to a worker's job security. Quite the reverse, it makes a higher standard of living possible. More goods can be produced with less expenditure of labor and can therefore be sold more cheaply. This is aside from the equally important consideration that the more laborious and the more monotonous chores can be given to the machine and the human worker left free for the more creative aspects of the productive process.

Although the country's productive level has multiplied 36 times over

FOREMAN OF THE MACHINE SHOP IVAN KURBANOV WATCHES WHILE A YOUNG WORKER DEMONSTRATES WHAT SHE HAS LEARNED ABOUT OPERATING A LATHE.





APPLICANTS FOR JOBS IN THE DIAMOND MINES OF YAKUTIA IN SIBERIA ARE TOLD ABOUT THEIR NEW DUTIES BY THE HEAD OF THE EXPEDITION.

the prerevolutionary figure, the number of industrial and office workers has multiplied only four times. The greatly increased productivity per worker is explained by the mechanization and automation not alone of single processes but of whole industries.

Automation is the gigantic lever with which the Soviet Union will be raising its gross industrial production by 80 per cent in the next seven years, with an increase of only 20 per cent in the number of workers.

With machines taking over the heavy work in industry, farming, construction and transport, the workers formerly employed at these arduous manual jobs are being retrained for the new skills needed by their factories or by allied or neighboring factories. Regardless of what jobs they move to, they suffer no pay cuts. The law is very clear on that point. As a matter of fact those who train for new jobs—the training is, of course, free—will usually have moved into a better paying job category.

There are no "critical areas" of unemployment in the Soviet Union. On the contrary, there are several areas which are "underemployed," to coin a word, where more labor is vitally needed. This is true particularly in the sparsely populated eastern regions, where big power, metallurgy, chemical and other projects are being built.

A worker whose old job is taken by a machine can, if he wishes to, move to these areas where he is guaranteed a job at good pay, living quarters, travel and moving expenses for himself and his family.

In the Soviet Union automation makes it possible to cut the workday with no cut in pay. And that is being done now. By 1962 the changeover to a 40-hour week will have been made for every branch of the economy. Then the gradual changeover to a 30- or 35-hour week will begin to be completed by 1966-68.

### Planning Skills

It is the job of the Labor Reserves Administration, a government agency, to plan the labor needs of the Soviet economy, with regard to both numbers and skills required.

Set up 18 years ago, the agency has trained 10,250,000 workers. At present, its trade and technical schools, which give the student both a good general education and a mastery of his trade, train 650-700,000 workers annually.

The courses of study are sufficiently flexible so they can be changed—as they are constantly—to keep abreast of technical progress. New courses are added as skills are required by developments in automation, remote control, the new chemistry, electronics, cybernetics and atomic energy. The schools now train workers in 700 trades, almost double that of the early postwar period.

Some six to seven million workers annually are trained directly at the factories. This type of traininig is also administered by the Labor Reserves Administration.

The very rapid advance of automation in Soviet industry makes necessary greater numbers of workers with a specialized secondary or higher education. During the seven-year plan period the present 7.5 million specialists with advanced education now at work will be augmented by another 2.3 million.

### The New Socialist Worker

A phenomenon worth noting in Soviet life today is the emergence of a new type of worker. Universal education and technical development have been molding the worker-intellectual—men and women with a wide cultural background who approach the technician and engineer in mastery of the theory and practice of their crafts.

This is the education and skill level required by automation—not the unskilled and unknowing machine operator but the specialist with sufficient background of knowledge to control and direct the machine.

Millions of Soviet workers are studying in one or another type of school. Many take advantage of the privileges offered to those who study while working by continuing their education at evening schools or by correspondence. There are many plants where every fifth, fourth or third worker is studying and where the great majority of workers are high school graduates. Fairly typical is the Moscow Ball Bearing Plant where every third worker is studying. In the automatic shop of the plant every fourth worker has either gone through or is attending a technical high school or college.

Such plants—and there are many of them—have acquired the name "factory college." During the next seven years these "factory colleges" will really have earned the title. They will become higher technical schools cutting across the false barrier between physical and mental labor. The Soviet plant of tomorrow will be automatic factory, technical college and scientific laboratory in one.



WINNERS OF AMATEUR ART CONTESTS WILL PERFORM AT THE YOUTH FESTIVAL.

# WORLD YOUTH

MANY thousands of young people from countries in all the five continents will be gathered in Vienna this month for the Seventh World Youth Festival. This biennial international meeting, to run from July 26 to August 4, will undoubtedly be as exciting and as dramatic a demonstration of young people the world over for friendship and peace as were the preceding six.

Those who were in Moscow in 1957 for the last festival are not likely to have forgotten the wonderful spirit, the spontaneous singing and dancing, the unrestrained and endless exchange of ideas and feelings.

Present were 34,000 young people who came from 131 different countries to learn about and from one another. They carried back to their own countries a much deeper understanding and sympathy for peoples and ways of life different from their own. Charlotte Sykes, an American girl, describes some of this in a book that was published in the United States shortly afterward.

The theme of the 1959 festival in Vienna, as always, will be For Peace and Friendship, subscribed to by boys and girls of all political, social and religious beliefs.

Young people in the Soviet Union have been preparing for the Vienna Festival for many months now. They expect to meet old friends and to make many new ones.

In honor of the occasion young workers in Riga have named the latest models of radios and buses they manufacture "The Festival." One of Moscow's textile plants has given the same name to a new pattern.

There have been talent shows in many towns and villages to choose amateur singers, musicians, actors and dancers. The best of them will be displaying their gifts at Vienna. Young composers have written songs for the festival and painters have been working on canvases with the youth festival as theme. Amateur photographers have been competing for display of their work in Vienna.

Everywhere in the Soviet Union clubs, houses of culture and libraries

A GROUP OF GARMENT WORKERS TRIES OUT FOR THE FOLK SONG COMPETITION.





A RUSSIAN SCHOOLGIRL HAS MADE A STUDY OF INDIAN NATIONAL DANCES.

THE ROLLICKING *HOPAK* IS DANCED BY YOUNG PEOPLE FROM THE UKRAINE.





SOVIET AND FOREIGN STUDENTS GET TOGETHER AT A GATHERING IN MOSCOW.

# FESTIVAL AT VIENNA

**By Sergei Romanovsky**

*Member of the International Preparatory Committee for the Seventh World Youth Festival and Chairman of the Soviet Preparatory Committee*

have been showing exhibits to popularize the festival, and schools and community centers in city and village have held lectures and discussion meetings illustrated by photos and films of past festivals.

*Countries of the World*, one of the documentary films, must have been shown to audiences in the millions by this time. As the name indicates, it tells how people in other countries live and the why and wherefore of these international youth assemblies. The newspaper *Festival*, published in Vienna in several languages, is, of course, widely circulated in the Soviet Union.

All of this preparatory work to acquaint Soviet people, young and old, with the purpose and function of the Vienna Festival has been done through a committee that was set up in July of last year by a number of Soviet youth, trade union, cultural, sports and social organizations. The membership of the Preparatory Committee is very broad and includes farmers, students, industrial workers, people in the arts, sciences and in public life.
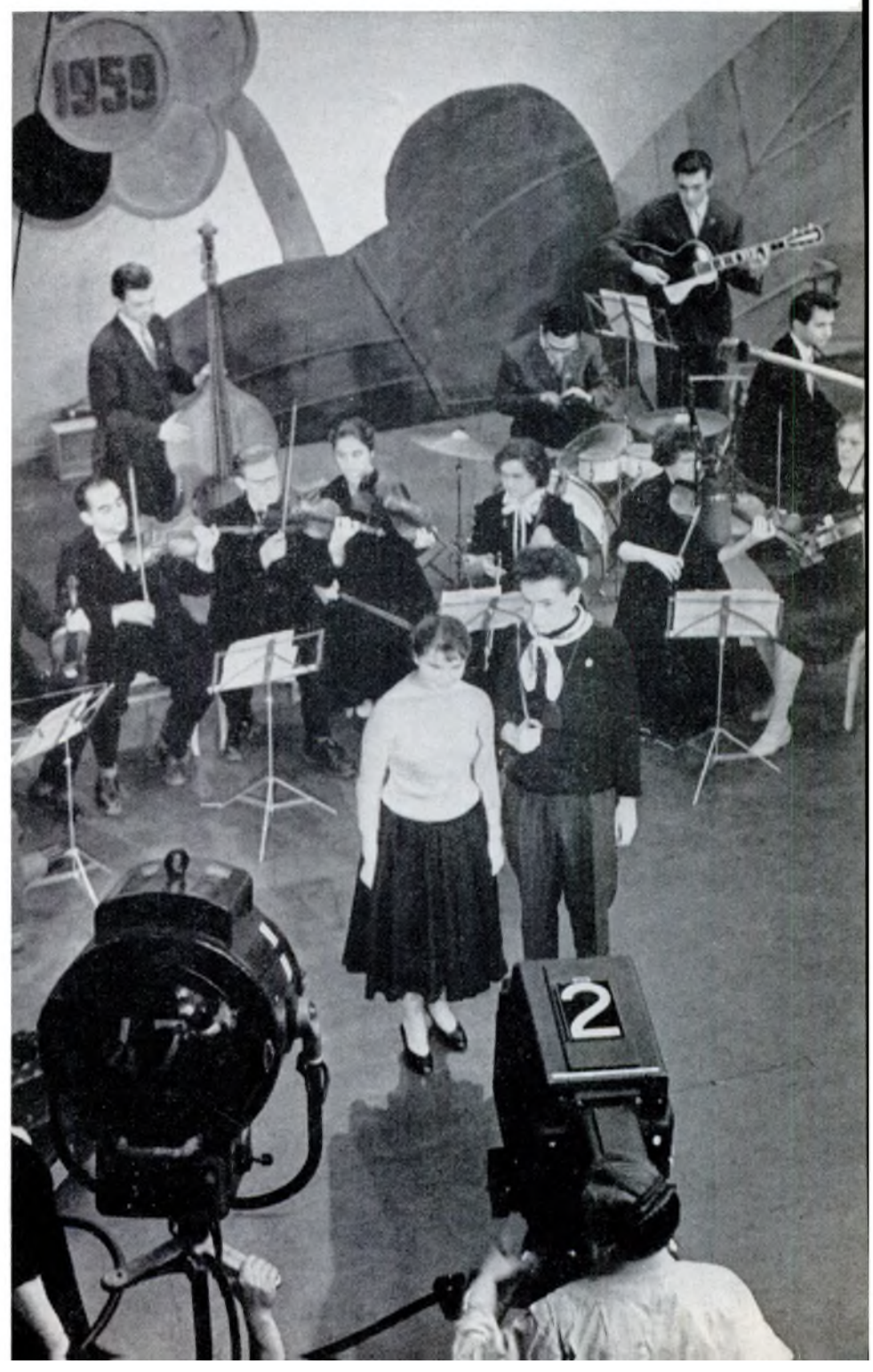
Eight hundred Soviet young people will be elected by their organizations as delegates to the Vienna Festival, a cross-section of the country's population as to nationality and vocation.

The Soviet delegation will be taking part in the large festival program—the meetings of young people of similar vocations, the sports competitions, the fine arts exhibitions, the photography shows, the stamp displays.

Young Soviet musicians, singers, ballet and folk dancers will be participating in the various international amateur contests scheduled and will be giving their own concerts besides. Films, both documentary and feature, produced by young motion picture workers will be shown at the festival.

The young people from the Soviet Union present in Vienna hope to acquaint the delegates from other parts of the world with the role they play in the life of their country, with their plans for the country's future and with their hopes for a peaceful world that will make that future possible.

AMATEUR CAMERAMEN AND ACTORS REHEARSE A TV PROGRAM "MOSCOW—VIENNA."





SIX BALLERINAS OF THE BOLSHOI BALLET COMPANY ON THEIR ARRIVAL AT IDLEWILD AIRPORT. THE GROUP PERFORMED IN NEW YORK, WASHINGTON AND THE WEST COAST.

# *Bolshoi Ballet* *in the UNITED STATES*

THERE WAS A 16-MINUTE OVATION AFTER THE GROUP'S PREMIÈRE PERFORMANCE IN THE UNITED STATES.



Georgi Orvid

*Director,* Bolshoi Theater

THE American tour of our Bolshoi Ballet was an unforgettable visit. We hope it will prove the first of many.

In the two months we gave 52 performances for nearly 300,000 Americans in New York, Washington, Los Angeles and San Francisco. Millions more will be seeing two full concert programs that we made for TV audiences.

Our concerts featured prima ballerina Galina Ulanova, ballerinas Maya Plisetskaya, Raisa Struchkova, Nina Timofeyeva, Nina Chistova and dancers Yuri Zhdanov, Nikolai Fadeyichev, Vladimir Levashov, Boris Khokhlov, Georgi Farmanyants. Gennadi Lediakh and our very young stars, Ekaterina Maximova and Vladimir Vasiliev.

We did Tchaikovsky's classic Russian ballet *Swan Lake;* the western *Giselle* by Adolphe Adam; the Soviet *Romeo and Juliet* by Prokofiev and the new Prokofiev *Stone Flower,* as well as two programs of ballet highlights.

We wanted to give our American audiences a sampling of the diversified presentations

of our Moscow repertory. We staged some twenty ballet spectaculars this past season directed by ballet masters with differing styles—Leonid Lavrovsky, Asaf Messerer, Rostislav Zakharov, Leonid Jacobsen, Vladimir Verkhovitsky, Yuri Grigorovich and others.

We were, quite understandably, very pleased at the generally enthusiastic reviews by American music and dance critics. This comment by John Martin of the *New York Times* was typical of many:

"The things that went on at the Metropolitan Opera House last night, when the Bolshoi Ballet gave the first of its 'Highlights' programs, cannot possibly be believed without being seen and not very easily even then . . . This fantastic company did everything but take off into outer space. If there has ever been a company with better technique or more of it, it has certainly not come this way."

There were some adverse comments from critics who thought our interpretations, from the viewpoint of choreography, were too traditional. Others, on the contrary, were pleased that the Bolshoi adhered to the classic tradition of the Russian ballet and used that as foundation for creating its own realistic interpretations.

We ourselves, of course, hold to the latter view and it seemed to us that our American audiences, to judge by their reaction, agreed with us. This is what I told one American critic who asked me how I accounted for the overwhelming reception we received from American audiences everywhere we danced.

We had, unfortunately, very little free time to get around. In New York our troupe saw *West Side Story* and *My Fair Lady* and were very much impressed by both these wonderful musicals.

We heard the brilliant Juilliard String Quartet, and the incomparable New York Philharmonic with Leonard Bernstein conducting and Isaac Stern as soloist.

We were present at a rehearsal of the ballet company of the New York City Center and saw this fine troupe dance Stravinsky's *Firebird* and Tchaikovsky's *String Serenade*. Our feeling was that George Balanchine's choreography inclines rather more to technical perfection than to emotional tone. We are inclined the other way.

We were somewhat less impressed by American films, although we did like *80 Days Around the World*, *Imitation of Life*, *Gigi* and some others.

We visited the Metropolitan Museum of Art in New York and the National Gallery in Washington and were sorry we could not spend more time in these wonderful treasure houses of art.

We were glad to be able to meet so many American people face to face—scientists, artists, musicians, writers, diplomats and students. Some members of our company visited American families.

We received thousands of letters from people in Chicago, Cleveland, Detroit and many other cities, all asking the same question: "Why don't you visit our city too?"

Our answer had to be: "We would like to, but we haven't the time this trip. Perhaps the next. Let us both try to make it soon."



GALINA ULANOVA AND YURI ZHDANOV DANCE THE TITLE ROLES. SERGEI PROKOFIEV COMPOSED THE MUSIC.

THE DUEL SCENE FROM ACT II OF *ROMEO AND JULIET* PRESENTED AT THE METROPOLITAN OPERA HOUSE.



*THE STONE FLOWER*, BASED ON A FOLK SAGA ABOUT THE CRAFTSMEN OF THE URAL MOUNTAINS, PRODUCED BY YURI GRIGOROVICH TO MUSIC BY SERGEI PROKOFIEV.

KATYA STANDS ALOOF FROM THE CROWD AT THE FAIR. HER THOUGHTS ARE WITH HER BELOVED DANILUSHKA, LURED AWAY BY THE MISTRESS OF COPPER MOUNTAIN.





# Bolshoi Ballet

## *in the UNITED STATES*

Leonid Lavrovsky
*Choreographer,* Bolshoi Theater

BALLET people in our two countries have approaches in common and, very naturally, others which differ when it comes to choreography.

American choreography is considerably younger and was strongly influenced by Sergei Diaghilev's Russian ballet troupe which performed in the United States in 1910 and in 1912 and by such eminent Russian artists as Anna Pavlova, Mikhail Fokine, Nijinsky and others.

Subsequently, dancers of the St. Petersburg Ballet Troupe came to the United States and founded schools where they taught in the Russian ballet tradition.

But we must keep in mind that the method of training ballet dancers in the Soviet Union has changed very markedly in the past few decades. Soviet ballet is developing along realistic lines, although it has its roots in Russian choreographic tradition.



SEVERYAN, ACCOMPANIED BY THE GYPSIES, TRIES TO KIDNAP KATYA.

THE WEALTH AND POWER OF THE MISTRESS OF COPPER MOUNTAIN ARE NO MATCH FOR KATYA'S UNSELFISH LOVE AND DEVOTION.



# *Bolshoi Ballet*

## *in the UNITED STATES*



NINA TIMOFEYEVA IN THE ROLE OF ODETTE IN TCHAIKOVSKY'S *SWAN LAKE*.



GALINA ULANOVA AS THE PEASANT GIRL GISELLE IN ADOLPHE ADAM'S BALLET.

THE CHORUS GETS THE FEEL OF THE STAGE OF THE MET AT A REHEARSAL OF A SCENE FROM *ROMEO AND JULIET* IN PREPARATION FOR THE BOLSHOI'S AMERICAN DEBUT.



We aim for dancing that will reach not only the heart but the mind. Our aim is to enrich the classical forms with folk dance elements and to portray not only man's emotions but his thoughts also. This is quite a new approach to choreography and it opens inexhaustible possibilities for ballet development. This method of ours is very different from pure mastery of technique.

It is our feeling that the exponents of the "modern way"—those who stress pure technique—will revise their position in time.

What is most important, to my mind, is not that we agree or disagree on one point or another, but that we create many more such opportunities to exchange thoughts and ideas that will help ballet to grow in both our countries.

★ ★ ★

## Yuri Faier
*Conductor,* Bolshoi Theater

ALL of us in the Bolshoi Company owe our heartfelt thanks to the American symphony orchestras we worked with during our two-month tour. They mastered the new and difficult scores of *Romeo and Juliet* and *The Stone Flower* in a remarkably short time and their artistic level of performance was consistently high.

We were hardly surprised at that since we were aware of the fine musicianship of American Symphony orchestras—having heard the Boston and Philadelphia when they played in the Soviet Union. Our very warm thanks for their wonderful cooperation, to which we attribute much of the success of our performances.

★ ★ ★

## Vadim Rindin
*Scenic Designer,* Bolshoi Theater

DURING the tour I talked to many American painters and was very pleased to find that our ideas about theater design coincided for the most part. We had no great differences of opinion. We worked out plans for exchanging stage designs and other kinds of decorative theater material and for maintaining regular contact.

I was also glad to have the opportunity to go through some of the American museums. I was particularly struck by the display of works of the French impressionists—a larger number than I had seen even in galleries in France.

★ ★ ★

## Galina Ulanova
*Prima Ballerina,* Bolshoi Theater

IT WAS with a real sense of accomplishment that I returned home from our tour of the United States. I must confess that I was a little unprepared to meet so large and understanding an audience. This was my first very pleasant surprise on American soil.

We were happy to find that American audiences appreciated our realistic choreography and were moved by the optimism of our ballet art and the *joie de vivre* which we strive for.



RAISA STRUCHKOVA, SHOWN WITH YURI ZHDANOV, WAS ACCLAIMED BY THE CRITICS FOR HER JULIET.

Art is dead if it does not find an echo in the hearts and souls of people. An artist is unhappy unless thousands of echoes of approving voices return to the stage after the curtain falls.

We were happy. Our art was appreciated.

★ ★ ★

## Raisa Struchkova
*Ballerina,* Bolshoi Theater

I HAD heard many nice things about the cordiality and hospitality of Americans even before our tour. I knew that our people had much in common.

Now I have had the chance to be a guest of some American families. The home of movie actors Bette Davis and Gary Merrill was one of those I visited. Warmth and good will met me at the doorstep and in this friendly atmosphere we talked about many things. We always found a common language in these conversations.

I am sure that meetings like these can not take place without bringing people closer.

★ ★ ★

## Alexander Lapauri
*Soloist,* Bolshoi Theater

OF ALL the plays I saw in New York, *West Side Story* impressed me most. The musical is a profound social comment, brilliantly staged. Pantomime, drama, ballet and music all combine harmoniously. The sets, lighting and musical arrangements are wellnigh perfect. My congratulations to the whole company for a brilliant and memorable performance.

I would like to see such American musicals as *West Side Story* done for Soviet audiences. I am certain they would meet with great success.

# TEXTILE

By Yelena Shapovalova

SAMPLING OF THE 800,000 YARDS OF FABRICS TURNED OUT DAILY BY THE TRYOKHGORNAYA MILL.





More than 200 original designs have already been created this year by the mills' artists.

The archives contain books with swatches of every pattern turned out by the mills for the past 70 years.



# DESIGNER

I AM one of the textile designers at the Tryokhgornaya Mills in Moscow. Americans who visited the Soviet Exhibition at the Coliseum will have seen samples of our printed fabrics on display. Many of them won grand prizes at the Brussels Fair last summer.

Our mill is the oldest in Moscow. Years ago it manufactured only cotton prints, now we turn out more than three-quarters of a million yards of various fabrics daily—cotton, chintz, flannel, calico and artificial silk. This year, the first of the seven-year plan period, we expect to turn out four million more yards of fabric than we did in 1958.

We have 23 designers at the mill whose job it is to make these fabrics beautiful. In the first four months of this year we created more than 200 new designs.

Our designers are people of diverse backgrounds, age groups and tastes, as they must be to create varied and interesting designs. To improve our technical proficiency we take refresher courses at periodic intervals given without charge by the mill administration. Besides regular visits to museums and exhibi-



THE MOTIF FOR ANGELINA RITTER'S DESIGN CAME FROM UZBEK EMBROIDERY, RUGS AND POTTERY.





Anna Guseyeva came to the mills straight from high school and is learning how to weave.

# TEXTILE

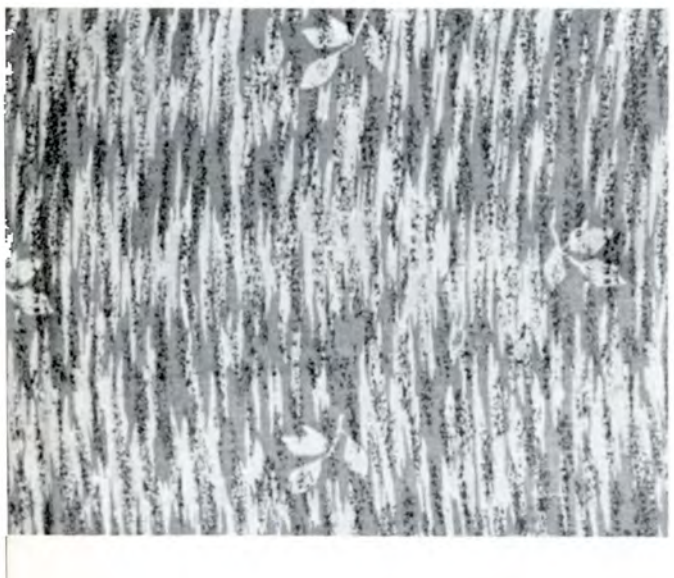
tions, each one of us spends a month or two a year in travel to various parts of the country where we study the local handicrafts and national dress and collect material and ideas for future designs. These trips are considered part of our work schedule. They help to evolve the highly individualized styles for which the fabrics of our mill are known.

Ivan Grigoryev is one of our older designers. He has been working in the field for more than forty years. His preference is for the old Russian decorative ornamentation and his prints are favored by many people, young and old.

Yelena Shumyatskaya graduated from the Moscow Textile Institute 25 years ago and has been working at the mills ever since. She specializes in children's fabrics, and the influence of Grigoryev, under whom she trained, is discernible in her lovely patterns of flowers, chicks and small animals. Her latest design was inspired by Pushkin's fairy tales.

Angelina Ritter bases her patterns on native

The design is etched on cylinders which are arranged around the drum of the printing machine.





# DESIGNER

decoration work. Like all of her co-workers, she has made trips to many of the Soviet republics in search of ideas. In the museums of Tashkent, Bukhara and Samarkand in Central Asia, Angelina found many unusual patterns in Uzbek pottery, rugs and embroidery. She has also created designs based on handicraft work she saw in the Baltic republics and elsewhere which make most vivid and original use of folk motifs.

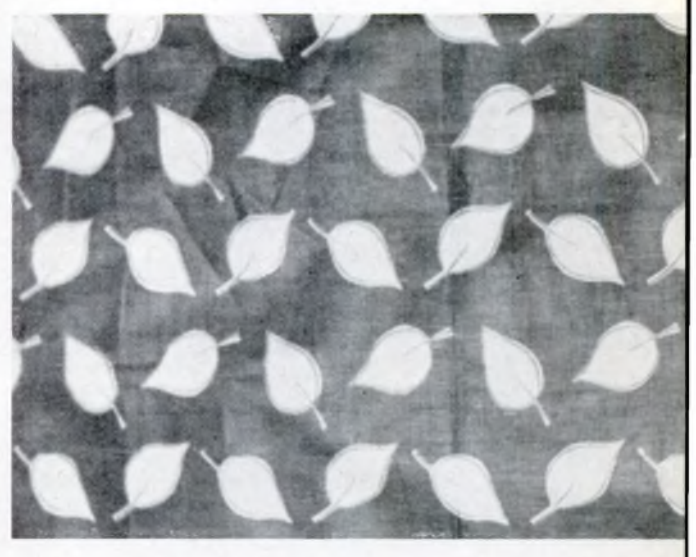
Angelina Ritter and Ivan Grigoryev have been training the new generation of designers, many of them very gifted young people. One of the most promising is Irina Godunova, who came to the mill two years ago straight from secondary school. Guided by the two older designers, her very interesting patterns are now being used in large runs of fabrics. She expects very soon to enter the textile institute to prepare herself to meet the high standards of technical excellence and creative artistry that the Soviet public expects of Trvokhgornaya Mill designers.



In the sample room Irina Godunova models a dress made from fabric she designed.



Old-timer Alexander Moiseyev is teaching the girls how to etch the pattern on the cylinder.



# A GIFTED SOVIET WRITER

## *Leonid LEONOV*

By Ekaterina Starikova

LEONID LEONOV is one of the most versatile of contemporary Russian writers—a gifted novelist, playwright and journalist. He is best known for his fiction, and since 1924, when his first book *The Badgers* was published, he has written six long novels, each one a distinctive contribution to Soviet literature.

His most characteristic quality is a keen sense of relation between present and past. He sees the young and vital plant of a new socialist way of life pushing its historical way upward, thrusting aside the old and absolute and decayed, but abstracting the healthy and creative elements in the national soil. That is why his books shuttle between past and present—to give the reader a sense of the heritage of the past, its ignorance, prejudice and cupidity as well as its strength and nobility.

It is this awareness of history that made Leonov one of the first among Russian writers to respond to the new life, to write of those great events which were molding the new national character.

### Early Impressions

The novelist's father was a self-taught poet and publisher of literature for the people. Persecuted by the czarist government, frequently arrested and exiled, he spent little time with his family. What recollections Leonov has of these early years are associated with arrests, returns from exile and with pictures of Schiller, Heine, Shakespeare and Dostoyevsky that hung in his father's study.

The boy was brought up by his grandfather who kept a small grocery store in Zaryadye, the old shopping district of Moscow near the Kremlin. The old man was religious and would sit and weep for hours listening to young Leonov read *The Lives of the Saints.*

The settled middle class way of life and the pious atmosphere colored all his early impressions. He hated the petty, grasping attitudes and superstitions that it engendered. That was the bridge by which he crossed to the 1917 Revolution.

He was in his last year of secondary school when the Revolution came. By 1918 he had joined the Red Army and was writing for a front-line newspaper in southern Russia. He remained in the army for three years and then came to Moscow.

There he worked in a small machine shop during the day and spent his evenings at the offices of *Krasny Voin (Red Soldier)* where he edited the topical verse department.

At night he wrote in the small room adjoining the machine shop where he lived, using a sheet of plywood resting on a stool for a desk. He turned out one story after another and soon won recognition.

### First Stories

Leonov's early writing was strongly influenced by Dostoyevsky—markedly evident in one of his first stories, *The End of a Little Man,* written in 1922. The novelist relates with a certain ironic amusement how he was rejected for admission to the philology department of the university because the examining professor thought he was insufficiently acquainted with Dostoyevsky's work.

While Leonov's first efforts were not particularly original—they were mostly stylized tales on Biblical themes, legends tinged with Oriental romanticism or fantasies with a strong admixture of prose borrowed from the decadents—they nevertheless had a quality which attracted wide attention. The young writer had an extraordinary skill with words. Critics commented on his lavish—too lavish —use of striking contrasts and complex figures of speech, but in that very lavishness they marked an unusual talent.

Students of his work have wondered why Leonov, after the strong and indelible impressions left on him by the Revolution and the Civil War, was so much drawn to the fantastic. The novelist gives the answer himself. In the fairy tale, he says, one can compress philosophical generalization into a relatively small space without having to use a great many literal everyday details, Leonov explains, "I do not like to introduce descriptive details unless they serve a special purpose."

This is today's Leonov, writer of philosophical novels, speaking. And, to be sure, his symbolic fantasy stories of the early twenties carry the embryo of the long realistic novels he wrote much later, the searching portrayals of contemporary life through which he tried to give an understanding of the motivating philosophy of the epoch.

### "The Badgers"

His first novel, *The Badgers,* dealt with the most crucial problem of the period, the relation between the peasant and the young Soviet power. With moving artistry Leonov describes the tragic struggle of those poor peasants who did not see that their future lay with the Soviets and were seduced by the kulaks to fight against the Revolution. The book tells the story of two brothers, Semyon, leader of the group fighting against the Soviets, and Pavel, a Bolshevik commissar, whose strength, arising from his sure vision of the future, Semyon cannot withstand.

Many of the author's boyhood memories are written into the book. His father and grandfather are recognizable characters. The old way of life is depicted with a wealth of detail to show the self-seeking and grasping psychology by which it was motivated.

*The Badgers* attracted Gorky's favorable notice. He wrote the young author a very complimentary letter and from that time onward helped with advice and encouragement.

Leonov's writing in the twenties is much concerned with the portrayal of the ambivalent individual, the man of split loyalties, confused and vacillating in his reaction to the new way of life. In *The Badgers* it is the mental conflict of Semyon he directs attention to, rather than the clear-cut certainty of Pavel. It is this concern with the man whose split personality moves him out of the mainstream of life that Leonov has in common with Dostoyevsky.

This is strikingly evident in *The Thief,* a



# A GIFTED SOVIET WRITER

novel whose protagonist is an ex-civil war hero who breaks with the Soviets once the Revolution has been won and has begun to stabilize itself. He persuades himself that the ideals for which he fought have been betrayed, and in protest takes leadership of a gang of criminals. The novel is not so much concerned with the protagonist's underworld adventures as it is with his mental torment, his indecisions and uncertainties, his waverings between violent protest and tragic penitence.

### "Sotj"

Leonov's next novel was *Sotj*, an inspired paean to the great work of socialist construction that characterized the late twenties and early thirties. Everywhere the country was building. The peasant Russia of log huts was transforming itself into a modern industrial power built on steel and iron. The metamorphosis was an all-embracing one. Even the face of the land, the geography, was being changed. And with the economic changes came changes in thinking, a thoroughgoing transformation in the psychology of a people.

"A monument to the present day," Gorky called that novel when he predicted its permanent place in Soviet literature, and indeed *Sotj* established a trend in fiction. It was one of the first and most significant examples of the "production novel," a colorless term for writing that was imbued with an inspiring fervor and optimism.

*Sotj* marked a turning point in Leonov's work. It has that perspective of history in the making which is so striking an element in his novels. His meticulous descriptions of technical processes and of the everyday details of life on the construction site interlace into a complex and sweeping pattern. The reader begins to feel and to see far more than a paper mill being built.

He sees a gigantic and irrepressible surge forward of a whole people. He sees it blocked here and there for a transient moment by the stagnancy, inertia and hidebound prejudice of old Russia, by nature's yet untamed forces, by the malice of embittered members of the defeated and departing classes. The novel is rich in imagery and color and in three-dimensioned contrasts of characterization. Throughout runs a lyric strain that speaks for the author himself.

### "Skutarevsky"

Leonov's next important novel, *Skutarevsky*, appeared in 1933. It tells the story—taken from life—of an old scientist who comes over to the Revolution. The book develops the conflict between the native democracy of this gifted man that draws him to the people and the new ways and the petty Philistinism of those who clutch impotently at the old and dead forms.

In this novel Leonov for the first time looks at the generation that grew up after the Revolution and did not experience the inner struggles that their elders had to go through. With a degree of surprise he finds these young people naive. He is somewhat distrustful of their unalloyed optimism.

Nevertheless he is drawn to the vital energy and idealism of these products of the new society. It is no accident that he so often chooses a young girl—the personification of poetry, beauty and youth—to speak for the new generation. This he has been doing, from *Skutarevsky* to his latest play, *The Golden Carriage*.

LEONID LEONOV (CENTER) WITH MINISTER OF CULTURE MIKHAILOV AND THE WRITER VLADIMIR SYTIN.



### Playwright

Leonov wrote his first play in the twenties. He developed most fully as a dramatist in the thirties with *Wolf*, *The Blizzard* and *The Gardens of Polovchansk*. They won wide acclaim and were staged as part of the regular repertory of the Maly and the Moscow Art, the country's two leading theaters.

These plays of the thirties are psychological dramas dealing with sharply defined political issues and attitudes. They seem charged with premonition, a foreboding of world disaster. This emotional background reflected the period, for the plays were written very shortly before the war broke out.

Leonov's first wartime production was *Invasion*, which had a long run both as stage production and film. The invaders are not the Nazis alone but those traitors within the country who hope to regain the old exploitive privileges of which the Revolution had stripped them.

One of Leonov's recurring themes is developed in the play—the man who has lost his inner balance and human dignity and finds it again by joining the people. Leonov has sometimes been taken to task for what some critics describe as his undue preoccupation with the darker recesses of the human soul. But this is

# *Leonid LEONOV*

to lose sight of his insistence that men and women must be portrayed in the round.

He makes the point in this statement. Although he is talking of Chekhov, it holds with equal force for his own writing:

"While he loved his country," Leonov says, "he never flattered it, as a stranger or a hypocrite might have." Leonov never flatters his characters, or his readers either. He carefully analyzes both the noble and the ignoble in his very human people. His credo, for himself and his characters, is this high-principled one: "Only the perfect man," he says, "is capable of winning perfect happiness. It is therefore every man's duty to have a perfect biography, one that he is not ashamed to tell aloud, in the presence of children, on a sunny day, in the most peopled square in the world."

During the war years Leonov contributed regularly to magazines and newspapers. His articles—they comprise a full volume—were outstanding for the power and imagery with which he expressed the feelings of the people defending their native land against barbarism.

A period of trial and tribulation for the country, the war moved people to exert new efforts and explore new directions. Leonov began to search for a prose form that would be adequate to express the heroic emotions the war had engendered—love of country, hatred of fascism, certainty of victory.

Evidence of this exploration for new prose forms can be seen in *Chariot of Wrath,* the story of a tank crew in the battle of Kursk. The book is weakened by an excessive emotionalism but it is evidently an experimental prelude to his next novel, *The Russian Forest,* which appeared ten years afterward.



NO MATTER HOW BUSY LEONOV IS, HE ALWAYS FINDS TIME TO TELL HIS GRANDAUGHTER A STORY.

## "The Russian Forest"

*The Russian Forest* is the largest of his novels, both in length and in scope. It is centered on an economic problem of national significance from which radiates a whole complex of aesthetic and moral relationships.

His hero, Professor Vikhrov, an unassuming man, has dedicated his life to the conservation of the country's forest lands. In the course of his scientific work he clashes with the ambitious self-seeking Professor Gratsiansky. We see in Gratsiansky a man who takes everything from people and country and gives nothing in return. The lives of the two men exemplify the true and false patriotism. They contrast attitudes toward life and society, the pressures of duty and conscience.

One of the characters, later murdered by the Nazis, says: "The man who has not shared the sorrows of people will feel himself an outsider at their festivals." In the same key, when his youngest daughter, Polya, asks him, "What do people aspire to?" Vikhrov answers: "To happiness, they say, but I think that's wrong. Integrity is what one should aspire to. Happiness is what comes along with integrity."

And how does Leonov define that integrity which gives a man the right to happiness, "the right," as he puts it, "to look your people straight in the eye"? Is it asceticism in personal life or modest material demands—traits that are characteristic of Leonov's heroes? Or is it a sense of family duty, or the conscientious performance of one's job?

It is that and much more that a man's worth is to be measured by, to judge by the exacting demands the author makes of his hero in *The Russian Forest.* It is an integrity measured by how much a man's life has contributed to move the people—himself included—along the great historic highway of the future.

"The effective strength of patriotism is always directly proportional to the quantity of labor put into it," Vikhrov tells his students. This formula is the credo of Leonov's hero and the answer to the great moral question the book poses.

## Symbol of Country and People

When he talks about his novels, Leonov will usually draw a diagram to show how he developed the story line and the characters. The plan he followed in *The Russian Forest* is particularly interesting and intricate. In it the past and present are interwoven so closely that they emerge as an organic entity. And as is usual for this master of literary composition, it is not the milieu for its own sake that interests Leonov when he takes the reader on these excursions into the past; it is to reveal the root actions of present-day attitudes and conflicts.

His portrayals in *The Russian Forest* of the younger generation that paid so heavily in blood and death to defeat the fascist enemy is radiantly tender. There is genuine poetry in his picture of young Polya Vikhrov on a mission behind the enemy's line.

As the major theme develops, the Russian forest is seen as a generalized symbol of country and people. But the symbol is no imaginary conception, it derives from a past and present-day reality that can be seen and felt.

Leonov makes skillful use of striking, and frequently poetic, imagery to evoke associations. Seventeen-year-old Polya sees Moscow for the first time from the top of an eight-story building. Thoughts of the country's long history pass through her mind. Leonov catches that vaguely felt consciousness of a continuing history in a single sentence. "On the golden domes, slightly flattened, as though by the weight of the sky, something gleamed—probably the dew of history, not yet completely dry."

This type of imagery is used frequently and most effectively to give the usual and ordinary an additional dimension. The books in Vokhrov's library, for example, are described as "toilers, with torn bindings and strips of paper covered with writing sticking out of them. You can mark up their margins, stuff them into knapsacks before leaving for a field trip, use them for barricade fighting."

In *The Russian Forest* is crystallized the essence of a long process of maturation in Leonov's thought and craft. It testifies to the new creative heights which this richly endowed writer has attained.

# The Russian Forest

*By Leonid Leonov*



THE OBLOG felling operation was planned on a scale in keeping with Knishev's ambition. A month before it was due to start, his factotum, Titka, made the rounds of the nearby villages and plied with vodka not only the possible recruits themselves, but also all the old women who might influence them. The men who had started building a new railway in the region kept at the timber contractor to speed up his plans.

The winter had set in early that year, making the sledge roads usable well before their normal time; and at dawn after the festivities of St. Dmitri's Day a thousand sledges from all parts of the country were already making for Oblog. After the revelry of the day before the muzhiks kept lurching about while driving, their reins hanging loose. Each one of them had a shining axe in his belt and a head that seemed to belong to somebody else. A cloudy sun was rising when the virgin snow was first disturbed. At the scene of operation, work had not got into its proper swing. Most of the lumbermen were standing around smoking and idly gazing at their more energetic comrades who had nearly finished erecting a rough shed and various fixtures for the cutting and trimming of timber.

"God rot you, you lazy louts! . . . Now, my little woodpeckers, start pecking." Titka alternately threatened and cajoled, his voice hoarse with shouting. He was here, there and everywhere and the men swore that they could see four Titkas at once. "Come on! The first train will be here soon, bringing things you've never dreamed of. What a day we'll make of that, boys! But now, get on with it! Get on with it!" And he measured them out a "hair of the dog that bit them," to get the job going. It acted like a forest fire—once started, it worked by itself; and Zolotukhin had to send again and again to Loshkaryov to replenish his vanishing supplies.

"That's what was wrong, of course—the pump needed priming. Now let's get at it!" the men kept saying, pulling on their gloves and stroking their beards after downing tumblers of vodka.

With the dawn of the second day the steel rain of a thousand axes fell upon Oblog. Echoes disturbed the usually silent place, and, as they did at any other battlefield, clouds of ravens rose from the ground and added to the din with their cawing. For two days the forest showed little sign of losing ground, as if fresh reserves had shot up to replace the fallen ones. By the end of the third day, when the axemen were cutting into its heart, Oblog shook and broke ranks.

The operation got into its stride. The felled trees were turned into trimmed balks, railway sleepers or cut firewood and taken away into the misty gray-blue distance, where previously, at this very season of the year, wolf whelps were learning their first howls and where now the stillness was to be cut by the whistle of a locomotive on the new railway.

Pine trees are felled up to March, while the "winter roads" are still hard with frost. Knishev was hurrying the job so that he could start with the cutting of limes in May, just after the sap had started circulating.

Ivan Vikhrov received the news that the Oblog was being ravaged with the natural interest of a lad of his age in anything new. He assumed that his old friend, like everything else in the forest, would be having his winter sleep, and it was difficult to believe that even a calamity of this scale would interrupt his hibernation. About Christmas time a deep-felt urge sent Ivan to seek out Kalina. It was frosty, and there was a spirit of holiday everywhere. As he set off along roads covered with chips of bark and wisps of hay, sledges loaded with timber were coming toward him in a steady stream, the glass-like ruts singing under the runners. Halfway to Oblog, Ivan was picked up by Panka's stepfather whose sledge was returning empty to the forest. The horse was a high-spirited one and they went at a merry pace. After a turn in the road, Oblog showed itself in clear outline as if drawn with a pitch-black pencil on tracing paper. A little farther on Ivan got off the sledge and finished the journey on foot.

The area that had been cleared smelled pungently of resin and burning pine needles. Axes were swinging, horses were being shouted at, men were flapping their arms and stamping their feet in the cold. The tangled masses of fallen trunks were being levered into stacks, and great bonfires of branches were burning. In the half-light of morning the snow-covered forest took on a mysterious rosy-pink hue. Shadows flickered every time a tree fell to the ground with a long expulsion of breath. . . . And a bearded man was being carried away with much shouting—the first victim of Oblog's claws, for the forest was fighting back like an animal blinded with pain.

Ivan moved away, went round a corner of the forest's edge and came upon another noisy, shouting group. A wide cleared space sloped downward, with only occasional clumps of undergrowth left standing. This was not the Oblog he knew, and even the giant pine, whose white hair seemed to brush the sky, he did not recognize until he saw Kalina's dark hut under it. A number of men had gathered at this point. He rushed down and pushed his way to the center of things under the elbows of the crowd, determined not to be late for the important event which seemed to be impending.

"Hey! What's all this pushing? Where are you off to, young fellow?" someone asked.

"To Kalina," answered Ivan, and they let him go through.

Standing in a rough ring on the trodden, dirty snow, the men were looking at Kalina with gloomy suspicion as though he were some forest monster. Kalina was sitting on a newly-cut stump near his hut, the door was standing wide open to the cold air, and no smoke was coming from the chimney. He was hatless, his sheepskin coat thrown carelessly over his shoulders, and he looked surprisingly young. The copper-red glow of his last sunrise in the forest reflected off his bald head. Some sort of farewell talk was going on but it wasn't this alone that had brought the crowd to the spot. Inside the hut Knishev himself was standing, eating honey and the tasty chanterelle mushrooms of Kalina's pickling. Knishev had arrived to "bring order" to the Yenga. Everybody wanted to catch a glimpse of this famous figure who, it was said, had cut down scores of thousands of acres of woodland and had stripped three great Russian rivers of their clothing.

"Well, that's how it is boys," Kalina was saying without any inflection in his voice, as if he were reading from a book. "Let me tell you that the land will shiver without its green overcoat. Its health will get weaker and weaker. A cow will go seven versts for a blade of grass where before she could eat her fill from a square yard. And there will be summers without a single rain-cloud and winters without warming snow, and people will curse the sun in the sky. And you'll tell your children of the time when a man could stretch his full length on a tree stump and they won't believe you. And when you kill Russia's last tree, my friends, you'll have to go cap-in-hand to foreign countries for your bread."

His watery eyes gazed unseeing at the naked space before him and at the faces of his listeners, including Ivan's, but he did not recognize his little friend. The same forces of evil that had robbed him of his teeth, his joy, his hair, had come to him again, this time for his soul. And again, to Ivan's pain, there was no wrath, no protest, in Kalina's voice, but only grief for those who would remain after him.

"Too late now!" muttered one of the muzhiks in the same tone of farewell. "What's started must go on to the end."

Knishev appeared on the doorstep, flanked by his usual retainers. He was a tall, strongly-built man in a long coat of smooth blue cloth. He had hardly passed the prime of life, although he looked bloated and had the colorless, bulging eyes of the hard drinker. He wore the trimmed beard affected by the smarter merchants and would have been the conventional "manly beauty" if not for his great ears that stuck out like the handles of a vase. As he made his entrance it could be seen that he had drunk enough to be in a jovial mood. While he listened to the end of Kalina's story, he kept digging with a finger at the honey-wax on his teeth. On one side of him stood the short-legged Titka, bent forward with his long arms hanging loose before him; on the other side stood the wasted figure of Zolotukhin, with a tiny head on a long neck and a peering look in his dull, leaden eyes. Though advanced in age, he still had a thick crop of gray hair. As a sign of deference in the presence of the great, he stood bareheaded, his heavy cap held away from his side. It was known in the district that the shrewd Zolotukhin and his sons had attached themselves to Knishev not so much for immediate profit, but to gain useful knowledge and experience in a wider commercial field. Both Titka and Zolotukhin, the ape and the hawk, stood as if poised to obey instantly any order from the master.

"Enough of that yapping, old man! No good singing dirges over Russia before the time. And put your cap on, you old fool. Do you want to catch your death of cold?" Knishev's tone was more bantering than angry, and as he came jauntily down the steps many in the crowd forgot their fears that a time would come when the whole land of Russia would be stripped of its life-giving forests. "Just listen to him, 'dust to dust, ashes to ashes,' and him wanting to live on and on!"

# The Russian Forest

"Yes, brothers," admitted Kalina with the air of a simpleton, "I'd count the sands of the seashore for the sake of getting more life. Here I am, feeling as if I'd lived a thousand years, and my legs double up under me. But I still love life."

"And why shouldn't you live on?" put in Zolotukhin in a smooth voice. "You're sitting there quite happily and even scaring people. It looks to me that you're not so old as you make out."

"I'm young of course. I'm only old in years."

"Well then, live on! If you've lived a thousand years, then start in on the next thousand! What's wrong with that?" Knishev threw his words into the crowd that was making way before him, and they drew a murmur of assent. "Hey! Titka! Give the old fellow a drink."

A flat silver flask appeared in the ready hands of the factotum. Kalina nodded his head at the production of the old friend and comforter; and there was a general sigh of relief as if to say that the mighty weren't too mighty to forget about giving an old man his share. Having set the ball rolling, Knishev left the rest of the talking to his two henchmen.

"You must have seen quite a lot in your thousand years?"

"All sorts of things—you couldn't count them. I served in the Cuirassiers. A smart-looking lot we were, too, with our black horses and black saddles and the plumes in our helmets; and always with trumpeters riding ahead of us."

"Did you see any fighting?"

"Had a taste of it in the Crimea. A cannonball took my horse out from under me. Yes, I was quite a lad in my day—led the singing when the squadron was on the march."

"Fancy that, now. And did you get your game leg in the wars?"

"No, that was later. Horse tripped at a jump and my foot caught in the stirrup. And it was in front of the czar too, at a show. . . . By the way, the pictures of him are all wrong; he had much redder hair and you could hardly see his cheeks for his moustache." Kalina was beginning to feel the effects of the unaccustomed drink and Ivan felt a sharp stab of pity in his heart. "But never mind these things; it's the forest I want to tell you about, lads."

"Your tall stories about *that* can keep till later," cut in Titka. "Tell us the main thing. I bet you were a terror to all the servant girls in St. Petersburg." And in an insinuating voice to curry favor with the crowd of poor peasants hired for twenty-five kopecks a day, he went on: "I bet they're pretty smart,



those girls from St. Petersburg, aren't they?"

"And it wasn't just holding hands in the moonlight either," Zolotukhin answered for Kalina, but the muzhiks showed little appreciation of his wit; ". . . just a few fine words and then get on with it."

"I don't remember anything like that. It was a long time ago. I was thinking then more about my brothers. All of them died while I was there in St. Petersburg, taking horses over the czar's jumps."

"What ailed your brothers?"

"They'd been eating crushed-up goose-foot and different kinds of grasses. Kept at it too long, I expect."

"Heh, heh, heh! That's what comes of overeating," giggled Titka. The faces of the muzhiks darkened.

Ivan, his eyes brimming with tears, gazed at the snow-covered ground. His Oblog was nearing its end. True, a good half of it still remained standing, and until spring the workers would be taking the logs off to different destinations; but the boy was to date the end of the forest from the felling of the mighty patriarch which had shaded the roof of Kalina's hut. To leave it standing alone would have been impossible; the first violent storm would have brought it down on top of the hut to crush it like a rotten nut.

"Now, then, make way there!" Knishev ordered in a hoarse voice. "I've got to get warmed up, too."

To the surprise of the lumbermen, Knishev stripped off his coat and started rolling up the sleeves of his beautifully-laundered embroidered shirt that was gathered in at the waist by a Caucasian belt richly ornamented with silver. A dozen hands stretched out, offering him well-worn saws with broken teeth, but he took an axe from the man nearest him, hefted it for weight and balance, tested the edge with his nail and gave it a flick that made it ring like a taut string. He tramped down the snow for a footing, cocked an ear to listen to the slight movement of the branches in the wind, and eyed his victim up and down like an executioner at the block.

The old patriarch of Oblog had never looked so magnificent as at that moment, standing proudly in his ageless beauty, straight as a ray of light and without a flaw. The great masses of snow supported by his mighty arms were tinted with dreamlike rosy hues. Knishev's first swing had not all his force behind it and he pulled the axe out almost with a slicing motion. It was, indeed, as if someone were baiting a great animal—a teasing blow, aimed low down where the rounded shape of the roots merged into the trunk-like veins—and Ivan felt for a second that blood would spurt out and redden the hands that held the axe.

"That's how to tackle him," said the fawning Zolotukhin. "Watch, and you'll learn something!"

At first the axe recoiled from the hard-frozen bark and sapwood, but soon it went wild with anger and the air was filled with flying chips, the color of bone. A narrow, perfectly shaped incision appeared on the trunk and now the greatest skill was necessary because a blow slightly off the true would bury the axe-head in the wood. The axe blows rang duller and duller as they got deeper into the wood, and the echoes sounded as if a woodpecker were at work. A hush fell on the crowd. As yet nothing had disturbed the giant's winter sleep. But then a deathly flutter passed through the branches, and pink-tinged snow fell on the sweating back of Knishev. Ivan did not dare to raise his head, but out of the corner of a tear-dimmed eye he saw a silver-tipped strap on Knishev's belt dancing and throbbing with his exertions.

The other watchers kept their eyes riveted on this merchant-lumberman who was giving play to the pent-up energy of his powerful muscles, like a horse that had been kept too long in the stable. There could be no denying that he was a master at this job—maybe this job and nothing else. What they were witnessing now had been witnessed many times before, but this time even the tree-fellers themselves had a guilty feeling that they were looking at something sinful, a conscienceless bravado, in plain words—at murder. And although Knishev worked on without stopping for the usual breather, it was plain enough that he was prolonging his pleasure in a way that ordinary people could never forgive, even in a professional executioner. . . . To complete his work, Knishev went round the tree to make the counter-cut. Only a few more blows were needed, and no one heard the last one. Knishev dropped the axe and stepped aside, steam rising from his shoulders. In silence Zolotukhin threw a coat over him and Titka once again whipped out the inexhaustible flask. The patriarch stood as before, all sparkling with frost; he did not know that he was already dead.

Nothing so far had changed, but the crowd drew back.

Ivan heard a sharp intake of breath above him, and then—"It's going!"

It was clear to any woodman that the merchant Knishev had at one time earned his living with the axe. Now the crowd was interested to see just what degree of craftsmanship he could boast. The tree might slip off its stump and carry away Kalina's hut like a shot from a cannon. There was a hardly perceptible quiver in the branches, a sharp crack at the foot of the tree and an answering echo in a tremor at the crown. The tree inclined slightly, and there was a general sigh of relief; the cutting had been perfectly angled, and, as the great mass heeled over slowly in the safe direction, its weight remained squarely on the higher segment of stump below the counter-cut. Suddenly a storm of movement wracked the whole tree, waking up its branches and cascading down lumps of snow that outdistanced the tree in its descent. . . . Nothing on earth moves more slowly than a falling tree, a tree under whose shadow you have dreamed the formless dreams of childhood.

Without waiting to see what followed, Ivan turned away and wandered about the cleared area. When he returned there was no sign of Kalina anywhere. The crowd had melted away and the only person visible was an inquisitive little old man who was measuring the diameter of the tree with the span of his hands so that he could tell his grandchildren that it was "this big," pointing to his forehead. Then Ivan saw Knishev, now clad in a rich, fur-lined overcoat, standing at the door of the hut lighting a cigar.

Even after so many years it is difficult to say what turned the quiet little country boy into a demon of fury. But one thing must be granted for the proper understanding of what followed: When Nature picks upon a certain human as an instrument to serve a special purpose of hers, she takes him from one scene of life to another, all of them carefully chosen to breed in him the will and the ability necessary to carry that purpose out. Otherwise how can one explain what miracle put the catapult of Panka Letyagin in Ivan's left hand and—in a snow-covered forest!—a suitably-sized pebble in his right hand? About that let the sages debate. Knishev had time to exhale only one appreciative puff of smoke when his cheek felt the impact of Ivan's tribute. There was a flood of oaths, and Ivan, too, in a moment of inspiration, shouted two words which were soon to echo and re-echo up and down the Yenga. . . . And again there is no record of who had whispered into his ear the word for a disgusting affliction of Knishev's which gave the epithet its sting.

Titka was the first to take up the chase after the insult-hurler, who made off toward the forest over the snow-covered clearing. It was easier for the nimble lad than the short-legged Titka to jump over the many obstacles, but he lost one of his felt boots in one leap and caught his naked foot on a sharp stump concealed in the snow. There were only ten paces between pursuer and pursued, and the future Professor Vikhrov would have gone through life with a torn-off ear but for a providential birch tree that grew leaning over at an acute angle. The boy ran up the trunk till he reached the branches where he sat baring his teeth in unchildlike anger. Titka stamped about below, shaking his fist in fury, until Knishev came running to the scene.

"Come down, you little devil!" shouted the mighty one, hoarse with anger and lack of breath.

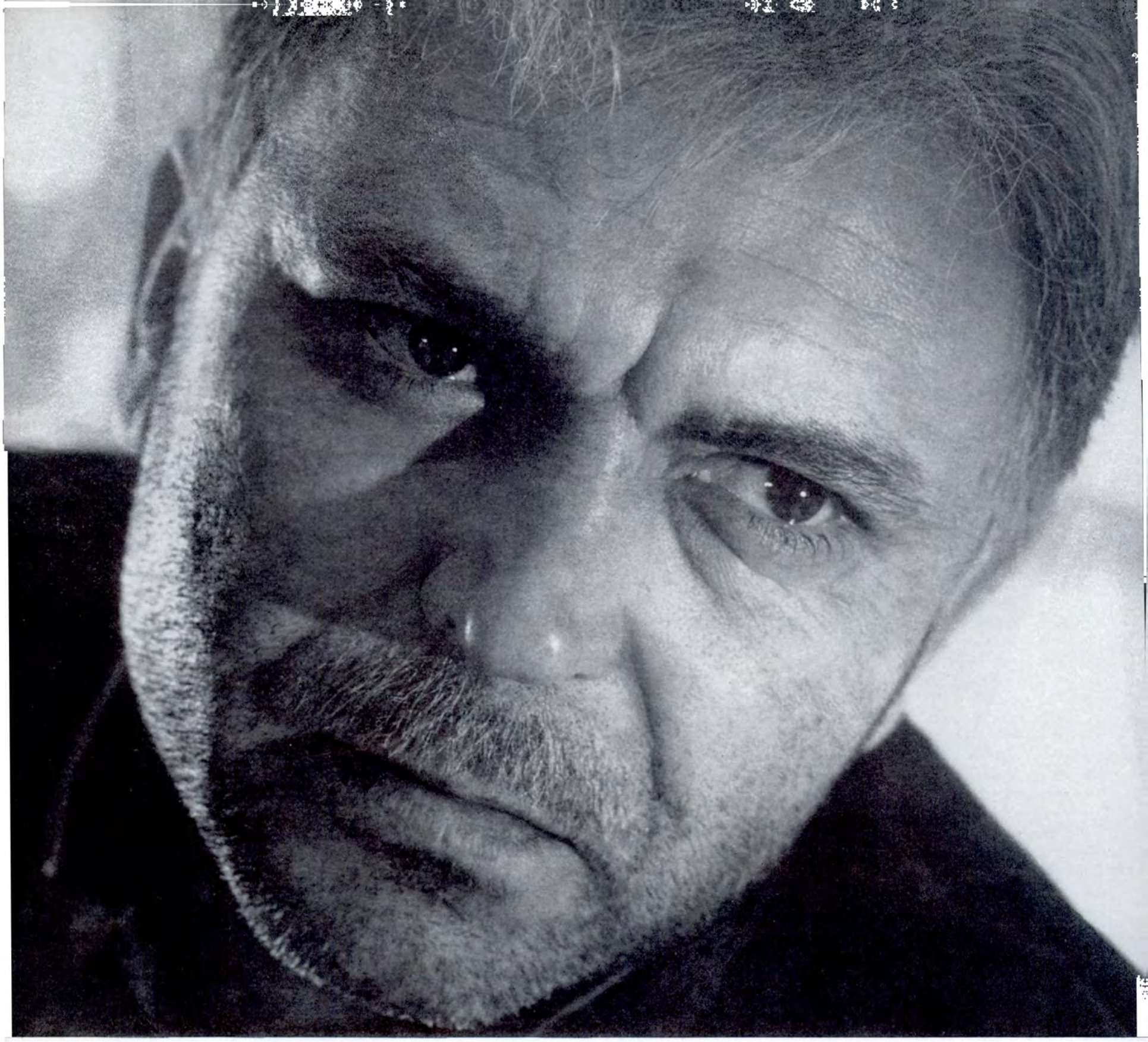
"Poxy *barin*!" repeated the un-mighty one, as if he knew that the second word, suggesting that the person addressed was of noble, as well as infected, blood, was added gall to Knishev, who prided himself on being a self-made man of plebeian stock.

"I'll get even if I have to fell the tree. . . . Come down, you . . . !"

"Go away, poxy *barin*," shouted Ivan, still shaking with anger.

Here Titka took the initiative: "Vasili Kasianovich, stay here and watch him while I get a long pole. Then we'll knock him off his perch."

Knishev was looking through narrowed eyes at the infuriated boy with his naked, bleeding foot going blue in the cold. Something had changed in the merchant's intentions; not that he felt any pity for the ragged little country boy, but he was surprised that during all his despoiling of the forests of Russia no one up to now had risen in defense of them except this boy. "Get away, you fool!" he snapped at Titka. "No, wait! . . . Find his boot first." And he added in a slow, deliberate tone that left no doubt about his earnestness: "Lay a hand on him, and I'll kill you."



*. . . eyes that seem to have been sprinkled with ash, eyes filled with such grief and loneliness that it is hard to look into them.*

# *THE FATE OF A MAN*

**WHEN Mikhail Sholokhov's story "The Fate of a Man" first appeared two years ago, it quickly won wide popularity. It attracted the attention of the well-known film actor Sergei Bondarchuk, who produced a screen version of the story in which he plays the leading part. Sergei Bondarchuk gave a memorable portrayal of a resolute, strong-willed Russian who suffered much in the war but was not bowed by fate and did not lose his warm love for his fellow men.**

**On these pages we present several stills from the film with excerpts from the story by the distinguished Soviet author.**



**1** The village lay a good distance from the river, and down by the water there was that kind of stillness that falls on deserted places only in the depth of autumn or at the very beginning of spring. . . . A light breeze carried the eternally young, barely perceptible aroma of earth that has not long been liberated from the snow. . . . Presently I noticed a man come out on the road from behind the end cottages of the village. He was leading a little boy, about five or six years old, I figured, not more. They tramped wearily toward the ford, but, on reaching the jeep, turned and came in my direction. The man, tall and rather stooped, came right up to me and said in a deep husky voice: "Hullo, brother."



**2** He broke a dry twisted twig out of the fence and for a minute traced a curious pattern in the sand with it, then he spoke. . . . "To start with, my life was ordinary enough. I'm from Voronezh Province. . . . During the Civil War I served in the Red Army. . . . My whole family back home, father, mother and sister, died of starvation. So I was left alone with not a soul in the world. I sold the cottage and went to Voronezh. First I worked as a carpenter, then I went to a factory and learned to be a mechanic."



**3** "Soon I got married. My wife had been brought up in a children's home. She was an orphan. Yes, I got a good one there! Good-tempered, cheerful, always anxious to please. And smart she was, too, much too good for me. She had known what real trouble was since she was a kid, maybe that had an effect on her character. Just looking at her from the side, as you might say, she wasn't at all striking, but, you see, I wasn't looking at her from the side. I was looking at her full face. And for me there was no more beautiful woman in the whole world, and there never will be. I'd come home from work tired, and bad-tempered as hell sometimes. But she'd never fling my rudeness back at me. She'd be so gentle and quiet, couldn't do enough for me. . . . It made my heart lighter just to look at her."



**4** "In '29 I got interested in motors, I learned to drive and started to work on a truck. . . . I thought it was more fun behind the wheel. And that's how we lived for ten years without noticing how the time went by. It was like a dream. But what's ten years? Ask any man over forty if he's noticed how he's spent his life. You'll find he hasn't noticed a darned thing! The past is like that distant steppe way out there in the haze. . . . I earned good money and we lived no worse than other people. And the children were a joy to us. All three did well at school."



**5** "And then it came—the war. . . . All four of my family came to see me off: Irina, Anatoli and my daughters, Nastenka and Olyushka. The kids took it fine, though the girls couldn't keep back a tear or two. Anatoli just shivered a bit as if he were cold, he was going on seventeen by that time. But that Irina of mine. . . . I'd never seen anything like it in all the seventeen years we'd lived together. . . . The train was pulling out. The children were waving. . . . And Irina! She had her hands clasped to her breast, her lips as white as chalk, and she was whispering something, and staring, and her body was all bent forward as if she were trying to walk against a strong wind. And that's how I'll see her in my memory for the rest of my life."



**6** "But I didn't even get in a year's fighting. . . . I was wounded twice but both times lightly. . . . I was taken prisoner at Lozovenki in May of '42. . . . Must have been a long-range gun landed a heavy one near the truck. . . . When I came to and had a look around, my heart felt as if someone had fastened a pair of pliers around it. The shells I'd been carrying were lying about all around me, and not far away was my truck, all torn to bits, with its wheels in the air, and the fighting, the fighting was going on behind me. . . . I realized I was cut off behind the enemy lines, or to put it point-blank, I was already a prisoner of the fascists."



**7** "No, it's not an easy thing to understand, brother, it's not easy to understand that you've been taken prisoner through no wish of your own. And it takes time to explain to a fellow who's never felt it on his own hide just what it means. . . . As soon as the sun went down . . . they drove us on at a quicker pace. The badly wounded ones couldn't keep up with the rest, and they shot them down in the road. . . . We came to a village that was half burned down. They drove us into a church with a smashed dome."



**8** "In the middle of the night I felt someone touch my arm and ask: 'Are you wounded, Comrade?' 'Why do you ask, brother?' I said. 'I'm a doctor, perhaps I can help you in some way.' I told him my left shoulder made a creaking noise and was swollen and gave me terrible pain. . . . He started feeling about with his thin fingers round my shoulder, and did it hurt! . . . After he had probed around awhile, he said: 'Your arm wasn't broken, it was out of joint, and I've put it back in its socket. Well, feeling any better? . . .' That was a real doctor for you. Even shut up like that, in pitch darkness, he went on doing his great work."



**11** "It's pretty awful, brother, to remember the things I went through as a prisoner. . . . When I remember the inhuman tortures we had to endure there, in Germany, when I remember my comrades who were tortured to death in those camps, my heart climbs up to my throat and starts beating so hard I can hardly breathe. . . . They beat us and they didn't care if one day they'd knock the life out of us, if we'd choke on our own blood and croak under their blows. There probably weren't enough crematoriums in the whole of Germany for all of us to be shoved into."



**12** "The way they herded us about in those two years I was a prisoner! I must have covered half of Germany. . . . One day they lined us up and the oberlieutenant said through an interpreter: 'Anyone who served in the army or worked before the war as a driver, fall out.' About seven of us who'd been drivers before stepped forward. . . . For about two weeks I drove a big fat German major of the engineers back and forth between Potsdam and Berlin, then he was sent to the front-line area. . . . Well, I thought, no need to wait any longer, this is my chance. And I'm not just going to escape alone, I've got to take old pot-belly with me, he'll come in useful over there! . . . I gave him a bang on the left temple with my iron. . . . I put on the German uniform and cap, and drove the car straight for the place where the fighting was."



**15** "But about three months later I did get a flash of joy, like a gleam of sunlight through the clouds. I heard from Anatoli. He sent me a letter from another front. . . . It seems he'd been to an artillery school to start with; his gift for mathematics stood him in good stead there. After a year he graduated with honors and went to the front, and now he wrote he had been given the rank of captain, was commanding a battery, and had been awarded six orders and medals. He'd left his old man far behind. And again I felt real proud of him. . . . I began having old man's dreams. When the war was over I'd get my son married and live with them."



**16** "It turned out my son and I had come up to the German capital by different routes and were now very close to each other. I could hardly wait for the moment when we'd meet. Well, the moment came. . . . Right on the ninth of May, on the morning of Victory Day, my Anatoli was killed by a German sniper. . . . It still seems like a dream to me. . . . I kissed him and stepped back. The lieutenant colonel made a speech while Anatoli's comrades stood wiping their tears. But my unwept tears must have dried in my heart. Perhaps that's why it hurts me so. I buried my last joy and hope in that alien German soil. The battery fired a salvo to see their commander on his long last journey, and something seemed to snap inside me."



**9** "And next to me I heard two voices talking. 'Tomorrow, if they line us up before they take us on farther and call out for the commissars, Communists and Jews, you needn't try and hide yourself, platoon commander. I know you're a Communist. . . .' 'No,' I thought, 'I won't let you betray your commander. . . .' And I jumped on that fellow and locked my fingers around his throat. He didn't even have time to shout. . . . It was a rotten feeling I had after that, and I wanted to wash my hands something terrible, as if it wasn't a man I'd killed but some crawling snake."



**10** "You see, brother, ever since the day I was captured I'd been thinking of escaping. . . . And in the Poznan camp it looked as if I'd gotten what I wanted. At the end of May they sent us out to a little wood near the camp to dig graves for the prisoners that had died. . . . I noticed that two of our guards had sat down to have a bite, and the third one was dozing in the sun. I put down my shovel. . . . Then I ran for it. . . . But on the fourth day, when I was a long way from that cursed camp, they caught me."



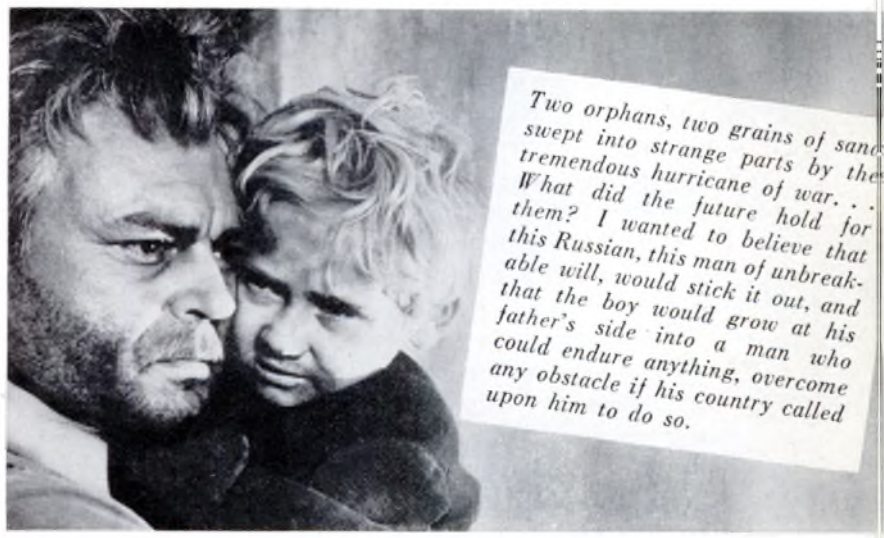
**13** "Not far away I spotted a little wood near a lake, and some of our soldiers running toward the car, so I flung the door open, fell on the ground and kissed it. . . . By evening I had to report to the colonel in command of the division. By that time I had been fed and had taken a bath. I had been questioned, and given a new uniform. . . . The colonel got up from his table and came up to me, and in front of all the officers there he takes me in his arms and says: 'Thank you, soldier, for the fine gift you brought us. . . . I shall recommend you for a decoration. . . . I'm sending you off to a hospital immediately. They'll patch you up there and put some food inside you, and after that you'll go home to your family for a month's leave.' "



**14** "As soon as I got to the hospital I wrote Irina a letter. . . . In the third week I got a letter from Voronezh. But it wasn't from Irina, it was from a neighbor of mine, a joiner. . . . He wrote that the Germans had bombed the aircraft factory in June '42 and that a heavy bomb had fallen right on my little cottage. Irina and the girls were at home when it dropped. . . . Then I got a month's leave from the colonel, and a week later I was in Voronezh. I went on foot to the place where I had once lived with my family."



**17** "Soon after that I was demobilized. Where was I to go? I remembered I had a friend who was living in Uryupinsk. . . . He worked as a driver with a motor transport company and I got a job there too. . . . And one day I noticed this little boy near the canteen, and the next day I noticed him again. What a little ragamuffin he was! His face all smeared with watermelon juice and dust, dirty as anything, hair all over the place, but he had a pair of eyes like stars at night after it's been raining! I got to be very fond of him. . . . 'Where's your father, Vanya?' I asked. 'He was killed at the front,' he whispered. 'And Mummy?' 'Mummy was killed by a bomb when we were in the train.' 'Where were you coming from in the train?' 'I don't know, I don't remember. . . .' 'Haven't you any family at all?' 'No, nobody.' "




**18** "I felt the hot tears welling up in my throat and I made up my mind at once. Why should we suffer alone like this! I'll keep him with me. And I felt better right away and strangely relieved. I leaned over to him and asked very quietly: 'Vanya, do you know who I am?' 'Who?' And still as quietly, I said to him: 'I'm your father, that's who. . . .' You should have been there to see what happened then! He threw his arms round my neck, he kissed my cheeks, my lips, my forehead. . . . 'Daddy dear! I knew it! I knew you'd find me!' He pressed himself to me and he was trembling all over, like a blade of grass in the wind."



VLADIMIR BOLDYREV, MINISTER OF JUSTICE OF THE RUSSIAN FEDERATION.

# SOVIET

**By Vladimir Boldyrev**

A COURT of law in the Soviet Union is something of a revelation to the visitor from abroad. Court procedure is simple. The courtroom is plainly furnished. The judge does not wear either wig or medieval gown to mark him different from the people who elected him to administer justice. Very likely he was an industrial or farm worker only a short time ago, like so many people elected to public office. On the bench beside him sit public assessors—citizen judges—also elected by the people and vested with the same authority as the judge himself.

The language of the court is matter of fact and plain enough to be understood by the least educated. Strewn about are none of the weighty legal tomes written in language that can be understood only by the lawyers and judges. Soviet laws and statutes are couched in everyone's language. The counsels for defense and the prosecution do not go in for melodramatics—tear-jerking oratory or frenetic appeals to passion and prejudice. Nor are cases tried in the newspapers to sway opinion and judgment.

Soviet justice does not regard the lawbreaker brought before the bar as an offender and that alone. He is first and foremost a fallible human being fallen into difficulty. With objectivity tempered by humanity and understanding, Soviet justice weighs both the complexities of the individual and the evidence. Its concern is to find out what has brought the offender into conflict with society and its laws. Its intent is to change the individual, to reform him so that he can follow an honest pursuit and live an upright life.

Soviet law and legal procedure watch over the individual citizen's interests. Irrespective of his race, nationality, sex or property status, it guarantees and protects his rights as defined by the Constitution, the basic law of the land.

The Soviet court is tolerant of people who break the law by accident or are forced by circumstances outside their control to anti-social acts. but with equal sternness it punishes those who encroach upon the rights of others, who endanger life, health or the public welfare.



## Crime on the Decline

With increased economic progress, education and opportunity in the Soviet Union, the number of lawbreakers has been steadily declining. Since the war, in particular, the incidence of crime has dropped by more than 50 per cent, with an even larger drop in cases involving young people and minors. This has been true for every one of the republics. In the Russian Republic, for instance, cases involving juvenile offenders have fallen off by as much as two-thirds.

Organized gangsterism and other grave offenses have long since disappeared from the calendars of the Soviet courts. Particularly noteworthy is the fact that today no one is haled to court for political offenses.

It is a tribute to the socialist way of life that in four decades—a short span by the yardstick of history when one considers the centuries it takes to evolve a legal code and tradition—the Soviet Union has built a judicial system which commands not only authority but the respect of its multinational population. This in spite of the most crippling handicaps of foreign intervention and civil war in its earlier years, the widespread ruin and famine which came with it, the hardships of reconstruction and the enormous destruction of the Second World War.

The respect derives from the fact that at every stage the people have participated in framing the laws and legal procedures and have changed them when they thought change was needed.

The going was not always smooth. Evolution is not nearly the painless process we should like it to be. There were violations of the Soviet criminal and procedural laws which led to the sentencing of accused people on insufficient grounds, contradicting one of the basic principles of Soviet criminal law—the presumption of innocence. This means that the accused is considered innocent until such time as objective and indisputable evidence has established his guilt beyond a shadow of a doubt. More than that, Soviet law demands that the court consider all questionable evidence as being in favor of the accused, rather than against him.

But these violations and injustices were exposed to the notice of the whole of the Soviet people and to the world by the Twentieth Congress of the Communist Party. Decisive measures were taken to correct the errors, to exonorate people unjustly convicted, to punish those who had violated socialist justice and to provide guarantees that these errors would not recur.

## New Procedures for the Courts

As progress in all spheres of Soviet life continues at its present rapid rate, we can begin to foresee a period in a not at all distant future when crime will have been completely eliminated as a significant factor. To move more quickly toward this very desirable future, Soviet juridical practice was recently overhauled by the USSR Supreme Soviet and changes introduced. The changes narrow and reduce penalties for offenses which do not seriously endanger society and the social struc-

COURT IN SESSION. TWO PEOPLE'S ASSESSORS PRESIDE WITH THE JUDGE.



# JURISPRUDENCE

ture. The penalties for all grave crimes, however, still remain severe.

These new laws both reflect the country's progress and foster greater progress. Laws and procedures which have become antiquated and therefore are no longer adequate to meet changed social and economic conditions have been supplanted by new procedures provided for in the recently adopted "Principles of Legislation on the Judiciary and Judicial Procedure."

The draft for this law for juridical practice was published six months before it was to be acted upon by the Supreme Soviet in order to permit the widest and most democratic public discussion. Meetings and letters to the press raised many pertinent issues and proposed many amendments. Public discussion centered on the age at which criminal responsibility should be determined, penalties for various offenses and related questions.

The revised legislation which incorporated the sense of this public discussion and many of the specific suggestions made for the much improved bills which were adopted by the Soviet parliament.

The new juridical procedures establish the rules for investigating offenses and for trying cases in court. They define the powers of the court and the examining agencies. They provide stronger guarantees than obtained previously for protection of the individual's legal rights. More specifically, under the old code, defense counsel could enter the case only after the accused had been brought to trial. Now defense counsel is able to advise his client during the preliminary examination, also.

The present code has also eliminated the "analogy" principle. This is a long-established principle of jurisprudence, under which a court trying a case involving a crime not expressly defined by law was previously permitted to fix the liability and penalty by analogy with those articles of the law that defined a crime closest to the one charged. Now an accused person may be tried only for an offense strictly and directly defined by law.

### Citizen Judges

Foreigners are prone to comment on the responsibility the average Soviet citizen feels not only for his own conduct but for the conduct of the community in general. High standards of ethics, self-discipline, and concern for public order are fundamental to the socialist-thinking person.

As a result of this pervasive attitude a large measure of responsibility for preventing crime and for securing observance of the law is voluntarily assumed by organizations of citizens. They assist and supplement the work of the militia—Soviet police force—the Procurator's Office and the courts.

On the bench of every court in the land sits a judge and two People's Assessors. The People's Assessors serve for ten-day periods and enjoy the same rights and privileges as the judge in trying criminal and civil cases. They question the accused, witnesses and experts, determine guilt or innocence and fix sentence. All questions are decided by a majority vote in spite of the fact that there are two assessors and only one judge.

Every People's Court in the Soviet Union has a list of from 50 to 75 assessors elected from the general population available for service on the bench. Serving as assessors in the same case may be an academician and a mechanic, a woman physician and a collective farmer. The law specifies that assessors must be paid their usual wages during the ten-day period of service.

Previously the list of assessors was elected to cover a three-year period, with people serving in the order they stood on the list. Under the new law the term was cut to a two-year period in order to draw in more people as administrators of justice. Previously, also, assessors were elected by the voters in the district they lived in. Now they are elected by the people at their place of employment.

### A Voluntary Militia

Trade unions and other public organizations are active in ensuring public order. One of these organizations is a voluntary militia. Its members work with the regular police force to maintain public order and protect the citizen's rights. The voluntary police have proven so effective in reducing offenses that the Soviet Union has been able to cut the size of its regular police force very drastically.

An important part is played by the "Comrade's Courts." These are elected by the workers at a plant or farm and serve as crime deterrents by exerting the force of public opinion. They also have been very salutary in reducing anti-social behavior.

Plans are to give them an increasingly important function. The Russian Republic, for example, is now discussing the draft of a new criminal code. One of its provisions is that anti-social acts, such as self-assumed power, insult, slander and similar offenses be handled by these "Comrade's Courts" sitting at the offender's place of work or in his home neighborhood. Only when the offense is repeated is the case to be turned over to a formal tribunal.

### Sentencing the Offender

In the Soviet Union only a court of justice may impose a penalty for a crime committed. The new code provides for a maximum term of imprisonment to ten years and a heavier term, up to fifteen, only for particularly heinous crimes. Under the old practice, the maximum was twenty to twenty-five years. Where the accused is convicted of premeditated murder or gangsterism—these crimes are now quite rare—the court can, if it deems it necessary, impose the death sentence.

In view of the steady decline in juvenile crime the new law has raised the age limit for criminal responsibility to 16, and in particularly dangerous crimes, to 14. The previous age limits were 14 and 12, respectively.

Soviet law does not look on punishment as revenge and does not aim to degrade human dignity. The sentence is part of the process of reforming and re-educating the convicted.

**DEFENDANT'S ATTORNEY MEETS WITH THE INVESTIGATOR PRIOR TO TRIAL.**



**A CLIENT GETS FREE ADVICE ON HOW TO PROTECT HIS INVENTOR'S RIGHTS.**





# COLLEGE

## *by Correspondence*

THE NERVE center of the USSR Correspondence Polytechnical Institute in Moscow is its mail room, which is as busy and methodical as the post office of a good-sized town. Mail by the truckload moves in and out every day in the week to and from the institute's 36,000 students in every part of the country.

Our inquiring reporter is visiting this unusual school of higher education at its main building in Mazutny Proyezd, on the northern outskirts of Moscow. It has the feeling of a quietly efficient office building rather than a school and our reporter comments on that to Professor Georgi Lizo, assistant director in charge of academic studies, who is showing him around.

Professor Lizo explains: "It is that for the most part. Our institute could be compared to an iceberg with only one-eighth of its great bulk showing above water. This building is our one-eighth. The other seven-eighths is made up by the more than 30 study and consultation centers we have scattered through the country.

"From this building we administer the work of all the centers. Here we work out courses of study and teaching techniques, prepare manuals and assignments and do the thousand and one things that need doing to keep our teaching abreast of the times—no small job for a professional engineering school in this day of galloping technological progress. I should say jet-propelled," he laughed. "The word galloping belongs to the horse-and-buggy days.

"Besides the administrative offices we have laboratories, consultation rooms and a library in this building for those of our students who live here in Moscow or within reasonable traveling distance, and a research division to which many of the country's leading scientists are attached."

### The Students

"Can you tell me something about your student body?" asks the reporter.

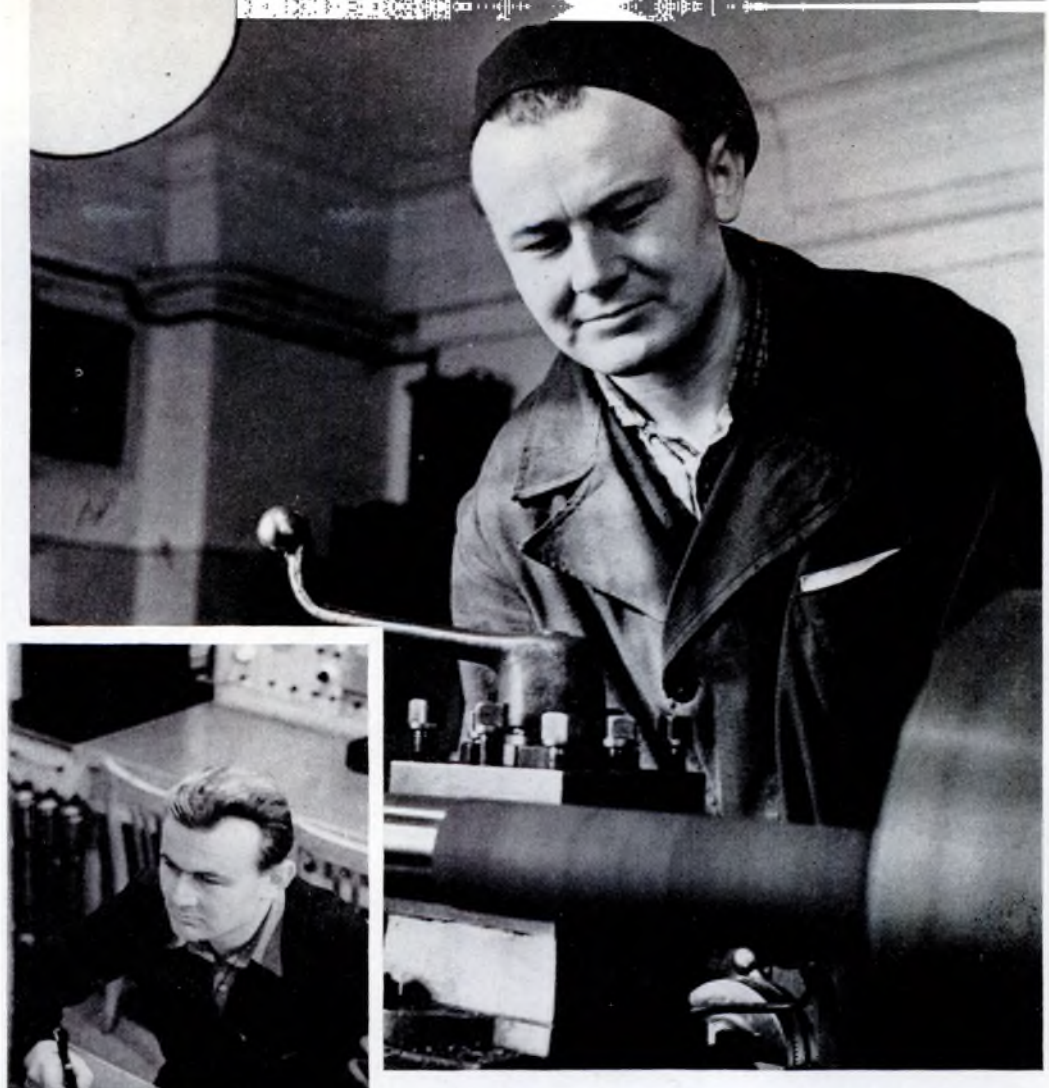
"Mostly mature men and women who have seen something of life and want a college education without having to leave their jobs. Many of them are people who want to back up their practical experience with theoretical study. Their aim is a degree in one of the engineering specialties. We admit 10,000 new students a year."

"What are the institute's entrance requirements?"

"Applicants must be employed, have a secondary or technical school education—no matter when they got it—and pass the entrance examinations which are not easier or harder than those for a full-time school of engineering. Tuition is free. There are no laboratory, library or other fees.

"We have ten departments: civil engineering, chemical engineering, power engineering, machine building, metallurgy, electrophysics, automotive engineering and mining, oil and industrial engineering. The course of study is six years and qualifies the student for any one of 63 specialties.

"We set up a study and consultation branch in any town where we have 200 students or more, each one affiliated with a local college



Edgar Minin, one of 36,000 workers enrolled at the USSR Correspondence Polytechnical Institute, will get his engineering degree from the Machine-Building Department.

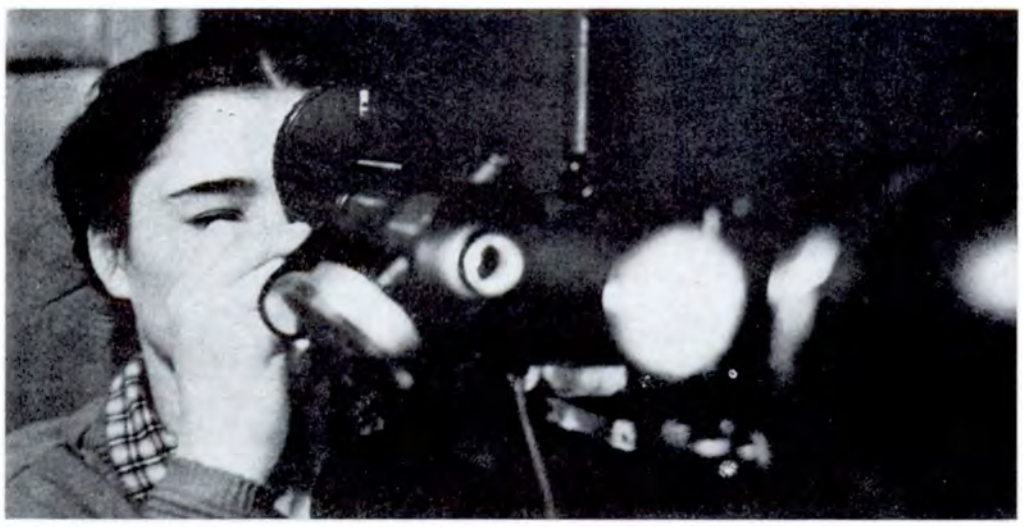


Alexei Zvyagin, surveyor by trade and fifth-year student in the institute's Mining Department, is preparing his diploma thesis. About 3,000 students graduate each year.



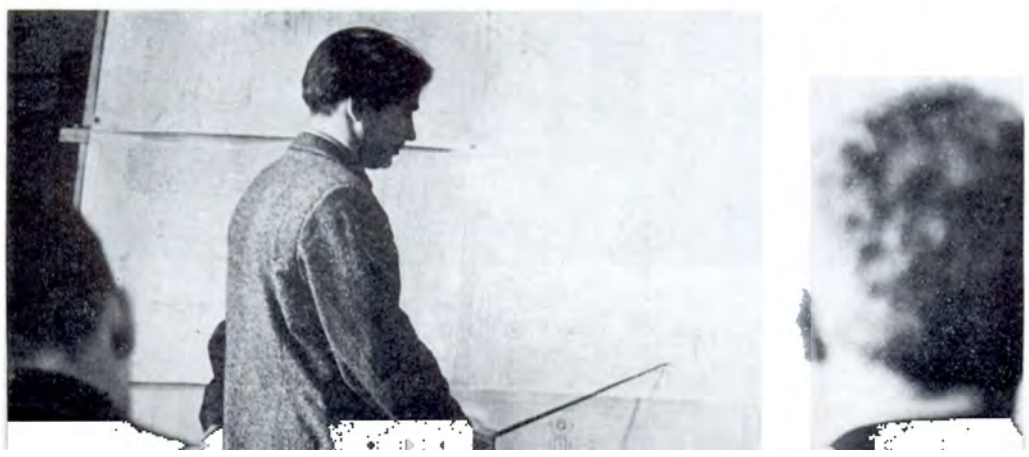
THE INSTITUTE HAS 30 STUDY AND CONSULTATION CENTERS THROUGHOUT THE COUNTRY WHERE STUDENTS CAN GET HELP FROM SPECIALISTS AND DO THEIR LABORATORY WORK.

# COLLEGE by Correspondence



INNA ZUBKOVA AT A PHYSICS LAB. ATTENDANCE IS OBLIGATORY FOR ALL FIRST-YEAR STUDENTS.

YURI KORCHAGIN BECAME A SENIOR ENGINEER AT THE ROSTOV CLOCK FACTORY WHEN HE GRADUATED.



or industrial plant. Our Vorkuta branch is associated with a nearby coal mine; our Alma Ata center with the Kazakh Mining and Metallurgy Institute; the one in Tashkent with the Central Asian Polytechnical Institute, and so on."

"Wouldn't it be simpler to set up the centers as correspondence departments of the local colleges?"

"In many cases it would. That's our present orientation. Many of the colleges and universities have their own correspondence divisions. What we do is supplement their work by offering courses that they do not give. Then, too, we have a great many students who live or work in districts remote from a college or branch of our institute."

## The Teachers

"How about your faculty?"

"We have more than a thousand teachers, many of them leading authorities in their fields of work. For example, in Tashkent, Dmitri Topornin teaches our course in higher mathematics and Husni Rustamov teaches organic chemistry. Both are professors at the Central Asian Polytechnical Institute. At Kuibyshev on the Volga, Professor Alexander Kondratiev of the Kuibyshev Industrial Institute teaches theoretical mechanics. We have 50 professors, 400-odd assistant professors and more than 500 supervising laboratory instructors who help the students with their assignments.

"Our Moscow students attend lectures and do their laboratory work at the main building

here and at such specialized engineering schools as the Power Institute, the Mining Institute and the Institute of Non-Ferrous Metallurgy, as well as the research departments of the large industrial plants.

"Do students attached to outlying consultation centers get the opportunity to hear lectures by Moscow professors and academicians?" our reporter asked Professor Anatoli Darkov, head of the Strength of Materials section of the institute's Machine-Building Department.

The professor answered by citing his own travels. He had just returned from a long trip through the Urals and Siberia. "I lectured on building mechanics and strength of materials, consulted with our correspondence students and held examinations at our branches in many cities. Professor Gleb Mitropolsky made a similar tour recently of our branches in the Volga region. We've had about 40 of our professors traveling to industrial towns in Siberia and the Far East within recent months to lecture and consult with students at the branches.

### The Courses

"The courses given by the correspondence institute are the same, in scope and content, as those given at full-time schools. Teaching methods, of course, are different. Correspondence students have only one-third the number of lecture hours. These cover the fundamentals of the course. The rest must be covered independently by the student. He must also complete the regular group of laboratory assignments."

Professor Nikolai Glinka, head of the institute's Chemical Engineering Department, added: "These are obviously pretty stiff requirements for people who do only part-time study. Manuals and other study guides are therefore much more important than they are in full-time schools where the teacher is always on hand, ready to answer a tricky question.

"Our chemistry manuals break the material down into study topics, tell the student how to approach each topic, indicate major themes for special study and provide questions for self-examination. Supplementary material is printed up and mailed out when necessary. We've been doing that, for example, with material on the structure of the atomic nucleus that is too new to have been included in text material."

Last year, our reporter was told, the institute issued more than 700 manuals in a total printing of a half million copies. These are mailed to students without charge.

Examinations are held twice yearly, as at all colleges, and may be taken in the main building or at any of the branches. The correspondence student is given a 30-day leave of absence from his job every year, at full pay—this is besides his regular annual vacation—to prepare for and take his exams. At the end of the six-year course he gets a four-month leave to write his diploma thesis on some important technical problem. All diploma projects are done in Moscow under guidance of the institute faculty. For the four months the student lives at the institute dormitory in Moscow and is entitled to a government stipend not exceeding 500 rubles a month for maintenance.

### After Graduation

Our reporter talked with one of the graduating students, Alexei Grachev, an excavator-operator from the Urals who had come to Moscow to complete his diploma project on open-cast ore mining.

"What are your plans after graduation?"

"I've got an engineering job lined up already on the construction site of the Kachkanar ore-dressing mill in the Urals. It's one of the new mills scheduled by the seven-year plan."

"What will this mean for you money-wise?"

"More money, of course. I make about 1,200 or 1,300 rubles a month now. I'll be starting as an engineer at 1,600 at least. Besides that, I like studying and I'm looking forward to using my training on a new job."

The reporter met another soon-to-be engineer, Nikolai Timakin, a fourth-year student in the machine-building department. He was a fitter when he began to study at the institute, he's a foreman now and expects to be a designing engineer when he graduates.

The Polytechnical Institute will train more than 20,000 engineers these next seven years. Although it is the largest it is not the only such correspondence college in the country by a long way. Study by correspondence is very general in the Soviet Union, not only in the technical fields but in every branch of study and new schools are being set up everywhere to meet the ever-growing demand.



PROFESSOR FOMA DEMYANUK HELPS GRADUATING STUDENTS ORGANIZE MATERIAL FOR DIPLOMA THESES.







INSTITUTE PROFESSORS: DR. ANATOLI DARKOV, ASSISTANT DIRECTOR LIZO AND DR. NIKOLAI GLINKA.



CHEMISTRY LECTURE FOR SENIOR STUDENTS.



FOR THOUSANDS OF YEARS THE POTENTIALLY FERTILE LANDS OF THE FERGANA VALLEY IN CENTRAL ASIA COULD NOT SUSTAIN LIFE BECAUSE OF THE LACK OF WATER.

# "Where the WATER begins, the LAND begins"

BUILT IN 1939, THE FERGANA CANAL NOW IRRIGATE S 15 MILLION ACRES OF ONCE BARREN DESERT.

By Vladimir Ponizovsky

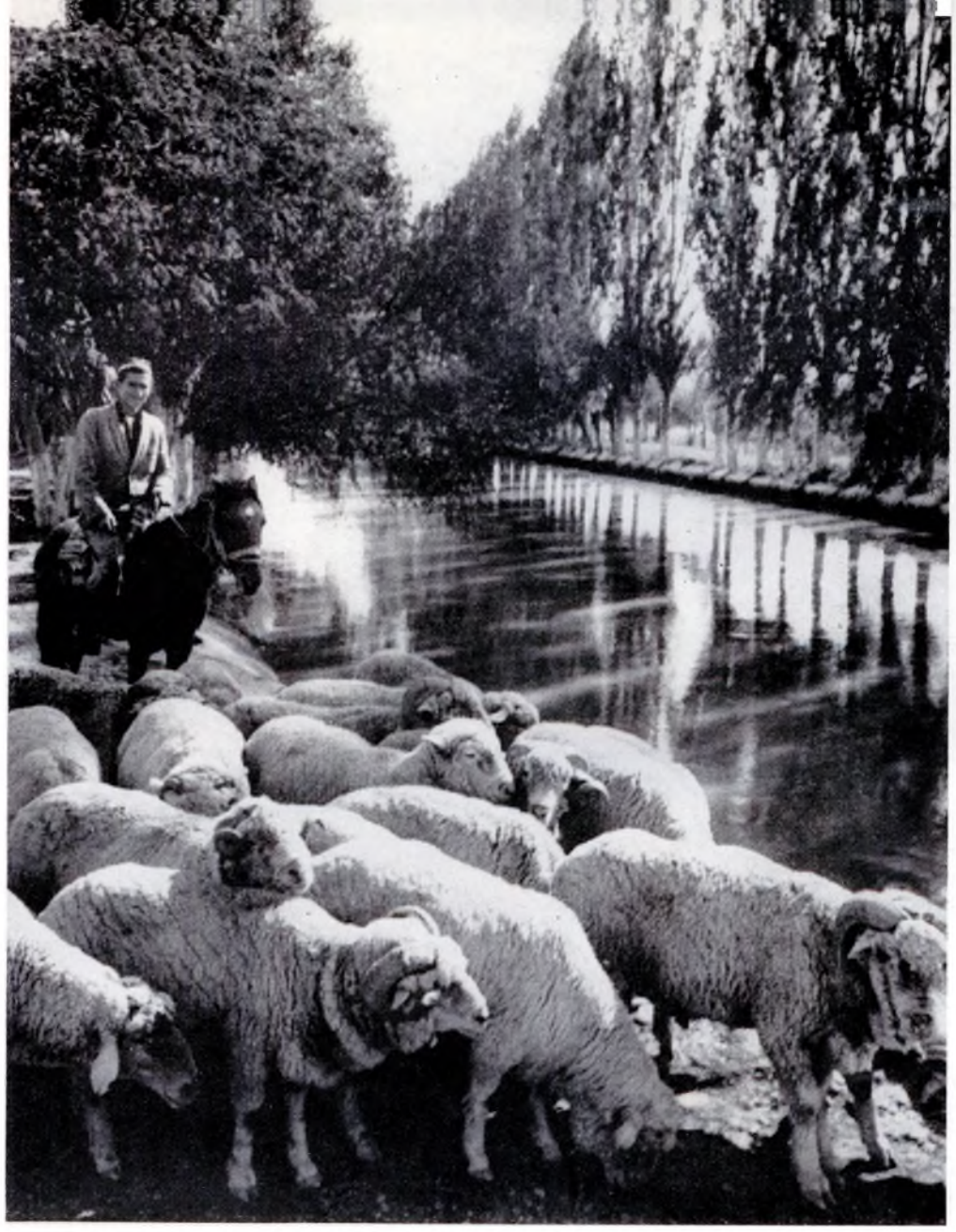


WHERE the water ends, the land ends. For countless centuries this has been the maxim by which people have lived in the Central Fergana Valley. This lifeless desert land ringed by a sparse chain of oases in the foothills stretched for hundreds of thousands of arid acres between the Tien Shan and the Pamir mountains.

The people fought a brutal unending war with the creeping sands. They fought no less bitterly with each other for every drop of water. There was the Syr-Darya River flowing through a deep ravine in the north of the valley for more than 1700 miles, but its uncontrolled and undirected water spilled into the Aral Sea. Ancient legend spoke of a hero to come who would turn back the river and bring the desert to life, but for the people who lived in the Fergana Valley this was a wishful dream until the Socialist Revolution of 1917.

## Plotting a New River

The borders of Uzbekistan, Tajikistan and Kirghizia meet in the Fergana Valley. Twenty years ago these three republics joined to bring water to the valley. With help from the central government, the region was surveyed and the project for the Great Fergana Canal plotted out. The survey and planning should have taken two years; it was done in two months.



THE COLLECTIVE FARMERS OF FERGANA BREED KARAKUL SHEEP, ANGORA GOATS AND PEDIGREED CATTLE.



THE VALLEY PRODUCES A MILLION TONS OF COTTON A YEAR.

The canal was to begin at the mountain river Naryn, the source of the Syr-Darya, and cross the valley from east to west. Besides the 167-mile canal to be dug, more than a thousand hydraulic structures—dams, aqueducts and conduits—80 highways and 6 railroad bridges had to be built. The plan was to do the whole job in two months.

The future canal was plotted on a map of the valley and was posted in every village and town square. The project was discussed and argued in newspapers and public meetings. The decision was unanimously in favor and people by the many thousands, not only those living in the valley but farmers, engineers, students and even school children from neighboring and distant republics, wrote in to say they wanted to lend a hand. There were twice as many volunteers as were needed.

August 1, 1939, is a memorable day for Fergana Valley natives. That morning 160,000 people broke ground for the great project. They worked from dawn to dusk and in a matter of days the 167-mile construction site was an elongated town of schools restaurants, clinics, newsstands and repair shops.

The canal was built in 45 days and in that time 23 million cubic yards of dirt was shifted, 50 thousand cubic yards of concrete poured and 52 thousand cubic yards of masonry laid. Asia had never seen anything like it.

## The Valley Regenerated

Just as a young shoot can renew the life of an old tree, so the Great Fergana Canal has regenerated the ancient valley. With 15 million irrigated acres, the valley now grows more than a million metric tons of cotton a year, 30 per cent of the Soviet Union's total crop. It raises 29.5 per cent of the country's silkworm cocoons. It is famous for its grapes, figs, pomegranates, peaches and apricots; its fine-bred cattle, karakul sheep and angora goats.

Nor is its economy one-sided. Fergana has a developed industry, with more than 400 large machinery, chemical and textile plants. The Margelan silk mills are the biggest in the Soviet Union.

The extensive irrigation system covers the valley with a network of reservoirs, large main canals, hydropower structures and pumping stations. Fergana Valley factories manufacture diesel engines and various kinds of machinery and equipment used for irrigation and soil reclamation.

Rich oil deposits have been found and are being tapped and refined by eight large installations. The three republics have also begun to tap gas, sulphur, ozokerite and recently-found deposits of nonferrous metals and building materials.

Scores of large hydroelectric and heat and power stations and many hundreds of inter-collective farm water power stations now supply dependable electric current to the valley.

New towns and industrial centers have grown up—Leninsk, Kuvasai and Chust, among others.

## A Changed Way of Life

Not only has the geography of the valley changed—the valley's way of life has changed, too. The cities of Fergana, Kokand, Andizhan and Margelan, once trading posts, are now important manufacturing centers. The thinly populated valley of two decades ago now averages 300 persons per square mile, well up at the top of the country's list for population density.

On the land of this once sterile desert there are any number of richly productive collective farms. The Lenin Collective Farm is fairly typical. Its villages are surrounded by the bright greenery of peach orchards, vineyards and melon patches. The farm has five elementary and high schools, a library, a motion picture theater, a hospital and maternity center, a radio relay station. It has 7,500 acres, with about 5,600 growing cotton. Last year the farm's income was 28 million rubles.

It would have been hard to find a literate person in the valley before the Revolution—today it would be just as hard to find an illiterate one. There is no small village which does not have its own school, nursery, kindergarten and clinic. Clubs and cultural community centers have become as accustomed a feature of the rural landscape as the blossoming orchards. There are three colleges in the larger cities in the valley, eleven specialized secondary schools and four theaters that stage productions in the native languages.

# "Where the WATER begins, the LAND begins"

### New Projects

To supplement the major canal which has been extended year by year, the Northern and Southern Fergana Canals have been built. Fergana farmers are now able to plan for such ambitious goals as a doubling of cotton production within the next few years—an altogether realistic target. The Academy of Sciences of the Uzbek Republic estimates that another 750,000 acres of land can be reclaimed.

Work on the Kokand Hydroelectric Station on the Sokh River, the largest generating unit in the valley, has just been completed. The station's dam is almost four miles long and 65 feet high, and its branching canal system will be irrigating another 150,000 acres of cotton land.

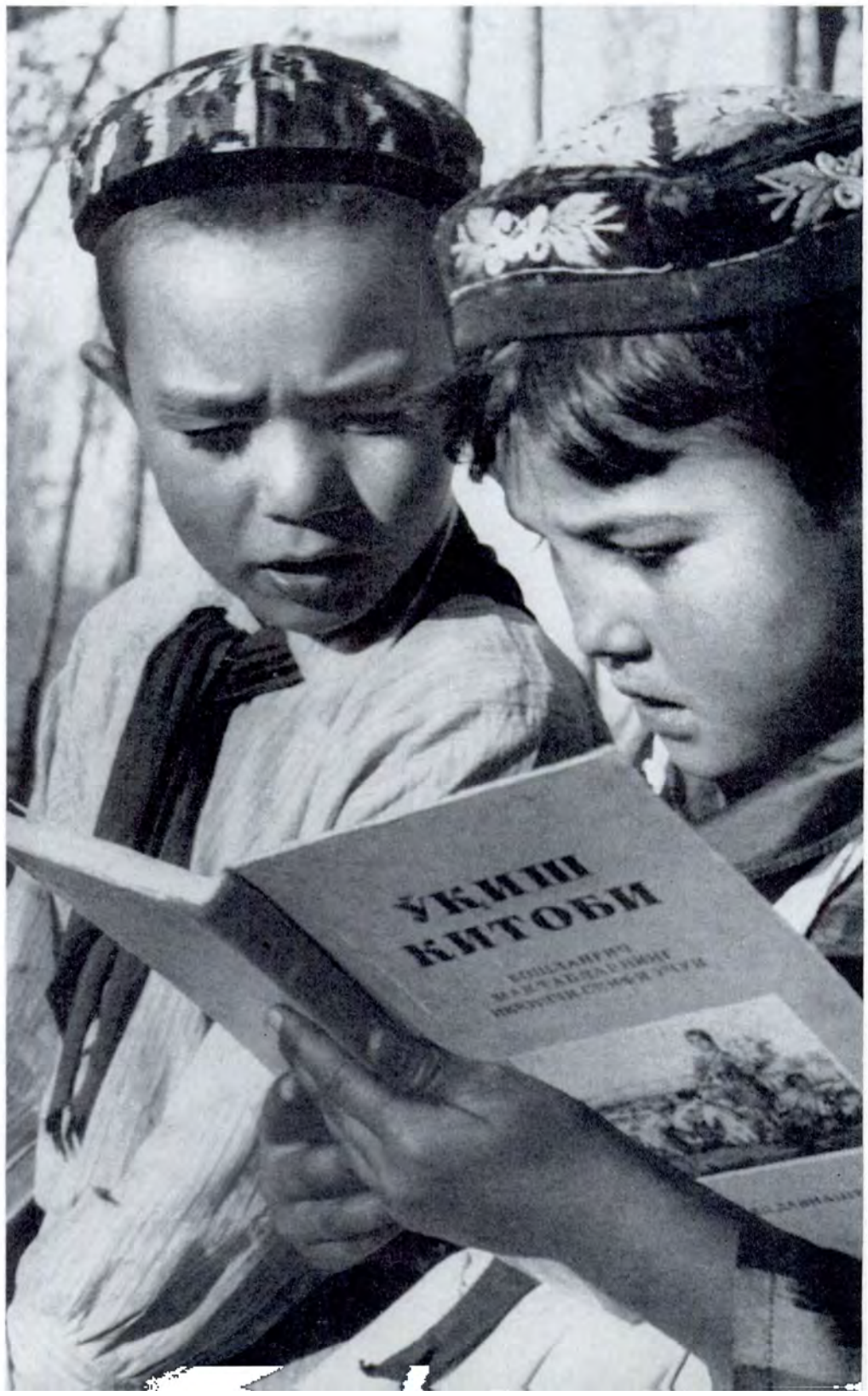
Construction of the Uch Hydroelectric Station on the Naryn River has begun. Its dam, the largest in Central Asia, will raise the river level 98 feet to form a huge reservoir from which the water will flow to irrigate 99,000 acres via main and distributive canals. The power station will begin generating electricity next year.

Uzbek and Kirghiz hydropower experts are planning a cascade of power stations on the Naryn River which for capacity will be able to compete with the biggest of the country's water power units. This is one of many projects scheduled by the seven-year plan for the development of the Fergana Valley.



VILLAGE OF THE LENIN COLLECTIVE FARM, WHOSE 28-MILLION-RUBLE INCOME IS TYPICAL OF THE AREA.

ILLITERACY IS COMPLETELY WIPED OUT, AND EVERY VILLAGE HAS ITS OWN SCHOOLS AND LIBRARIES.




Only pictures and books remain to tell the story of the search for life-giving water.



# A Driverless Tractor

**By Ivan Loginov**

*Tractor Mechanic, Irtysh State Farm, Kazakh Republic*



IVAN LOGINOV'S CONTROL DEVICE MAKES TRACTOR DRIVING COMPLETELY AUTOMATIC.

I HADN'T noticed the man driving a flock of sheep ahead of him into the field where my tractor was having its test run. But it didn't seem to bother the sheep or the shepherd, either. He thought, I suppose, that the driver would pull up or else slow down to make a turn. But when he saw that there was no driver in the cab and that the tractor was coming straight for him, he started to curse like a madman. I came running, jumped into the cab and got it stopped a few feet from the sheep.

It took me a while to calm the man down, he kept telling me I ought to be locked up for the public safety. What was I doing letting a tractor run away and grinning about it to the bargain?

When I explained that this was a driverless tractor, run by an automatic device that I had invented and that this was one of the first test runs, he stopped swearing long enough to tell me that if it was self-running it ought to be self-stopping, too.

I have something to thank that shepherd for—he got me started on an automatic brake. That was relatively easy after all the work I had done on the automatic driving mechanism.

Although I've had no formal and systematic technical education, I've done studying on my own. When I was a youngster, I made steam engines and turbines out of tin cans and built myself a motor boat which won an award at a children's exhibit. And then when I started to work as a fitter, I turned in suggestions and ideas for improving machine operations for which I got a number of bonuses.

In 1955 I was working in a factory in the Kazakh town of Semipalatinsk. It was at the time when young people were volunteering to go out to develop the virgin lands. I liked the idea, and left my job to study at a farm machine school for a year where I learned tractor operation. Then I went out to a state farm in the Pavlodar Region of the Kazakh Republic.

Plowing the farm's big fields with a tractor I tried to figure out how to ease the driver's job, how I could get the machine to run by itself, perhaps. I did a lot of thinking about it and then worked out a tentative design. I had picked up something of a background of electrical engineering and drafting at school and by myself.

I showed the drawings to Ivan Petrov, the manager of the state farm. He looked them through and said: "You've got a sound idea there. You'd better take a trip to Pavlodar and show it to the experts there."

So I did and the idea was approved by the Technical Council of the Regional Board of Agriculture. They assumed the expense of constructing the automatic driver according to my drawings and when it was completed had it mounted on an S-80 tractor.

This is how the robot driver works. Ahead of the tractor wheels, a copying device runs along the first and evenly-spaced furrow. If the furrow turns, the copying device contacts and closes a relay. The relay activates the tractor's turning clutches through a special hydraulic mechanism. The tractor then turns to the left just far enough so that it runs parallel to the first furrow.

Engineers helped me to work out a system of remote controls so that two operators can work on several tractors simultaneously.

In 1958 the automatic driver was successfully tested in operation and then the device was worked out for the types of tractors which are used most generally.

Ivan Mayorov, a tractor mechanic at another state farm in our region, invented a hydraulic furrow-depth regulator. The use of both our devices makes tractor operation almost completely automatic, and this without anything lost in the way of quality performance. During one of the final tests a tractor equipped with our devices plowed a thousand acres without a single break.

Although I am not a member of the Communist Party, I was invited to speak before a session of the Central Committee of the Party held in Moscow last December at which developments in farming were being discussed. Nikita Khrushchev mentioned my invention in his report and noted its importance for facilitating the tractor drivers' labor and making it more efficient. I came away from that session with a couple of new ideas for mechanizing farm work which I am now hatching.

# VOLLEYBALL— Everybody's GAME



AS A major sport, volleyball is among the newcomers in world matches. It is not too many years ago that it won a place at the Olympic games. New as it is, however, volleyball is a strong challenger of many older sports for mass favor and popularity.

It is one of our favorite games in the Soviet Union, with more than 2½ million active players. This figure, says the USSR Volleyball Federation, does not include the great numbers of people who play the game at summer resorts, beaches or parks.

Why the great and growing popularity of volleyball? It is speedy, exciting, easy to learn and needs minimal equipment. One other quality, and a very attractive one to Soviet fans—like soccer or basketball, volleyball is not a one-man operation, it is a team game.

The rules are standard. Teams are made up of six men each. The ball can be touched by one side no more than three times running. No single player may touch the ball twice in sequence. The ball cannot be held or thrown over the net, it must be volleyed. The first fifteen points wins the game and a match is the best two out of three or the best three out of five.

With more people playing, the game has been evolving and its tactics changing. A while ago it was thought that the best team formation called for three strong forwards to work close to the net and three backs to pass the ball forward. With that setup, however, the forwards tended to be weak in defense and the backs weak on attack.

The feeling now is that the best player is the all-round man, equally good at service,



Soviet volleyball teams played their first international match in 1947 and joined the International Volleyball Federation in 1949. In 1956 the men's teams played the U. S. teams in Paris and they are looking forward to another exchange of games in the very near future.

**By Vladimir Savvin**

*Vice President,*
*International Volleyball Federation*

defense, block and attack. The game is developing along this principle—"six in attack and a half-dozen on defense," with, of course, proper placing of each man so as to use his strongest points.

All Soviet children learn the game in school as part of the physical training program. Along with soccer, it's as popular as sand-lot baseball and football are in America. At colleges, industrial plants, farms and residential projects volleyball has been winning more and more favor as a major competitive sport and matches are arranged on a local, regional and republic basis by the sport societies.

### International Matches

Teams to defend the country's colors in international contests are chosen from the national league champions. There are two national leagues, the first made up of 12 teams, the second of 18. The top second league teams are promoted to positions in the first league if they shape up as winners in inter-league matches.

Our volleyball teams played their first international matches in 1947. Since then we have played in many international tourneys both at home and abroad. In 1949 we joined the International Volleyball Federation, which affiliates more than 50 countries and has done much to popularize the game. Our teams now compete in all European and world contests.

The Soviet women's team has made a very good showing. It won the European championships in 1949, 1950, 1951 and 1958 and gold medals in world contests in 1952 and 1956. The men's team held the world title



The 1952 world championship games were played to capacity crowds at Moscow's Dynano Stadium. Two national leagues include 30 teams.



A player fakes a drop into an opening behind the blocker. Soviet teams have competed in all world and European contests since 1949.



At times like this volleyball players have to be good acrobats. Notice how Nikolai Gerasimov retrieved this cannonball spike.



## VOLLEYBALL— Everybody's GAME

in 1949 and 1952 and the European title in 1950 and 1951.

It was not until 1956 that we had the chance to play against American volleyballers at the Paris world championship games. The capacity crowd at the Vel' d'Hiv saw a thrilling contest which the Soviet team won, 3:0.

Informed opinion attributed the poor American showing to the fact that not all of their strongest players were able to get over to Europe. But whatever the reason, the Americans showed in subsequent games that they were formidable rivals. They beat the Yugoslav team, Bulgaria's crack contingent, and won a hard-fought match with Rumania which was decided in the last few volleys of the fifth game.

We Soviet volleyballers are looking forward to another exchange of games—and of teams—with American volleyballers in the very near future.



Though a comparatively new sport, volleyball has fast become one of the top favorites of both men and women. There are 2.5 million players active on organized teams and innumerable other uncounted participants in the country. This is a match between two women's factory teams.



**BOLSHOI BALLET IN THE UNITED STATES**

*See page 30*



# USSR

**THE LARGEST PERMANENT EXHIBITION**

—See Page 10

No. 9 (36)—20 Cents

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THIS SCULPTURE BY VERA MUKHINA ATTRACTS THE ATTENTION OF VISITORS TO THE NEW SOVIET EXHIBITION.


# USSR

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**Front and back covers:** General view of the USSR Exhibition of Economic Achievements which opened in Moscow in June.


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Engineer Pavel Chernyshev, who attended the Plenary Meeting of the Central Committee of the Communist Party held in June, tells his fellow workers at the Leningrad Metallurgy Plant about the proceedings. Automation was the session's keynote.

# For the Well-Being of the Soviet People

IN THE few months since January when the Twenty-first Congress of the Communist Party of the Soviet Union convened to discuss the target figures for the seven-year plan, so many steps have been initiated by workers in every field of endeavor to save time, labor and materials that there is every prospect of overfulfilling the plan much before the deadline. This nationwide initiative sparked by the Congress was the major topic for discussion at the Plenary Meeting of the Central Committee held in June.

The agenda had been published in the press months before the session to allow time for discussion at factory meetings and technical and scientific conferences. This is normal practice for major party meetings to provide for the widest possible participation. The decisions taken at the Plenary Session therefore represent the sentiment of many millions of people in addition to those who were present in person. Participants included Party and government officials, industrial workers, farmers and scientists from every part of the Soviet Union.

Discussion centered on concrete problems—automation of production processes, complex mechanization in industry and construction, modernization of existing equipment—those immediately pertinent to progress of the seven-year plan.

Detailed reports were given by the chairmen of the Economic Areas of Moscow, Leningrad, Sverdlovsk, Stalino and Dniepropetrovsk which showed that up-to-the-minute equipment in the way of automatic lines and automated units had already been produced in quantity. Konstantin Petukhov, Chairman of the Moscow City Economic Council, reported that more than 300,000 Moscow engineers and technicians had contributed in one way or another in the half year since the Congress to mechanize the shops or departments they worked in. He attributed the rapid progress in automation in the Moscow Region and in the country generally to this very wide unity of effort.

Nationally, more than 90 per cent of all the pig iron and steel is now smelted in mechanized and automated furnaces. All district hydroelectric stations are entirely automated. More than 40 per cent of the machine tools manufactured are automatic or semi-automatic. Work is under way to automate the major shops in nitrogen, soda, sulphuric acid, chloride, alcohol, synthetic rubber and tire plants.

### Progress in the Chemical Industry

A year ago, a comprehensive program for stepping up development in industrial chemicals was adopted. The Plenum heard a report on the renovation of old chemical plants and the construction of new ones. This year's figures show 162 machinery plants producing 1,300 new kinds of instruments and apparatus for the chemical industry. Technical re-equipment has been further speeded up by the purchase of advanced apparatus—in some cases for entire plants—and technological flow-sheets from business firms in Britain, the Federal Republic of Germany, Sweden, Italy, France and other countries.

By 1965 it is expected that 270 large chemical plants will have been built or thoroughly modernized. The Saratov Artificial Fiber Plant is one of a number now under construction. In 1965 the chemical plants in the Saratov Economic Area alone, exclusive of those elsewhere in the country, will be turning out enough synthetic fabrics to clothe 55 million people.

The textile industry is one of the oldest in the country. Many of the mills, especially those in the central region of the European part of the Soviet Union, are centuries old. In the past forty-odd years many of these ancient mills were completely overhauled and hundreds of additional cotton, wool, silk and knit-goods mills were built. Some, like the Tashkent Textile Mill in Uzbekistan, are unequaled anywhere in the



A group of workers of the Moscow Caoutchouc Plant meet to discuss the plenary session and exchange ideas on how to put the decisions into practice.



For months before the session took place and while it was in progress, its agenda and proposals were the topic of lead articles in all newspapers.

# For the Well-Being of the Soviet People

world for their output and the number of skilled workers they employ.

At present, there are more than 2,000 textile mills in the country employing 1,300,000 people. The output of fabrics is rising steadily. In 1958 it amounted to 8 billion yards, more than is produced by any other country with the single exception of the United States.

Under the seven-year plan, 11.5 billion yards of fabrics will be woven by Soviet textile mills in 1965. Divided among the men, women and children living in the country, it would come to 60 yards per person.

To reach this high production figure, it was pointed out at the Plenary Meeting of the Party's Central Committee, would require considerable renovation and new construction. By 1965 all the older spinning frames will have been replaced by new models, the number of automatic weaving looms will equal 72 per cent of the total number and all dyeing and finishing departments will be equipped with continuous dyeing units.

The plan calls for construction of fifty-odd automatic production lines for the manufacture of cotton and wool yarn and an automatic bleaching and finishing plant. The introduction of stream-production lines in the textile industry will go a long way toward meeting the ambitious target figures.

### Ahead of Schedule

One theme was emphasized in all the reports presented at the Plenum —that the first half year of the plan unquestionably shows that every possibility is present for reaching the target figures ahead of schedule. This was stressed in the discussion from the floor by speakers who came from all parts of the country and from all vocational areas—machine builders from Moscow and the Urals; Byelorussian instrument makers; engineers from Vladimir; chemists from Gorky; nonferrous metallurgy workers from Kazakhstan; weavers from Ivanovo, the oldest textile center in the country; collective farmers from every one of the republics.

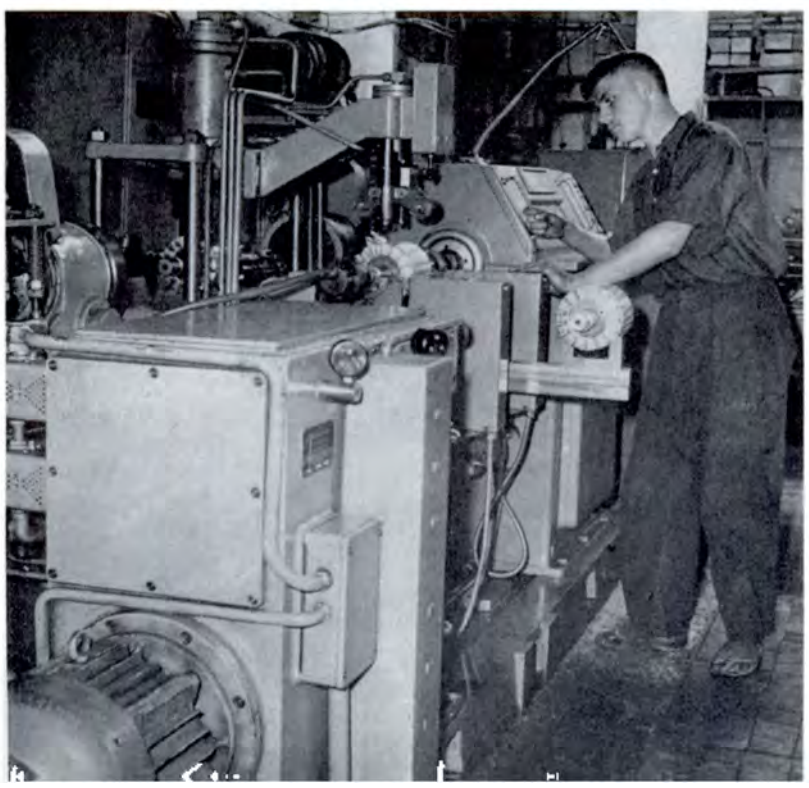
Detailed reports of the sessions were published in the entire Soviet press and elicited thousands of letters from people everywhere in the country who wrote in to express their individual points of view on one or another question.

One of the many letters addressed to the Plenary Meeting came from workers in the Kirov Plant, the oldest Leningrad enterprise. Having calculated their own and the plant's production potential, the workers wrote to inform the Central Committee of the Party that they aimed to reach the level of output planned for 1965 a year sooner.

The major report at the closing session was given by Nikita S. Khrushchev, Chairman of the USSR Council of Ministers and First Secretary of the Central Committee of the Communist Party. While acknowledging the very good start that the seven-year plan had gotten off to, he was critical of those economic sectors which were lagging. His speech paid tribute to the strength of will of the Soviet people and expressed a profound certainty of a near future rich in material and spiritual resources.

That sentiment was embodied in a statement of the Plenary Meeting addressed to the Soviet people which declared that the single and primary aim of this great effort to automate industry was to obtain a productive potential that would give the Soviet worker a standard of living unmatched by any other country in the world.

A NEW AUTOMATIC LATHE IS BEING TESTED AT THE URAL ELECTRIC MOTOR PLANT.

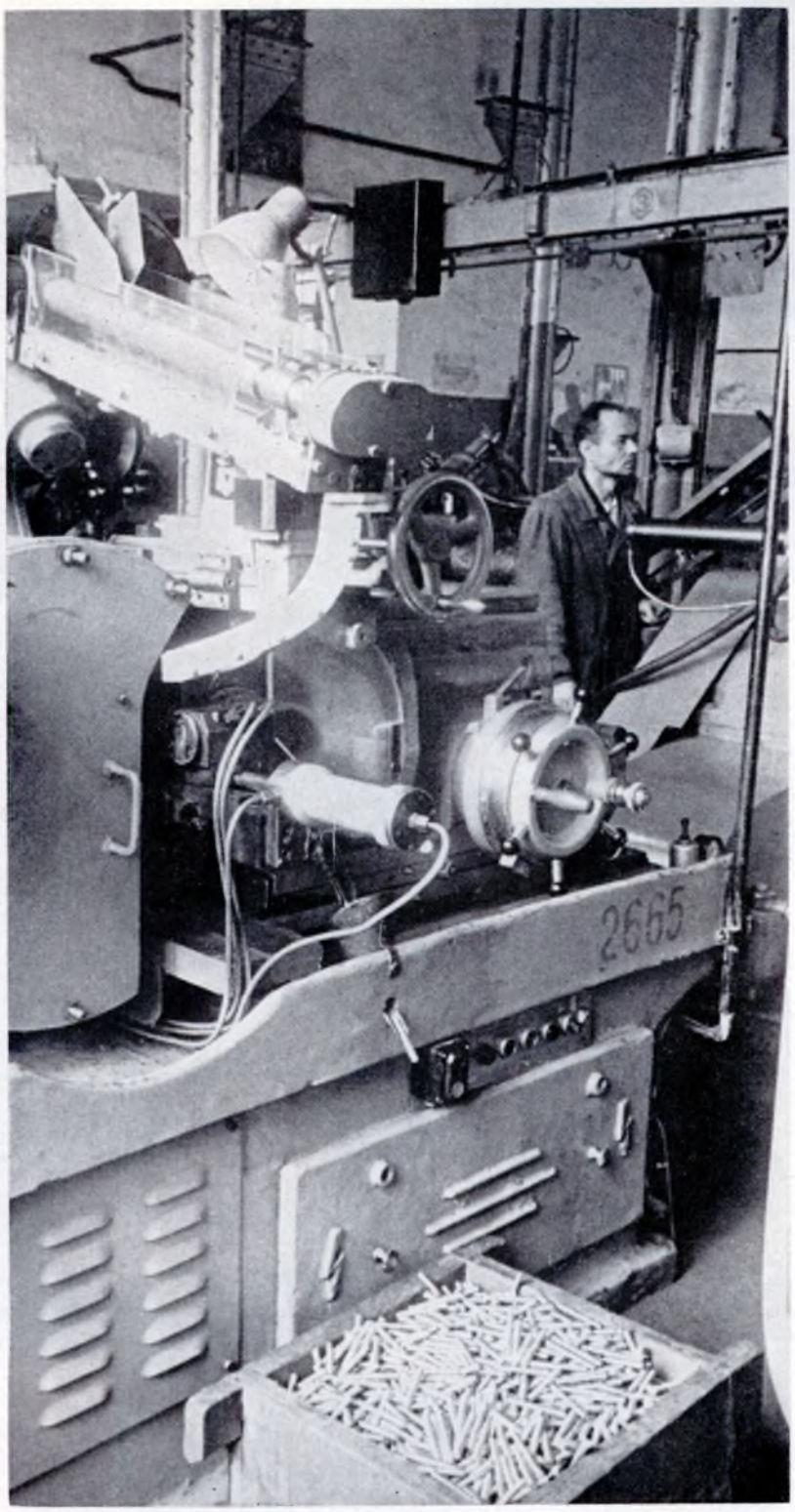


HUNDREDS OF APARTMENT HOUSES ARE GOING UP FOR THE ANGARSK WORKERS.

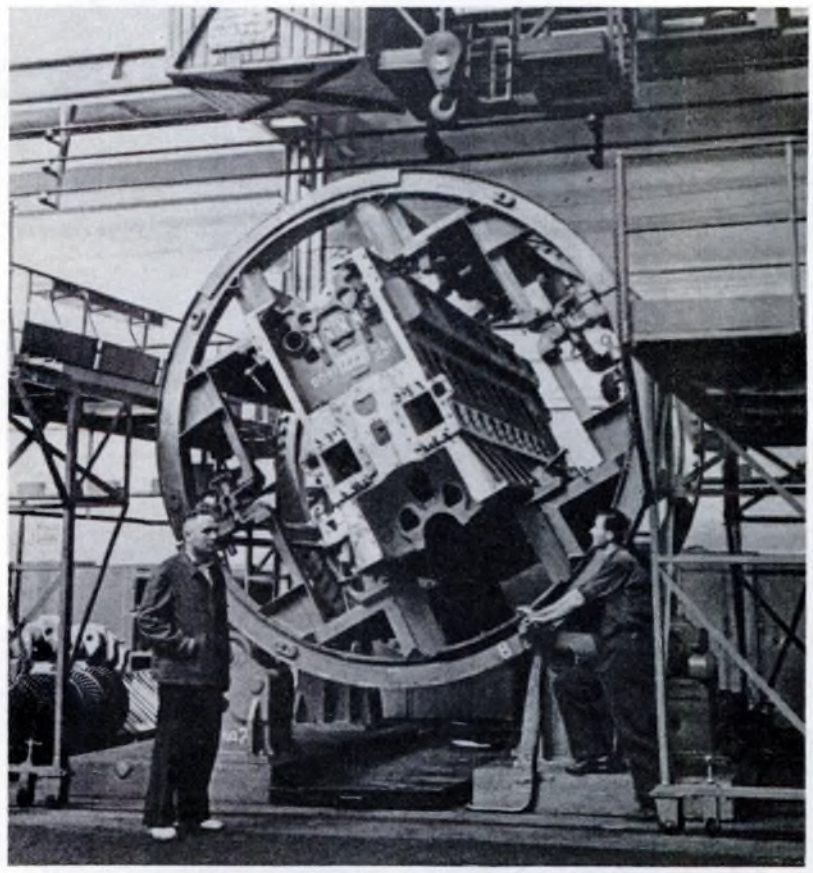




The Kolomna Diesel Locomotive Plant near Moscow and others like it are helping to solve the problem of modernizing the country's railway system.




An automatic conveyor at the Sestroretsk Plant, which will be completely automated with the installation of the third line at the end of 1959.



Large diesel engines are now being assembled on mechanized revolving stands at the Kharkov Transport Machine-building Plant in the Ukraine.

**ALTHOUGH IT IS A COMPARATIVELY NEW CITY IN SIBERIA, THE PACE OF CONSTRUCTION IS FAST MAKING IT ONE OF ITS BIGGEST CULTURAL AND INDUSTRIAL CENTERS.**





FROL KOZLOV AND HIS PARTY ARRIVED IN THE UNITED STATES ON JUNE 28 TO OPEN THE SOVIET EXHIBITION AFTER A NONSTOP FLIGHT FROM MOSCOW ABOARD A TU-114.

# FROL R. KOZLOV visits

Accompanied by Soviet Ambassador Menshikov (right), Frol Kozlov is received by President Eisenhower and U.S. Secretary of State Herter.



"ONLY eleven hours ago we were back in our country, and now, while the sun has not yet traversed one-half of its daily circuit, we have the pleasant opportunity of greeting you here. It would seem, with the present state of modern engineering, as though the distance between our two countries, located in different hemispheres of the earth, has decreased and the opportunities for reciprocal meetings have grown."

These were the first words spoken by Frol R. Kozlov, Soviet First Deputy Premier, to newsmen when he alighted from the big turboprop TU-114 airliner that brought him nonstop from Moscow to Idlewild International Airport on June 28. The formal reason for his visit was to open the Soviet Exhibition of Science, Technology and Culture which gave American visitors by the tens of thousands their first view of Soviet life. It was, in addition, a welcome opportunity to talk to Americans and to see something of the United States.

With Deputy Premier Kozlov were President of the Presidium of the Supreme Soviet of the Uzbek Republic Yadgar S. Nasriddinova, an Uzbek woman prominent in Soviet public life; Ivan G. Bolshakov, Deputy Minister of Foreign Trade for the USSR; Vladimir N. Novikov, Chairman of the State Planning Commission of the Russian Federative Republic; and Alexander A. Soldatov, chief of the American Division of the USSR's Foreign Ministry. The Soviet Ambassador to the United States, Mikhail A. Menshikov, joined the official party at the airport.

The following afternoon the Deputy Premier escorted President Dwight Eisenhower through an hour-long preview of the Exhibition just previous to the official opening. Deputy Premier Kozlov and Vice President Richard Nixon spoke on behalf of their respective governments at the opening ceremonies.

In his address, Frol Kozlov expressed the hope that the Exhibition would give Americans some understanding of the way Soviet people live and work, of their achievements, their aspirations and their earnest wish for greatly expanded contacts in every field of endeavor. He followed his own address with a greeting he conveyed from Nikita S. Khrushchev,



DURING ONE OF KOZLOV'S STOPS IN THE UNITED STATES HE WAS ABLE TO GET ACQUAINTED WITH THIS AMERICAN YOUNGSTER WHO ASKED HIM FOR HIS PHOTOGRAPH.

# the UNITED STATES

in which the Soviet Premier stressed the urgent need for the USA and the USSR to join their efforts in safeguarding the peace of the world.

En route to Washington the party stopped off at the Camden, New Jersey shipyards where the atomic merchant vessel *Savannah* is being built. Frol Kozlov told the shipbuilders of the atomic icebreaker *Lenin* being built in the Soviet Union. He cited this kind of rivalry—the use of atomic energy for peaceful pursuits—as salutary and constructive, a service to humanity.

### Official Calls in Washington

The Soviet guests were met at the National Airport in Washington by Vice President Nixon. The following three days were spent in official visits and meetings. The Deputy Premier and Secretary of State Herter met for a one-hour exchange of opinions on the Geneva Conference. Accompanied by Ambassador Menshikov and Alexander Soldatov of the Foreign Ministry, Deputy Premier Kozlov called on President Eisenhower.

The two statesmen, with Secretary Herter participating, talked for an hour and a half. Commenting to reporters afterward, the Deputy Premier said that his talk with the President had been most friendly and that he was altogether hopeful that world peace would be cemented and that it would be a firm and enduring peace.

He lunched with members of the Senate Foreign Relations Committee and then, accompanied by a large crowd of newsmen and onlookers, saw the sights of the Capital. He concluded the sightseeing tour at Vice President Nixon's Congressional office where the two officials talked, among other things, of their projected trips—F. R. Kozlov's tour of various cities in the United States and Richard M. Nixon's visit to the Soviet Union to open the American Exhibition at Sokolniki Park in Moscow.

The Vice President and Mrs. Nixon were host to the Soviet party at the lovely old Blair and Blair-Lee mansions which served as official



On a street in Sacramento, California, a passerby introduced herself to Soviet Deputy Premier Kozlov, and the two chatted for a while.





Newspapermen were told by Frol Kozlov that he was grateful to the American people for the friendliness with which they received him.

# FROL R. KOZLOV VISITS THE UNITED STATES

At a performance of the Soviet Song and Dance Festival in Madison Square Garden, many people asked Kozlov to autograph their programs.



guest quarters. The Deputy Premier had another hour-long conversation with the Vice President the next evening at a reception held at the Soviet Embassy.

Earlier that day more than 300 American and foreign newsmen attended a luncheon given by the National Press Club and the Overseas Writers Association for the Deputy Premier. In a televised address Frol Kozlov conveyed the warm greetings of the Soviet people and their hope for cordial American-Soviet relations.

He commented on the enormous suffering which war brings, the tragic price paid by the Soviet Union in human lives and devastated cities to defeat the Nazi invaders. "We are striving," he declared, "to do everything . . . to promote peace," and he cited the voluntary cuts in the Soviet armed forces by two million men, the reduction in the military budget, and the dismantling of military bases on foreign territory as concrete proof of the country's will for peace.

## The West Coast

The Soviet delegation left the following day on a cross-country flight to the west coast. After a warm welcome at the California capital by Governor Brown, the party traveled on to San Francisco and a cordial reception by Mayor George Christopher. In his speech at the City Hall, the Deputy Premier indicated that a sizable growth in American-Soviet trade would be of mutual benefit. "The shores of our two countries," he said, "are washed by the same Pacific Ocean. We want to see merchant ships crossing back and forth from the Soviet Union to the United States."

Billions of dollars of potential trade was the theme, too, when the Soviet visitors took a cruise around the San Francisco harbor with a group of west coast businessmen aboard the yacht *Adventuress*, owned by Don London. That same topic was reverted to at a barbecue-garden party given at the Hillsborough home of Cyril Magnin, chairman of the San Francisco Port Authority. Mr. Magnin was one of a large group of Bay area businessmen who visited the Soviet Union late in August.

On Sunday morning the Soviet party motored through the beautiful Sonoma Valley country, were shown through the Korbel Winery near Guerneville by owner-brothers Ben, Paul and Adolf Heck, and lunched with members of the Bohemian Grove Club under giant redwoods. The conversation made it evident that better American-Soviet economic relations would have the hearty endorsement of Californians, businessmen and farmers alike.

Sunday evening the visitors strolled from the Mark Hopkins Hotel where they were staying to various points of interest. The Deputy Premier rode on one of the cable cars that ran down Powell Street to Market, the city's main thoroughfare. At the top of the famous Nob Hill he paused to admire the bright stars in the very clear sky. "Where's Mars?" he asked, and then remarked on a big burning object that had landed in Siberia some years ago.

He said that some people thought it a meteorite, and that others, somewhat more imaginative, identified it as a rocket ship that had burned up when it passed through the earth's atmosphere. One newsman suggested that if the situation repeated itself, a Soviet-American alliance might be needed against the Martians.

The Deputy Premier laughed and said that very likely the Martians were altogether peaceful people—why the need for warlike alliances against them? "Let us start," he said, "with problems closer to home, like dissolving both the NATO and the Warsaw Pacts, and worry about the Martians when we have to."

The morning of July 6 the party called on the East Bay area's eminent scientists. At the University of California in Berkeley they toured the campus with President Clark Kerr. Dr. Edwin M. McMillan escorted them through the Lawrence Radiation Laboratory with its 6.2 billion electron volt Bevatron. The Deputy Premier remarked on the similar but larger atom-smashing research machines that the Soviet Union had built and concluded that here was another field for peaceful rivalry—to advance scientific knowledge.

## Auto and Steel Country

Late that night the visitors arrived at Detroit's Metro Airport where they were greeted by Walker L. Cisler, president of Detroit Edison, who was guest of the Soviet Union last year when he visited with a group of power engineers. The following morning, led by Henry Ford II and Ernest R. Breech, Chairman of the Board, they made a guided tour of the River Rouge plant. Mr. Ford remarked during the lively discussion



KOZLOV TOLD HIS CALIFORNIA HOSTS: "THE REDWOOD TREES THAT WILL GROW IN THE SOVIET UNION FROM SEEDS PRESENTED ME WILL SYMBOLIZE OUR FRIENDSHIP."

which accompanied the tour that it was good to talk things over and exchange points of view, to which the Deputy Premier gave a hearty assent.

The Soviet party dined with directors of the Greater Detroit Board of Commerce and with some of the company executives whose products were to be displayed at the American Exhibition in Moscow. The Deputy Premier spent an hour in conversation with Michigan's Governor G. Mennen Williams at the Pick-Fort Shelby Hotel. Among the many Detroit citizens with whom he exchanged impressions were Mrs. Phyllis King and Lola Sparkie, two charming hostesses in the hotel's coffee shop.

The Soviet delegation proceeded to Chicago, where they were met at the Midway Airport by Mayor Daley's special events director, Colonel Jack Reilly, and followed the reception with a whirlwind tour of the Inland Steel Mills. Frol Kozlov is an old steel man; before World War II he worked at a blooming mill in the Urals. He put scores of technical questions to his guides Al Korner, superintendent of the mills' open-hearth shop, and Frederick Jaicks, general manager of Inland's North Mills. He stood in the heat and glare of the open-hearth furnace, very happy to talk shop with furnace bricklayer John Cook.

It was apparent that the Deputy Premier most enjoyed his brief talks with people at work. Earlier, when the delegation had toured the Detroit Edison's River Rouge plant, one of the workers addressed the Deputy Premier in Russian. The two men shook hands warmly and chatted for a few minutes.

A tour of the Gary-East Chicago steel mill area was followed by a dinner given by Edward Logelin, vice president of U.S. Steel, at the South Shore Country Club, with some 25 steel executives among the guests. In his speech, the Deputy Premier compared Soviet-American relations with a steel ingot that ought not to be discarded because it has imperfections. Good steel men would, he said, eliminate the imperfections, not throw the ingot away.

### Midwest Farms

The morning of July 9, after a brief visit to the Chicago City Hall and a friendly discussion with Mayor Richard J. Daley on housing and other municipal problems, the party left for the Crundy County farm

In Detroit, while visiting the Edison River Rouge plant, Kozlov had a good time talking to the workers and inspecting the equipment.






Kozlov obviously liked what he found when he got behind the wheel of this car during his tour through the Ford River Rouge plant.

# FROL R. KOZLOV VISITS THE UNITED STATES

area around Morris, Illinois, some 55 miles southwest of Chicago, on a tour sponsored by the Illinois Agricultural Association.

The first stop was the 500-acre dairy farm of John Hauschild near Coal City. Despite the heat, swarms of newsmen and a very tight schedule, Kozlov found time to talk with Mrs. Mildred Hauschild, her son Vernon, her daughter Mrs. Phyllis Jones, and to view 13-month-old Debora Jones—all this in addition to an attentive inspection of the entire farm.

James F. Holderman, who farms 850 acres ten miles southwest of Morris, showed the guests his 700-acre cornfield and a "resort for pigs"—he breeds 2,000 to 2,500 annually.

The party visited other farms owned by Russell Benson, Edwin Phillips, Lloyd Taylor, Gordon Foss and William Limbach.

In the late afternoon the Soviet guests met with a group of prominent Chicago citizens at the Indian Hill Club and then spent the evening at Ravinia, at a concert given by the Chicago Symphony Orchestra with Walter Hendl conducting. Byron Janis, the soloist, played Tchaikovsky's No. 1 Concerto in B-flat Minor, to the great pleasure of the guests and audience.

Before leaving Chicago for Pittsburgh, the Soviet visitors made a 45-minute tour of the International Trade Fair.

Pittsburgh, Pennsylvania, was the last city on the itinerary of the Soviet group before they returned to New York on their way home. At the Greater Pittsburgh Airport they were greeted on behalf of the mayor, who was out of the city at the time, by Council President Frederic G. Weir.

Visiting the Homestead Plant of U.S. Steel Corporation, Kozlov made time to speak with about a dozen of the steel workers. He had a talk on wages with Jim Haygood, first helper on an open-hearth furnace, and discussed working conditions with John Getsy, furnace worker. Many of the mill workers stopped working to crowd around and listen. One of them, John Mayor, put his arms around Kozlov and they posed together for photographers. Robert A. McClure, general superintendent of the plant, presented the Soviet guest with a stainless steel table cigarette lighter by which to remember the visit.

The members of the Soviet official party were guests in the home of Edward H. Litchfield, head of the Governmental Affairs Institute, where they spoke with people in the social sciences. Governor David L. Lawrence of Pennsylvania was among the guests.

**THE SOVIET GUESTS WERE SHOWN SEVERAL FARMS IN THE CHICAGO AREA. THEY ALSO SPENT SOME TIME AT THE INTERNATIONAL TRADE FAIR AND ATTENDED A CONCERT.**



Subsequently the party visited the Shippingport atomic power station, where Vice Admiral Hyman Rickover led the tour.

### Warm Reception

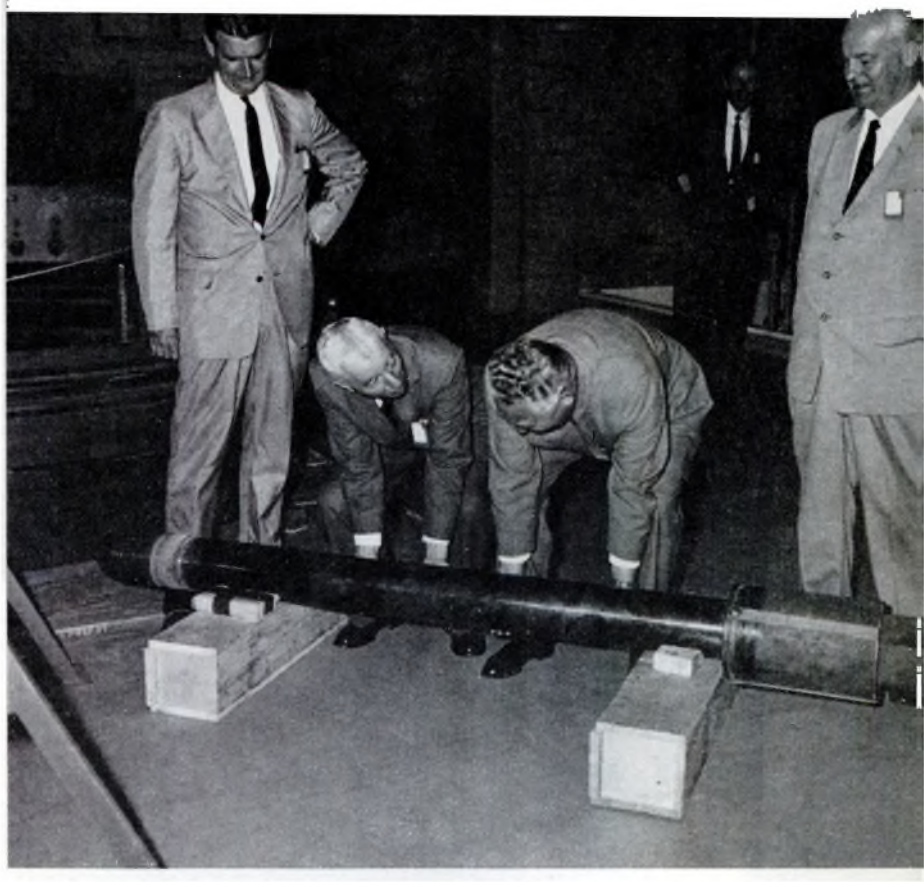
At a press conference in New York on July 12, Frol Kozlov commented: "We have visited New York, Washington, Sacramento, San Francisco, Detroit, Chicago and Pittsburgh and have seen factories, farms, scientific institutions and educational establishments. We met with government officials as well as with businessmen and industrialists. We talked with workers and farmers. I had two pleasant and useful meetings with President Eisenhower.

"I note with pleasure that everywhere we representatives of the Soviet people were accorded a kind and hospitable reception. Availing ourselves of this opportunity, we offer our thanks to all those people who sought to make our visit to the United States both pleasant and useful.

"During our visits to your factories and farms we have seen interesting innovations in engineering, metallurgy and agriculture. It would be useful for us to study this experience. We also believe that it would be useful for you to study the experience of our Soviet industry and our agriculture."

After the press conference, Kozlov toured New York City. A top-to-bottom look at Manhattan took more than an hour. The Soviet visitors boarded car 713 at the Fifth Avenue subway station at 53rd Street, and Kozlov took a seat beside Shirley Gaskins, a young Negro woman. The seat directly in front was taken by Yadgar S. Nasriddinova. Newsmen pointed out that the skin of the Uzbek president was the same color as that of Mrs. Gaskins and the Deputy Premier said: "You see, we have something in common even in this area."

Later the Soviet visitors were taken to the observatories of the Empire State Building by Colonel Henry Crown, Chairman of the Board of the corporation that owns the structure. After a tour of the United Nations Building and one more subway ride, Kozlov visited the home of former U. S. Ambassador to the Soviet Union, W. Averell Harriman. Admiral Alan G. Kirk, another former American Ambassador, was also present. Earlier, Senator Warren Magnuson, Democratic Representative from Washington, had called on the Soviet Deputy Premier and invited the Soviet Union to participate in the World Science and Pan-Pacific Exposition which opens in Seattle on May 10, 1960.



On the last lap of Kozlov's trip, Vice Admiral Hyman Rickover took the Soviet party through the Shippingport atomic power station.

Leaving for Moscow on July 13, Deputy Chairman Kozlov, in a statement at the New York International Airport at Idlewild, said:

"On returning to our homeland, we shall be happy to convey the good wishes of the American people to the Soviet people, as workers, farmers, businessmen, scientists and representatives of culture in the USA have asked us to do. Good-by, my best wishes to all of you and my hope for a stable, inviolable peace between our peoples."

FROL KOZLOV, WHO WORKED IN A URAL BLOOMING MILL BEFORE WORLD WAR II, FELT VERY MUCH AT HOME AT THE INLAND STEEL MILLS AND ASKED INNUMERABLE QUESTIONS.





# USSR

**By Vladimir Novakovsky**

*Deputy Director,*
*USSR Exhibition of*
*Economic Achievements*

FIVE hundred and twenty acres in the northwest of Moscow have been converted into a mammoth fairground for the USSR Exhibition of Economic Achievements. The broad avenues are lined with 71 strikingly designed pavilions that house thousands upon thousands of displays, and with theaters and concert halls that accommodate 6,000 people simultaneously, set amidst 40,000 trees and masses of flowers.

This is not the first such exhibition of the country's work, but it is the most comprehensive ever held—larger in size and scope than the whole of the Brussels World's Fair.

In essence, the Exhibition is a visual summary of 41 years of accomplishment, the springboard from which the Soviet Union is able to make the gigantic economic leap forecast by the seven-year plan.

The exhibitors are industrial plants, collective and state farms, construction enterprises, research institutes, design offices, educational and cultural centers. Those Soviet citizens of all trades and professions who have made an especially significant contribution to the

**SUNLIT DOME OF THE KAZAKHSTAN PAVILION.**



# EXHIBITION OF ECONOMIC ACHIEVEMENTS IN MOSCOW

country's industrial, agricultural, scientific and cultural progress are also exhibitors. Displaying their work are 1,300 industrial enterprises, 350 research and design organizations and 300 individual inventors.

The industrial section of the Exhibition shows newly developed equipment and machinery for both light and heavy industry, the new automatic lines and automated aggregates that have vastly increased the productive capacity and potential of Soviet factories.

The keynote of the agricultural exhibit is also higher production. Here past achievements are contrasted with new approaches to demonstrate the ways in which output of wheat, cotton, sugar beet, potatoes, vegetables, meat, butter, milk and wool is being raised. Dramatized displays show the changes that have been taking place in the collective farm villages in these past five or six years.

The section of the Exhibition devoted to construction displays model houses and apartments that are being built by the many thousands everywhere in the Soviet Union today. Prefabricated sections delivered to the building site from the factory and assembled there and other such advanced construction methods make it possible to forecast that a third of the total Soviet population will be rehoused within the next half-dozen years.

The pavilions of the light industries and the meat and confectionary industries are graphic evidence of the marked rise in the standard of living already achieved and the very high level aimed at by the target figures of the seven-year plan for food production, clothing, footwear, furniture, appliances and many other items that make for easier living.

### 15 Republics on Display

Each of the 15 republics has its own pavilion designed to reflect the traditional architectural motifs of the region. The displays show the independent economic development of the republic as well as its peculiar contributions to the national economy.

Three pavilions dramatize the position the Russian Federative Republic occupies as the large industrial base of the country. Its newer industrial regions—Siberia and the Far East —are developing rapidly alongside the older and more developed industrial centers.

Visitors at the Ukrainian Pavilion are met with an enormous three dimensional, sound-wired map. Its 420 bulbs show the location of the republic's industries, farm regions and mineral deposits.

Byelorussia's transformation from a region of bog and marginal farm land into a highly industrialized production center is illustrated by its display of tractors, metal-cutting lathes, motorcycles and radio and TV sets.

Kazakhstan now holds a leading place in the country for lead, copper and zinc. Its new industry concentrations are chemicals and machine tools. The republic's pavilion displays material on the big metallurgy plant now being built near Karaganda. Also shown are models of the centralized control and automatic block system used for mine transport, models of new shaft-sinking machines and the tunneling machine "Karaganda-1."

On exhibit at the pavilion of the Uzbek Republic are new spinning machines, a model of the unique Bukhara gas deposits, and a miniature of a cotton plantation with tiny sprinklers operating between the rows.

Among the displays at the Kirghiz Pavilion is an electrified, sound-wired model of the rejuvenated Chu Valley, turned into flourishing sugar and jute country by irrigation.

The Turkmen Pavilion has a working model of the Kara-Kum Canal irrigating desert land and beautiful samples of the world-famous Turkmen rugs.

Of particular interest in the Tajikistan Pavilion are an operating model of a cotton-refining factory and a floating pumping station.

The Estonian, Latvian and Lithuanian



ENTRANCE TO THE UZBEK REPUBLIC PAVILION.



GEORGIAN (LEFT) AND ARMENIAN PAVILIONS.



THE PAVILION OF THE BYELORUSSIAN REPUBLIC.

DECORATIVE FACADE OF UKRAINIAN PAVILION.



PAVILION OF THE CENTRAL ASIAN TURKMEN REPUBLIC.



DISPLAY THEME OF THIS PAVILION IS GRAIN.



# USSR EXHIBITION OF ECONOMIC ACHIEVEMENTS

Pavilions display illuminated maps and panels that describe the economic progress of their republics and dramatic material that pictures the Baltic people at work and play. There are displays of schools, community centers, summer camps and the famous Baltic Seacoast resorts.

The pavilions of the Trans-Caucasus republics—Georgia, Azerbaijan and Armenia—all illustrate through a variety of interesting visual media progress in industry, farming and education.

The stands of the Moldavian Pavilion are loaded with succulent fruits and grapes, fine tobacco and samples of the republic's canning industry.

### The Innovators

Guides at many of the exhibits are the very people who invented the machine on display, or harvested the bumper crop described, or engineered the irrigation project shown in model.

Vladimir Karasev, a Leningrad lathe operator, tells interested visitors at his stand about the method for cutting metal he innovated. Alexander Gitalov and Nikolai Manukovsky describe the methods they used to grow record corn crops. Sergei Mitrofanov explains his technique for group-machining of parts.

Guidebooks and descriptive folders are available in Russian and foreign languages. Lectures, seminars and technical and scientific conferences are held daily at the Exhibition and reported in newspapers and on radio and television.

The Exhibition has attracted great crowds of visitors from the very first day it opened, hundreds of thousands who come to see what the Soviet Union has already achieved and what it will be achieving tomorrow.

# *"HIGH-SPEED MOLE"*

Yakov Gumennik, inventor of the "Mole," a coal-cutting combine that tunnels 98 feet an hour.



FOREIGN coal operators and mining engineers who visit the Machine-building Pavilion at the Exhibition invariably stop for a long look at a bright red machine, a high-speed coal-tunneling combine, and a talk with Yakov Gumennik, its designer.

They tend to be a little skeptical that this light and compact caterpillar installation can burrow its way to a coal seam pressed down by a great wall of rock. But the figures reported daily from the pits of the Kuznetsk coal region in Siberia, where the machine is in use, speak in incontrovertible numbers. They say that its tunneling speed is an astonishing 98 feet an hour.

Yakov Gumennik has built a whole series of high-speed combines. The idea of creating a machine for vertical shaft tunneling came to him one day when he was helping to dig out miners who were trapped by fallen rock.

Gumennik assembled a small tunneling machine and tried it out before an audience of miners and mining engineers. What they saw was a low carriage carrying a wide cylinder. Gumennik backed it up against the seam. The air was switched on and disks with hack teeth emerged from the cylinder. As the disks revolved, they broke the coal. The machine crawled upward, its caterpillars gripping the walls of the drilled tunnel. The installation reminded the onlookers so much of the burrowing long-snouted animal that they christened it on the spot—"high-speed mole."

When scientists and machine designers came to see Gumennik's "mole," they raised objections to the hack teeth on the disks. "You're behind the times," they told him. "Why don't you use saw teeth?"

Gummenik didn't argue the point. He went out of the workshop and came back with two big chunks of coal. He gave one of the scientists a sharp saw and said, "Go ahead, saw the coal."

The scientist worked away at it, but he was so long at the job that the saw heated up. Gumennik waited until the scientist had sawed his way through, then he picked up the second chunk and said, "Watch this." With a single blow he broke it in half. Then to make his point again, he broke the halves in two.

"Nothing wrong with the idea of hacking," he said. "It does the job fine and has been for a long time. Now the hack teeth I put on the disks work on the same principle and they break the coal easily." That settled the argument.

The first machine was followed by another, then a third and fourth, all of them with hack instead of saw teeth. Gumennik's original combine weighed 11 tons and tunneled 65 feet an hour. That was far and away ahead of anything that had been done before, but it didn't satisfy the inventor. He decided to build a combine with a hydraulic transporter to carry away the cut coal. The new machine was a thorough-going success, its weight cut down to eight tons and its tunneling speed stepped up to 98 feet an hour. It won him the coveted Lenin Prize.

This tall restless inventor is something of a speed demon. He has squeezed speeds nobody would credit out of every car he has owned. When that palled on him, he switched over to motorboats and juiced them up to a dizzying 50-60 miles an hour. He is looking around now for new kinds of hot rods.

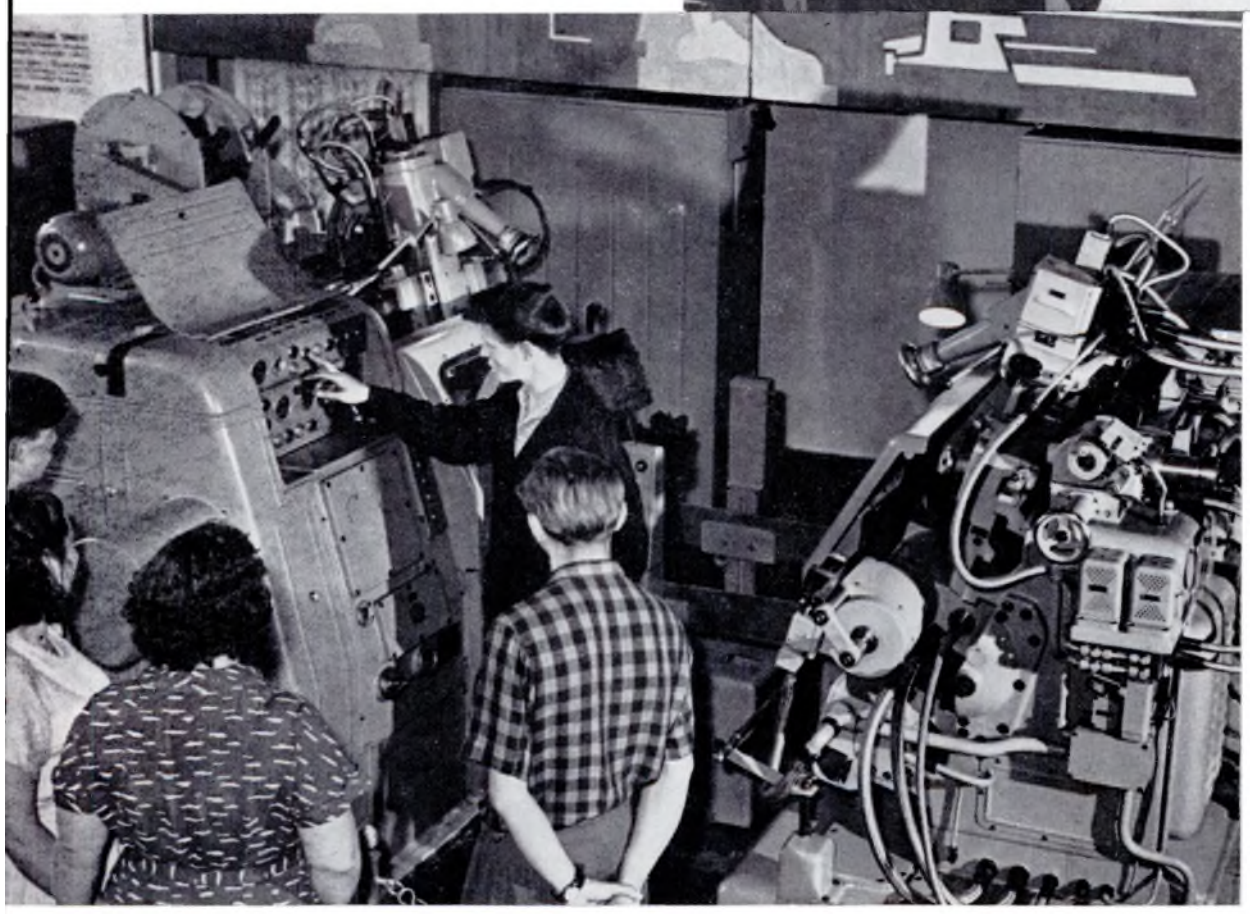
# EXHIBITION AND LIFE

By Iona Andronov

Photos by Georgi Petrusov and Dimitri Chernov



Most popular display in the Science Pavilion—full-scale models of the earth and sun sputniks.



There are more than a thousand of the most modern Soviet-made machine tools on exhibit.

The processing of plastics and synthetic fabrics is featured in the Chemical Industry Pavilion.



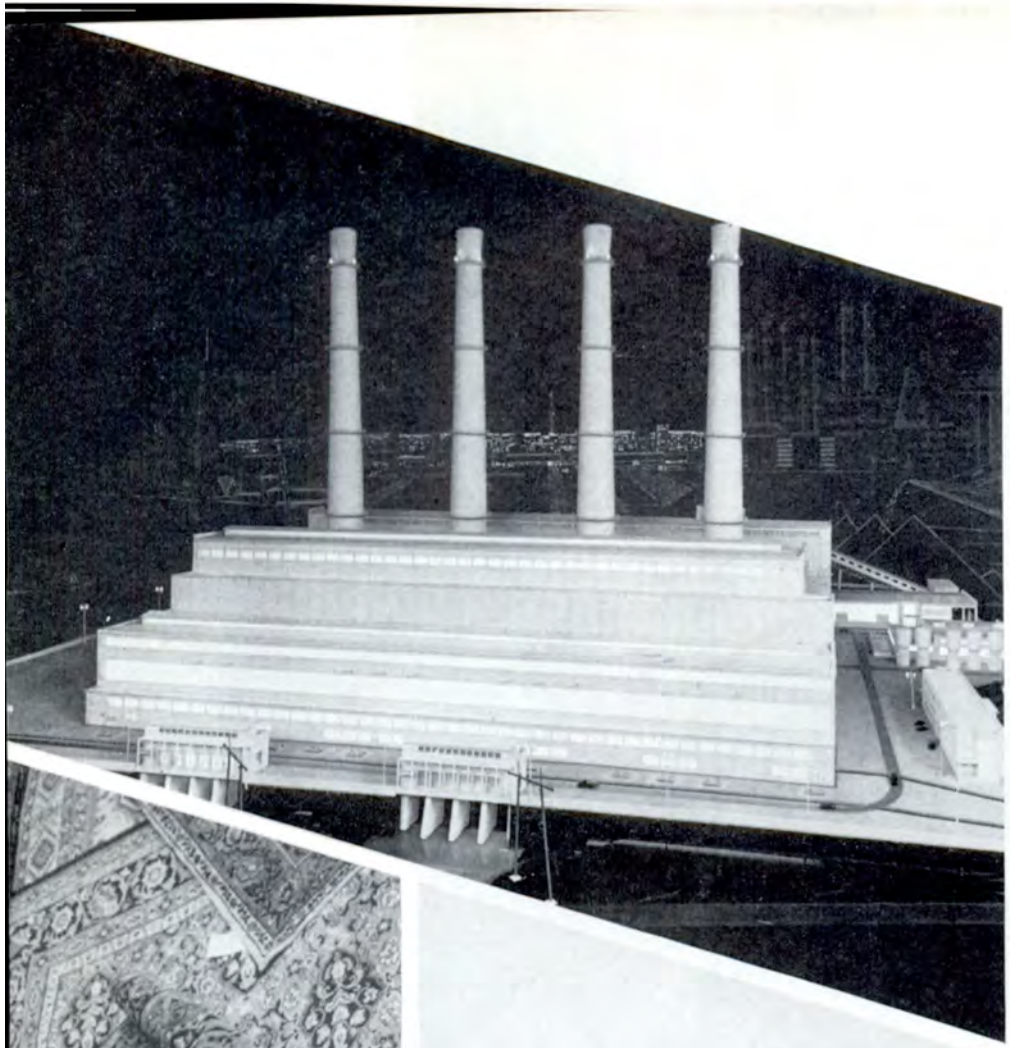
EVERY day an average of 60,000 to 70,000 curious visitors go to the USSR Exhibition of Economic Achievements in Moscow. They come from Moscow, the towns and villages of the Soviet Union and from different countries of the world.

The exhibition reminds you of a journey through the boundless land of the Soviets. It gives a concentrated and vivid display of the versatile nature of the Soviet people's life, the abundant fruits of their labor, the country's industrial might, its progress in the development of agriculture.

Youngsters and old men speaking different languages, in European and colorful Eastern costumes, look with equal interest at the latest machinery, shower questions at the guides, try to memorize or jot down their answers, and have long discussions with specialists on questions of interest. They come here not only as sightseers, but to learn, trying to derive benefit for themselves, the enterprises at which they work, their workmates at plants or collective farms, or colleagues in colleges or research institutes. There is plenty to see and even more to learn.

### A Hundred Thousand Exhibits

The exhibition is often called "The Seven-Year Plan in Operation" or "The Soviet Union in Miniature." Both are correct. We know that the seven-year period began in 1959. Already in the first six months of this year the plan for the growth of the country's industrial output was overfulfilled by 5 per













A few of the many thousands of varied displays at the Exhibition. They illustrate every aspect of Soviet life and activity and range from scale models of super-giant thermal electric power stations, ultrasonic instruments, farm machinery and books, to bright hand-woven rugs and Uzbek skull caps embroidered in traditional designs.

cent, the total growth amounting to 12 per cent. In the previous years the figure was 10 to 11 per cent. There has been even a greater rise in the output of agricultural produce: the collective farms and state farms increased meat production by 38 per cent, milk production by 19 per cent.

The vigorous development of the Soviet economy is illustrated by the host of things collected at the exhibition. Over 100,000 exhibits illustrate the peaceful constructive labor of the Soviet people, their way of life, and culture.

Almost everything is new in this exhibition which is so unlike what it was in previous years. This time it displays not one, but a whole series of sputniks and containers of high-altitude rockets. And now there is a whole series of models of atomic electric power stations of different types and capacity. The 1959 exhibition shows super-powerful thermal and hydroelectric stations with capacities of 2.4 and 4.2 million kilowatts, a unique high-tension power line (500 kilovolts). On one of the exhibition's liveliest squares stands the TU-104, the new Soviet jet airliner, in company with others of the latest passenger planes.

At this year's exhibition the Chemical Industry Pavilion alone displays 10,000 exhibits: the first motorships with plastic hulls and sprocket gears made of polyethylene instead of metal; almost weightless materials which are ideal insulators against noise and cold; two-meter tubes and delicate artificial capillary blood vessels made of durable fluoplastics.

It's the same all over the exhibition: amazing new synthetic materials and technological processes, machines and instruments, and new products of the food and textile industries.

### Let Machines Do the Work

In the exhibition pavilions you will see portraits of innovators, champions of high labor productivity, inventors of new machines

# EXHIBITION AND LIFE

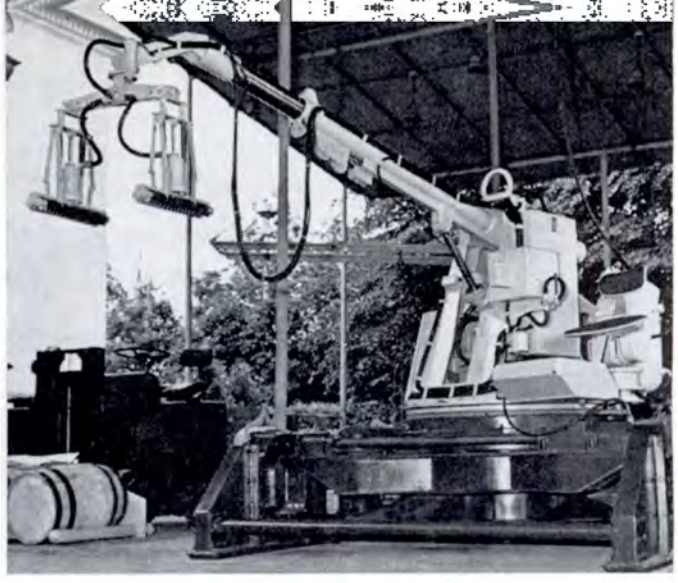
Dominating the Radio-Electronics Pavilion is this symbolic rocket on the right plunging out into the immensities of unknown space in an endless quest for scientific knowledge. The recurrent theme of the Exhibition is the application of scientific and technological knowledge to provide a richer life for the people of the Soviet Union. The light industry pavilions, with their colorful displays of artificial furs, dresses, toys, confectionary and other consumer items attract thousands of young and old visitors daily.




and new technological processes. Soviet people make up the wondrous force which is turning the Seven-Year Plan into a Six-Year Plan, and in some branches of national econo-



Leningrad port workers Ernst Rassa and Konstantin Lukashunas, shown with the machine they designed to load ships.



Soviet economic progress has been immeasurably accelerated by contributions of worker-inventors in every branch of industry.

# EXHIBITION AND LIFE

my even into a Five-Year Plan. The exhibits illustrate the methods of work of these talented workers, farmers and scientists.

There you see the portrait of Nikolai Tikhonov, tunneling team leader from Novo-Butovka Mine, of the Ukrainian Soviet Socialist Republic. Preparing a new mine for operation, his team in a single month cut and timbered 264.6 meters of vertical shaft, thus establishing a world record. This record was achieved thanks to the implementation of a unique installation, consisting of a set of tunneling mechanisms evolved by a group of scientists, engineers and miners. Using the new installation, Tikhonov and his mates now cut an average 300 meters of vertical tunnel a month.

Each exhibition pavilion shows men of this type. Among them are tractor drivers Alexander Gitalov, Nikolai Manukovsky, and others who showed the way of growing and gathering large crops of corn without the utilization of any manual labor. There is Mikhail Grin, leader of an oil drillers' team. Thanks to the famous Soviet turbodrills his team drilled in six months as many oil wells as were planned for a whole year. In the past months Soviet drillers of oil and gas wells have three times beat their own world records of speed drilling.

The innovators and their exhibits seem to say: let machines do more work, let them save time for man.

Especially in the pavilion of radio-electronics you can graphically see the Soviet Union's vigorous technical progress. Last year, at the Brussels World's Fair, Soviet electronic equipment won 25 prizes, including six Grand Prizes, and this year's exhibition in Moscow already shows many new electronic instruments evolved after the Brussels Fair.

Among these are: continuous action computing machines, instruments which pilot planes flying in the sky and control mining machines working underground, telemechanic centers for operating whole plants and underground gas pipelines. Other instruments help to study the structure of the sea-bottom, or, operating as automatic shears on rolling mills, help to save great quantities of metal. There are also new color television sets, dozens of new radio sets and semiconductor instruments.

At the exhibition one is gratified to see automatic production lines and halls full of automatic machine tools using ultrasound and spark methods of processing. The Soviet Union produces the greatest number of metal-working machine tools in the world: last year it produced 138,000, and in the first six months of this year 74,000.

The Soviet people know that technical progress brings happiness to all people. The continuous growth of production, accompanied by automation, does not at all reduce chances for employment. On the contrary, the demand for labor constantly grows in the country. As compared with the same period of last year, the number of workers, engineers, and other specialists engaged in the national economy increased by 1,800,000. The number of employees engaged in trade, health service, schools, colleges and research institutes has correspondingly increased by 800,000.

## Agricultural Progress

At the exhibition Soviet agricultural progress is portrayed at more than twenty special pavilions, separate halls in individual republic pavilions, a number of open display grounds, plots with exhibit crops and models of irrigation systems. The collection of agricultural crops displays over 260 types of different plants, and over 1,660 high-yielding varieties of crops produced by Soviet selective plant breeders. Collective farms and state farms demonstrate scientific methods of running socialist agriculture, the organization of large publicly owned agricultural establishments, and high standards of mechanization in farming and animal husbandry.

Machine builders have sent over 530 tractors, combines and other agricultural machines of new design to the exhibition. Among these there are quite a lot of very powerful ones, used extensively on state farms and collective farms, which often have arable areas covering 60 to 75 thousand acres. Agricultural specialists speak with respect of the powerful Soviet tractors. Next to the giant 140-horsepower Chelyabinsk tractor one can see the midget Rioni tractor weighing only 385 pounds. These miniature tractors, produced in the Georgian Soviet Socialist Republic, are being effectively utilized at livestock farms, orchards and flower gardens.

The wide-scale mechanization of agricultural production substantially promotes labor productivity in collective farms and state farms, helps to increase yields of agricultural crops and expands arable areas. The experience of collective farms and state farms displayed at the exhibition serves as a graphic illustration of the achievements of Soviet farmers and livestock breeders: in the past five years the gross output of grain in the country increased from 82 million metric tons to 140 metric tons, and ever growing quantities of animal-husbandry products are being produced.

A feature which characterizes the rapid development of Soviet agriculture, and particularly the strengthening of a fodder base for livestock raising, is the expansion of areas under corn. This is graphically shown in the newly-opened Corn Pavilion. In 1953 there were only seven million acres in corn in the country. Now areas in corn have reached 57 million acres. Over 50 state research institutes are growing premium corn for the country, 67 seed-growing state farms propagate it, and over 2,000 seed-growing enterprises cross this strain with ordinary corn, obtaining special hybrids distinguished for their high-yielding qualities.

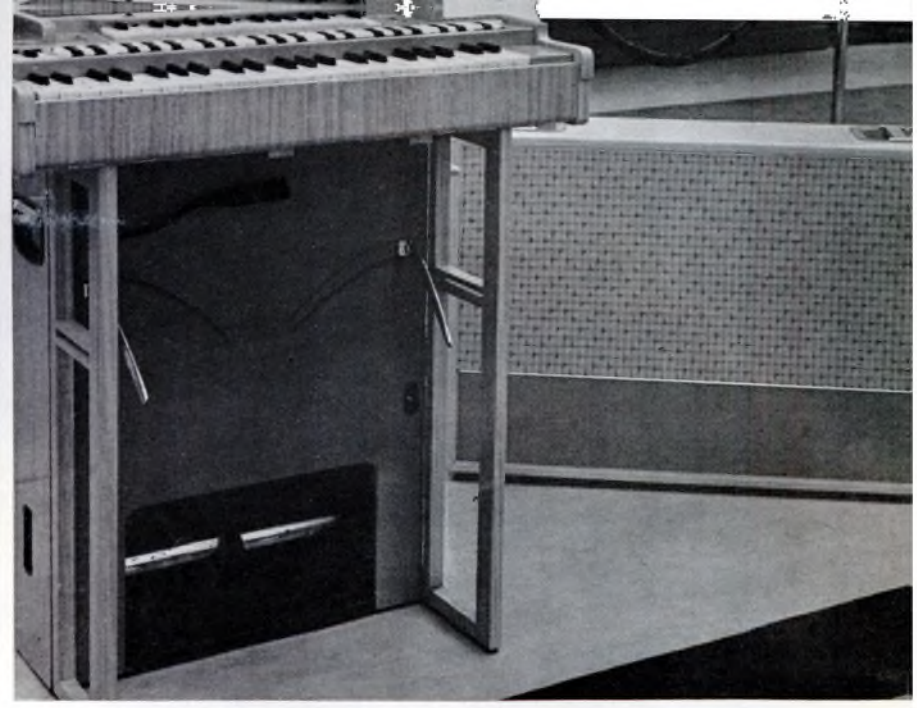
## Better Living Standards for the People

The intensive development of industry and agriculture is accompanied by a constant growth in the population's income and general improvement in the standard of living.

All the aspects of organization of health services for the Soviet population are shown in detail in the Public Health and Medical Industry Pavilion. Concentrated here are exhibits on medical, disease-prevention and curative treatments, carried out completely at the expense of the state, and free for all the country's citizens.



Soviet-made transistor and portable radios displayed in the Radio-Electronics Pavilion.

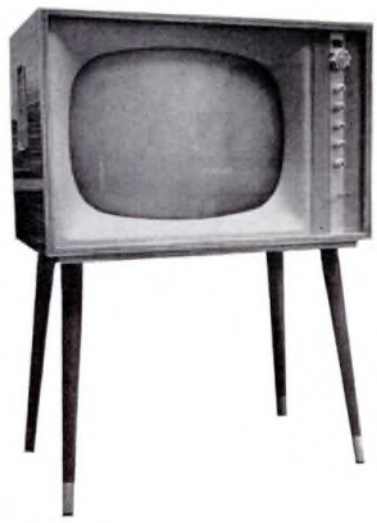


The electrically operated Equadine reproduces the sounds of a symphony orchestra. Andrei Volodin, engineer-musician, invented it.









New models of both black-and-white and color television sets.

Soviet Union in which almost six million workers are occupied. The exhibits show all the details of the reconstruction of large industrial centers and ancient villages, the efficient planning and construction of new towns in the formerly uninhabited and desolate parts of the country.

The intensive housing construction in urban localities is done by industrial methods. Exhibition visitors can see cross-sections of standard model houses which are assembled completely from prefab parts. Construction of houses from large prefab panels is assuming mass scale in the country, its purpose being to ensure sufficiently spacious and modern lodgings for each Soviet citizen. This program is being successfully fulfilled. In the seven-year period as many as 22 million families will move to new lodgings.

### They Study How to Work and Live Better

Several of the exhibition pavilions show the giant scale of general and special education in the country. Detailed illustration is given of the activities of the new type 11-year general education school and agricultural college in the town of Kostroma, a college of mining and metallurgical engineering in Magnitogorsk, and of vocational and technical schools of which there are 3,200 in the country.

In the Soviet Union one rarely meets a family in which no one is studying. Out of the country's population of 209,000,000 over 54,000,000 engage in various kinds of studies.

The country's 400,000 libraries have 44,500,000 regular readers. About 3 million volumes of new books in 87 languages of the peoples of the Soviet Union and 44 foreign languages are published daily for the perusal of millions of Soviet readers.

The USSR Exhibition of Economic Achievements is regarded as a popular university by millions of its visitors. Its exhibits show people how to work and live better.

The numerous pavilions, exhibiting products of the food industry, and the latest goods of the textile, shoe and chemical industries show eloquently how the growing demand of the Soviet people for consumer goods is being satisfied. The chemical industry displays various synthetic materials, as well as high quality inexpensive fabrics, rugs, furs, varnishes and paints, furniture and kitchen utensils, toys and medical equipment made from them.

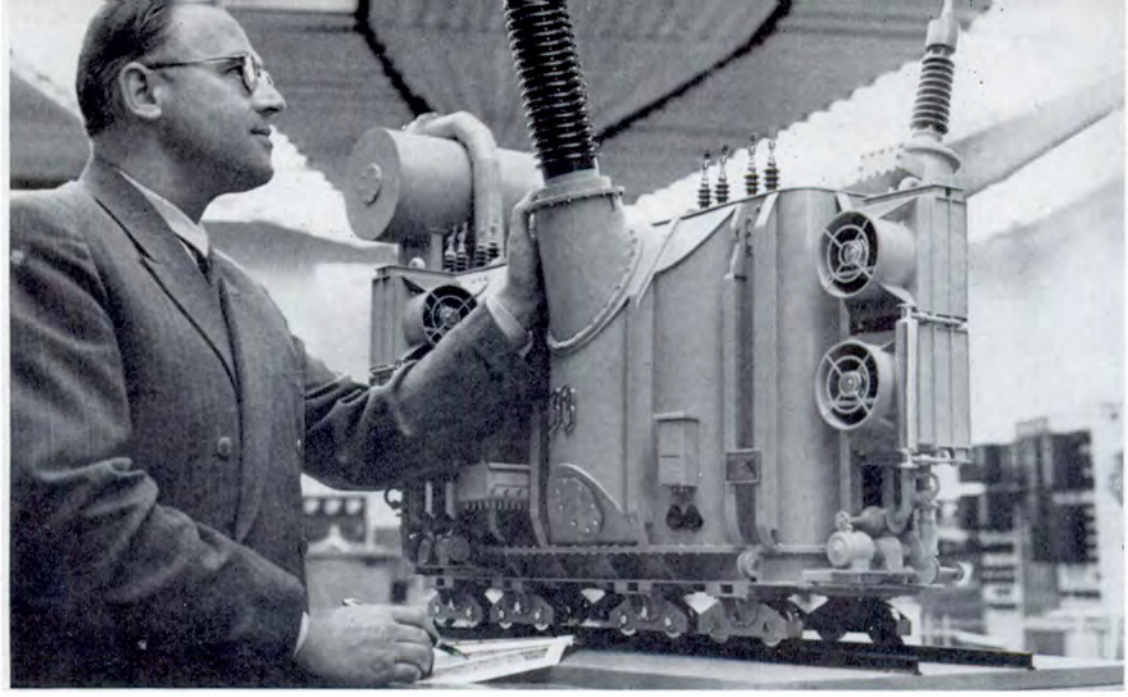
Some 2,000 textile factories of the country have sent to the exhibition a great variety of new and pretty woolen, silk and cotton fabrics, outstanding because of their durability and low price. There is also an abundance of different models of clothing sent by garment factories. Each republic's pavilion displays its national handicraft wares: ornaments and toys, clothing and footwear, and household articles. At the exhibition music fans can try the tune of pianos produced by factories of Estonia, Byelorussia, the Ukraine, and other Soviet republics.

One of the main sections of the exhibition is devoted to construction.

The exhibition gives one a vivid sense of the vast scale of construction work in the



Pylons for 500-kilovolt transmission lines at the Electrification Pavilion.



A variety of visual media is used to illustrate new developments in electric power engineering and work in progress throughout the country. This is a model of a 500-kilovolt transformer.

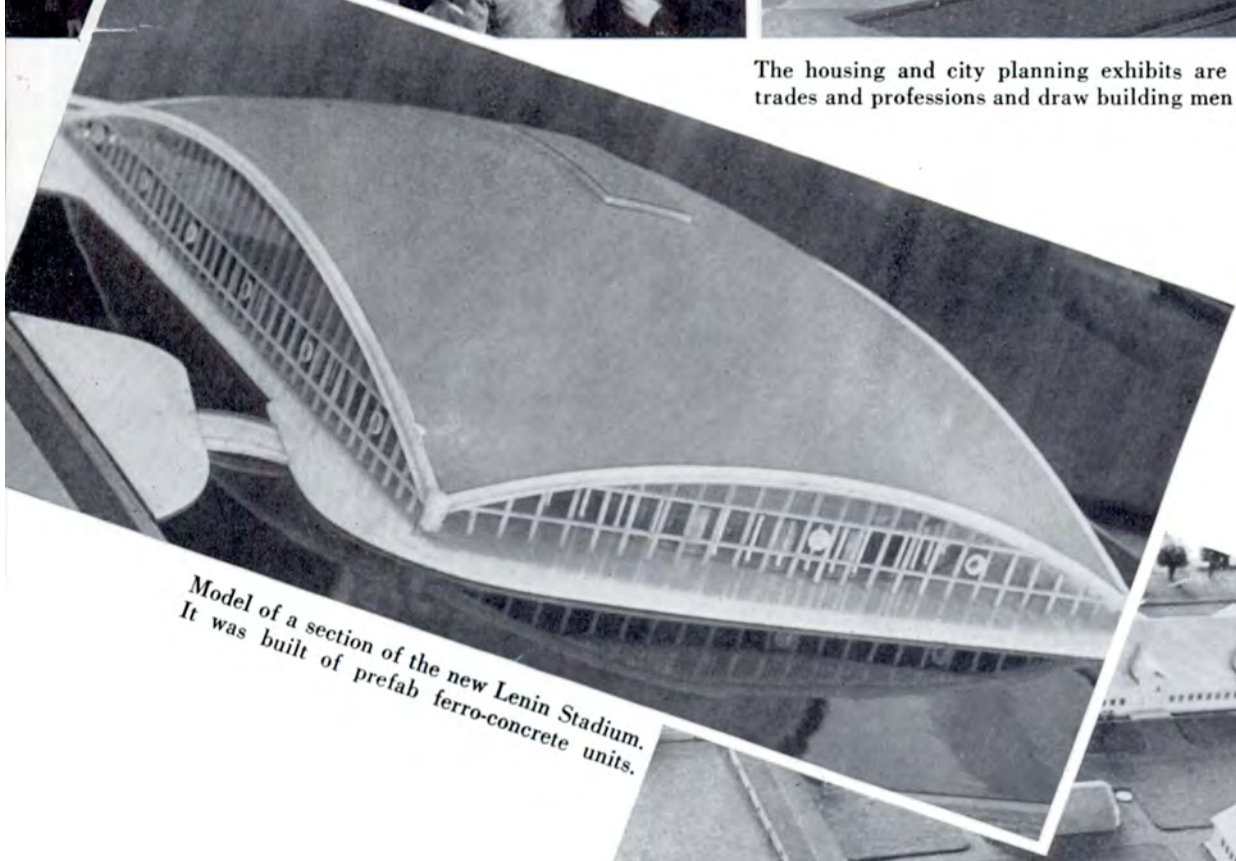




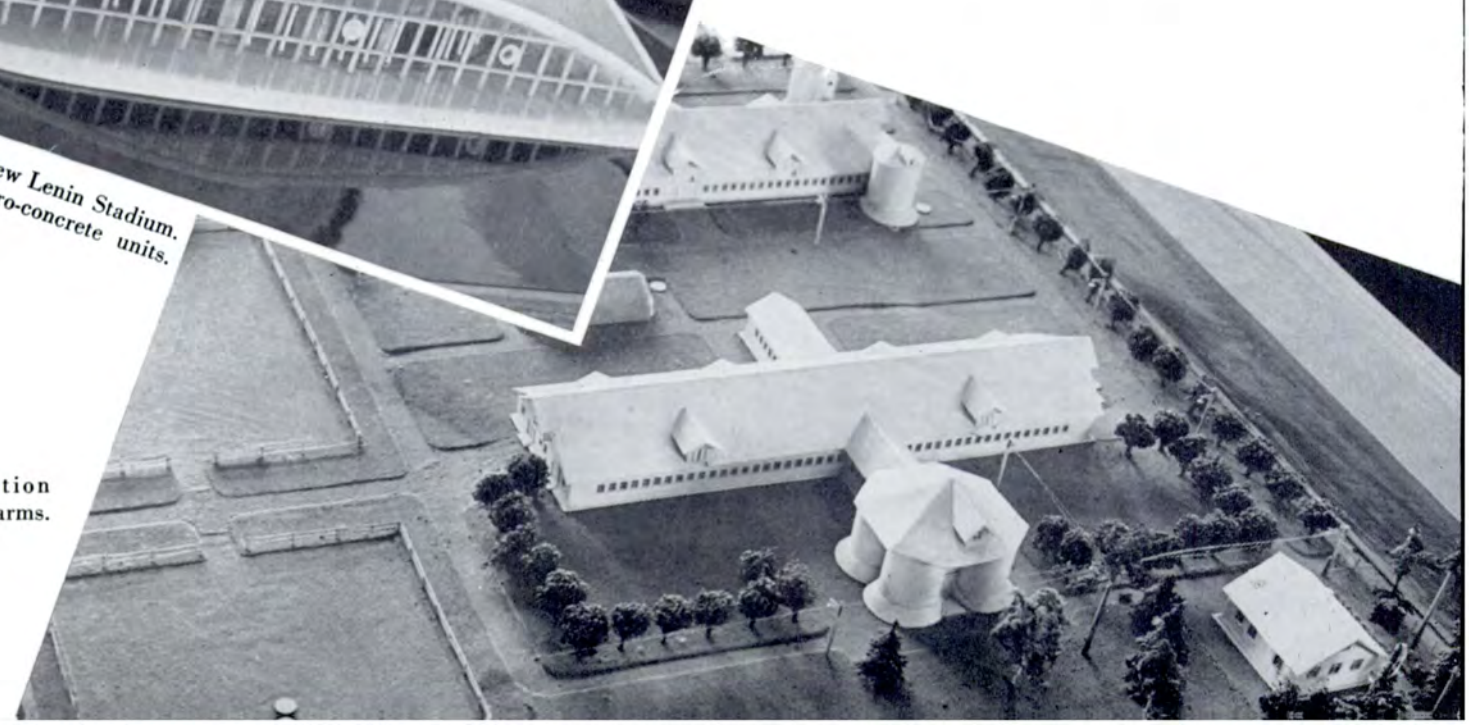


The housing and city planning exhibits are directed principally to workers in the related trades and professions and draw building men and architects from every one of the republics.

# EXHIBITION AND LIFE



Model of a section of the new Lenin Stadium. It was built of prefab ferro-concrete units.



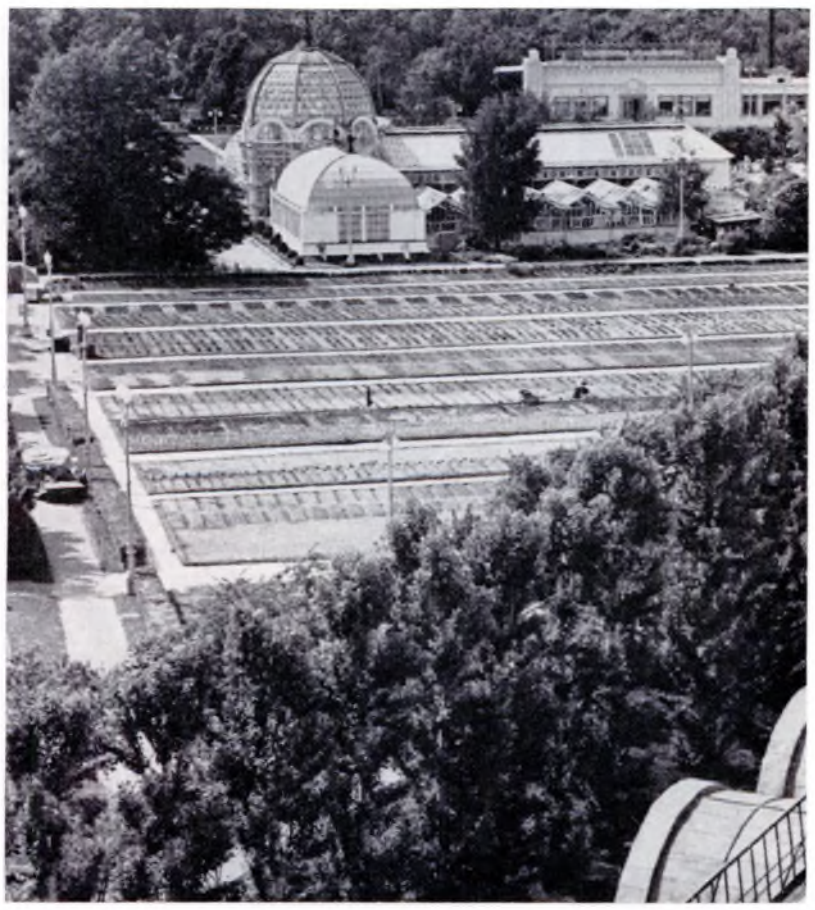
Dairy building construction standard for collective farms.



An attractive consumer display—fine wines from Moldavian grapes to grace Soviet dinner tables.



The walls of the Grain Pavilion are hung with graphs to show progress in cereal cultivation and photos of farmers who have raised bumper crops.





Ivan Loginov, a tractor mechanic from Kazakhstan, demonstrates an automatic tractor he invented that can operate without a driver.

The grounds and hothouses of the Flower Pavilion are adorned with two thousand different species of flowers indigenous to the Soviet Union.

# MACHINE-GROWN CORN

ONE OF the pavilions at the USSR Exhibition of Economic Achievements is called "Corn." Its walls are hung with portraits of collective farmers and tractor drivers whose work was responsible for extra large harvests of that cereal crop. One of the most prominent is a portrait of Nikolai Manukovsky.

Four years ago, at a meeting of the Kirov Collective Farm in the Voronezh Region, Nikolai Manukovsky and Ivan Lukin, another tractor driver, proposed that corn be grown entirely by machine, without recourse to hand labor. Together they undertook to grow and harvest 325 acres of corn.

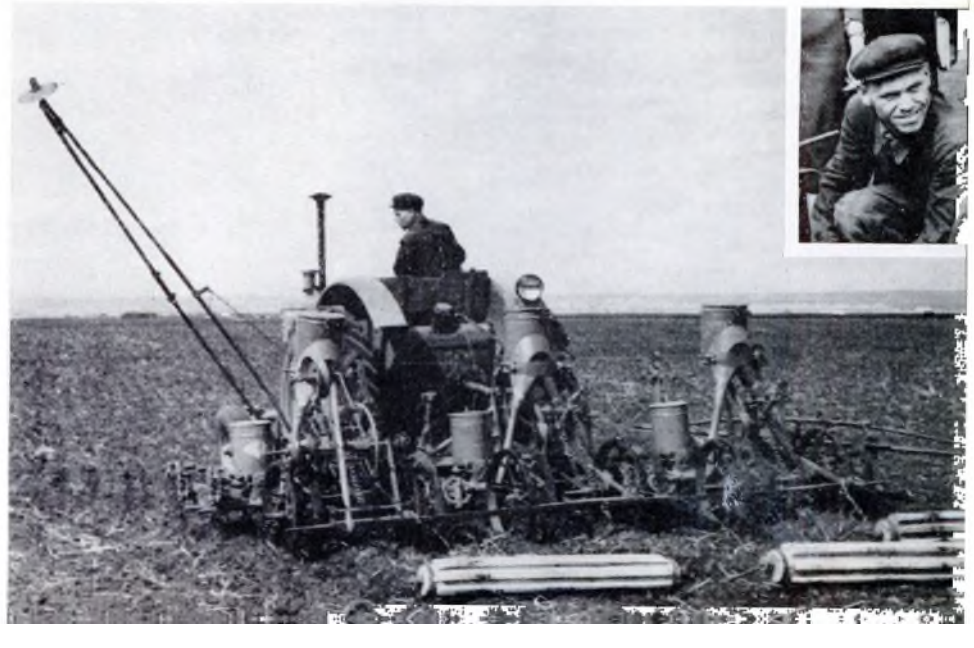
The members of the collective farm listened to the proposal with some misgiving. Here was a job that ordinarily took the labor of some 30 to 40 farmhands. But Manukovsky and Lukin insisted that their proposal be tried.

In spring the two young men moved their tractors out to the field. They worked round the clock in two shifts and sowed the grain very carefully. In two weeks the first shoots appeared. The sowing machines were replaced by cultivators mounted on the tractors. During the summer the field was cultivated three times and not a single weed was left. That first year Manukovsky and Lukin harvested their crop at one-thirtieth of the usual cost.



The following year Manukovsky teamed up with another tractor driver, Ivan Vysotsky, a less experienced driver. Manukovsky put him through a course of training and together they worked on a 400-acre field. Their harvest was three times larger than any of the other teams. Last year they gathered an even larger crop.

As a result, both Nikolai Manukovsky and the Kirov Collective Farm are familiar names throughout the country. Machine operators and specialists come from the Ukraine, Byelorussia, Kazakhstan, the Kuban and other regions to study Manukovsky's method, now in use by more than 70,000 farm machine operators.










By Nikolai Ivanov

THERE is a special pavilion at the USSR Exhibition of Economic Achievements to show progress in science and another designated "Atoms for Peace."

The USSR Academy of Sciences is the hub from which the country's research radiates. The organization and work of the Academy was described in some detail in the February 1959 issue of this magazine. At the time there were 136 affiiliated research institutes located in various parts of the country, about a third of them founded in the past three years. Supplementary research facilities included 25 independent laboratories and scientific councils, 13 institute divisions, research expedition bases, and botanical gardens, museums and experimental centers by the scores.

This research network has since been expanded. By 1965, the end of the seven-year plan, the Academy will have at least 34 new affiliated institutes.

The Academies of Sciences in each of the republics are also in process of expanding their research facilities. By 1965 they will have founded 135 new institutes and doubled their scientific personnel.

There are other research agencies besides these which coordinate their work with that of the National Academy of Sciences—the specialized academies of architecture and construction, medicine, agricultural sciences; independent experimental and development institutes; and the laboratories of universities and scientific societies. This huge research effort is correlated through the Council of Coordination of the USSR Academy of Sciences headed by the Academy's president.

There are hundreds of journals covering every field of study issued by the Academy's own publishing house. All research activity is liberally financed by the national government and the republics.

The chemical industries display at the Exhibition is a particularly striking illustration of the way in which research is directed to the practical needs of the country. Soviet chemists have been making notable progress in studies of polymer synthetics and have developed a number of high-quality polymer materials and new techniques of raw-material

Speculative model of an interplanetary station. The top photo shows a model of the last stage of the sun sputnik. The photo below is a model of a solar power station being built in Armenia.

# SOVIET SCIENCE — *Present and Future*

production for the synthesis of polymers.

In other areas chemists are studying new methods of processing natural gas, timber, coal and agricultural waste products. They are developing new building materials and top-quality synthetic fibers that will make better and cheaper textiles and clothing than the natural raw materials.

The industrial contributions made by Soviet researchers in electronics, automation and other fields are on display at the Exhibition. In serial production is a multi-purpose high speed computer which is generally acknowledged to excel all similar devices of foreign make. Unique self-adjusting systems of automatic control are in operation in industrial plants. New principles of current control have been worked out for semiconductor devices. Direct-viewing mechanisms have been developed for use in solid-state and liquid media.

Research laboratories set up on the premises of industrial plants and large farms help to promote this creative collaboration between the theoretical scientist and the technologist. In some cases the USSR Academy of Sciences sets up its own research laboratory in a plant. Typical is the automation laboratory at the Moscow Ball-Bearing Plant, sponsored jointly by the Academy's Institute of Mechanical Engineering, the Economics Institute and the Institute of Automation and Telemechanics. The laboratory studies the more complex problems of automation and its technological and economic effects and formulates general conclusions for use by the whole machine tool industry.

Through the Academy's Institute of Automation and Telemechanics more than 80 specialized institutes and plant laboratories coordinate their research in this crucial area of automation upon which future industrial growth depends.

Illustrated at the Exhibition of Economic Achievements are the areas of basic research in which Soviet scientists are presently engaged. Major stress is on physics, and rightly so, since progress in most other fields of study, not to speak of industry and agriculture, is dependent on this most fundamental of sciences. Soviet physicists are concentrating upon studies of cosmic rays, controlled thermonuclear reactions, elementary particles, and semiconductors.

The Academies of Sciences of the republics are working on important problems in pure physics with emphasis upon nuclear studies. The Armenian Republic has a powerful particle accelerator. Georgia has its own research center to explore the structure of elementary particles. A nuclear research institute is under construction in Uzbekistan.

Along with research in controlled thermonuclear synthesis, the key to the power source of the future, Soviet scientists are exploring the more immediate problem of increasing the efficiency of presently operating hydro, thermal and nuclear power stations and of high-voltage transmission lines; methods of transformation and wide-scale use of all energy sources, including solid, liquid, gas and nuclear fuels, as well as water flow energy; and other power engineering problems.

On display at the Exhibition is dramatic evidence of high altitude and space research already done—the earth and sun sputniks—and of work in progress. Soviet astro-physicists are exploring the nature of space radiation and such physical phenomena as are found to be productive of high-energy space particles. These explorations of the cosmos have engendered new techniques and unique optical and electronic instruments for astronomical study.

The study of solid-state phenomena is given high priority by the Academy of Sciences research program. Under intensive investigation are such characteristics as strength, elasticity, magnetization and super-high pressure behavior. Particularly accented is work in crystallography with special attention to electronic applications of crystalline substances. Automation is also an Academy-wide research project since it involves so many related fields of study.

Research in physics and chemistry has contributed immeasurably to the biological sciences and their very important practical offshoots, medicine and agriculture. Medicine, and biology in general, has been able to move out in new directions as a result of the basic studies done by physical chemists in protein structures and protein-containing compounds. These studies have significant bearing on work now under way on control of metabolic processes. Biochemistry, biophysics, microbiology, selection, genetics and virology are among the fields being given major research attention.

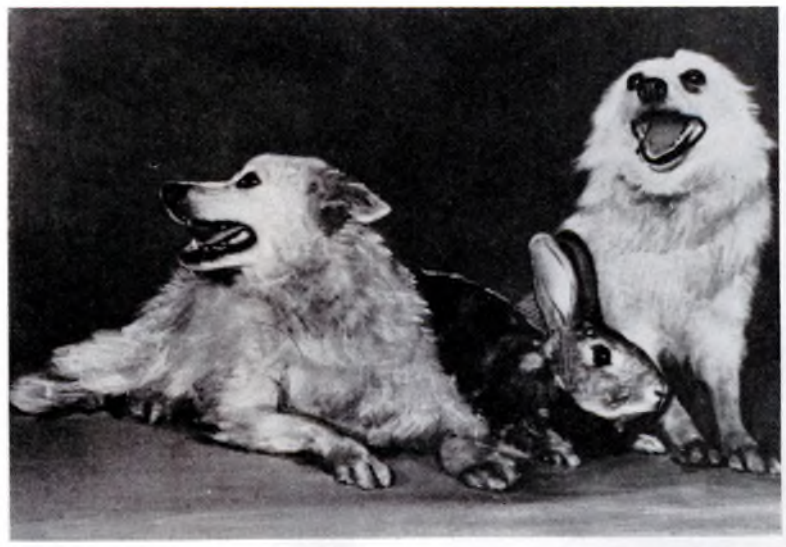
Radioelectronics in its practical uses carries over to medicine and biology, in addition to its more apparent applications in space flight, automation and controlled thermonuclear reactions.

Some of the specific problems in mechanics being studied include motion stability, oscillation and auto-oscillation of mechanical systems, interaction between solid-state bodies and gas or liquid streams overflow process with respect to bodies flown at supersonic speeds, deformation under momentous stresses and under high pressures and temperatures.

In geology the task is to formulate the principles of mineral distribution in the large territory contained within the Soviet Union and to explore mineral resources.

Students of the humanities are doing basic research in economics, philosophy, history, the arts.

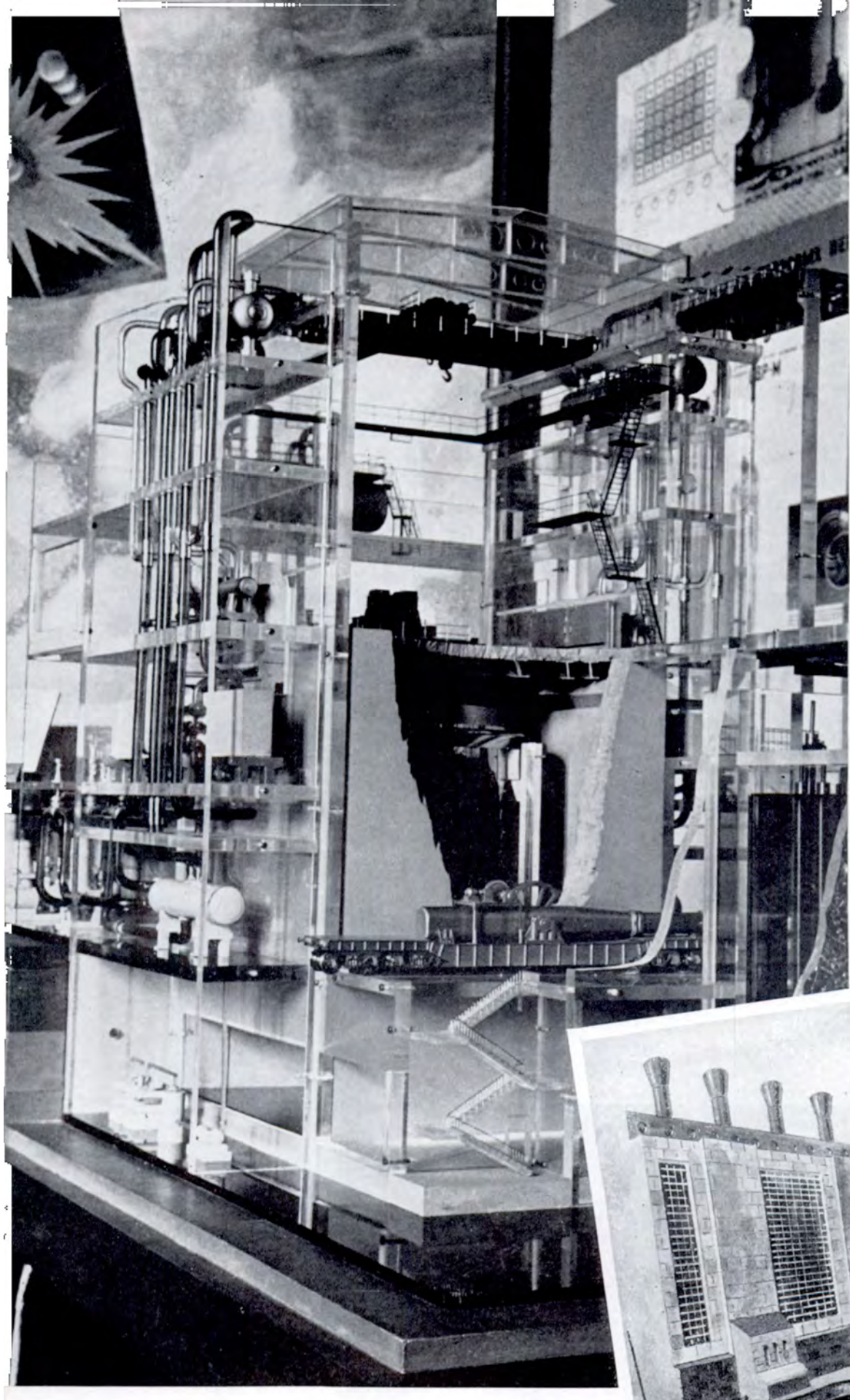
Evident throughout the Exhibition is the close tie between theory and practice, between basic research and technology. Every display emphasizes the fundamental purpose of Soviet scientific research, theoretical or applied, to improve the well-being of the people.



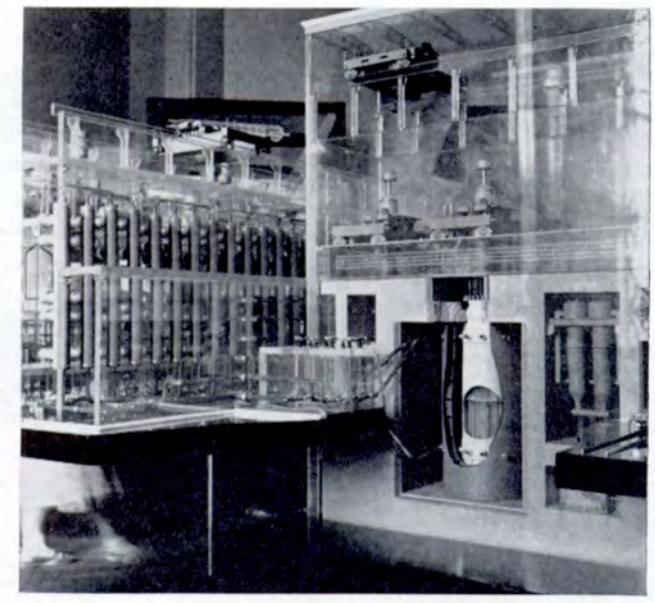
## *Space Travelers*



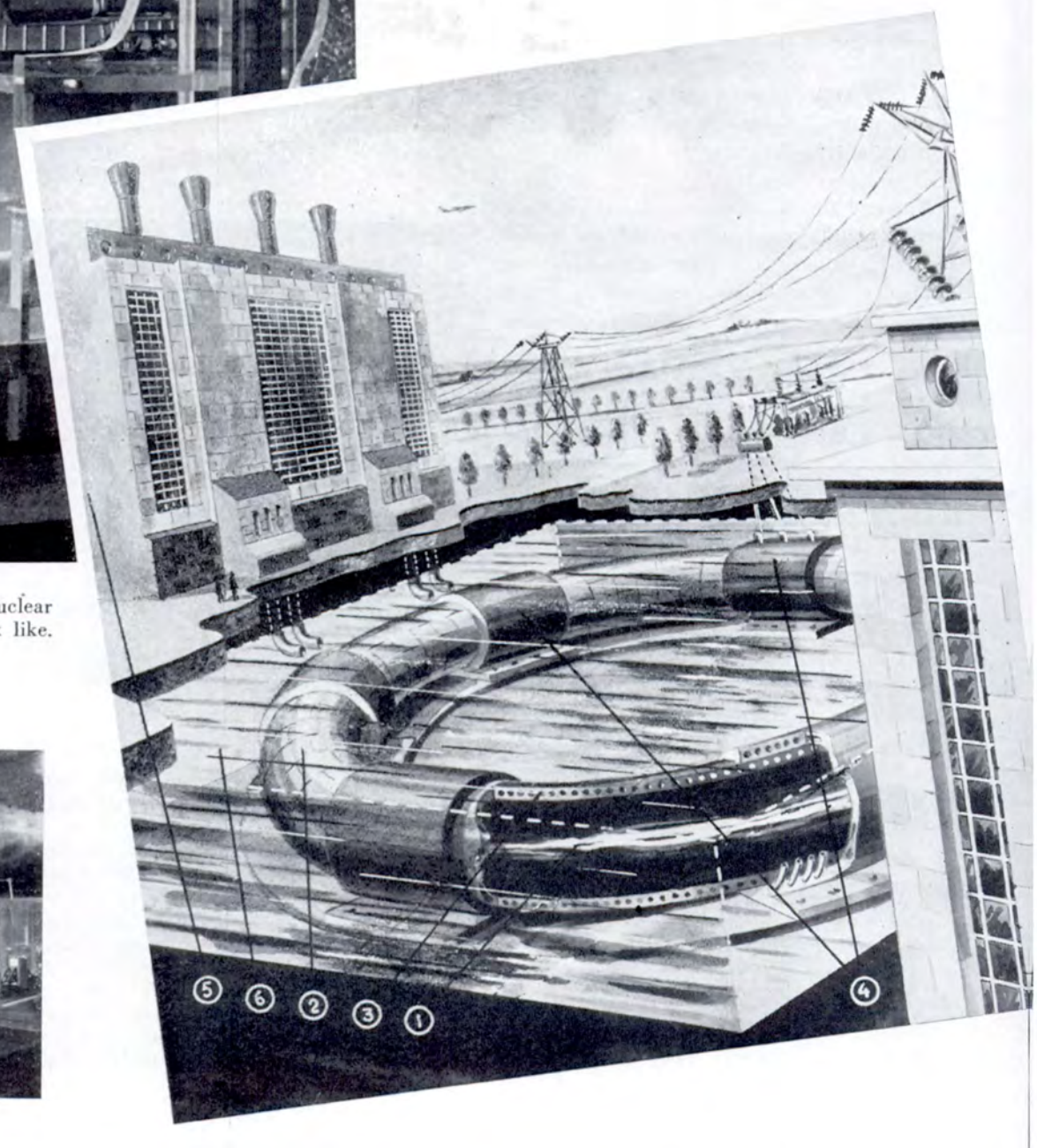
These two dogs and the rabbit made the journey into outer space at the beginning of this summer as passengers in an intermediate range geophysical rocket which was shot to an altitude of 280 miles with a payload exceeding two tons. The container carrying both test animals and a variety of scientific instruments returned to earth safely with the animals in top-top shape. These test flights are made regularly to study the effect of high altitudes and speeds on the human organism in preparation for future manned flight. That day, say Soviet researchers, is not too far distant.



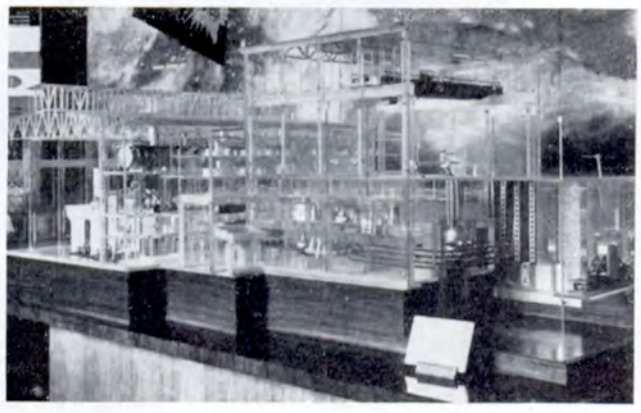


On display at the Exhibition are models of various types of atomic power stations in use or in process of construction.




(Right) This is what the "doughnut" type of thermonuclear electric station of the future will very probably look like.



# THERMONUCLEAR ELECTRIC STATIONS OF THE FUTURE

IN THAT not very distant future when science learns how to control thermonuclear synthesis and the enormous power stored in the atom is available as a source of energy, designers will be tackling the complicated job of building a thermonuclear electric station.

What *will* such a station look like? We can foresee its general outlines. It will probably be a compact installation resembling a closed "doughnut" chamber of an intricate type. Inside the "doughnut" a plasmic "cord" will burn at a very high temperature. Around it will be complex mechanisms to carry current and to fuel the coil windings of the main magnetic field. There will probably be several coils around the "doughnut" also to give additional stability to the plasmic "cord." All this will be submerged in a water jacket to absorb neutrons and to cool the walls of the "doughnut." It will also be possible to use this generated heat at ordinary thermal electric stations.

If the "doughnut" is made with a diameter of some 33 feet and is 3 to 6 feet thick, the electric station will have a capacity of approximately a million kilowatts.

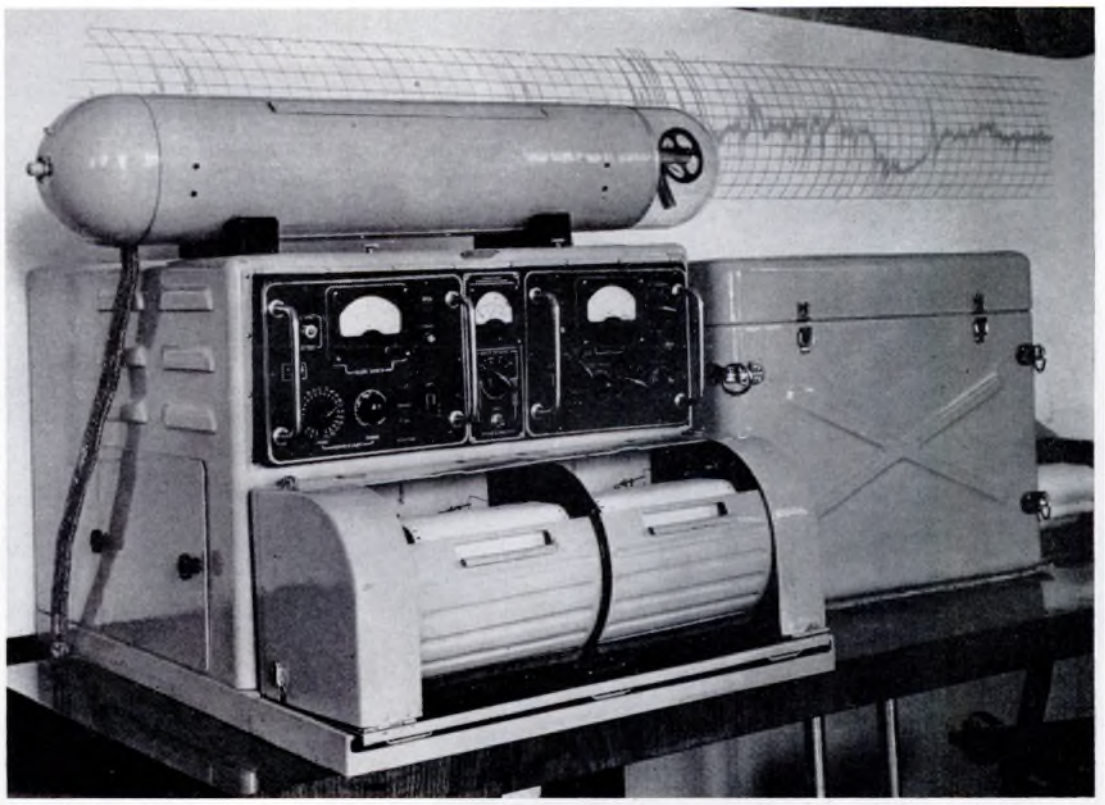
It is theoretically possible to transform part of the thermonuclear energy directly into electricity. The plasma, when it begins to expand after having been tightly compressed, will push the lines of force of the magnetic field back toward the walls of the chamber. The lines of force will cross the coils wound around the "doughnut" and induce current in them. The plasma, while it pulsates, will be operating like the revolving armature of a dynamo.

Should it ever become possible to operate such an electric station on pure deuterium—and this is not likely for some considerable time to come—we can expect that about half the station's energy will be transformed into electricity directly.

The drawing on page 22 shows what this themonuclear electric station of the future will probably look like. A plasmic "cord" (1) pulsates in tore (2) controlled by an electromagnetic coil field (3). Electric current is induced in the coil windings (4) when the pulsating plasmic "cord" crosses the electromagnetic field. Steam turbines in the building (5) use the steam built up in the boiler (6) when the electric station is in operation. The boiler end is not shown in the drawing.

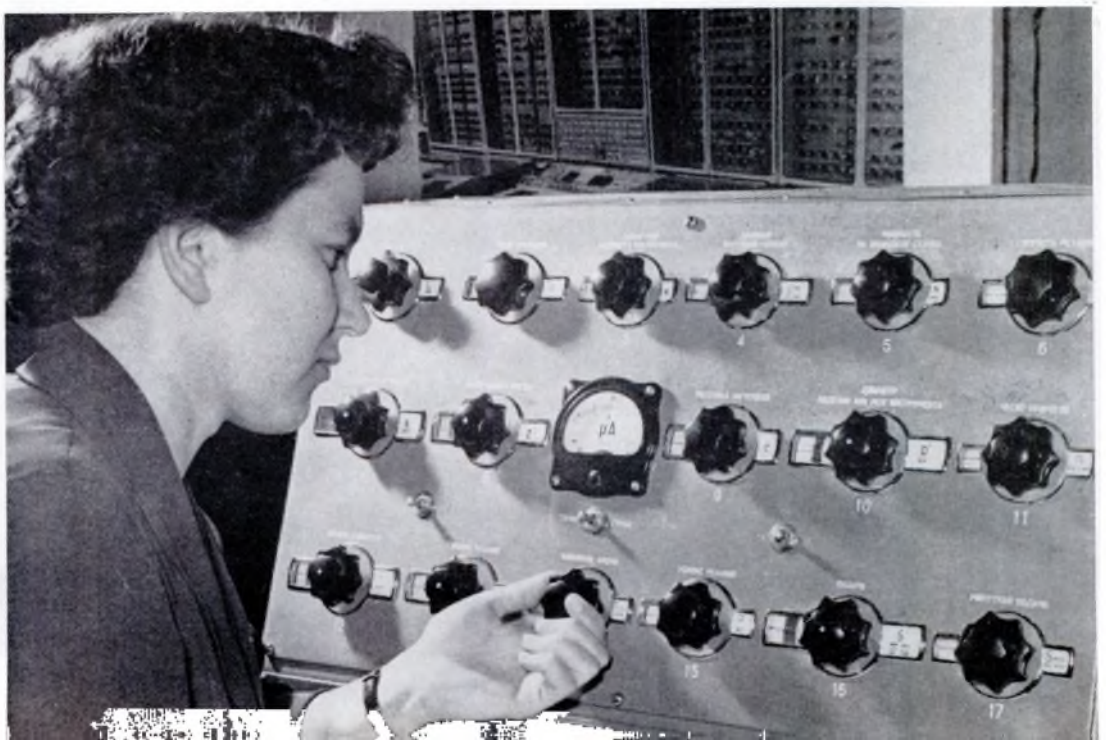


Radio engineers are especially interested in this model of a solar power transmitter which was carried in the third earth sputnik but it attracts large numbers of curious lay people too.



The scientific apparatus display shows this multi-purpose aero-physical installation for geological survey aircraft used in prospecting for uranium ore and other related mineral deposits.

Many of the multiple uses of electronic devises in industrial processes are exhibited in the Radio-Electronics Pavilion. This is a Soviet-made computer to determine metal-cutting accuracy.



The Exhibition has an eighty-acre recreation area, planted with trees, shrubs and flowers from contrasting parts of the Soviet Union and dotted with ponds and lakes for boating and fishing enthusiasts, stadiums for sports fans, greens for croquet players, rinks for roller skaters, a bowling alley, a range for riflery and another for archery. There are motion picture theaters, concert halls and dozens of restaurants which serve tasty regional delicacies.





# VISITOR AT THE EXHIBITION

**By Yuri Grafsky**

A SINGLE visit hardly does justice to the display portion of the Exhibition, let alone the many side attractions. I arrived early but by the time I had gone through the last of the pavilions it was getting dark and the lights were being turned on. The square in front of the main pavilion was crammed with people, and I joined them to listen to a concert.

The steps leading to the colonnade of the pavilion had been converted into an amphitheater and the wide landing into a stage. At the piano was a young girl, somewhat nervous, playing Khachaturyan's "Toccata."

To an exacting musical ear, the performance might have seemed less than perfect and even to my untutored ear, the acoustics left much to be desired. But the girl played with such warmth and such evident depth of feeling that I was moved. And to judge by the ovation so were the many other thousands in the audience.

When the announcer let us know that we had not been listening to a professional pianist but to a worker from a chemical plant in Dzerzhinsk, a town in the Volga Region, there was a renewed and even heartier burst of applause. The plant's products were on display at the Chemical Industry Pavilion and to exhibit their avocational interests, the plant personnel had sent along a group of amateur musicians, actors and dancers.

Many other exhibitors had done likewise. Collective farmers from the Penza Region in Central Russia had supplemented their farm display with concerts offered by their regional folk chorus, instrumental ensemble, dance company and amateur theater group.

Aside from these very interesting amateur performers, regularly scheduled concerts are given by professional orchestras and leading artists. I heard a portion of a symphony concert conducted by Professor Leo Ginsburg with Maria Yudina as soloist and listened for a while to Eddie Rozner, the well-known Soviet trumpet player, lead his jazz band.

### Food of All Nations

I had dinner at one of the five large restaurants on the Exhibition grounds. Besides the restaurants, there are 30 cafes, some 800 stalls and carts selling sandwiches and 180 food-vending machines.

The various republics represented at the fair seem to vie with each other not only in their displays but in their choice dishes as well. In the Vostochnaya cafeteria near the Georgian Pavilion, visitors are offered Caucasian *shashlyk*—highly spiced mutton grilled on spits.

One of the cafes serves Siberian meat dumplings—*pelmeny*, they are called—a regional delicacy. In the Leto restaurant, decorated in Ukrainian style, one may sample *vareniki*, a dish prepared from dough, curds and sour cream.

The Lebed cafe is done up in the style of the old Russian tea house, with lots of carved woodwork brightly painted and tea served in old Russian samovars.

Perhaps the most attractive of all is the Chaikhana restaurant close to the Uzbek Pavilion—a gay openwork structure with graceful airy staircases and sparkling fountains. Here the hungry viewer may order the national Uzbek potato soup seasoned with tart herbs and spices or the juicy Uzbek *shashlyk*, grilled in the Central Asian style.

### Play Area

The Exhibition has an 80-acre play area, luxuriously planted with trees and shrubs from contrasting regions of the country—beeches from Transcarpathia, spruce from the far-eastern Ussuri taiga, palm trees from the south and the Russian birch. Near the Physical Culture Pavilion, almost hidden by greenery, are basketball and volleyball courts, a roller skating rink, croquet grounds, a bowling alley and verandas for chess and checkers. Close to the Hunting and Fur-Farming Pavilion are two shooting ranges—one for small-bore rifles, the other for archery. There are lakes and ponds in the recreation area for boating and fishing.

Among the several motion picture theaters is a cinerama, new to Soviet audiences, which attracts large numbers of viewers daily.

There was much too much to see and hear and enjoy in one short day.







# SOVIET CIRCORAMA




IT IS an unusual cinema hall surrounded by a high circular screen. There are no seats and the spectators walk about as they please.

When the lights go out and the picture begins, its first shots take the spectator to offshore oil fields. Wherever you look there is the sea with the sound of its splashing waves audible. Then the scene changes and you see a high-speed plane racing above the plains of Central Russia, across Siberia, and over the mountains of the Caucasus. The impression is that you are up in the plane and you completely forget that you are only watching a film. When the film is over you leave feeling that you have made an exciting trip.

This circorama cinema theater accommodating three hundred spectators has been erected on the territory of the USSR Exhibition of Economic Achievements. It is a round structure of glass, steel and plastic.

The building was put up in slightly more than three months with the most modern apparatus for it sent from factories in Moscow, Leningrad, Kiev, Samarkand, Odessa and Shostka. The 22 huge projectors were hoisted by cranes and gently deposited in the circular projecting room.

The complete set of apparatus for the circorama was designed under the technical guidance of the USSR Cinephoto Research Institute. Vladimir Kotov, the engineer in charge, showed the first spectators the control panel which simultaneously sets in motion all the projectors.

"Here is the heart of our circorama," he said. "Apart from the projectors the panel controls the stereophonic sound track apparatus and many other machines. As distinguished from the American circorama system with only one band of screens, our system has two —one under the other below the cupola of the auditorium. Another difference is that while in the American circorama you hear only the music and the announcer's words, in our system the sound is synchronized with the action, accompanies it, illustrating all that is shown on the screen."

Vladimir Kotov explains why there is such an amazingly "live" sound. He points to the floor pits and the apertures in the ceiling and behind the screen from where the smooth velvety sounds flow, reproduced by thirty-six loud-speakers. To make the 400-square-meter gleaming white screen encircling the auditorium transmit sound it is perforated with minute holes.

The first Soviet circorama film was the twenty-minute-long *The March of Spring*, produced jointly by the Central Documetary Film Studios and the Animated Cartoon Film Studios. It was directed by Vasili Katanyan and Leonid Makhnach and the cameramen were Igor Bessarabov and Andrei Semin.




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TENS OF THOUSANDS OF AMERICANS FLOCKED TO NEW YORK'S COLISEUM TO SEE HOW PEOPLE IN THE SOVIET UNION LIVE, WORK AND PLAY.

# AMERICANS COMMENT

## *ON THE SOVIET EXHIBITION IN NEW YORK*

FOR THOSE interested in gauging American public sentiment with regard to friendlier relations between the United States and the Soviet Union, we recommend a leaf through the Visitor's Book of the Soviet Exhibition of Science, Technology and Culture. The sentiment for friendship and better understanding between the two countries is unequivocal. Americans are for it—and in large numbers.

That was made plain on the first day the Exhibition opened last June when scores of thousands of Americans—New Yorkers and people from every other state in the Union—crowded into the Coliseum to see for themselves how people in a socialist country live, work, study and play. They left with the feeling—many of them stopped to write their comments in the Visitor's Book—that there was very much more Soviet people had in common with Americans than they had believed.

That was the reaction, too, of the large numbers of Soviet citizens who visited the American Exhibition in Sokolniki Park in Moscow. Certainly this is a happy omen for the future, one with which every peace-loving person, whatever his political belief, will be gratified.

The two fairs were products of the exchange agreement concluded between the United States and the USSR two years ago. The Soviet Exhibition ran for 40 days and was conceded by all hands to be the most popular and well attended the huge exhibition building had housed since it was built.

Coincident with the Exhibition a two-week festival of Russian music and dance ran at the Madison Square Garden where leading Soviet artists performed for packed audiences. Simultaneously two Soviet cinerama films were shown at the Mayfair Theater on Broadway.

### Questions and Answers

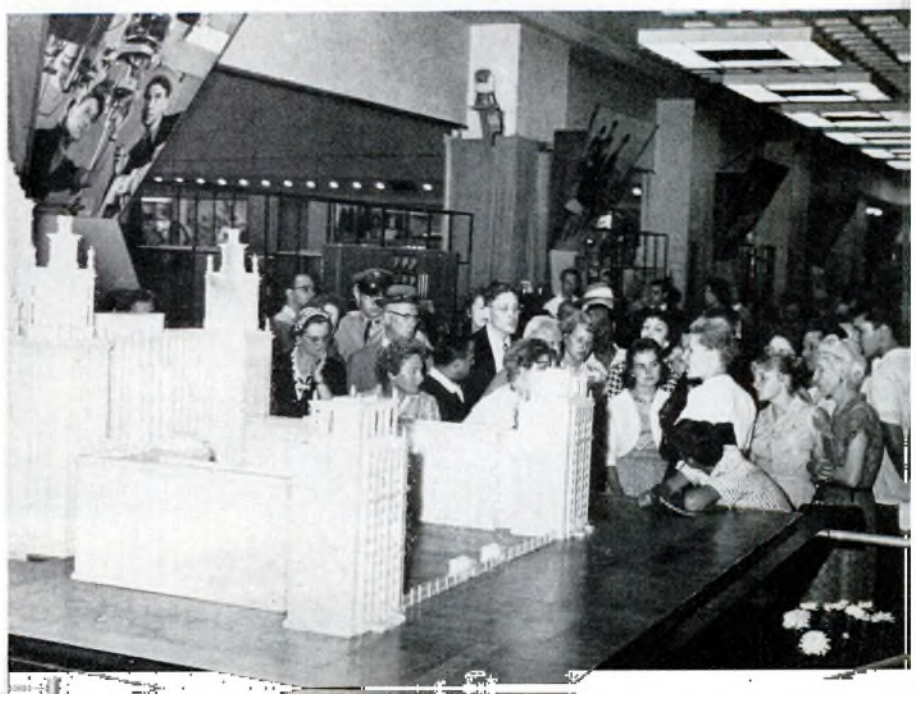
Although the 10,000 displays stressed the scientific and technological progress the Soviet Union had made in an astonishingly short four decades, there were exhibits of fashions, foods, TV sets, kitchen appliances, books, passenger cars, a three-room furnished apartment, schools, vacation resorts, an art gallery—all this designed to round out the Soviet picture for American viewers.

As important as the visual impression was the opportunity for actual

THE LARGEST CROWDS GATHERED AROUND THE LIFE-SIZE SPUTNIK MODELS.



THERE WAS MUCH INTEREST SHOWN IN THE COUNTRY'S CONSTRUCTION PROJECTS.



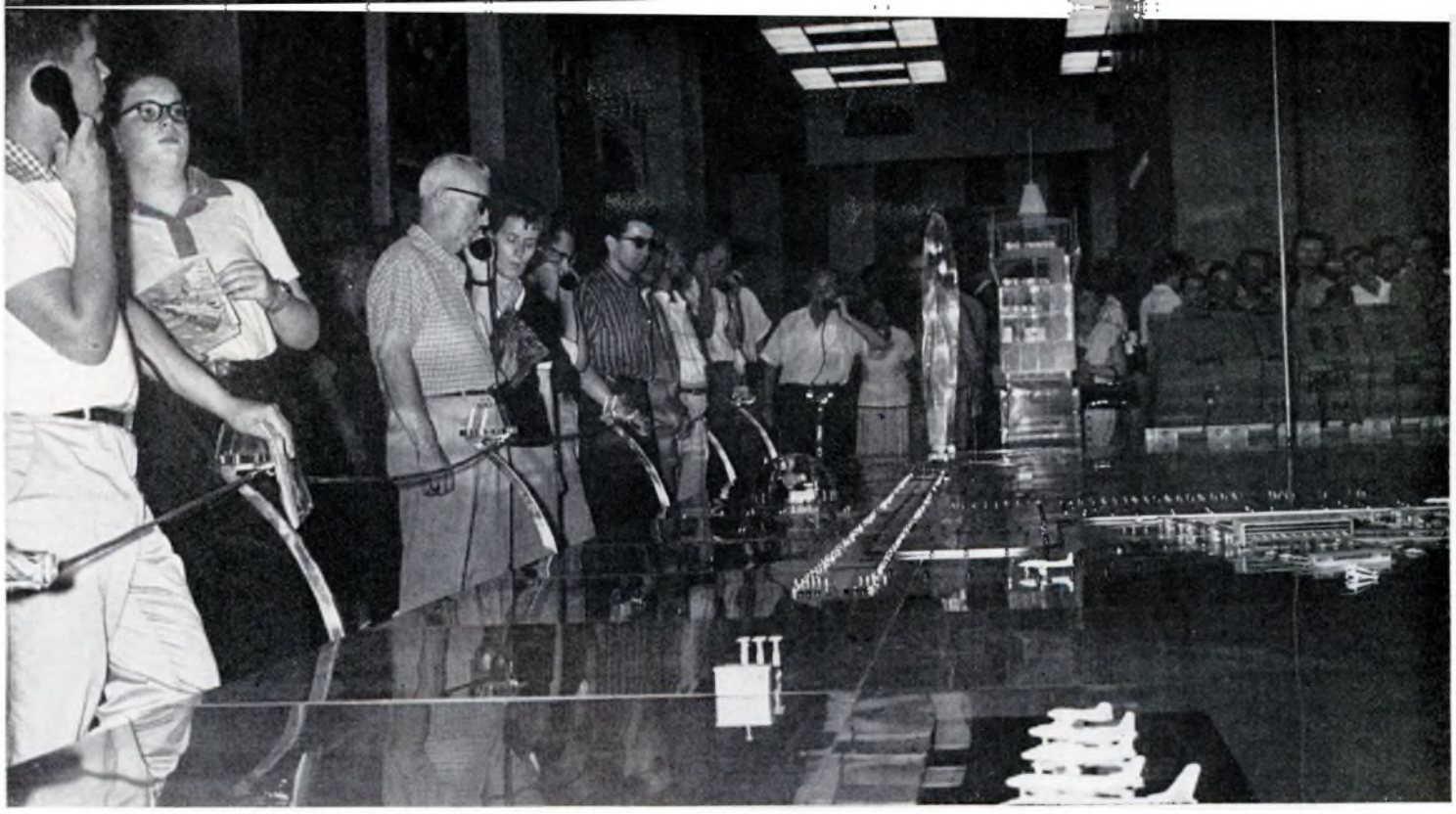




INSIDE THE CORRIDOR DOORS IS THE 360° SCREEN. THE SPECTATOR SOON FEELS HIMSELF A PARTICIPANT IN THE ACTION TAKING PLACE.

THE FIRST CIRCORAMA FILM SHOWN IN THE SOVIET UNION WAS *MARCH OF SPRING*, DIRECTED BY VASILI KATANYAN AND LEONID MAKHNACH.





AN INTERESTING DEMONSTRATION OF HOW AN AVERAGE AIRFIELD FUNCTIONS. RECORDED EXPLANATIONS OF THE PROCEDURE ARE HEARD OVER THE PHONES.

contact between Russians and Americans. The guides and interpreters at the Coliseum Exhibition were thanked time and again for their unfailingly patient answers to questions they must have been asked hundreds of times. The guides, in their turn, were as eager to exchange ideas on every question under the sun with their American visitors. This was reciprocity in practice and was welcomed by questioners and answerers both.

### Eminent Visitors

Some of the people who wrote their comments in the Visitor's Book noted their vocations. Others were too eminent to require that identification. The signature on the first page of the Visitor's Book is Dwight Eisenhower. Visitor Richard M. Nixon wrote, "A splendid Exhibition;" and Andrew H. Berding, Assistant Secretary of State, "A fascinating Exhibition."

Carl Sandburg, poet, left this entry: "Salutations and ever good wishes to this Soviet Exhibition. It makes for good will which is a requisite for peace."

Edward Steichen, the noted photographer, wrote: "Great greetings to the people that accomplished this Exhibition which is *choudna, choudna, choudna* (wonderful)."

Charles Luckman, the architect, expressed the sentiment of millions of American and Russians both when he said, "To all who helped create this wonderful exhibit which can help our countries understand better our hopes and ambitions, my sincere congratulations."

"As an industrial designer, I was very much impressed with the fine construction of the television equipment." "An excellent and well arranged exhibit, with well-selected examples of the wide range of Soviet machine-tool production." These two were typical of many from engineers, industrial editors and businessmen.

### "We Like Your Pretty Pictures"

"These exhibits are created for peaceful uses. Let's all use them peacefully," writes a student from Hewlett, New York. And another young visitor, obviously with a scientific bent, comments, "I think that this exhibit is very interesting and a boy or man can learn a lot in here. The thing I liked most was the satellite and radioactive materials exhibits. They are very well planned (like everything else) and I enjoyed them. One of the most amazing things was the airport with the many different planes and jets. I came here with my family and I know every friend I have would love to come here."

"A Mother" writes, "Congratulations—your advances are the advances for all of mankind. You give us hope for the future." And an unsigned comment reads, "To the Russian children. We like your pretty

AN EXHIBIT OF SCULPTURES AND PAINTINGS BY CONTEMPORARY ARTISTS.



WORKING MODELS OF VARIOUS MACHINES MADE BY TRADE SCHOOL STUDENTS.



# AMERICANS COMMENT *ON THE SOVIET EXHIBITION*



THIS CITY PLAN INCLUDES MODERN HOUSING AS WELL AS SERVICE, CULTURAL AND RECREATIONAL FACILITIES.

pictures." One of the displays showed drawings, sculpture and handicrafts done by school children from every one of the Soviet republics.

Written by a man whose hand obviously fits more readily around a tool than a pen is this statement, "I have been a worker for 42 years. I wish the Soviet people success in their seven-year plan."

### Friendly Critics

A visitor from Fair Lawn, New Jersey pens a friendly criticism. "Enjoyed your show immensely! Both cultural and scientific exhibits need a basic description and more pamphlets and written material should have been made available. I hope there will be more and even better shows in the future."

There were unfriendly comments, too, but they were in the vast minority. Some viewers, like the visitor who signed himself "M. H.," had mixed reactions. He wrote, "As a person who disagrees with the basis for your way of life, I was much impressed by the material and organization of your display in New York City. I was impressed mainly by your cultural exhibit on the top floor. Communistic Russia has done much to be proud of in the way of technological achievement in the last fifty years—too bad they have forgotten the individual and God."

But the overwhelming preponderance of comments is typified by that of "Anon" who wrote, "I have just one word—Great!" and by "M. S." who commented, "Most wonderful exhibition I ever saw. Wish I had six pairs of feet so I would never tire."

### "Peace," "Friendship"

What was most striking, however, was the recurrence of the words "peace," "friendship," "mutual understanding" in one comment after another. Hardly surprising—these are the most crucial words in our contemporary dictionary.

A Pittsburgh visitor writes, "The Exhibition is of great interest to all America. It shows that we can share our differences peacefully. I hope that the USSR is enjoying our exhibition."

"An American" comments, "This exhibit is interesting and informative. It will do a lot for the relationship of our countries."

Another "Anon" says, "All this is simply magnificent—a fine tribute to the quality of Soviet society—May we all live in peace."

And "J. R." is moved to write this long comment which perhaps pleads more eloquently for exchanges of exhibitions, artists, scientists, ideas and opinions than any we can make. "After looking at your wonderful exhibit I wish that all the people in our country could see it as well as all people in the rest of the world, for I have come to realize and understand that the people in the USSR are really working to free themselves from poverty and are developing all their material and spiritual resources to lift the standard of living of all the people as a whole. I can realize now that the Soviet Union is working for peace, not only for their people but for the whole world. Hope you make this exhibit in many other countries. Forward to the brotherhood of all mankind."

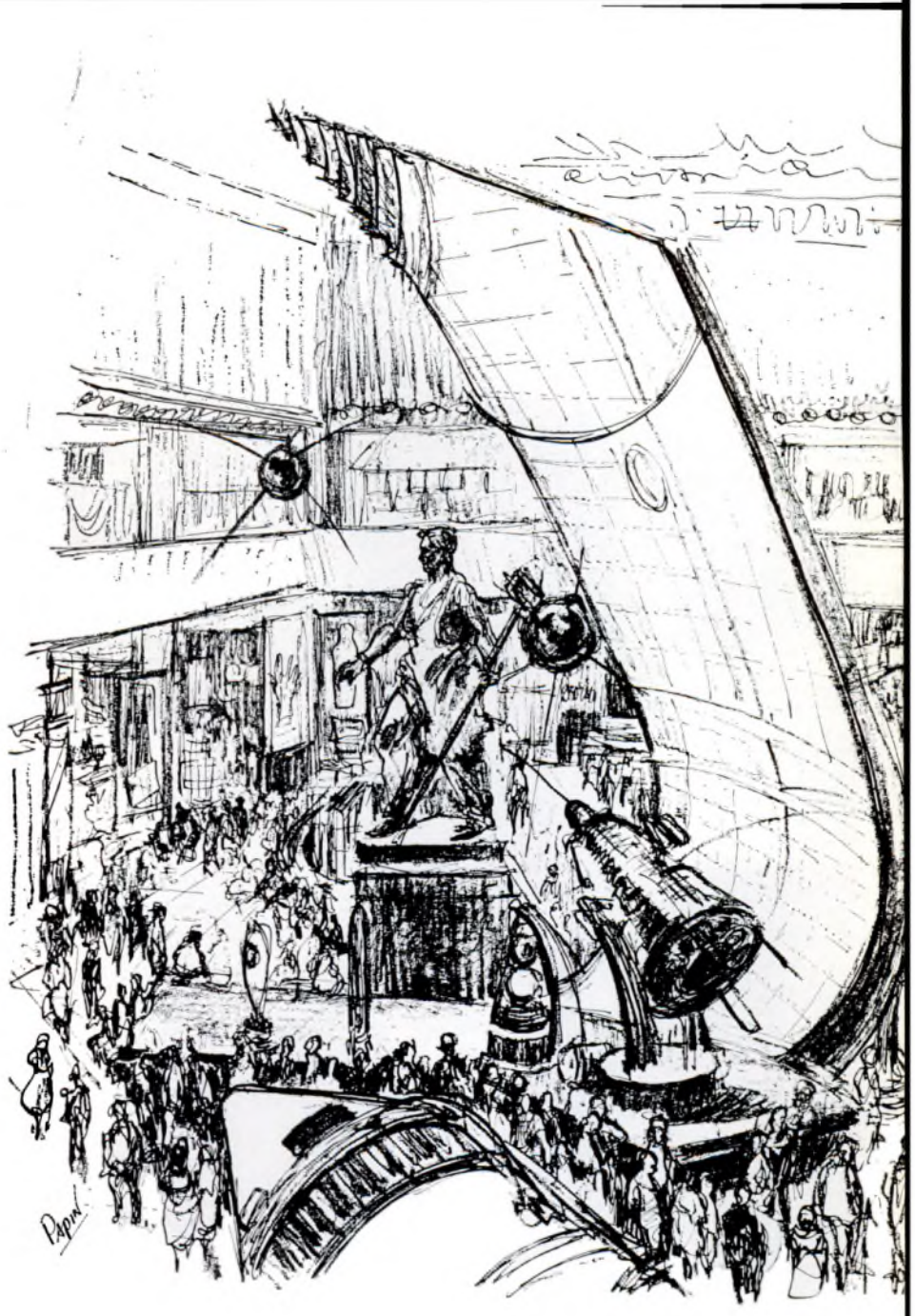
PRETTY GIRLS MODELED THE LATEST SOVIET STYLES AT THE FASHION SHOW.



THE MOSCOW METRO IN MINIATURE ILLUSTRATES A CITY SUBWAY SYSTEM.






*The American artist Joseph Papin is known for his vivid sketches of city life. For the past few years he has been primarily concerned with reportorial art and has attempted to depict the streets and people of the city of New York. The drawings on this page are the artist's conception of the highlights of the Soviet Exhibition at the Coliseum.*

# *Seen through the eyes of an* AMERICAN ARTIST











The country's vacation resorts are all subsidized so that guests pay only a fraction of the cost of accommodations. Facilities for recreation and medical care make them equally attractive to people whose health needs attention and those who just want to have a rest and some fun.

# HOW THEY SPEND THEIR VACATIONS

***By Evnica Svetlanova***

This group setting out on a hike consists of a bricklayer, engineer, weaver, machinist, student. doctor, construction worker and a professor.



THOUSANDS of sanatoriums, rest homes, resort hotels and tourist camps all over the country have always opened their doors to the multitudes in search of a good rest. Everything is at the disposal of the holiday-makers—excellent doctors and medical rooms, movies and outdoor dance halls, beaches and libraries . . . Whole armies of recreation officers devoted themselves to working out interesting routines, dolling up the parks and gardens, planning tourist excursions and hikes, thinking up different kinds of entertainment and even whole "rest evenings" for holiday-makers!

But there are a great many who do not care to tie themselves down to any sanatorium rules and regulations, who shun the beauty of trimmed flower beds and prim graveled pathways, preferring the "wild" woods and open spaces to the studied geometric pattern of trees in fenced-off parks.

For them there are plenty of special routes and spots which can be traversed and reached by train or ship, rowboat or car, or simply by hiking.

These "free lancers" usually set off in small groups of families, and sometimes singly, with the intention of spending the holiday all alone. But it is a rare person who can stick it out by himself—and he never regrets it if he doesn't.

Summer . . . We link so many of our hopes with this happy season of the year! Nature itself helps us to shed our cares of the winter, and as for the new ones that heap up on us

In the lush subtropical climate of the Black Sea, these volleyballers take shelter in the cool shade of palm trees. They've made their own rules for the game, and the penalty for muffing the ball is a ducking. But since everybody planned to go swimming, they all figure there's not much to lose.





Proving that the eyes are the windows of the soul. This isn't trick photography but a double reflection of some of the advantages of spending a vacation at Gagra, one of several hundred resorts on the Black Sea coast, where the blue sky, green sea and golden sun combine to make a perfect setting for summer pleasures.



An invigorating dip in the surf before dinner. It's not so bad once you're in—but that first step leaves you breathless.



Gorodki takes a good eye and plenty of skill. When the bat lands, it has to displace a complex pattern of wood blocks.

A peaceful cove is an invitation to rest after an exciting afternoon of boating and water-skiing. This ideal vacation spot offers an infinite variety of ways to fill the carefree days of anyone's summer holiday.




Some anglers like the quiet of slow moving waters; others prefer the roar of rapids and a stiff battle with a fighting salmon. Both are satisfied in this vast country that abounds in rivers, lakes and streams.



# HOW THEY SPEND THEIR VACATIONS

with the advent of summer—they're nothing but a joy. The girls get busy replenishing their wardrobes with new dresses and slippers of every hue and shade, while the men besiege the sportswear shops for fishing tackle, vests, broad-brimmed hats, sleeping bags and collapsible boats. The stores anticipate our desires, and their show windows display brightly painted children's pails and shovels; gaily-

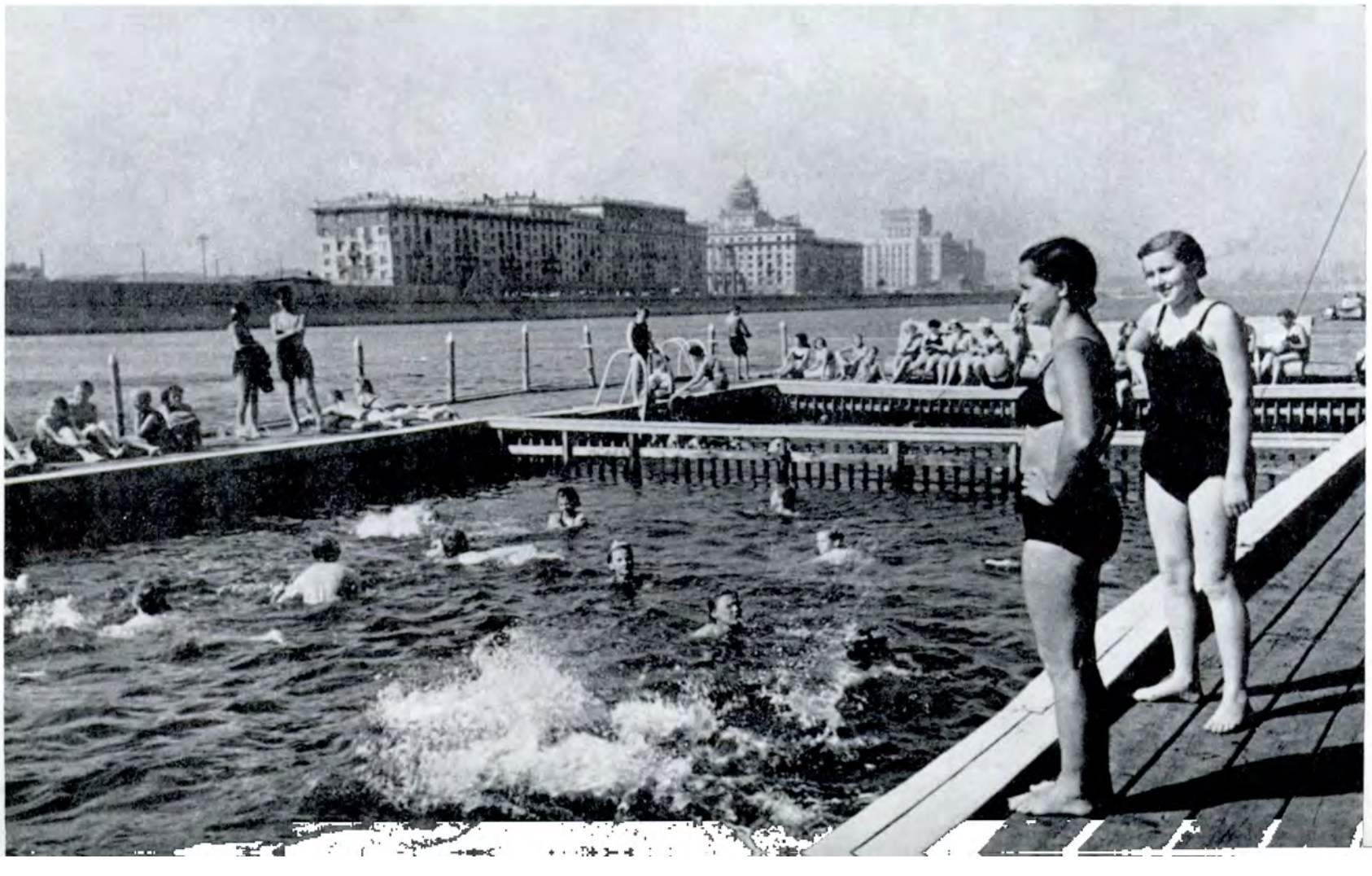


Families who like to get away by themselves load the car, drive out to the country and set up camp. If you know how to do it, this kind of life can combine the comforts of home with the added pleasure of getting close to nature. Here's a rig that includes a garage and porch.



In secluded wooded areas all over the country, amateur artists find inspiration for colorful landscapes only a stone's throw away from their summer cottages.

THERE'S GOOD SWIMMING IN THE MOSCOW RIVER, CLOSE TO HOME, AND WHEN THE WEATHER IS WARM, CITY DWELLERS DON'T WAIT FOR THEIR VACATIONS TO ENJOY IT.



printed sarafans, skirts and bathing suits; sun glasses of every shape and kind; lacy plastic basket-bags; tennis rackets, balls.

For most of us, summer vacation spells the river or the seaside. Have a look at these pictures taken in various parts of the country and you will see why.

This is the way thousands of Soviet people spend their vacations. And when they get back to their jobs in schools and laboratories, stores and institutes, factories and offices, they are rested, beautifully sun-tanned, and ready to pitch in with renewed vigor. Many an evening afterward is spent in telling friends about the people they met, the new places they saw, and—where they would like to go next summer.



An accordion at a vacation resort is sure to find somebody who spontaneously breaks out into his favorite dance, and before long the whole group joins in.



Sailing is a popular sport in the Soviet Union and many people belong to boat clubs that arrange all sorts of outings and racing contests for their members. Boating has the added advantage of making it easy to reach otherwise inaccessible picnic areas and bathing beaches.

**A BICYCLE FOR AMATEURS WITH LOTS TO RECOMMEND IT: IT'S EASY TO LEARN HOW TO RIDE IT AND NOBODY HAS EVER BEEN KNOWN TO SKIN HIS KNEES TRYING.**





A CAMP FOR THE CHILDREN OF THE MOSCOW ENGINEERING PLANT'S WORKERS. SIMILAR CAMPS IN THE COUNTRY ACCOMMODATE 5½ MILLION CHILDREN.

# It was a wonderful summer!

A sense of responsibility is developed in the children by having them plant the flower beds and keep the grounds and sports fields in order.



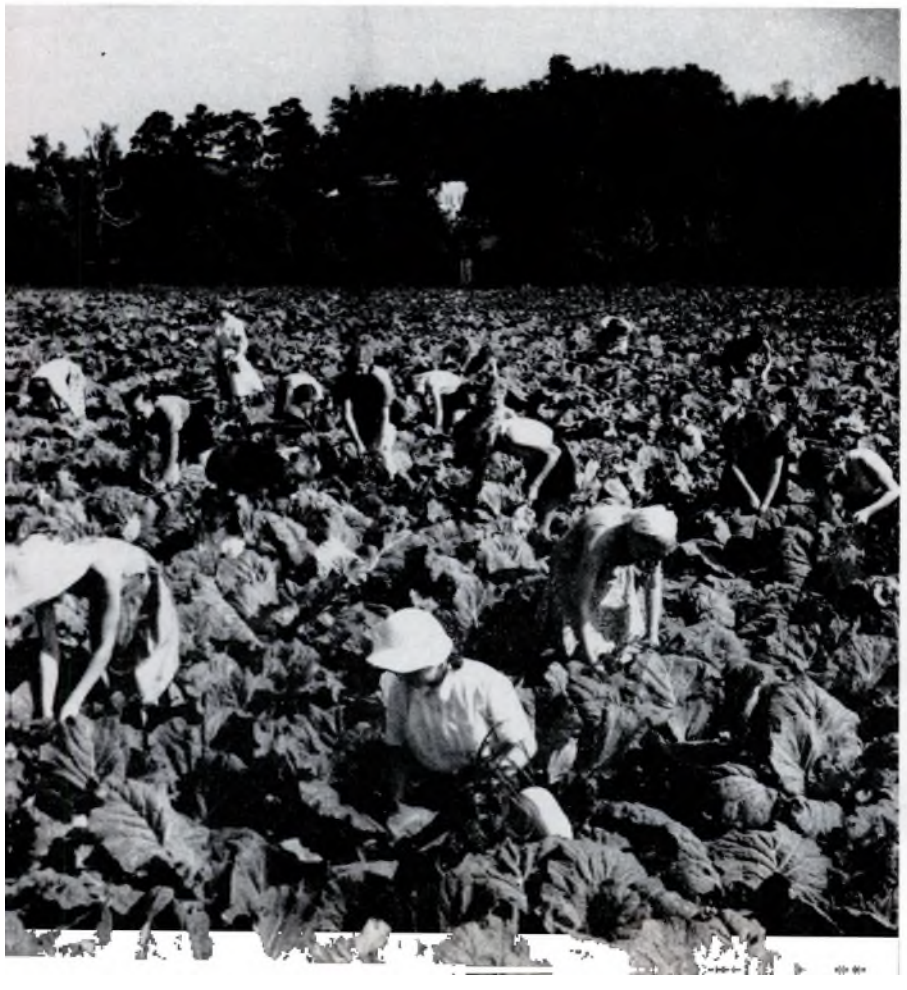
EVERYWHERE in the Soviet Union you are able to see the deep concern shown for children by the Soviet state and public organizations. "The best for the children," is the slogan governing life in the Soviet Union.

Camps in the country, playgrounds and vacation spots are very popular among children, 5,600.000 of whom enjoy their summers at these places. Children's summer camps are situated in picturesque spots throughout the country, in oak groves and forests, on river banks and lake shores. In the Moscow countryside alone, there are 640 camps where 350,000 Moscow school children spend the summer.

These camps are maintained at the expense of the trade unions and state enterprises. One of them belongs to the Moscow Engineering Plant. Situated in a forest far from the road, it accommodates 1,500 children of the plant's workers. The parents and the young workers of the plant do everything possible to give the children a delightful holiday. They have at their disposal handsome buildings with airy bedrooms, spacious verandas, libraries, a young technicians' house, a stadium, and even a zoo.

THE TERRAIN SURROUNDING THE CAMP ABOUNDS IN WILD PLANTS. A RARE SPECIMEN LIKE THIS IS QUICKLY TRANSPLANTED FOR CULTIVATION IN SPECIAL FLOWER BEDS.

The campers spend part of their time helping out at nearby collective farms, for which they are paid in fruits, vegetables and other produce.



The boys thought this bear from the campers' zoo needed a bath. He didn't agree, so they got a rope and tugged. Once in, Bruno didn't mind a bit.





The boys built the boats, correct in every intricate detail, at the arts and crafts circle and are now launching them for their maiden voyage.



Each year a sports carnival is held at the camp stadium, with the best of the campers displaying their feats of skill. These are the gymnasts.

# IT WAS A WONDERFUL SUMMER

**ALL THE CYCLING ENTHUSIASTS SIGN UP FOR THE OBSTACLE RACE, AND IN THE NATURAL ENVIRONS OF THE CAMP THEY'RE NEVER SURE OF WHAT THEY'LL RUN INTO.**





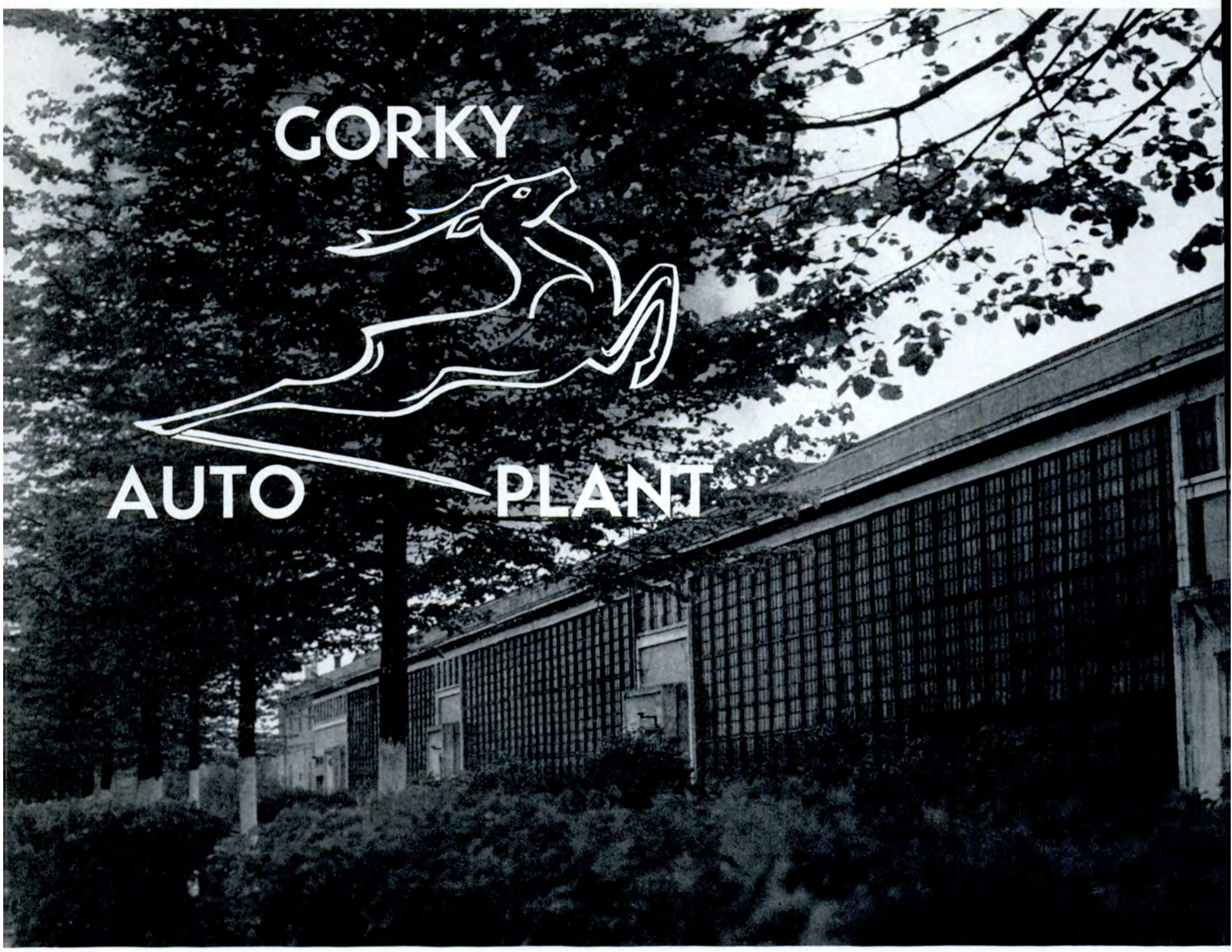
The children are able to work at the hobbies of their choice, and these photo fans are making lasting mementos of their vacation. Equipment is supplied by the camp.



There's nothing more exciting for the chess devotees than to have the champion counselor take on the best players.

**A DAY THAT HAS BEEN FILLED WITH A DOZEN DIFFERENT ACTIVITIES COMES TO A QUIET END WITH SONGS AND SWAPPING OF STORIES AROUND A BONFIRE.**






BY 1965 THE SOVIET AUTOMOBILE INDUSTRY WILL BE TURNING OUT 50 PER CENT MORE CARS, WITH THE GORKY PLANT ACCOUNTING FOR MORE THAN HALF THE INCREASE.

***By Ivan Kiselev***
***Director, Gorky Auto Plant***
***Deputy, Supreme Soviet of the Russian Federative Republic***



THE Gorky Auto Plant is the largest in Europe to turn out passenger cars and trucks. It was built in record time—a year and a half—and celebrated its twenty-fifth anniversary two years ago, in 1957. On January 25, 1932, the first one and a half ton truck rolled off its conveyor line. Later that year the plant began production of Gaz-A passenger phaetons and in 1935 quantity production of limousines. To date, plant designers have developed 87 experimental models. More than 50 of the designs were mass-produced.

The many shops—forging, casting, body, engine, wood, instrument, power, assembly and others—employing scores of thousands of skilled workers, are now spread over a much larger area than that taken by the original plant. Besides the Gorky plant itself, there are 700 factories in key sections of the country that manufacture or process parts that go into the finished vehicles.

The cars turned out by our designers, engineers and skilled mechanics are used widely in the Soviet Union and abroad. We sell cars to 35 countries, including England, Denmark, Finland, Greece, Holland, India, Norway, Pakistan, Sweden and Uruguay. Our Volga and Chaika passenger cars and our Gaz-52 truck won the Grand Prize at the 1958 Brussels World's Fair.

## New Models

In these next seven years the output of the Soviet automobile industry is to increase by 50 per cent, and by 1965 our plant alone will be turning out more cars than all the existing

and projected plants put together. This is the major goal of Gorky's ambitious seven-year plan. We want to replace all the trucks and car models we now make with new and more economically designed cars.

Our Pobeda has already been replaced by the Volga, a more up-to-date model that compares very favorably with the world's best cars in this design and price range—the British Ford and the West German Oppel-Kapitan—and has a number of improved features besides.

The Volga has wider back seats for more comfortable riding, and a reclining front seat that makes up into a bed. It has an efficient heating system and a defroster for winter driving. The 70-horsepower engine will do a maximum 80 miles an hour. Although we consider this a successful model, we are still making improvements. At present, for example, we are using tubeless tires on this car. Our daily production figures for the Volga have already topped those of the Pobeda.

At the end of 1958 we began to turn out a new seven-seater model, the Chaika, with automatic push-button shift, power steering, electric window control, full-view windshield and larger windows. The car is fitted with tubeless tires and the usual accessories, including heater and five-band radio. The 195-horsepower engine is capable of a maximum speed of 100 miles an hour.

Our trucks, too, have been redesigned. In 1960 we will begin turning out a one and a half ton truck with a four-cylinder overhead valve 85-horsepower engine and a one-ton truck with four-wheel drive.

In 1961 our plant will begin manufacturing a two and a half ton truck with an 85-horsepower six-cylinder overhead valve motor, operating, for the first time in car-building history, on the prechamber fuel spray combustion principle, which will be a decided gas saver.

In 1961-62 we will be making a truck with a collapsible cab—an overhead-type vehicle with an eight-cylinder engine.

These are only a few of the new models which will come rolling off our conveyors between now and 1965.

### Higher Wages, Fewer Working Hours

How will this affect the men in the shops? Our 50 per cent output increase will be accompanied by a steady and continuous rise in wages of all plant personnel, an estimated minimum rise of 40 per cent by 1965.

As of last April our plant switched over from an eight- to a seven-hour workday with no reduction in wages. Our seven-year program calls for a still further cut in the workday. In 1964 we will begin the switchover to a five-day, 35-hour workweek, also without any cut in the general wage scales, which will be a good deal higher by then.

The plant management and the trade unions will be allocating increasingly large sums to improved health and working conditions and the prevention of accidents and occupational diseases. At present, we spend an annual 12 to 14 million rubles on these undertakings.

Our plant has two polyclinics, a hospital, a night dispensary and a first-aid station in each shop, with a total medical complement—doctors, assistants and nurses—of 500. There is no charge to the workers for medical services. The funds to pay for all of this come from plant management, the trade union and the national budget. In most of the shops the workers take a break twice a day for setting-up exercises done under the supervision of physical training instructors.

### A Booming City

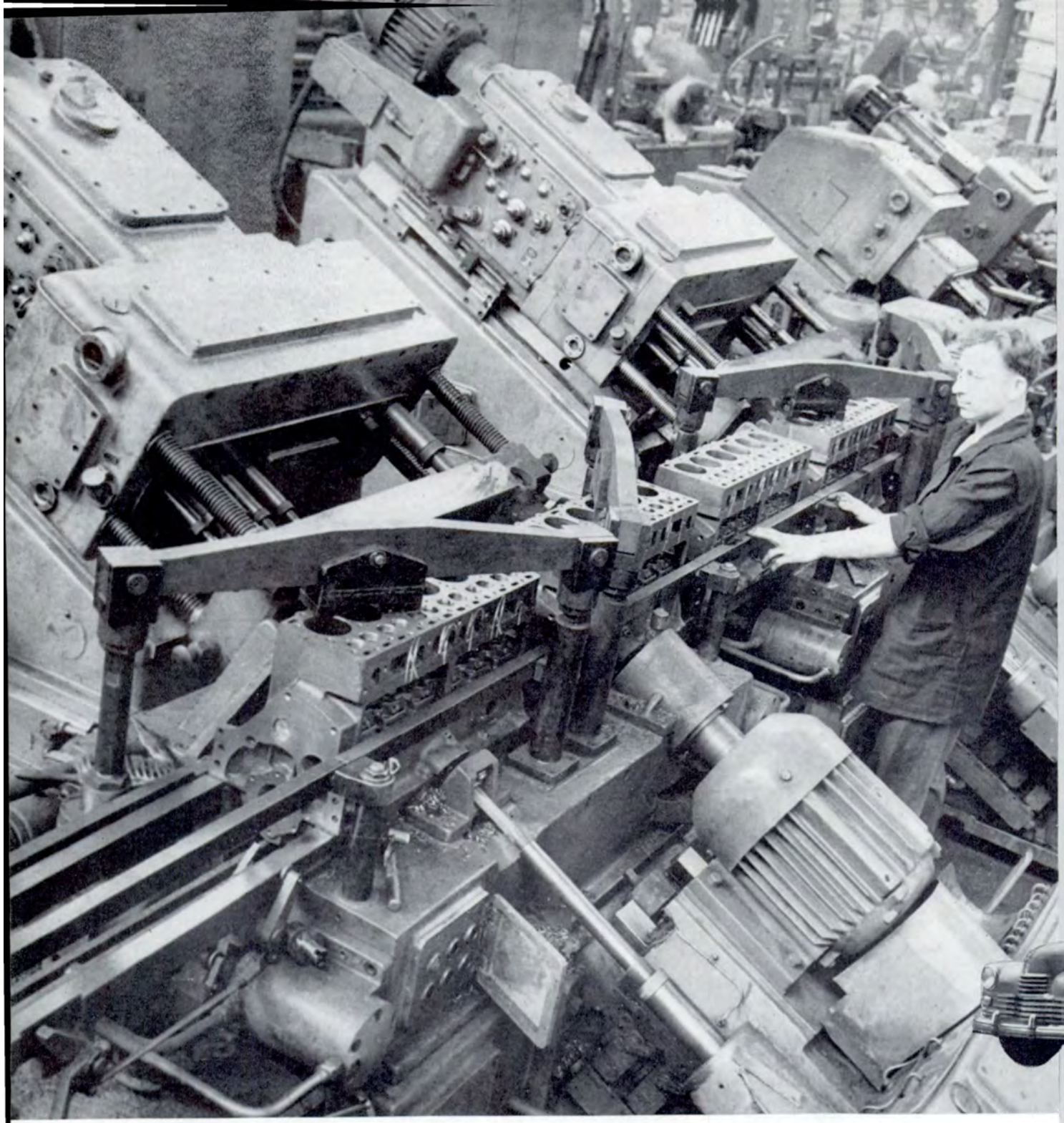
Car-builder's City—that is what people call our section of Gorky where the auto plant is located, and the population is large enough to merit the title. As many people live in Avtozavodskii, the auto worker's district, as in Ottawa, the Canadian capital, or Berne, the capital of Switzerland.

Thirty years ago this part of town was all wasteland. As the Gorky Auto Plant grew, the pleasant city with its tree-lined streets, parks, schools, shops and theaters grew up around it.

Between our Car-builder's City and the older sections of Gorky city proper there is still a large stretch of meadowland. This is

The plant is undergoing extensive retooling. More than 100 automatic transfer lines like this one are being installed in the mechanical shops, a large number of their machine tools are being switched to high-speed cutting, and the largest wheel shop will soon be completely automated.







1936 — M-1



1946 — POBEDA M-20



1955 — M-72



Automation is a decisive factor in increasing production and decreasing the workweek. Workers displaced by these automatic assembly lines are retraining for more skilled jobs at higher pay.

# GORKY AUTO PLANT

gradually being narrowed by the housing construction being done from both sides. Before the seven-year plan is completed, we expect that the car-builders' new homes will extend to Gorky proper and merge with the other city districts.

We propose to better the high national planning figures for housing construction. Instead of the estimated ten to twelve years to end the housing shortage throughout the country, we propose to end ours in a matter of seven years. We shall be putting up an annual 3,500 to 4,000 apartments. Along with this, by extending easy loans and providing technical help and building materials for private citizens, we shall encourage individuals who wish to build their own one-family cottages.

## The Last Word in Automation

Our ambitious production schedule has meant changes in our equipment and methods of work.

To modify all our models within the next few years will require over-all retooling, complete reconstruction of the plant. And that is what we look forward to, the last word in ma-



1932 — GAZ-A



1943 — GAZ-67



1950 — ZIM



1958 — CHAIKA





Vsevolod Konev, who helped build the plant, and Engineer Kupriyan Mukhin, who started to work there during the war, explain the job to Sergei Tatarkin, just out of school.

chine tools that incorporate the experience accumulated by automotive and machine tool engineering at home and abroad. We expect to rebuild our plant pretty much from the ground up without interfering with production and, in the process, our men will be retrained for the new skills required by the changeover.

What is involved is the installation of some hundreds of automatic lines, some thousands of new machine tools and several miles of conveyors. State allocations of millions of rubles have been appropriated for the job.

The plant's heat and power station, forge and casting shops will be changed over from coal to gas. Molding, charge mixing, cupola charging, the knocking out and cleaning of castings will be completely automated.

Instead of the noisy steam forging presses, the forge shop will be re-equipped with practically noiseless machines. For the first time in forge practice two semi-automatic lines for stamping auto valves are operating at our plant. Almost all the processes involved in the production of valves will now be automated.

High-speed and multi-spindle presses, "mechanical arms," automatic stamping and assembly lines, mechanical transportation of waste—all these high-efficiency tools and techniques that involve little or no human effort—are to be used in the forging and stamping departments. Those of the old presses which can be modernized will be rebuilt.

Our plan calls for integrated automation of the mechanical shops, the most critical area in auto production. More than a hundred transfer lines are to be installed in these shops and a large number of their machine tools switched over to high-speed cutting. The

# GORKY AUTO PLANT

plant's biggest wheel shop will be entirely automated.

Although this very comprehensive automation will eliminate a large number of jobs, not one worker will be laid off. The changeover will create new jobs in plenty. Every single worker will have the opportunity to retrain and learn a new skill at no expense to himself. As a matter of fact, not only will we be holding on to every one of the workers we have, we will be hiring new ones to make up for those who retire on pension and those who leave for other reasons. Among them will be many young workers who leave the plant for study at technical schools and colleges.

### A School for Car-builders

Another name for the Gorky Auto Plant could very appropriately be the "Gorky School for Training Car-builders." More than four thousand of our people work and study at the same time. Besides the general schools, in the neighborhood of the plant there are a branch of the Polytechnical Institute, two automotive secondary schools, five evening secondary schools and five trade schools. We also provide advanced training courses for some 12-15,000 mechanics and engineers annually.

The cost of this training is met by the gov-

The Gorky plant has a reputation for training excellent workers who have no difficulty qualifying for skilled jobs in any auto plant in the country.

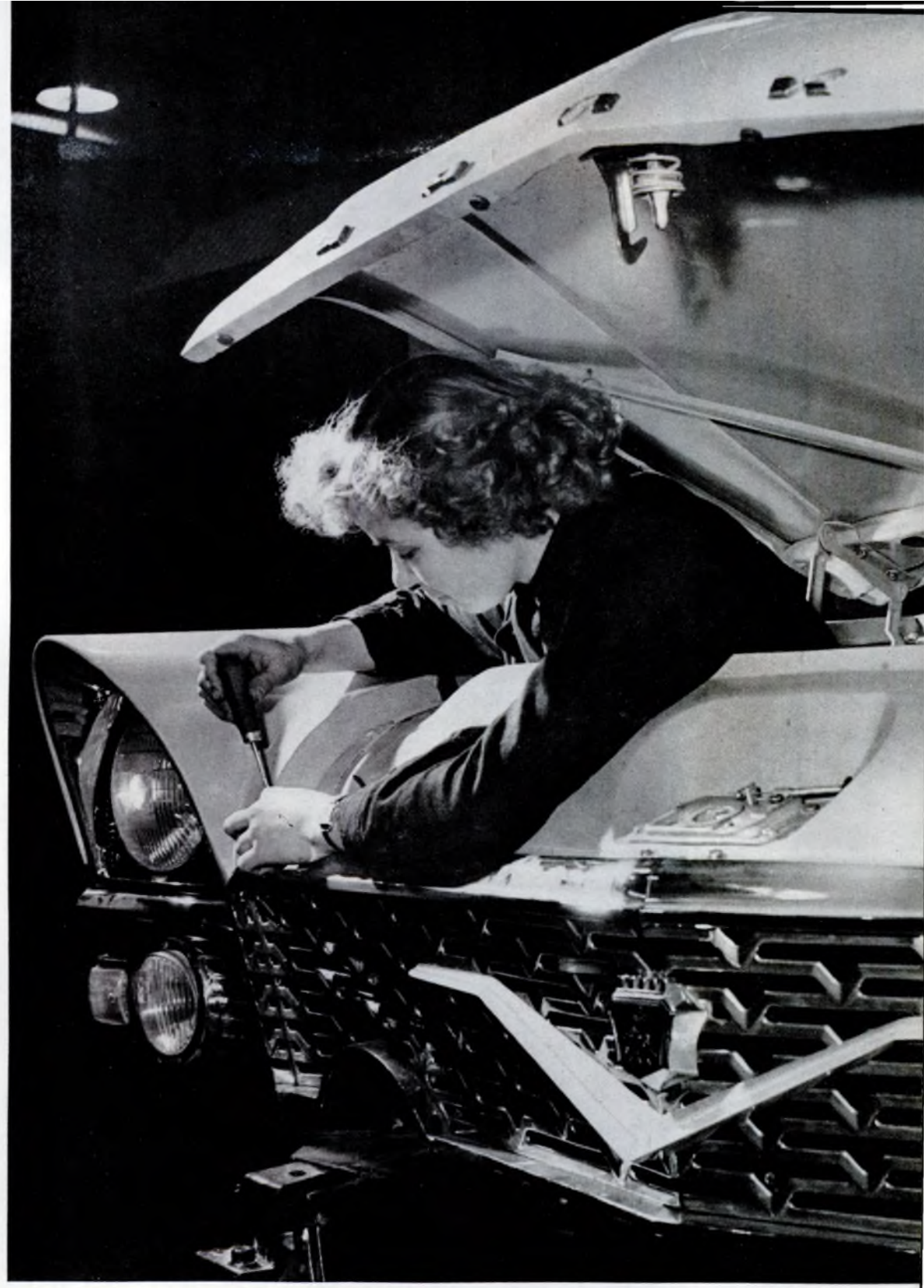




ernment. Students pay no tuition fees of any kind. Every worker who attends a branch of the institute or a special technical school is entitled to two ten-day paid leaves for taking examinations—this is besides his regular vacation. As a rule, men and women who study do not work the late shifts.

At the plant we have whole families who study while holding down jobs. Genrikh Skazhev was graduated from secondary school in 1949 and was called for military service shortly thereafter. When he left the army he took a job at the plant. At first he worked at a lathe and then transferred to the malleable iron casting department. Shortly afterward, he enrolled in the evening division of the Polytechnical Institute.









**Millions of rubles have been** allocated in the state budget for retooling the plant for the production of economical, up-to-date models. **The Volga, at** the left, has already replaced the more expensive Pobeda. The new passenger cars have automatic **transmission, power steering** and tubeless tires. Newly designed trucks will begin rolling off Gorky conveyors in 1960.

Skazhev has a family of four—himself, his wife Lyudmila, three-year-old Yelena and two-year-old Larisa. Lyudmila, a graduate of an agricultural institute, works for the Public Gardens Department. She is thinking of moving into another field and is preparing for it at the correspondence division of the Moscow Institute for Economic Planning.

The other two students in the Skazhev family are Larisa and Yelena, both at nursery school.

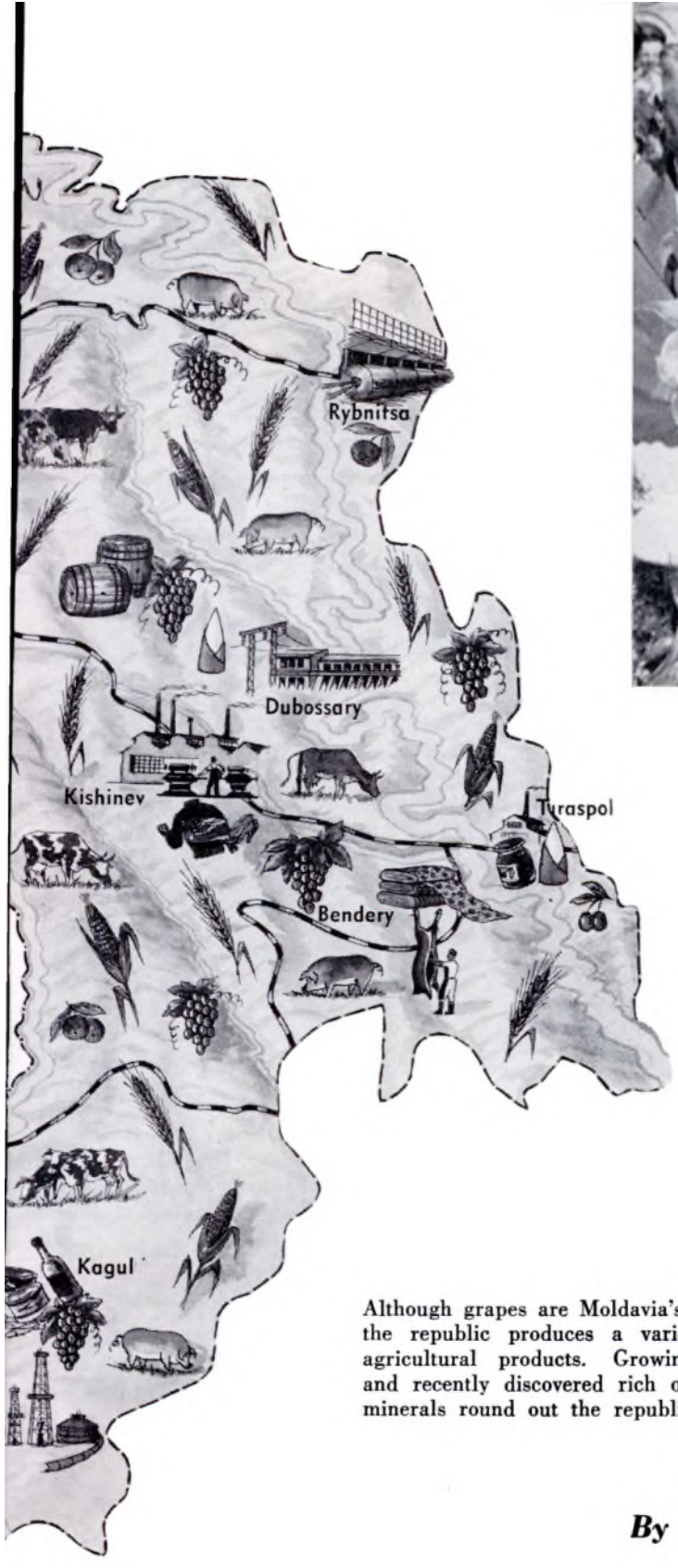
The two elder Skazhev students get three paid annual leaves from their jobs—their regular 24-day vacation and two 10-day leaves to prepare for and take their examinations. After they complete their studies, the couple will work at the plant—he as a foundry engineer, she as an economist.

Every facility at the plant is available to those who wish to do advanced study. Engineers are free to use the plant laboratories and equipment and the plant's files of statistics for research studies. There are people who have been trained at Gorky in every auto plant in the country. From our plant have come engineers who are now national leaders —trade union officials, heads of economic councils and ministers of state.

# The Moldavian Republic




MOLDAVIA'S VINEYARDS COVER 500,000 ACRES OF FERTILE HILLS AND VALLEYS IN THE SOUTHWESTERN PART OF THE COUNTRY, A THIRD OF THE TOTAL GRAPE ACREAGE.




Although grapes are Moldavia's major crop, the republic produces a variety of other agricultural products. Growing industries and recently discovered rich oil fields and minerals round out the republic's economy.



To mark the republic's contributions to the nation N. S. Khrushchev arrives to present it with the Order of Lenin on behalf of the USSR Supreme Soviet.

With illiteracy a thing of the past, Moldavia has trained people in all the professions. Alexander Dobromyslov and Ivan Kurlov are eye specialists.



A collective farm board plans its construction program for the next 7 years.



## By Iakim Grosul

*President of the Moldavian Branch of the USSR Academy of Sciences*

RIVERS have determined the history of many nations whose people settled on their shores centuries ago. The Volga, Dnieper, Niemen, Seine and Thames are part and parcel of Russian, Ukrainian, Lithuanian, French and English economic and social history.

So, too, for the Moldavian people who live on both banks of the Dniester. The accident imposed upon them by geography resulted in telling consequences. Until 1940 the river cut the nation in half. In the early years after the 1917 Socialist Revolution a Moldavian Soviet Republic was formed on the left bank, while the Moldavian villages and towns on the right were held by the Rumanian monarchy which had occupied the territory after the First World War.

On August 2, 1940, Moldavians on both banks of the Dniester united in a sovereign Soviet Socialist Republic and joined the USSR, the Union of Soviet Socialist Republics. During the war Moldavians fought to defend the nation side by side with Russians, Georgians, Ukrainians, Lithuanians and all the other peoples who inhabit the vast multinational country.

Four years of war left deep scars. Towns and villages were pillaged and burnt, all industrial regions were leveled, thousands upon thousands of young Moldavians lost their lives.

In 1944, when the Soviet Army liberated Moldavia from Nazi occupation, the people set about rebuilding. Today Moldavia's flourishing industry and agriculture have reached a level higher than before the war. As industries were rebuilt and expanded, the cities around them were modernized and grew far beyond their old boundaries. That was the case with the capital Kishinev, industrial center of the republic, and with Beltsy, Tiraspol, Bendery, Soroki, Orgeyev, Kagul and many other urban communities.

# The Moldavian Republic



Street after street of new apartment houses flanking broad tree-lined avenues in Kishinev are part of the country-wide construction plan to provide new housing for 75 million people.

### Two Million Tons of Fruit

A glance at the map of our republic will show that its frontiers form the rough outline of a cluster of grapes, appropriately symbolic, for Moldavia is indeed a land of vineyards. The arms of our republic bear a cluster of grapes and a sheaf of wheat. Our vineyards spread like green sea waves over 500,000 acres of rolling valleys and hills. This is about a third of the country's total grape acreage. Just as Siberia suggests furs and lumber and the Donbas coal, so Moldavia suggests grapes.

During these next seven years Moldavia will be developed as the Soviet Union's major fruit, grape and wine region. Production of grapes is scheduled to triple. Collective and state farms are in process of planting some 450,000 acres of vineyards and 300,000 acres of orchards for fruits, berries and walnuts. Fruit-bearing trees and berry patches will be grown on a full quarter of Moldavia's territory. The harvest is expected to reach two million tons by 1965, about 22 pounds of fruit for every man, woman and child in the Soviet Union.

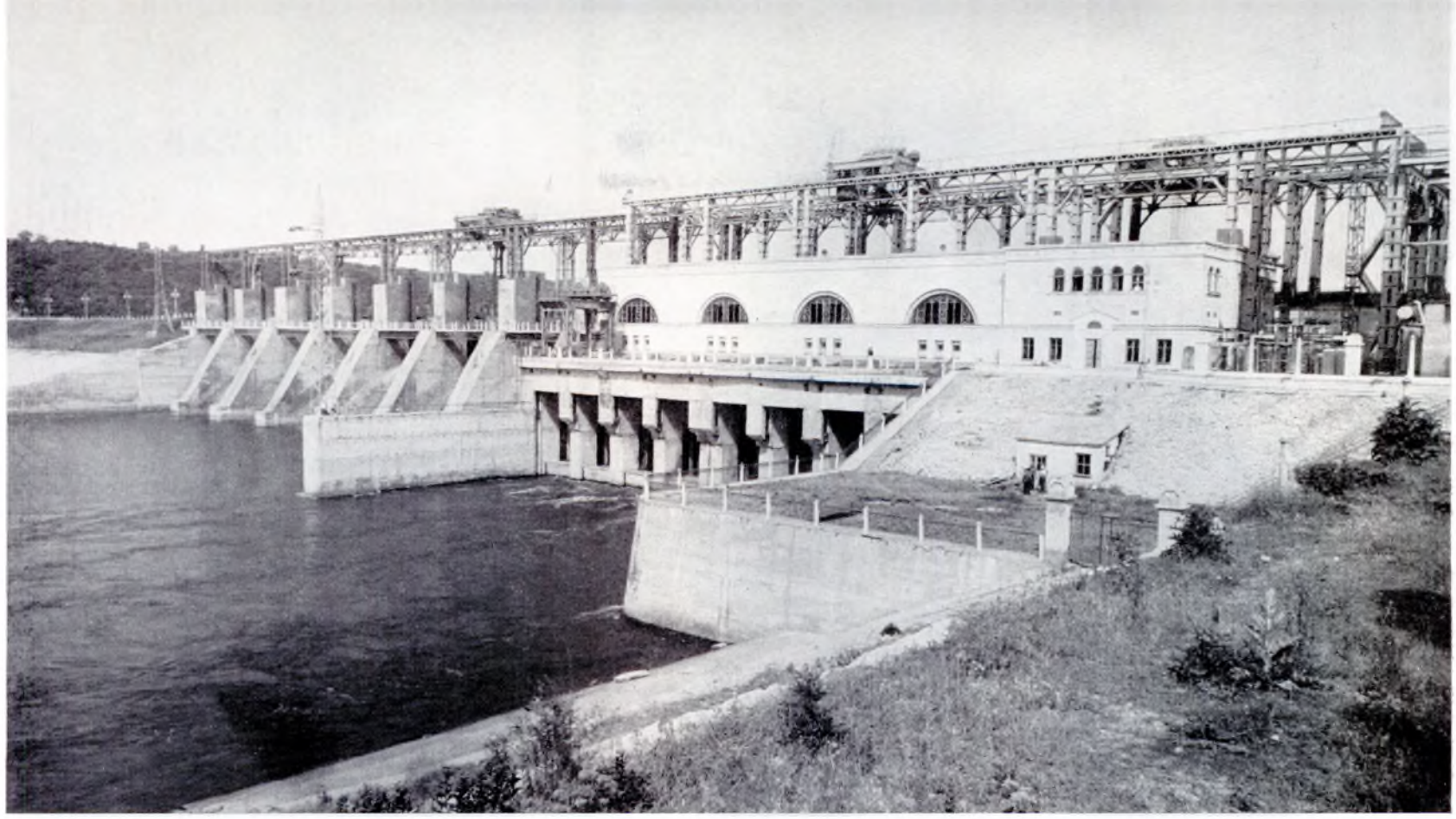
Moldavian farmers not only rank as top-notch fruit growers, they are also much better than middling field crop farmers and stockmen. The per-capita meat production of Moldavia is higher than that of many of the other Soviet Republics, so are its crops of winter wheat, corn, sugar beet, sunflower seed, tobacco and soy beans. In the past five years Moldavian collective farms have raised their total output by 75 per cent and their meat output by 38 per cent.

Moldavia's seven-year plan calls for rapid expansion of its canning, wine making, meat and dairy industries. By 1965 the republic's canneries will be turning out 500 million cans of food—five times as much as the whole of Russia produced in 1913. The plan also calls for 12 dairy and three meat packing plants and 100 new wineries, among other food processing enterprises to be built.

Moldavia was long held to be poor in min-

Weavers of the Bendery Artificial Silk Mill. New factories of all kinds are being built.





ONE MAN OPERATES THE DUBOSSARY HYDROPOWER PLANT BY REMOTE CONTROL. IT SUPPLIES ELECTRICITY TO THE CITIES OF KISHINEV, TIRASPOL, ORGEYEV AND BENDERY.

erals, aside from such building materials as limestone, clay, marl, sandstone and gypsum. Geologists, however, have found phosphorites in the North, natural gas in the Prut basin, lignites in the South, and in the summer of 1957 they discovered rich oil fields.

Kishinev is our largest industrial center and accounts for almost one-third of the republic's total output of manufactured goods. Beltsy ranks second. The South at present has few industries, but that picture will be changed by the dozens of factories to be built in the next seven years.

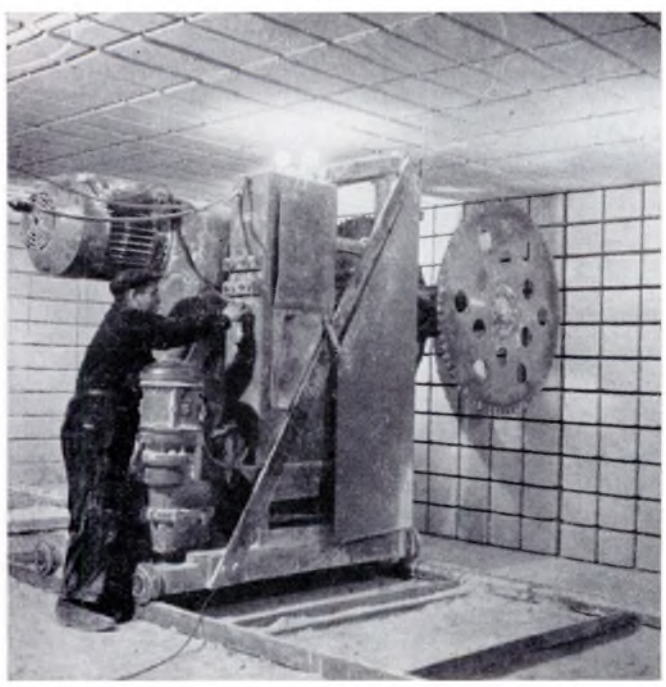
Where industry expands, so does power—and the other way round. The Tiraspol thermal power station was built before the war to service the canning factories and the irrigation systems in the region. It was inadequate to meet growing power needs. The Dubossary hydropower station was built and in 1954 it began supplying electricity to the cities and collective farms of several districts. This hydropower plant and its substations are run by remote control from Kishinev by only one operator.

### Workers Needed

There is, of course, no unemployment in Moldavia, nor is there any in the country generally. The perennial problem of Moldavian industry is more help, rather than less. There is no factory of any size that does not offer free courses for workers to train for the many new skills created by automation. There are new schools, nurseries, theaters and blocks of new apartment houses in every city.

The illiteracy that was so general before the Socialist Revolution has been altogether eliminated. Under the czar there were only five secondary schools in the whole of what is now Moldavia, and not a single college. Now seven years of schooling is compulsory, and there are 350 secondary schools and eight colleges, including Kishinev University.

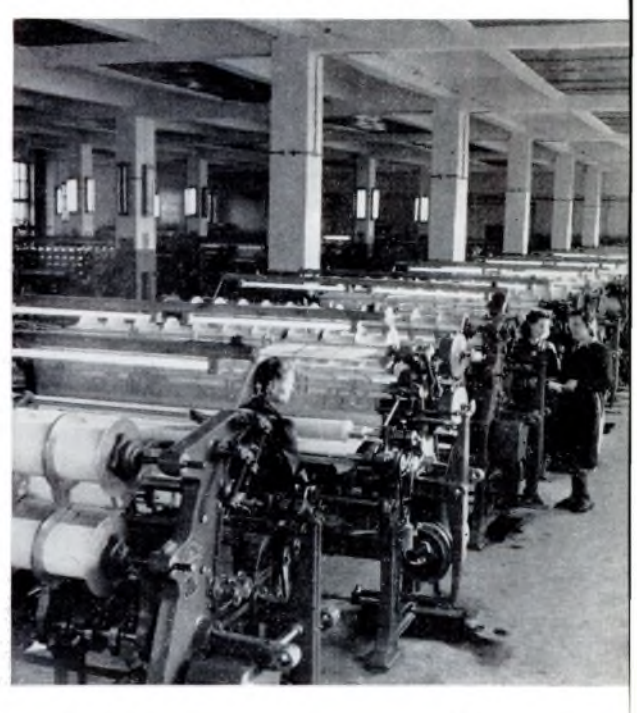
Patterns are created deep in the earth as blocks of shell rock, a valuable building material, are cut.



In a Beltsy wine and cognac factory. Food processing is a major industry in Moldavia.



A weaving mill in Kishinev, the capital and industrial center of the republic.





The village sanitation inspector stops to chat with a collective farmer. The increase in agricultural output is reflected in the rapidly rising living standards in the countryside.



Watering collective farm orchards. By 1965 the fruit harvest is expected to reach two million tons—about 22 pounds for each of the country's citizens.

# The Moldavian Republic

Moldavia has been training its own professional people. Working now are 26,000 native schoolteachers and physicians, 10,000 engineers and technicians. In the past four years alone 1,500 trained agronomists and 728 zootechnicians have gone to work at the republic's collective farms.

Moldavia is the seat of 29 research institutions and a branch of the USSR Academy of Sciences. Fifteen scientific journals are published in the republic. The sons and daughters of Moldavian workers and farmers who still remember the poverty and ignorance of the old days now do significant research in nuclear physics, biochemistry and other sciences; they perform the most delicate surgical operations; they write novels and plays and compose music for audiences of millions; they manage farms and factories and government ministries.

## A Sovereign State

Moldavia is a sovereign Soviet Republic with its own Constitution and its own parliament, the Supreme Soviet, elected every fourth year. The republic's economic and cultural affairs are directed by the Moldavian Council of Ministers. Moldavian Economic Councils administer industry of republic-wide importance while local industry is directed by municipal or town Soviets.

As a constituent republic Moldavia is represented in the two houses of the national parliament by 34 deputies—nine in the Soviet of the Union and 25 in the Soviet of Nationalities. Together with the deputies of all the other fraternal republics the Moldavian representatives determine the domestic and foreign policy of the Soviet Union.

A NEW TOWN HAS GROWN UP AROUND THE DUBOSSARY HYDROELECTRIC STATION, WITH GOOD HOUSING, SERVICE AND CULTURAL FACILITIES FOR ITS INHABITANTS.





These young girls, the children of shepherds, never experienced the poverty that once blighted the lives of the Gagauz.



Alongside the new roads which stretch to outlying regions of Moldavia and provide easy access to the cities stand the carefully preserved old Gagauz monuments.

# THE FATE OF A SMALL NATIONALITY

OLIVE-SKINNED men wearing black hats and women muffled to the chin in varicolored scarves, speaking a language unlike the people around them, live in the southern part of Moldavia. They are Gagauzes, a people of Turkic origin who migrated from Central Asia ages ago to settle on the shores of the Black Sea.

The lot of this small nationality was a hard one under the czars. Its people were second-class citizens with no political rights, subjected to the most merciless kind of exploitation. Nor did their lives change to any degree after World War I when this part of Moldavia was occupied by monarchist Rumania. If anything, conditions were worse. Rumanian officialdom considered Moldavia a colony, to be sucked dry. No matter how much a Gagauz toiled away over his bit of land, there was not enough left over to feed his family.

It is only in Soviet times that the Gagauzes have become a free and independent people, the equal of any other. They themselves govern their villages and manage collective and state farms and industrial enterprises.

The farms which the Gagauzes work are considered the best in the republic. This is especially true of their livestock. In 1958 the Gagauz collective farms in the Chadyr-Lunga District produced more than eight tons of meat and 21 tons of milk per 250 acres of farmland, almost four times that for 1953. An especially high record was set by the Kirov Collective Farm with a yield of 11 tons of meat per 250 acres of land. With such bumper crops, the farmers of the Chadyr-Lunga region have pledged to reach their high seven-year plan target figures for meat in two years and that for milk in three years.

### A Cultural Renaissance

A written language was created for the Gagauzes by their own linguists—men like poet-schoolteacher Nikolai Tanasoglo—with the assistance of eminent language scholars from Moscow, Leningrad, Tashkent and Kishinev. Now Gagauz children are taught in the native tongue and school textbooks, scientific periodicals and fiction are published in the Gagauz language.

Raisa Kulaskiz, a Gagauz teacher, was one of the delegates at a recent national Congress of Trade Unions held in Moscow. "My native region," she said in her report to the assembly, "has changed radically during the Soviet period. We now have eight secondary schools, eleven seven-year schools, and three elementary schools. Nearly 400 teachers are giving instruction in the native tongue."

The teachers' training schools in Moldavia have founded special divisions to train Gagauz teachers. Gagauz doctors, engineers, agronomists and scientists are doing important research at the Moldavian branch of the USSR Academy of Sciences.

For the first time in the long history of this small nationality there is a newspaper in the native language. The first issue was published two years ago in Kishinev. Besides news, the paper carries stories, sketches and poems by Gagauz writers. There is also a renaissance of Gagauz music and the graceful ancient dances, with flourishing amateur song and dance groups in all the villages.

In 1958 Ivan Topchu, chairman of the Kirov Collective Farm, was elected by the people of southern Moldavia as their deputy to the USSR Supreme Soviet. Ballots were cast in his favor not only by people of his own nationality, but by Moldavians, Bulgarians, Ukrainians and members of other nationalities who live in his election district. His election was more than a personal tribute; it was a tribute paid to a small but indomitable people who have leaped the centuries in the last decade.

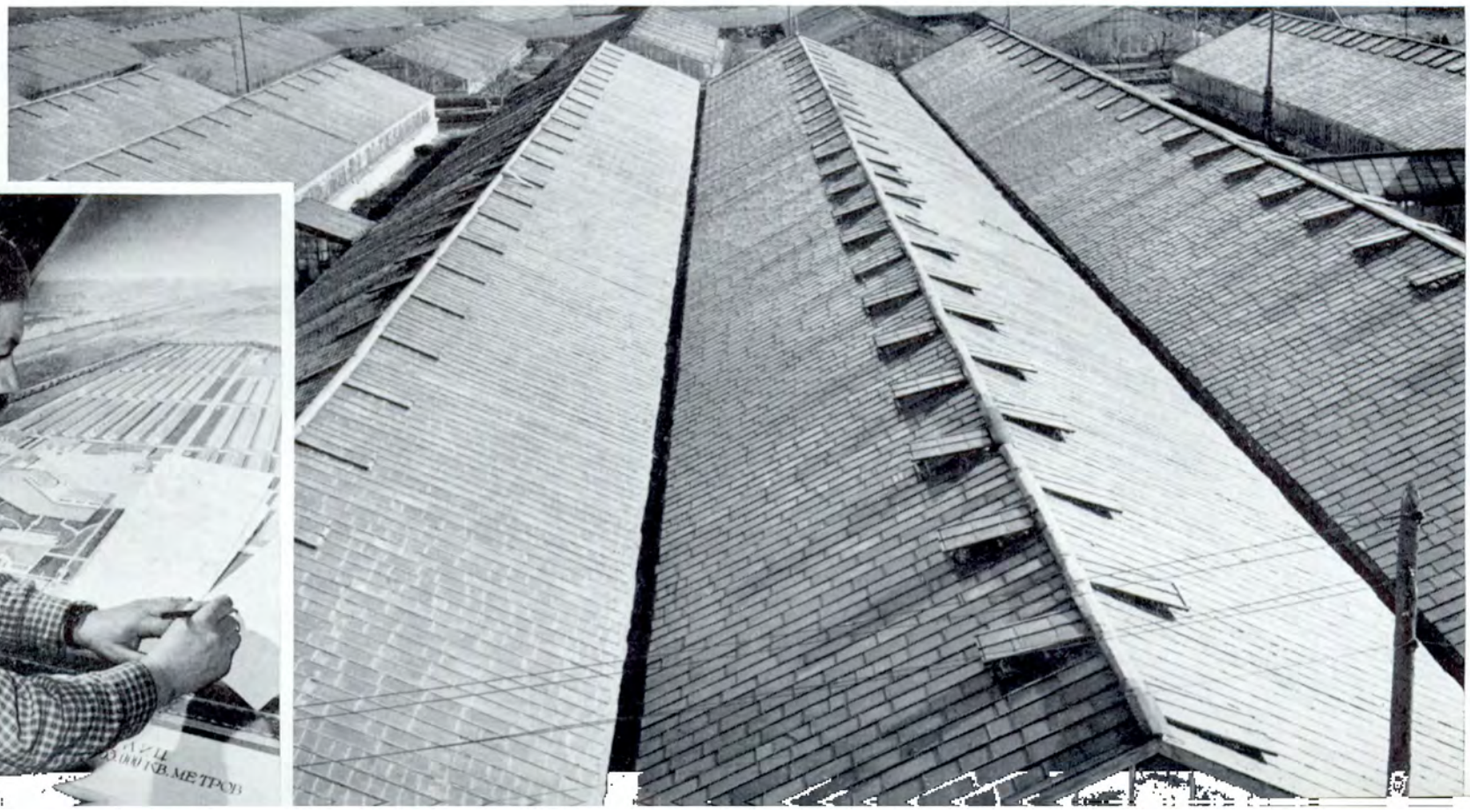
Farmers of Chadyr-Lunga District tell a Gagauz deputy to the USSR Supreme Soviet how they propose to achieve their 7-year meat target in two years and milk target in three.





THE GORKY STATE FARM'S 51,000 COLD FRAMES AND 25 ACRES OF HOTHOUSES PROVIDE SCIENTIFICALLY CONTROLLED GROWING CONDITIONS THE YEAR ROUND.

ENGINEER GEORGI PERVUSHIN CHECKS THE DRAWINGS OF HOTHOUSES NOW BEING BUILT WHICH WILL GIVE THE FARM AN ADDITIONAL NINE ACRES OF CROP SPACE.



# FRESH VEGETABLES FOR MOSCOW



*By Yakov Mikhailov*

WHERE the factory district in suburban Moscow ends, the vegetable gardens and hothouses of the Gorky State Farm begin. Thirty years ago most of this was wasteland, an unproductive borderline between the city and the collective farms.

The soil was poor. To change its organic structure meant adding large quantities of organic and mineral fertilizer, a costly process that the very recently founded collective farms were then too young to undertake.

The growing Moscow needed vegetables, so the government took over the soil reconstruction job. A number of state farms—one of them the Gorky—were set up. The land was enriched with thousands upon thousands of tons of fertilizer, the most productive growing methods were used, and the state farms grew very quickly into large-scale, machine operated agricultural enterprises. They have been supplying the city markets with fresh vegetables for years now.

At first the Gorky farm grew its crops in open fields. But the Moscow winters are long and severe and the growing season is short. The farm, therefore, built cold frames and hothouses to stretch the growing season. Today, 51,000 cold frames and 25 acres of hothouse area supply fresh vegetables the year round. By 1965 the farm expects to increase its hothouse area by three and a half times.

Since its crops are not dependent on the vagaries of weather and season, the Gorky farm schedules its production with almost the certainty of an industrial plant. The growing period is adjusted to each crop, ripening dates forecast and picking systematized to meet the Moscow housewife's seasonal requirements.

## The Vitamin Man

Seven mornings a week the farm's big trucks, packed full of crates and overflowing baskets of ripe tomatoes, cucumbers, radishes, carrots, onions, race through the streets of the awakening city. The market people in their white overalls waiting for their deliveries call the truck drivers "vitamin men."

One of them is the old-timer Alexei Starostin, a big-muscled man of 45. When he came from his native town of Saratov on the Volga twenty-seven years ago to work at the Gorky farm, the reclamation project was still in its early stages. He was one of the group of farm hands and soil experts who turned barren land into rich truck farm.

Besides taking his turn at delivery, Starostin does tractor repair and maintenance. He is a good farmer and a first-class mechanic.

Starostin is a long way removed from the farmhand of prerevolutionary Russia who tramped the countryside looking for seasonal work that barely kept body and soul together. He has a permanent year-round job at the state farm and gets a regular wage.

In 1955 Starostin moved into his new apartment in one of the three-story brick houses built by the government. Rent averages 4-5 per cent of family income.

Anastasia, his wife, also works on the farm. They have three children—16-year-old Alexander and 12-year-old Tatiana, both at school,

**MOSCOW MARKETS HAVE NO SEASONAL SHORTAGES.**





MOST OF THE YOUNG PEOPLE AT THE FARM ARE COMBINING WORK WITH STUDY.



THE STATE FARM PLANS ITS PRODUCTION SCHEDULE MUCH LIKE ANY FACTORY.

# FRESH VEGETABLES FOR MOSCOW

MECHANIC PYOTR KRASNIKOV IS IN CHARGE OF KEEPING THE MACHINERY IN GOOD WORKING ORDER.



and 6-year-old Elena, at the farm kindergarten.

Last year the Starostins earned a total of 26,000 rubles. That was cash income. Figure the very low rent, free medical service, free schooling, very low cost for vacations and other welfare benefits and the yearly income actually runs as much as 50 per cent higher.

### Like an Industrial Plant

The organization of the farm is much like that of an industrial plant. The chief agronomist is Mikhail Kutumov, graduate of the Timiryazev Agricultural Academy. Besides him, there are nine other farm experts and two engineers.

Each of the farm's three departments is headed by a manager, assisted by team and group leaders—senior farm workers in charge of the specialized groups. At one time the farmhands worked at a variety of jobs—they did what needed doing at a particular time. Now each of the farmhands works pretty much at his own specialty—field hand, hothouse worker, machine operator, laboratory assistant, truck driver.

This kind of job specialization is more productive than the old jack-of-all-farm-trades method and is now in practice in all suburban state truck farms. Vegetable farms like Gorky have been built close to many of the big cities—Leningrad, Sverdlovsk in the Urals, Kemerovo in Siberia, Baku in Azerbaijan, Tashkent in Uzbekistan and Kiev in the Ukraine.

The Ukraine has about 200 such state vegetable farms. They supply Kiev, Dniepropetrovsk, Stalino, Kharkov, Lugansk and other cities with their daily supplies.

Nowadays most of the work on the Gorky farm is done by machine, and men like tractor-mechanic and operator Starostin are key workers. The farm has a big machine shop where its fleet of tractors and trucks and



NEW HOUSING FOR GORKY STATE FARM WORKERS.



ALEXEI STAROSTIN HAS BEEN WORKING AT THE FARM FOR 27 YEARS.



HIS WIFE AND ONE OF THEIR 3 CHILDREN.

its hundreds of farm tools—mechanical drills, planters, cultivators, spreaders—are serviced. It has a sprinkler system which is now being extended and before long will be irrigating the entire crop area.
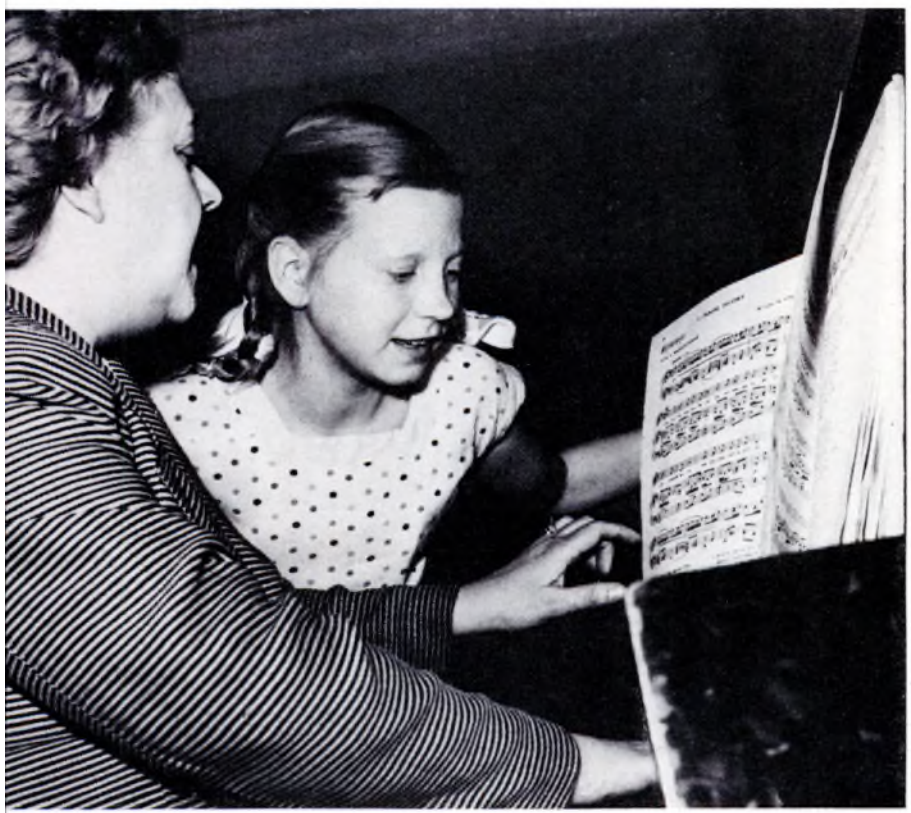
Scientific farming is the practice on all state farms. Every field of the Gorky farm is carefully and systematically analyzed by soil experts for best crop rotation procedure, kind and quantity of fertilizer and cultivation methods. The expected yield of each acre is fitted into the farm's annual production program.

All the workers on the farm are involved in managing the big agricultural enterprise. They elect the standing production conference —an actively functioning group to which the chief agronomist, department managers and chief engineer submit progress reports. It is the function of the conference to make suggestions on the farm's production activity and to criticize the work of the administration.

The farmhands enjoy the same rights as do workers in an industrial plant. They have their trade union organization which annually concludes a collective agreement with the farm management.

The agreement defines the kind and quantity of crops to be grown, the quotas, wage scales and bonuses for each of the skills, hours and working conditions, new housing to be provided by the farm, increases in benefits and other matters that relate to the growth of the farm and the welfare of its workers.

HIS ELDER DAUGHTER, WHO IS IN THE FOURTH GRADE, IS STUDYING MUSIC.



HIS SON IS A PHOTOGRAPHY FAN AND ALEXEI DOESN'T STINT ON EQUIPMENT.



# NINE

***Ogonyok* is one of the most popular magazines in the Soviet Union, with a circulation of a million and a half copies. It publishes illustrated articles and stories of life in the USSR. This article appeared originally in *Ogonyok*.**




ONE OF our issues nine years ago showed this photo of second-year students listening to a physiology lecture at the Yerevan Medical Institute in the capital of Armenia. We came across the photo again very recently and thought it would interest our readers if we tried to find out what had happened to these students since, what they were doing now, and with what success.

So we called in at the Yerevan Medical Institute again to see what answers we could get to these questions. First, there was the problem of identifying the students in the photo, getting their names and present whereabouts. We thought it barely possible that one of the students might be working at the Institute and asked. The answer we got after a close look at the photo was, "I don't recognize any of them," and then, after another long look, "although this one," pointing to the face we show here in the circle, "does look as if it might be our Eleanora."

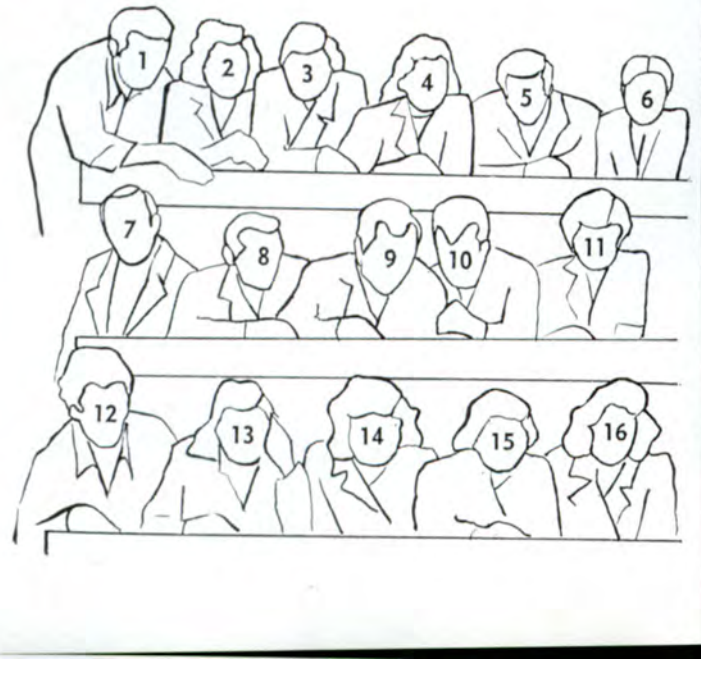
And luckily it was their Eleanora—Eleanora Barsegyan, who heads the laboratory of topographical anatomy and operative surgery. When we met her she recalled her college mates without any trouble and rattled off one name after another.

Well, here was problem number one solved—we now knew the names. But here was problem number two. With some 90 faces in the photo, we would need ten times our staff to locate their owners and a half dozen writers to report our findings. And we had space available for only one modest article. We therefore had to take Draconian measures and mercilessly crop our photo to meet space limitations. Alas, we had to crop our friend Eleanora Barsegyan, too, and that didn't seem fair. But what can a magazine publisher do when a page won't stretch? However, we made her a promise. Then we started on our search. This is what we discovered about the 16 students marked off in our photo:

**1-2.** Stepan Grigoryan and Anjik Akopyan had been friends from childhood. They attended the same secondary school in Kirovakan, were students in the same class at the Medical Institute and sat side by side at lectures. In her fifth year at the medical school, Anjik Akopyan's name suddenly disappeared from the list of students. Dropped out of school? No. Anjik had merely assumed another name, that of her husband Grigoryan.

Anjik became a pediatrician and Stepan a roentgenologist. But that seems to be their only major point of difference. Here they are discussing an X-ray plate. They live and work in their native town, Kirovakan.







# YEARS



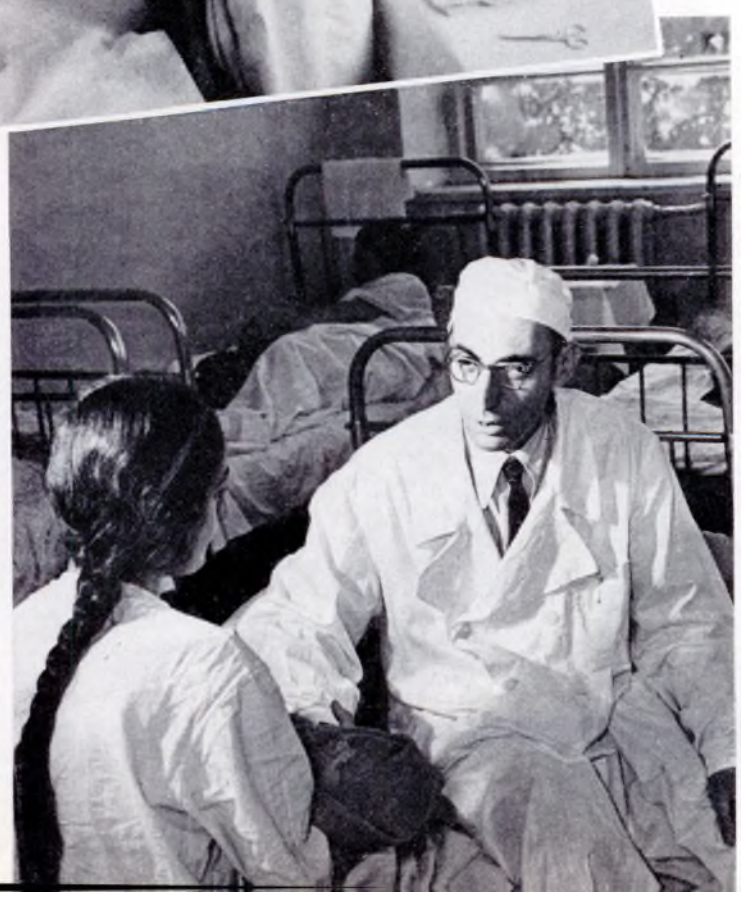
**3.** Leninakan, where we met Asmik Karapetyan, is the second largest city in Armenia and a large industrial center. We found Asmik in one of the shops of a stocking factory. She has not changed her profession. She works as a physician at the clinic attached to the stocking factory and textile mill. Her job is to do more than take care of textile workers who fall ill; she sees to it that they stay healthy.



**4.** Rosa Markaryan from childhood wanted to become a doctor. After finishing the seven-year school she entered a medical secondary school. While she was still a student, she began working as a midwife. After graduating, she entered the Medical Institute. Her career as a pediatrician was recently interrupted, temporarily, by the birth of a daughter, Angela.



**5.** About Levon Saakyan's whereabouts we got the most conflicting information. At the Institute we were told he was working somewhere in the Far North, in Yakutia. Then we were given to understand that he was working near Moscow. Finally we traced him to the Tashkent vicinity. The photograph unveils the mystery of Levon's frequent changes of address. As you can see, he is an army doctor.



**6-7.** These two college mates of Levon Saakyan's also seemed to be on the go all the time. When Mariam Vaskanyan graduated from the Institute she left for Tbilisi, capital of Georgia, and at the time we were looking for her, she was on her way to Leninakan.

Grant Chivijyan had worked as a doctor in Lithuania but was moving to Sukhumi. We were therefore unable to photograph either one of them. But we did locate these three friends of Grant's sitting beside him and we are very glad to introduce them to you.

**8.** This is Zhirair Makasyan, a young man from Greece. In 1947 he came to Yerevan where he found a second home, friends and work he was happy to do. He is now a doctor at the Korovakan Maternity Hospital. He had just gone off duty when we called on him. It had been a rather busy night for he had attended at the birth of ten new Soviet citizens.

# LATER

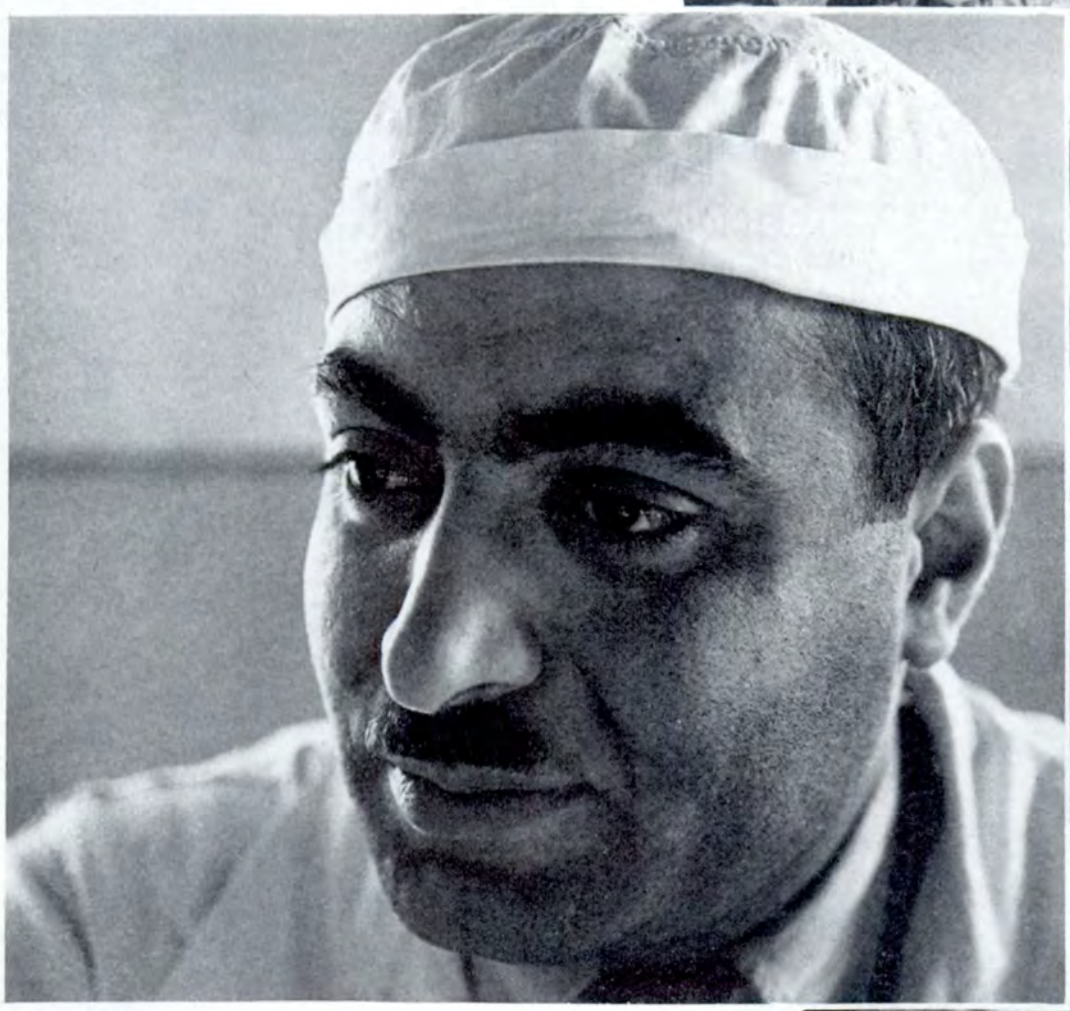
**9.** Akop Vaskanyan comes from the Syrian town of Khaleb. In 1920 his father, Pogos Vaskanyan, a jeweler, fled from Turkey to asylum in Syria. Young Akop continued his wanderings until he reached Armenia. Here he stayed and became a pediatrician. It was here too that he met Julietta who later became his wife. She studied biology at the University of Yerevan and is now doing graduate work at the Academy of Sciences. The patient is Pogos Vaskanyan, Akop's young son.






# NINE YEARS LATER

**10.** Ara Bagdoyan, a friend of Zhirair Makasyan, is head physician at a polyclinic. This cheery doctor, who was born in Syria, has settled in Armenia and is a well-loved resident of Kirovakan.







**11.** We had quite a time getting to Silva Mikayelyan. First we traveled the highway, then a long winding road and finally we made our way across mountain paths to reach the little village of Agin. When we finally did get there, we learned that Silva, chief physician of the village medical district, had left that day for Yerevan with a very sick patient. What were we to do? Silva's colleagues helped us out with a lot of information about this young village doctor. With her colleagues and the collective farmers she got a new hospital built and has been working there for the past four years.



**12.** Ashot Mirzoyan is another village doctor but we were more fortunate with him—we almost found him at home. To be more specific, he was already seated on his motorcycle, ready to take off for a distant Kurd village. Had we come a few minutes later, we would have had to be satisfied with whatever information we could get from his wife, Shogik, who is also a doctor at the village hospital.

We learned from Ashot that for the collective farmers in this fertile valley of Ararat the name Mirzoyan is synonymous with the word "doctor." There are three other doctors in the family.





**13.** The woman in the Turkmenian national costume in this photo (at the left) is Goar Barsegyan. We had to be satisfied with an account of Goar's present activities supplied by her mother and father, who were very happy to talk about the daughter they're so proud of. They told us that Goar was married to a geologist and that she has been working in Turkmenia for four years as head physician of the hospital in Charshangu village, high in the mountains.



**14-15-16.** These three Young Communist League members and close friends Angela Agameryan, Marietta Sarkisyan and Lilik Nakhashkaryan, always sat together at Institute lectures. Here they are still side by side. Angela and Marietta are obstetricians. Lilik works at the Yerevan Tuberculosis Clinic.

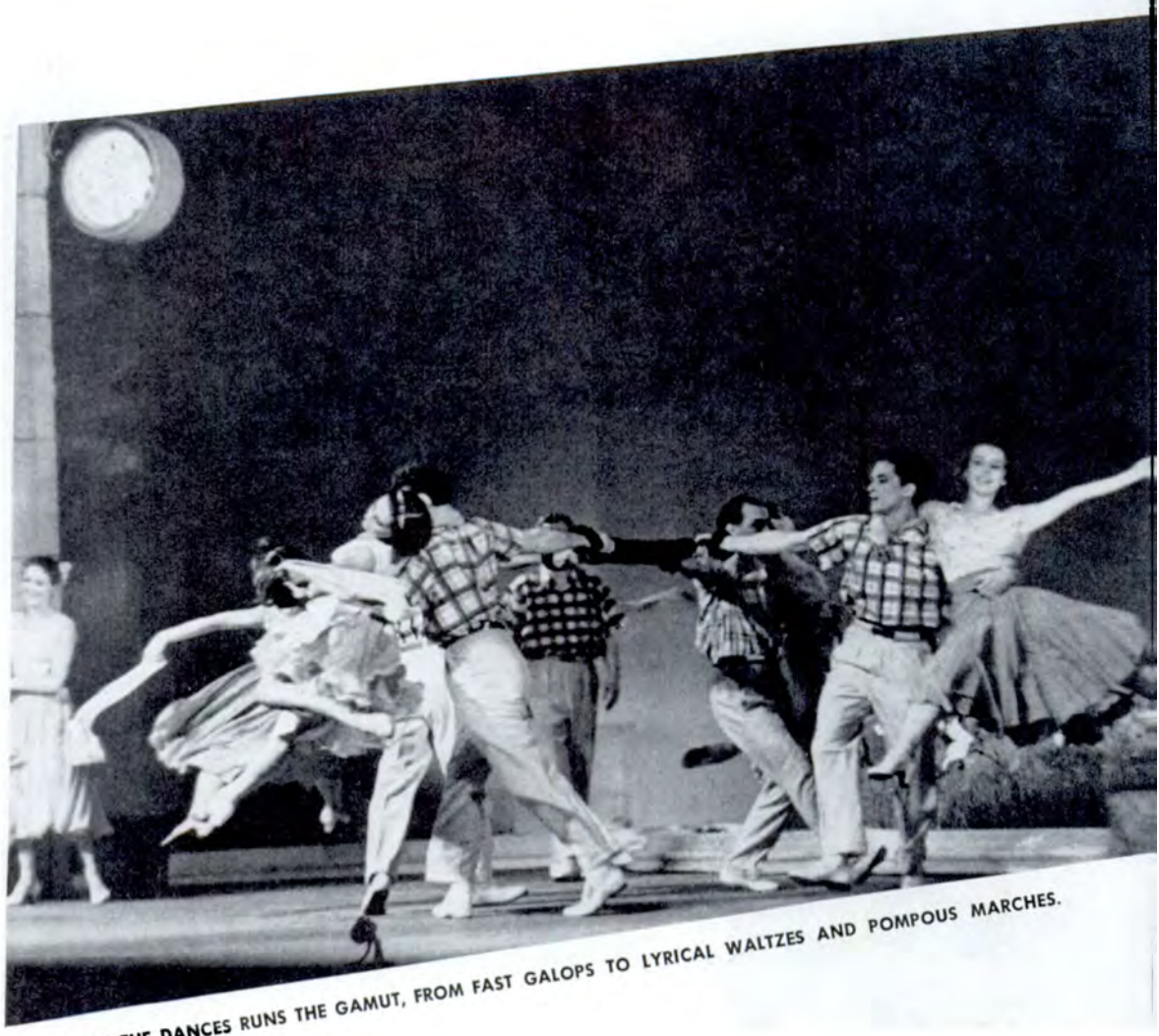


**17.** Finally, this photo we took to keep our promise to Eleanora Barsegyan who helped start us on our search. Eleanora has been working with second-year students for the past year. And here, as in 1950, the subject of our picture is students and an experimental dog. But the person now leading the study is that very same girl who, nine years before, was herself a student at the Institute.

# MOSCOW, CHERYOMUSHKI



NIKOLAI RUBAN PLAYS BORIS KORETSKY, THE MALE LEAD.



MUSIC FOR THE DANCES RUNS THE GAMUT, FROM FAST GALOPS TO LYRICAL WALTZES AND POMPOUS MARCHES.

## SHOSTAKOVICH COMPOSES AN OPERETTA

**By Grigori Shneyerson**

DMITRI Shostakovich and operetta! An incongruous combination? Not when you recall the rippling scherzos of his first and fifth symphonies, the buoyant finales of the sixth and ninth, the subtle irony of many of his chamber scores.

Shostakovich's first operetta, *Moscow, Cheryomushki,* has just been produced by the Moscow Operetta Theater to the thunderous delight of audience, critics and musicians alike.

"Since I am so fond of operetta, this gay and vivacious form, and have high regard for the work of composers like Offenbach, Lecocq, Johann Strauss, Kalman and Legare, I should like my first operetta to be worthy of the name and win the favor of our wonderful Soviet audiences," said the composer. And so it unquestionably did and will be doing for a very long time to come.

*Moscow, Cheryomushki* is a lively musical revue. Theme of the effervescent libretto is housing and love. Cheryomushki is a great newly-built residential district in southwest Moscow. Hundreds of thousands of Muscovites have already moved into completed apartment buildings and as many are moving into new ones finished each year.

Vladimir Mass, one of the co-authors, says, "When Mikhail Chervinsky and I read our libretto to Shostakovich, he was immediately taken with it. In ten days he finished a dozen musical numbers and sent them off to the theater."

And so Muscovites are now crowding to this rollicking lyrical, satirical musical revue of Moscow housing and housewarmings. The characters are tenants—legitimate and phony; apartment superintendents—upright and crooked; and, of course, lovers.

The plot moves from the Museum of History where the hero and heroine first meet to the yard of one of the very new apartment houses where they circumvent the schemes of the wicked house manager. Then to the apartment house garden equipped with all sorts of magical fittings—benches, for example, that extract the truth from even the most arrant of liars.

In time-honored operetta tradition, the honest tenants win out, the officious bureaucrat who tried to move into someone else's apartment gets what's coming to him, the rascally manager is led off to his well-deserved punishment and the lovers triumph to live happily ever after.

From the very first opening chord, when all the builders and tenants of Cheryomushki step onto the stage to sing the opening lines:

*How do you do,*
*How's life treating you?*
*Is the wife doing well?*
*Are the kiddies simply swell?*
*Have you anything to say*
*On the issues of the day?*

the lyrics and music capture the audience.



THE MAGIC GARDEN, WHERE EVIL IS EXPOSED AND PUNISHED IN THE BEST OPERETTA TRADITION.



SHOSTAKOVICH POKES FUN AT MEDIOCRE BALLET SCORES IN ACT II.

THE VERSATILE COMPOSER OF THE HIT OPERETTA ABOUT LIFE IN MOSCOW.



# *Moscow, Cheryomushki*



ALEXANDER TKACHENKO AS THE OFFICIOUS BUREAUCRAT DREBEDNEV AND NELLY KRYLOVA AS HIS WIFE.



TATYANA SHMYGA IN THE ROLE OF LIDOCHKA.

SERAFIM ANIKEYEV PLAYS THE HOUSE MANAGER.



The musical images are developed most ingeniously and with extraordinary versatility. There is delicate humor, broad burlesque, grotesque caricature and all of it the unmistakable work of a composer of genius. The music does not "come down" to the audience, it carries the listener along with it, to the very last chords of the curtain song.

*Cheryomushki! Oh, Cheryomushki,*
*Where the cherry blossoms grow,*
*And all the hopes and dreams of those*
*Who live there bloom also.*

The interludes are skillfully worked in to move the action along. "Riding Round Moscow" is an engaging galop in modern tempo —by automobile. "Dream of a New Apartment" is a ballet *divertissement*, complete with languorous adagios, a sentimental waltz and a pompous march.

For his first operetta Shostakovich has drawn upon a whole century of musical rhythms. He makes use of today's "pop" tunes for his lovers and of the vulgar little polkas and cake walks popular at the turn of the century for his bureaucrats and red-tapists. With the same sure artistry that he weaves his symphony, he has worked these melodies into a dramatically justified orchestral pattern.

The musical characterizations are both tuneful and remarkably apt. Especially charming are the numbers sung by the heroine, the lovely Lidochka of Cheryomushki, sung by gifted young Tatyana Shmyga.

There are many ensemble songs, all rather complex polyphonically, and several big chorus numbers. The general pattern of the music is based on the lyrical waltz and the Russian song with very little jazz influence, none in many cases. In spite of this the musical feeling is decidedly contemporary.

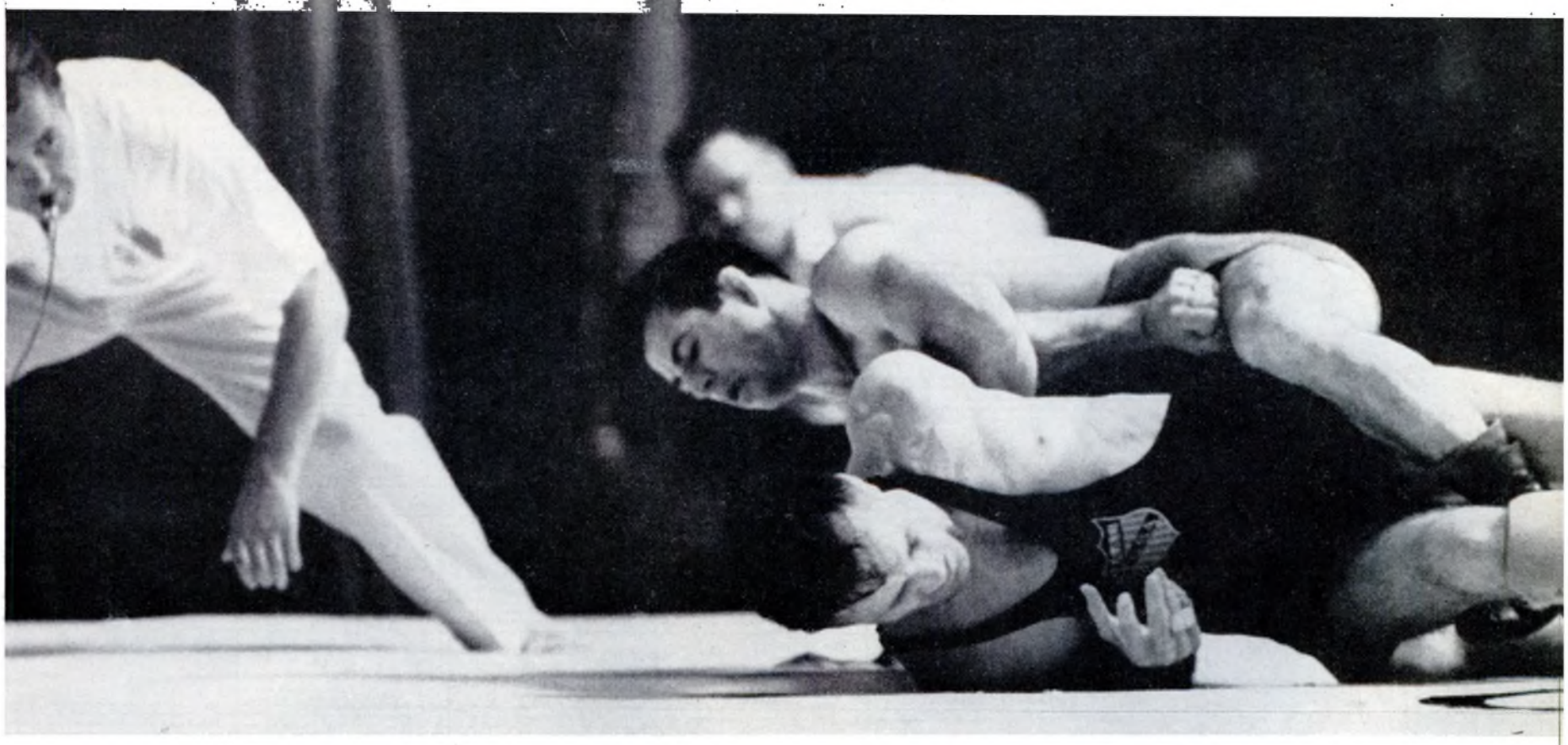
Dmitri Shostakovich says, "This was a new venture for me and I worked on it with great interest and enthusiasm. *Moscow, Cheryomushki* is my first, but, I am sure, not my last experience with this attractive musical form."

Musical comedy is popular in the Soviet Union. Previous to 1917 there were few operetta theaters and those produced the French and Viennese musicals exclusively. Now there are musical comedy theaters in almost every large city.

Composers in the Ukraine, Azerbaijan, Armenia, Moldavia and others of the Soviet republics have written interesting and original national operettas. The musicals written by men like Isaac Dunayevsky, Boris Alexandrov, Yuri Milyutin, Vasili Solovyov-Sedoy, Shalva Azmaiparashvili and Fikret Amirov have been staged by both Soviet and foreign theaters.

They are fresh and melodic but they all follow the pattern of the classical operetta.

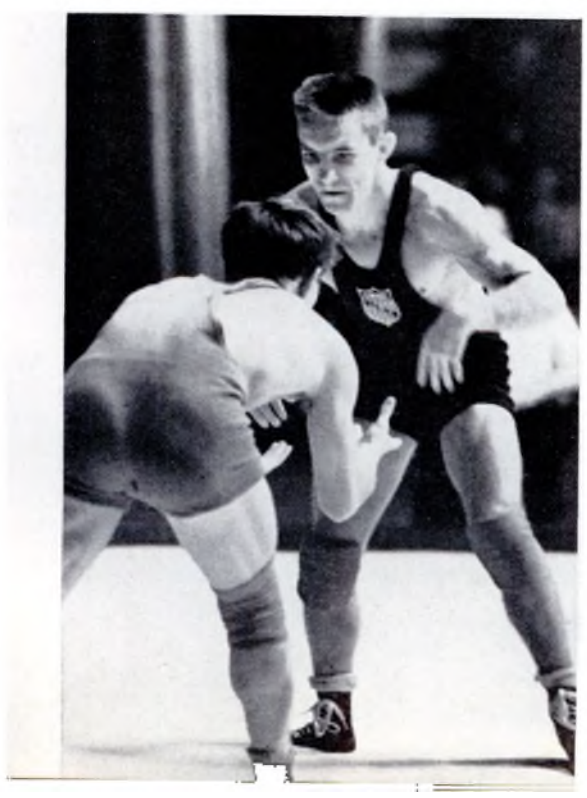
The Shostakovich musical is quite new in form, both as regards libretto and music, and will be presenting unfamiliar problems to the many Soviet theaters that will soon be staging this latest—and most unusual—work of this most versatile of composers.





American wrestlers got in some sight-seeing in the Soviet Union in spite of a heavy schedule.

Terry McCann, USA, scored the first point for his team. His opponent here is Yuri Zamyatin.



# FRIENDLY REUNION

*By Victor Kuprianov*

WHEN the plane landed in Moscow with the American wrestling team on board the pilot told reporters: "This is the biggest load of muscle I ever carried."

Last year ushered in the beginning of a series in free style wrestling as part of the general sports exchange between the United States and the Soviet Union. The wrestling program got under way with the Soviet team visiting the US and on their return our boys said they had made lots of friends. It's amusing when you think that two wrestlers push and pull, then yank and wrench and bid fair to dislocate limbs and heads, and when it is all over separate the best of friends. Of course, this is not the only way to make friends.

The US team came to Moscow to start a four-match tour of the Soviet Union. It was a heavy schedule. First the USSR national team on Saturday, then the Russian Federation team in Leningrad on Monday, followed by the Ukrainian team in Kiev on Wednesday and the Georgian team in Tbilisi on Saturday. This was virtually a wrestling marathon. Wrestling was combined with sightseeing, but there is so much to see in those four cities that it's hard to figure out when the American boys found time to train.

The American team (in the order of weight: Richard Wilson, Terry McCann, Jerry Hoke, Newt Copple, Fritz Fivian, James Fergusson, Frank Rosenmayr and Bob Marella—unlimited; Henry Wittenberg, coach; Clay Roberts, manager; and Cyril Mitchell, trainer) was an all-star squad that represented America's choice for the world championships. The Soviet tour was a warm-up, together with subsequent tours of Iran and Turkey. No one expected them to win and Terry McCann said the moment he left the plane: "We have come here to learn." We hope they did. And Terry managed to teach Soviet wrestlers a thing or two. Our boys couldn't beat him.

Wrestling is a big sport in the Soviet Union. But the rules vary from district to district. In some places you hold your man by a sash, in others by a vest, and in still others wrestling comes combined with music and poetry. International rules have sheared wrestling of most of its poetry and turned it from a match of strength into a match of skill. The Americans came here with packs of muscles. Nowadays it's not quite enough.

Wrestling as a national pastime is a participating rather than a spectator sport here. A few thousand was the most the national championships ever drew. Maybe that's because Muscovites find wrestling too slow. But when the American team made its appearance, there were at least 10,000 in Moscow's Sports Palace.

When the match was over Coach Henry Wittenberg said he was glad his team had gotten its first taste of international competition. He felt that his boys had stood up very well and that the Soviet team was smart, strong and well up on international techniques.

The general consensus of opinion was that the American team had made a good showing. Although the final score shows a leaning in the USSR's favor, the American team is going to make a major bid for top honors at the world championship. The boys have muscle. More training in international techniques (which their 1959 tour should give them) will make the US team a formidable adversary.

Music by V. Solovyov-Sedoy
Words by M. Matusovsky

## Andante tranquillo

Canto

Piano

1. Not a rus-tling leaf, not a bird in flight in the sleep-y grove un-til dawn. How I love these nights, Mos-cow sub-urb nights, the ca-ress of the wak-ing sun.

How I love these nights, Mos-cow sub-urb nights, the ca-ress of the wak-ing sun.

dim.

dim.

1,2,3

4

true.

Fine

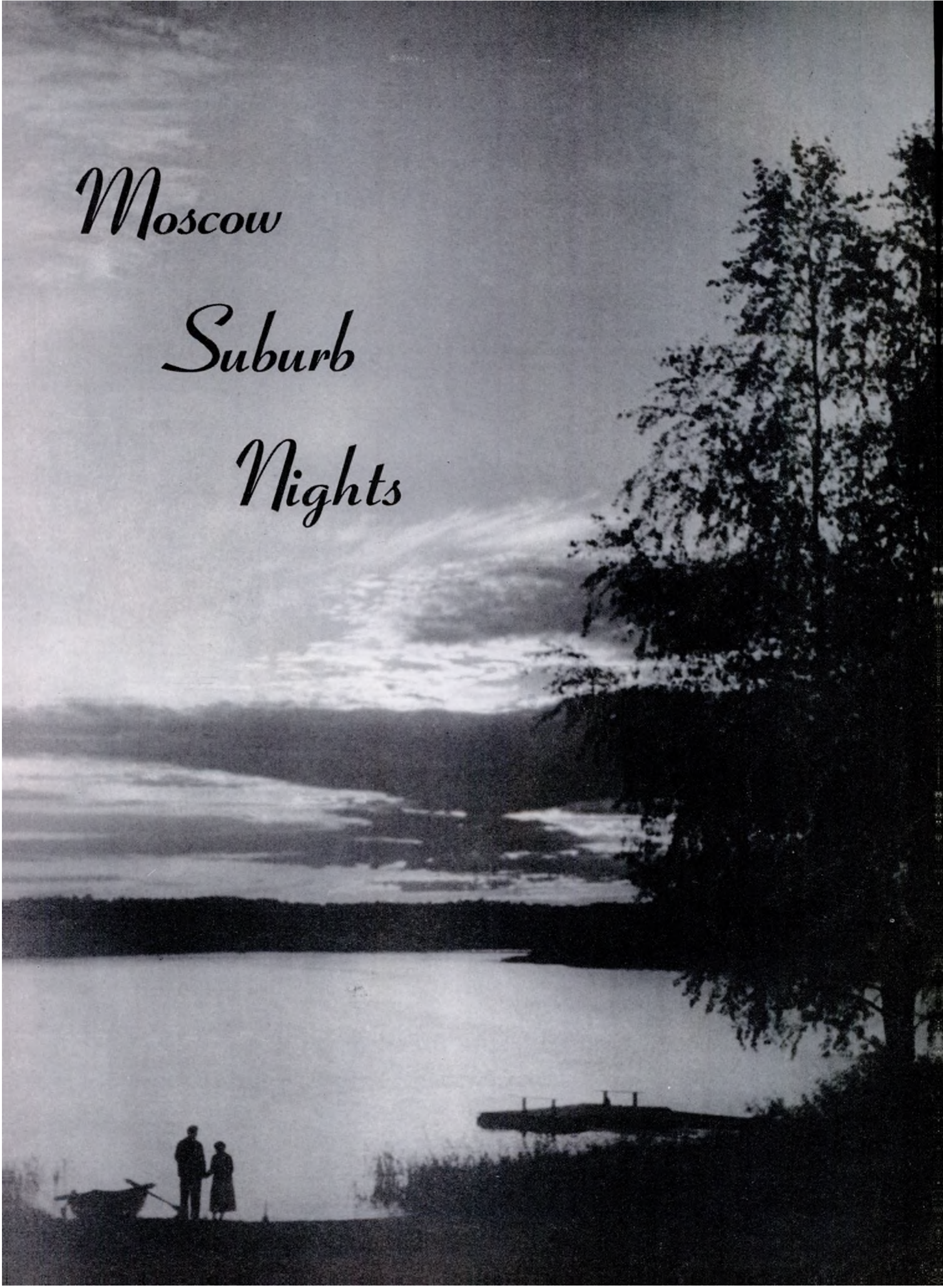
*Not a rus-tling leaf, not a bird in flight*
*In the sleep-y grove un-til dawn.*
*How I love these nights, Mos-cow sub-urb nights,*
*The ca-ress of the wak-ing sun.*

*The calm rill-ing stream seems to ebb and flow*
*Like a sil-ver web of moon-light,*
*In my heart I hear sing-ing come and go*
*On this won-der-ful sum-mer night.*

*Why this down-cast look? Does the ris-ing day*
*Bring us near the hour when we part?*
*It's as hard to keep as to give a-way*
*All that press-es up-on my heart.*

*Dawn is nigh, and pale grow the am-ber lights.*
*Let me hope, my dear, that you too*
*Will re-mem-ber these Mos-cow sub-urb nights*
*And our love that has been so true.*

# Moscow Suburb Nights




ЛЕГКАЯ ПРОМЫШЛЕННОСТЬ

# USSR

## N. S. KHRUSHCHEV: WE GO TO THE USA WITH AN OPEN HEART

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DURING HIS STAY IN MOSCOW RICHARD M. NIXON HAD USEFUL AND FRANK TALKS WITH NIKITA S. KHRUSHCHEV.


# USSR

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# Outstanding International Event





WE SHALL GO TO AMERICA WITH AN OPEN HEART AND IN ALL SINCERITY, WITH GOOD INTENTIONS, BEING GUIDED BY CONCERN FOR SAFEGUARDING PEACE THROUGHOUT THE WORLD, SAID CHAIRMAN OF THE USSR COUNCIL OF MINISTERS NIKITA S. KHRUSHCHEV AT THE PRESS CONFERENCE AT THE KREMLIN ON AUG. 5.

THESE days people throughout the Soviet Union—in Moscow and the Far East, in far-flung villages and great metropolitan centers, in factories and collective farms—are talking enthusiastically of the exchange visits of Chairman of the USSR Council of Ministers Nikita S. Khrushchev, and of US President Dwight D. Eisenhower.

At the invitation of the President, Nikita S. Khrushchev will arrive in Washington, D.C., on September 15. He will tour the country visiting New York, Los Angeles, San Francisco, Des Moines and Pittsburgh. During his stay in the United States the Chairman of the USSR Council of Ministers will have informal talks with President Dwight D. Eisenhower on problems of mutual interest to both countries.

Mr. Eisenhower will make an official visit to the USSR later this fall and will spend several days touring the country for a first hand view of Soviet life. His visit will provide another opportunity for an exchange of views with Nikita S. Khrushchev.

The crucial importance for world peace of friendlier relations between the United States and the Soviet Union is universally acknowledged. These visits are prompted not alone by the interests of two great powers, but by the interests of the whole world.

"An outstanding international event"—this is how peace-loving people in every country have acclaimed this most significant of exchanges.

As soon as the news about N. S. Khrushchev's visit was announced hundreds of letters, telegrams and long distance telephone calls started to pour in from all parts of the United States inviting the Soviet Premier to be the guest of different American cities and towns. They came from governors and congressmen and mayors, from universities and chambers of commerce, from people in all walks of life.

Whether the cordial invitation came from an Iowa farmer or a New Jersey businessman, a California teacher or a New York sales executive, they expressed one common hope—that the exchange of visits would help to create better understanding between the two nations, that it would promote the cause of peace.

The statement issued simultaneously in Moscow and Washington expresses that same profound hope. It is one shared by men and women of good will everywhere.

# NIKITA S. KHRUSHCHEV



NIKITA SERGEYEVICH KHRUSHCHEV, CHAIRMAN OF THE COUNCIL OF MINISTERS OF THE USSR AND FIRST SECRETARY OF THE CENTRAL COMMITTEE OF THE COMMUNIST PARTY.

NIKITA Sergeyevich Khrushchev, outstanding Soviet political leader and statesman, was born on April 17, 1894, in the village of Kalinovka, Kursk Region. It was there, in the center of the European part of Russia, that he spent his childhood. His family belonged to the poorest group of the rural population and Nikita began to work at a very early age, first as sheepherder, then as farm hand in Kalinovka and in the neighboring villages. During the winter months, when work slackened, he managed to go to school.

His father, a miner, took young Nikita to the Donbas coal fields in the Ukraine where he got a job as apprentice fitter at the Bosset engineering factory in Yuzovka and, after he had learned to repair mining machinery, in the pits which were owned by foreign companies.

"When I read Zola's *Germinal*," he recalls, "I was under the impression that he was writing not about France but about the pits in which my father and I worked. The lot of the workers was the same in France and in Russia. Later, when I attended lectures on political economy and the lecturer spoke of the wage system under capitalism, of the exploitation of workers, I had the feeling that Karl Marx had seen the mine where my father and I worked."

During the revolutionary upsurge, which swept the nation in 1917, he was working in the Donbas. The miners and steelworkers in that region were among the most militant workers in the country, and N. S. Khrushchev's keen, searching mind and working-class background brought him into the very middle of the struggle for freedom.

In 1918 he joined the Communist Party. During the Civil War he served with the Soviet army on the southern front. The war ended, he returned to the Donbas as assistant manager of a mine. He left to enter the Workers' Faculty of the Donets Industrial Institute. This was a type of preparatory school then organized to give adult workers and peasants a three- or four-year secondary school education.

After graduation, he was elected secretary of the local District Committee of the Communist Party. In that position he dealt with matters relating to mining and farming. Subsequently he headed the Organization Department of the Yuzovka Region Party Committee and held important Party posts in Kiev.

In 1929 he went back to school again, this time to the Industrial Academy of Moscow, an institution at the university level, which functioned at the time to train top management for the country's economy. He was elected secretary of the Party Committee of the Academy.

For a period during and after 1931 N. S. Khrushchev headed one and then another District Committee of the Party in Moscow. He moved ahead to increasingly important posts, until in 1934 he was elected to membership on the Central Committee of the Communist Party of the Soviet Union. In 1935 he was elected First Secretary of the Moscow Committee of the Party; in 1938, First Secretary of the Central Committee of the Ukrainian Communist Party; and in 1939, a member of the Political Bureau of the Central Committee of the Communist Party of the Soviet Union, which was reorganized in 1952 into the Presidium of the Central Committee.

### Active Organizer of Socialist Construction

N. S. Khrushchev's talent for large-scale organizing was demonstrated in the thirties by his direction of the many-faceted plan to reconstruct Moscow. He spent long hours with architects and city planners, visited building sites for new industrial plants and housing projects, and personally checked construction progress on the Moscow subway and the Moscow-Volga Canal.

In the twelve years that N. S. Khrushchev headed the Ukrainian Communist Party he played an important part in advancing the republic's economy and culture and in improving the well-being of the population.

When the Nazi invasion began in June 1941, N. S. Khrushchev undertook the enormously difficult job of moving the industry of the Ukraine eastward, out of reach of the advancing fascist armies. He served in front line posts during the entire course of the war as member of the Military Councils of the Kiev, Southwest, Stalingrad, Southern and First Ukrainian fronts. He was directly involved in the defense of Stalingrad and the shattering defeat of the Nazi army, a critical turning point of the war. He made a particularly important contribution to the organization of the partisan movement in the Ukraine.

In 1949 he was elected Secretary of the Central Committee of the Communist Party of the Soviet Union and Secretary of the Moscow Regional Committee of the Party; in 1953 he was elected First Secretary of the Party's Central Committee. In March 1958 the USSR Supreme Soviet appointed him Chairman of the USSR Council of Ministers.

In April 1959, in recognition of his outstanding services in behalf of peace, N. S. Khrushchev was awarded an International Lenin Peace Prize for the Promotion of Peace among Nations.

### Close Contact with People

The Soviet statesman recently observed his sixty-fifth birthday. His mobile face with its quick, winning smile is familiar to people the world over.

Briefly, Nikita Khrushchev can best be described as a leader of the Lenin type, nearness to the people being his most characteristic trait. Soviet citizens by the thousands know his hearty handshake and direct friendliness. His frequent travels criss-cross the country. In the course of a year he visits innumerable industrial plants and collective



In the thirties N. S. Khrushchev directed the complex many-faceted plan to reconstruct Moscow.

N. S. Khrushchev is presented with an order in recognition of his outstanding war service.



N. S. KHRUSHCHEV IN KIEV AFTER ITS LIBERATION IN 1944. HE MADE AN IMPORTANT CONTRIBUTION TO THE RESTORATION OF THE ECONOMY IN WAR-DAMAGED AREAS.



BETWEEN MEETINGS OF THE 21ST COMMUNIST PARTY CONGRESS N. S. KHRUSHCHEV TALKS WITH COLLECTIVE FARMER YEVGENIA ANDREYEVA AND MINER NIKOLAI MAMAI.

# NIKITA S. KHRUSHCHEV

COLLECTIVE FARM SCHOOLGIRL NINA KURTSEVA PRESENTS N. S. KHRUSHCHEV WITH A YOUNG PIONEER TIE.



and state farms and speaks at many meetings.

He has the faculty of translating complex problems into clear everyday language. He talks simply and colloquially whether he is addressing a large audience or carrying on a conversation.

Thanks to his close contact with people at many levels and his firsthand look into many activities, N. S. Khrushchev has been able to acquire a deep knowledge of life, to check on the efficacy of governmental undertakings. He consults with and seeks the advice of large numbers of people on important affairs of state before formulating a proposal. Frequently a recommendation will emerge from a conversation he had with a collective farmer or rank-and-file worker. The appeal to the country's population to overtake the United States in per capita production of meat, milk and butter, which has had so stimulating an effect on Soviet livestock farming, resulted from N. S. Khrushchev's conversations with collective farmers and state-farm workers, after his direct acquaintance with their plans to bring about a sharp increase in livestock production.

His statements are frank and straightforward, even on extremely complex political problems. This frankness stems from his complete and unalterable faith in communism and the people. One may recall his speeches with regard to Stalin's personality cult and

on the serious shortcomings formerly tolerated in the management of the country's agriculture.

### Fruitful Economic and Social Leadership

A whole series of most significant economic and social undertakings since 1953 bear the mark of N. S. Khrushchev's initiative and leadership. They made possible the great progress in all spheres of the country's life, in the building of communism.

It was at his initiative that the old system of centralized industrial administration from ministries at the capital was changed. Now regional economic councils direct local industry and construction. The improvements are manifold. The changeover has cut duplication, saved great stores of material, eliminated extensive haulage and, most important, has enormously stimulated local initiative.

Under N. S. Khrushchev's energetic leadership all branches of Soviet agriculture have moved forward with giant strides. Most important of the many measures taken in the past half-dozen years are these: the large-scale reclamation of virgin and long-fallow lands—some 90,000 acres have been reclaimed since 1954; increased farm mechanization and electrification through greater governmental financing; decentralized planning of farm production; reorganization of the system of machine and tractor stations and the sale of agricultural machinery to collective farms; a new procurement system which pays higher prices to collective farmers for their products.

These measures and others have made for larger harvests thus raising the standard of living not only of collective farmers but of the Soviet people generally.

Due to Nikita Khrushchev's initiative the progress of Soviet public education has been quickened. Legislation recently passed by the USSR Supreme Soviet aims to strengthen the tie between school and every day life. The new curriculum is based upon these principles —integrating theory with productive labor and combining a general education with polytechnical and vocational training, this to carry through from the earliest grades in steps consistent with the child's levels of development. This approach—to secure the closest relation between study and productive practice—also determines the altered college curriculum. This important reform reflects concern for the harmonious development of the country's younger generation, for the versatile education of the builders of a new society.

Continuous progress of the socialist economy of the Soviet Union has resulted in further improvements in the people's life in the past few years. Real wages of industrial and office workers and the real incomes of collective farmers have risen markedly. The workday has been cut. Pensions have

N. S. KHRUSHCHEV GREETING WORKERS WHO ARE CONSTRUCTING THE GIANT STALINGRAD HYDROPOWER STATION.



# N. S. KHRUSHCHEV SAYS:

## On Building Communism

*Communism is unthinkable without an abundance of material values, to create which we must rapidly develop production and, above all, heavy industry. The building of communism is no fantastic undertaking that the ordinary man cannot understand. The builders of communism are factory workers, collective farmers, engineers, technicians, doctors and teachers.*

*Communism cannot be couched in formulas and notions from which one might think that only some kind of gifted and talented people could build communism. No, comrades, communism is an abundance of material and cultural values. It is the full utilization of all opportunities, so that the people enjoy all good things and have everything necessary for developing the creative forces, both of society as a whole and of everybody living in that society.*

*Here one needs to understand concretely what we should do in order to create an abundance of material values. The effort to create such good things doesn't consist simply in general appeals to work better and increase labor productivity. A creative approach to the building of communism means organizing things so that everybody knows what he should do at a given stage, what concretely he must undertake in order to advance the country to communism.*

*The task facing us is rapidly to surpass the United States, the richest capitalist country, in per capita livestock production. That is precisely one of the concrete tasks in building communism.* (From a speech in Ryazan, February 13, 1959)

## Increasing Social Services

*Man is a social being and his life outside the collective, in isolation from the society to which he is bound by most diverse ties, is inconceivable. This social aspect of man's life is revealed more fully in the course of communist construction. That is why the satisfaction of his individual requirements must proceed hand in hand with the increasing supply of the good things of life produced by society. It must proceed not only through increased wages, but also through social funds, whose role and significance will increase more and more.*

*The expenditure of the state on social services enjoyed by the people is growing constantly. It may be pointed out, for example, that over 215 billion rubles were spent in 1958 for social insurance benefits, allowances, pensions, stipends to students, free education, health services, payments for holidays, maintenance of boarding schools, kindergartens, nurseries, sanatoriums,*

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THE SOVIET PREMIER ON A VISIT TO A TULA FACTORY HEARTILY CONGRATULATES SOME OF THE VETERAN WORKERS ON THE HIGH QUALITY OF THEIR CRAFTSMANSHIP.

# NIKITA S. KHRUSHCHEV



Greeting Praskovya Kovrova, who won national recognition for her advanced methods in farming.

been increased. Taxes have been reduced. Housing construction is conducted on a vast scale. All this is justifiably associated in the minds of the Soviet people with the name of N. S. Khrushchev, whose initiative is responsible for the implementation of many undertakings aimed at raising the general living standard of the population.

On the basis of the laws operating at the present stage of communist construction and taking into account the enormously accelerated rate of Soviet production, N. S. Khrushchev has proposed that national planning be done for longer periods than the customary five-year terms. He outlined the principles and major directions of the long-range economic plan for the next 15 years in a report presented at a session of the USSR Supreme Soviet in November 1957 celebrating the fortieth anniversary of the Great October Socialist Revolution.

The target figures for the period between 1959 and 1965 are based on this long-range plan. The seven-year plan now in progress calls for all-round development of the country's productive forces. On the basis of priority expansion of heavy industry, it aims at a level of production in all branches of the national economy that would enable the USSR to take a decisive step toward the estab-

IN THE COURSE OF EACH YEAR NIKITA KHRUSHCHEV VISITS A GREAT MANY COLLECTIVE AND STATE FARMS.





HIS NATIVE VILLAGE, KALINOVKA, WELCOMES N. S. KHRUSHCHEV WITH THE TRADITIONAL BREAD AND SALT.



NEARNESS TO THE PEOPLE IS THE MOST TYPICAL TRAIT OF N. S. KHRUSHCHEV'S CHARACTER AND STYLE OF WORK.

LOOKING OVER A NEW MODEL PASSENGER CAR AT THE GORKY AUTO PLANT, LARGEST IN THE SOVIET UNION.



# N. S. Khrushchev Says:

Continued

*rest homes and homes for the aged, and other payments and benefits. The seven-year plan provides that expenses under this head should rise to about 360 billion rubles, or to about 3,800 rubles per worker annually. In addition, the state will spend over 800 rubles annually per worker on the building of houses and cultural, medical and other establishments.* (From the Report to the 21st Congress of the CPSU, January 27, 1959)

## Production for Man

*. . . Our seven-year plan is not just a bundle of figures. It is first of all the organization of socialist production on a new and higher technical and scientific level, on the basis of the all-round development of the mechanization and automation of production processes.*

*Why is it that our Party believes mechanization and automation of production to be the prime task under these conditions? Because this allows the work of the people to be made much easier, labor productivity at enterprises to be greatly increased. Increasing productivity means a sharp increase in output. Consequently, we shall be able better and better and to an increasingly greater extent to satisfy the steadily growing requirements of the population, and to reduce the length of the working day. Not man for production, but production for man—this is the* leitmotiv *of all our economic plans.*

*Communism means plenty of foodstuffs and consumer commodities. But communism is not only that. Communism is the most progressive and most highly organized society this planet has ever known. It is a society with the highest level of production and no tiresome manual labor. Under communism work processes will be fully mechanized. Human labor will consist of the ability to run machinery. It is this that is implied in the elimination of the differences between mental and manual labor under communism. Machines will be created and run by people having the same high standard of technical knowledge and mental development. Under communism man will be able fully to display his great creative ability. He will indeed be Man with a capital "M," as Gorky said.* (From a speech in Katowice, Poland, July 16, 1959)

## Parliaments of the People

*Life itself, the entire development of the Soviet socialist state, have prepared for the gradual transfer of a number of functions of divisions of the state apparatus to social organizations, including the greatest and most authoritative of them—the Soviets of Working Peo-*

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THE SOVIET PREMIER ADDRESSING THE THIRD CONGRESS OF SOVIET WRITERS WHICH CONVENED IN MOSCOW THIS SPRING. REPRESENTED WERE WRITERS FROM EVERY REPUBLIC.

# NIKITA S. KHRUSHCHEV



N. S. Khrushchev examines some prize sheep at a stock breeding farm in the Kirghiz Republic.

lishment of a material and technical base for communism and to ensure the Soviet Union's victory in the peaceful economic competition with the capitalist countries in the shortest period of time. By raising the country's economic potential, the seven-year plan will bring about a substantial improvement in the well-being of the people.

### Further Development of Soviet Democracy

"The chief trend in the development of the socialist state," said N. S. Khrushchev at the Twenty-first Congress of the Communist Party of the Soviet Union held in January of this year, "is the maximum promotion of democracy, drawing the broadest sections of the population into the management of all national affairs, enlisting all citizens to share in the supervision of economic and cultural development."

This trend is being consistently furthered in the political and social life of the USSR.

A number of measures recently adopted enlarge the rights and powers of the union republics, local govenment bodies, trade unions and collective farms. Here again the intent is to foster local initiative and to transfer important government functions to the large numbers of citizens grouped in public organizations. Strict observance of the law is guaranteed.

Characteristic, too, of this broader spread of democratic participation is the nationwide discussion that develops around important questions of government policy. Draft proposals for new legislation are widely publicized by press, radio and television and are discussed by all the people. Typical was the public discussion for several months before the opening of the Twenty-first Congress. Before the Congress met to consider the target figures for the seven-year plan they had been discussed at 968,000 public meetings attended by more than 70 million people. At these meetings more than 4.6 million speakers pro-

AT A LARGE OPEN-AIR RALLY IN RIGA, CAPITAL OF THE LATVIAN REPUBLIC, N. S. KHRUSHCHEV DISCUSSES DOMESTIC AND FOREIGN POLICY.







N. S. KHRUSHCHEV APPLAUDS BUILDERS OF THE LENIN HYDROELECTRIC STATION DURING ITS OFFICIAL OPENING.

posed amendments and corrections to the draft.

Still more recommendations were contained in 650,000 letters addressed to the press and to organizations of various kinds. The national debate was richly productive in filling in the general outlines of the plan. It also contributed immeasurably to long-range future planning.

Further perfection and development of Soviet democracy, accomplished under N. S. Khrushchev's leadership and with his energetic participation, have produced the most favorable results. A characteristic feature of the period following the Twentieth Congress of the Communist Party of the Soviet Union was the growing unity of the peoples of the Soviet Union around the Communist Party, and greater initiative on the part of the masses in the process of communist construction.

N. S. Khrushchev's personal role in the practical implementation of the principles of socialist democracy is exceptionally great. In his responsible positions of First Secretary of the Central Committee of the CPSU and as head of the government, N. S. Khrushchev adheres consistently and most strictly to the principles of collective leadership and fights energetically for the observance of the Leninist principles of Party life. That can be most convincingly illustrated by facts.

Two Party Congresses were held since 1953. Plenary meetings of the Central Committee (highest organ in the intervals between Congresses) are convened regularly. The Presidium, which is the executive organ of the Central Committee of the CPSU, meets regularly at least once a week.

Much credit is due to N. S. Khrushchev for the thoroughly consistent and complete implementation of the principle of collective leadership in the Soviet government system, beginning with the USSR Supreme Soviet and the Council of Ministers.

N. S. KHRUSHCHEV IN KAZAKHSTAN WHERE LARGE AREAS OF VIRGIN LANDS WERE RECLAIMED ON HIS INITIATIVE.



## N. S. Khrushchev Says:

Continued

*ple's Deputies—as outlined by the 21st Party Congress. This is an expression of the further development of Soviet socialist democracy to that lofty goal when, according to Lenin's definition, all people learn to administer, and will indeed themselves administer, all the affairs of society.*

*As has already been said, the Supreme Soviets of the Union Republics have found it necessary to increase considerably the number of deputies to local soviets with the object of improving their work, strengthening their ties with the masses, and promoting the further development of socialist democracy and the drawing of working people into the practical activity of the Soviets on a wider scale. In the forthcoming elections to the local Soviets over 1,800,000 deputies are to be elected. Many energetic and enterprising people will join the Soviets. This is a great popular force.*

*A deputy in our country is called upon to carry out the will of the people, to give expression to their interests. The strength of the deputies to the Soviets lies in their unbreakable ties with the people. And the deputies to the Soviets are themselves factory workers, collective farmers, office workers, scientists, workers in the fields of literature and the arts. They are the flesh and blood of the people.*

*Our deputies are genuine deputies of the people. Our Soviets, our parliaments —the Supreme Soviets of the Union Republics and the Supreme Soviet of the USSR—are genuine parliaments of the people.*

*The deputies to the Soviets must always bear in mind that they are under the continual supervision of their electors and that their activity as deputies is judged, not by their words and the speeches they make during the election campaign, but by specific deeds.* (From a speech to the Kalinin constituency of Moscow, February 24, 1959)

### Devotion to Common Cause

*We have many talented people. We must boldly advance them and skilfully use them. Many told me about it and I myself was very glad when I heard Valentina Gaganova, a wonderful girl member of the Young Communist League and team-leader, speak here on behalf of the women workers of the Vyshni Volochok Mills in Kalinin Region. Just think, comrades—and this is something you really have to think about —a man who thinks along capitalist lines will never believe that a worker voluntarily gave up a better-paid job for a lower-paid job and began to earn less.*

*Moreover, this woman worker, went*

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READING *PRAVDA* BETWEEN SESSIONS OF THE SVERDLOVSK CONFERENCE OF THE URALS AGRICULTURAL WORKERS.

# NIKITA S. KHRUSHCHEV

A most valuable contribution has been made by N. S. Khrushchev to the development of Marxist-Leninist theory, to substantiate scientifically the major undertakings implemented by the Communist Party and the Soviet Government in internal developments and in its foreign policy.

In his report to the Twentieth Congress of the CPSU (1956), N. S. Khrushchev formulated a number of profound theoretical propositions on questions relating to the construction of communism and on fundamental and urgent problems of international life. The theses developed by N. S. Khrushchev concerning the possibility of peaceful coexistence of countries with different social systems, the possibility of preventing wars in our time, about the general laws governing the transition, and multiple forms of the transition, of different countries to socialism have been of extremely great progressive value and have been fully confirmed by life.

An example of a creative approach to the development of Marxist-Leninist theory in inseparable connection with the practice of building communist society in the USSR and with the present stage of international relations is afforded by N. S. Khrushchev's report to the Twenty-first Congress of the CPSU. This fundamental document contains a profound analysis of all major social problems the world faces today. It defines the trends and directions of the coming period.

Important theoretical definitions given in the report cover, among others, such areas as the essence and specific features of the seven-year plan of the Soviet Union; the two phases of communist society; the laws operating in the USSR during the transition from socialism to communism; the laws governing the transition from socialism to communism in all the countries of the socialist system; international unity of the labor movement and the inevitability of the complete collapse of revisionism; peaceful economic competition of the two systems of capitalism and socialism.

Particularly important is the conclusion he made with regard to the seven-year plan and the prevention of war. In his report to the Twenty-first Party Congress he pointed out that the fulfillment of the seven-year plan of the USSR and the economic plans of all the other socialist countries will create a real possibility of excluding world wars from the life of society and this in the immediate future, even before the complete victory of socialism, in a world still divided into socialist and capitalist countries.

A specific feature of N. S. Khrushchev's theoretical propositions is their close contact with life, with the tendencies toward future developments. Based on the unshakable principles of Marxism-Leninism, these propositions take into account the specific character of developments, and objective and subjective factors. N. S. Khrushchev's theoretical formulations are distinguished by the same clar-



FREQUENT TRIPS TO FACTORIES KEEP N. S. KHRUSHCHEV IN CONSTANT CONTACT WITH RANK-AND-FILE WORKERS.



MANY IMPORTANT GOVERNMENT UNDERTAKINGS GREW OUT OF MEETINGS LIKE THIS WITH COLLECTIVE FARMERS.

TO FIND OUT IF A NEW PLAN IS FEASIBLE, N. S. KHRUSHCHEV CONSULTS THE PEOPLE WHO WILL CARRY IT OUT.



# N. S. Khrushchev Says:

Continued

*over to a lagging team not because she had no needs to meet.*

*The value and nobility of this act is that there was no material aspect for doing it, only the idea, her devotion to the communist system. And it is for the sake of this system that a personal sacrifice is made! True, this personal sacrifice was of a temporary nature. Valentina Gaganova herself proved that. Our working class understands the goal the Party serves—the goal of building communist society. And when it is necessary they make material sacrifices for the sake of achieving this goal.* (From a speech at the Plenary Session of the Central Committee of the CPSU, June 29, 1959)

## More Housing

*. . . more and more housing is being built each year. There is the absolute conviction that the sweeping program of housing construction, which the Party and Government have mapped out, will be fulfilled ahead of time.*

*Of late, housing construction has assumed truly unprecedented proportions in our country. We are now building sturdy brick or reinforced concrete houses with well-appointed apartments. There will not only be enough housing for our children, but for our grandchildren and great grand-children as well. Let them live in ease. We are building much but housing requirements are so great that it is impossible to satisfy them all at once. Great effort and time are needed.* (From a speech in Dniepropetrovsk, July 28, 1959)

## Advancing Animal Husbandry

*All Soviet people everywhere have joined in the socialist emulation movement. Having summed up their resources, the collectives of many enterprises and construction jobs, and farm workers are pledging to achieve the seven-year targets within five to six years or even less. The Soviet people are advancing at seven-league strides and there is no doubt that the program for a new rise in the economic, cultural and material standards of the people, which the Congress mapped out, will be carried through ahead of time.*

*We have especially much to do further to advance animal husbandry. In the seven years we must more than double the output of meat and almost double the output of milk. This, comrades, is a difficult task, but it is quite feasible. The key to it lies in the creation of a good fodder base and here the main crop is corn. This year more than 20 million hectares have been planted to corn.* (From a speech at the opening of the USSR Exhibition of Economic Achievements, June 16, 1959)

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N. S. KHRUSHCHEV CONVERSING WITH MAO TSE-TUNG AT THE PEKING AIRPORT IN THE PEOPLE'S REPUBLIC OF CHINA.

# NIKITA S. KHRUSHCHEV

DURING HIS VISIT TO INDIA THE SOVIET PREMIER HAD A CORDIAL MEETING WITH PRIME MINISTER NEHRU.



ity which is characteristic of all his other statements.

### In Behalf of World Peace

It would be impossible to overestimate the contribution N. S. Khrushchev has made in the past few years in behalf of world peace, relaxation of international tensions and the thawing of the "cold war."

He has neglected no possible opportunity that would advance the cause of world peace and make for better understanding between nations. He has visited many foreign countries, including the People's Republic of China, Britain, India, Burma, Afghanistan, Yugoslavia, Finland, Bulgaria, Poland, Czechoslovakia, Hungary, the German Democratic Republic and Albania. Through these visits and personal contacts with leading statesmen and, notably, with President Eisenhower in Geneva in 1955 and with Prime Minister Macmillan, and through his participation in a number of major international conferences, he has contributed a great deal toward easing tensions and settling controversial issues.

Although preoccupied with important Party and state affairs, Khrushchev finds time for interviews with many foreign visitors, including those from non-socialist countries. In his interviews N. S. Khrushchev has never avoided any important issue; all his statements are clear-cut. He is always the impassioned propagandist for peace. When asked by foreign visitors about the prospects for peace, Khrushchev invariably answers: "I am an optimist."

### A Happy Life for All People

"What has the Communist Party meant to you personally?" was the question asked of N. S. Khrushchev by a foreign correspondent in 1957. He replied, "The Communist Party is dear to me because it expresses the interests of the working class, the interests of the people, and my own aspirations and dreams of building a new society. I am happy that, after having lived for many years and having worked in this Party for a long time, I can state that our Communist Party, advancing along the path indicated by Lenin, has ensured such colossal progress in our country that our people have blazed the trail which is now followed by many peoples of other countries.

"Like all Communists, I dream only of ensuring a happy life for all people, of enabling all people—irrespective of nationality, irrespective of religious beliefs, irrespective of the color of their skin—to enjoy fully the fruits of their labor. We are working for the accumulation of as much material wealth as will be necessary to provide an abundance of everything for all the people. And we believe that mankind will achieve this. It is hard to foretell exactly when it will happen, but one thing is clear: mankind is advancing toward it. I rejoice at this and, on my part, I am doing everything within my power to assist in this advance."

Those words contain the program of the whole life of this outstanding man who has come from the very heart of the people and is devoting all his strength and energy to the struggle for man's happiness.



GREETING PRIME MINISTER HAROLD MACMILLAN OF GREAT BRITAIN AT THE MOSCOW VNUKOVO AIRPORT (1959).

N. S. KHRUSHCHEV ON A VISIT TO THE GERMAN DEMOCRATIC REPUBLIC IS GREETED WITH A FLORAL TRIBUTE.



AN ENTHUSIASTIC RECEPTION IS GIVEN THE SOVIET PREMIER DURING HIS VISIT IN THE BULGARIAN REPUBLIC.



# N. S. Khrushchev Says:

Continued

## Economic and Cultural Progress

*During the years of Soviet rule our country has made tremendous progress in its economy and culture. It is well known that pre-Revolutionary Russia's total industrial output was one-eighth, and in per capita terms from one-thirteenth to one-fourteenth of the U.S. amount. In 1958 we were producing roughly half the amount of industrial products turned out by the USA, or slightly less than one-half in terms of per capita output. In other words, our country has reduced its lag in comparison with the United States four-fold for volume of output and more than six-fold for per capita production. After the fulfillment of the seven-year plan it will take us some five years, or possibly even less, to surpass the USA not only for total volume of production, but also for per capita output.* (From a speech delivered at the opening of the American National Exhibition in Moscow, July 24, 1959)

## Link School with Life

*. . . Education must, above all, be linked with life, with production, with the practical activities of the people. The Party makes the labor-education of all the people and the promotion of a conscious Communist attitude to labor the pivot of all its educational activity. We want labor—the source of all material and cultural benefits—to become the prime vital necessity of the people.*

*. . . When we raised the question of reorganizing the school system, some "prophets" abroad shouted: "They are short of labor, that is why they want to make youngsters work." Let such oracles crow. They will never understand us in any case. We are reorganizing the school system not because we are short of labor, but because we want to improve the educational system, because we want to link school still closer to life.*

*. . . The linking of the school with productive work does not detract from, but rather enhances the knowledge acquired. I have spoken on many occasions with young collective farmers and workers who study at evening institutes or technical schools, or by correspondence, and with students who have come to technical schools or institutes from industry.*

*What remarkable people they are! Persistent, strong willed, eager to learn, they absorb knowledge so as to work better for the good of society and not as a sort of dowry, not for the peace of mind of some parents who consider it a "tragedy" if their son or daughter has no diploma.* (From the Report to the 21st Congress of the CPSU, January 27, 1959)



ACADEMICIAN DMITRI SKOBELTSYN PRESENTS NIKITA KHRUSHCHEV WITH THE INTERNATIONAL LENIN PRIZE FOR HIS OUTSTANDING EFFORTS ON BEHALF OF WORLD PEACE.

. . . Dear friends, I realize that when you decided to award an International Lenin Prize to me, it was not only my own personal activities that you had in mind. I am fulfilling the will of the Soviet people, of our Party and government. That is why the award of a Lenin Prize to me should be regarded as recognition of the tremendous efforts made by the Soviet people and of their great contribution to the struggle for peace and universal security.

There is scarcely any need to say that in our day one man, whatever efforts he might make, cannot prevent war and ensure peace. It is necessary that all peoples should take an energetic part in defending peace and that every man, wherever he may work and live, should know and feel that peace on earth can be preserved only through active participation in the struggle against the war danger.

My participation in the defense of peace merges with the energetic actions of millions of men and women, with their thoughts and feelings. I assure you, dear friends, that I will dedicate all my energies to the triumph of the cause of peace and make use of all the opportunities available to me to that end. *(From the speech at the presentation of the International Lenin Prize for Strengthening Peace among the Nations to N. S. Khrushchev, May 16, 1959).*

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. . . Following the teaching of the founder of the Soviet state, Lenin, we are in favor of the peaceful coexistence of countries with differing social sytems. In doing so the Soviet Union strives for the development of business and cultural relations with all countries, including the United States, in their mutual interest, for, in our opinion, the development of these relations would promote the establishment of normal relations and the consolidation of confidence among states. *(From replies to the questions of the* Grand Rapids Herald, *March 1957)*

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. . . In my opinion, the most important thing is to normalize relations among countries, between the United States and the Soviet Union in the first place . . .

. . . We would like to live without wars, in peace. We believe we could have friendly relations, could be friends, so far as it is possible taking into account our ideological differences. And this is possible. We have many questions uniting us and we would readily cooperate with the people of the United States of America.

. . . We want peace and friendship with the American people very much. We want friendship, not for our two strong powers to unite against the weak, we want friendship because the peoples of all the other countries will gain by our good, friendly relations with the United States . . . *(From the interview given to the Columbia Broadcasting System, May 28, 1957)*

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. . . We have been and we are in favor of the peaceful coexistence of states belonging to different social systems, for the peaceful coexistence of the socialist and the capitalist countries. The struggle for peace is the basis of our foreign policy. Why? Because we have no groups interested in the seizure of foreign lands and in enslaving other peoples, interested in deriving profits from an armaments drive. Because we need peace





IN ALBANIA THE SOVIET LEADER PLANTS A SEEDLING DEDICATED TO PEACE.

# Nikita S. Khrushchev

## *on peaceful coexistence and international cooperation*

for successful communist construction, for the creation of an abundance of material values for all members of the Soviet society . . .

. . . As to the exchange of ideas and information, this exchange . . . must serve the consolidation of mutual understanding and friendship among the peoples, and not have as its purpose the sowing of the venomous seeds of mistrust and enmity among them. The exchange of ideas and information must strengthen peaceful coexistence of states with differing systems instead of undermining it. We are in favor of such an exchange . . .

. . . If all states, with the United States and the USSR possessing the greatest military and economic potential in first place, would work in a businesslike manner and in the spirit of cooperation and mutual understanding for the discussion and settlement of important international problems which complicate the situation and hamper the attainment of firm confidence, the chances of world peace, and, I emphasize, for all countries and people, would increase considerably. Mankind strives for peace and it is the duty of the governments of all countries to respond to this striving for the attainment of genuine peaceful cooperation of the peoples throughout the world. *(From answers to the questions of James Reston of* The New York Times, *October 7, 1957)*

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. . . Let us put an end to the cold war and bring about a relaxation of international tension. Instead of the cold war, it is better step by step to traverse the road of establishing friendly relations between our countries . . .

. . . There are many possibilities which, together with a show of good will, could be utilized for the achievement of mutual understanding and for living in peace and friendship without creating a military psychosis.

We have already said that the Soviet Union would like to have friendly relations with the United States of America. It is better to have peaceful competition than competition in the manufacture of means of destruction.

The establishment of friendly relations between our countries would be a great step toward the consolidation of peace between all countries, toward the maintenance of world peace. We are fighting for peace and are bending all our efforts to the achievement of this goal . . .

But in peaceful competition we will work to win. Here, if I may say so, the Soviet people will be on the offensive. However, this will be an offensive in which people will not perish, but quite the contrary, they will be improving their life and raising the level of their economy and culture.

Challenging the United States to a competition to produce more meat, butter, clothes, footwear, to build more good housing, to manufacture more TV and radio sets, vacuum cleaners and other goods and articles necessary to man, the Soviet people are confident of their victory. You are not being threatened with intercontinental ballistic missiles. You are threatened with a peaceful offensive, a peaceful competition in the manufacture of consumer goods and articles that serve to improve the culture and life of people. In this we will be relentless. This competition will show which system is better. *(From the interview given to William Randolph Hearst, Jr., November 22, 1957)*



NIKITA S. KHRUSHCHEV IS HEARTILY WELCOMED TO THE POLISH PEOPLE'S REPUBLIC BY WLADYSLAW GOMULKA UPON HIS ARRIVAL AT THE WARSAW AIRPORT LAST JULY.

# Nikita S. Khrushchev

## *on peaceful coexistence and international cooperation*

. . . We have always said and continue to say now: let us improve our relations, let us trade, let us develop scientific, cultural and sports contacts. Let us meet and discuss pressing international problems in a businesslike manner.

. . . The Soviet Government is ready to discuss any questions designed to strengthen peace and establish greater confidence among the states, to discuss these questions with its partners. Mr. Eisenhower, for instance, recently put forward in one of his speeches the idea of pooling the efforts of the Soviet Union and the United States to combat such scourges of mankind as cancer, tuberculosis and malaria. We believe that one can agree with this. One could list many other questions, such as the struggle against poliomyelitis, locusts, glanders and foot-and-mouth disease. We are successfully cooperating with Iran and Afghanistan in combating locusts. There are many other matters regarding which, far from hindering, we are doing our utmost to extend cooperation. Although not all these problems are acute or dangerous to our country, we are nevertheless ready to cooperate with countries where such problems are particularly pressing. We shall be pleased to pool our efforts with those of other countries in solving such problems. *(From the speech at the conference of the advanced agriculturists of the Byelorussian SSR, January 22, 1958)*

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. . . We in all sincerity say to the capitalist countries, let us compete, not to see who can make the largest number of H-bombs and missiles, for that is a competition which bodes no good to the peoples, but to see who can build more houses, schools and hospitals, produce more bread, milk, meat, clothes and other consumer goods. That is the kind of competition the people want. Instead of the slogan "Let us arm!", we proclaim "Let us trade!"

Although the Soviet Union has made significant progress in all spheres, and not least in raising the standard of living of the people, it has set itself the goal of producing more consumer goods than any capitalist country. And we are confident that we shall achieve a still higher standard of living. How can this endanger peaceful coexistence of nations?

. . . The Soviet Union deeply sympathizes with all the nations striving to win and maintain their independence. And these nations can rest assured that the Soviet Union, without any meddling in their internal affairs, without stipulating any conditions, will help them to strengthen the independence for

which they fought so hard. *(From replies to Manuel Mejido, correspondent of the Mexican newspaper,* Excelsior, *February 21, 1958)*

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. . . Now the whole world recognizes the Soviet Union's great achievements. It is a pleasure to the Soviet people to listen to these acknowledgements. But we cannot put on airs, and, even less so, be complacent and rest content with what we have achieved. We must do great and persistent work to achieve the main economic task confronting our country, to make our country march in the van of mankind in all fields of life, to keep it at the level of modern achievements of science and engineering. We are confident that our successes will increase and multiply in this sphere, too . . .

. . . The Soviet Union is in favor of friendly, good-neighbor relations with all countries without exception. We are ready to establish such relations on a reciprocity basis with all states who wish them . . .

. . . We were allies of Britain, France and the United States during the Second World War and we fought together against Hitler Germany. We respect the peoples of those countries and have a high opinion of the great contribution they have made to the development of world science, technology and culture. Soviet men and women are very well aware that the people of those countries, too, are striving for peace. The Soviet Union has exerted, and will continue to exert, every effort to achieve understanding and establish friendly relations with the peoples of those countries and their governments.

In international affairs, in settling existing disputes, they should be guided, not by what divides the world today, but by what brings countries closer together in their joint effort to preserve peace.

The only possible foundation for relations between states with different social systems is the well-known Five Principles: mutual respect for territorial integrity and sovereignty; non-aggression; non-interference in one another's internal affairs for economic, political or ideological reasons; equality and mutual benefit; peaceful coexistence.

The principles of peaceful coexistence, recently approved by the United Nations, should actually be made the cornerstone of



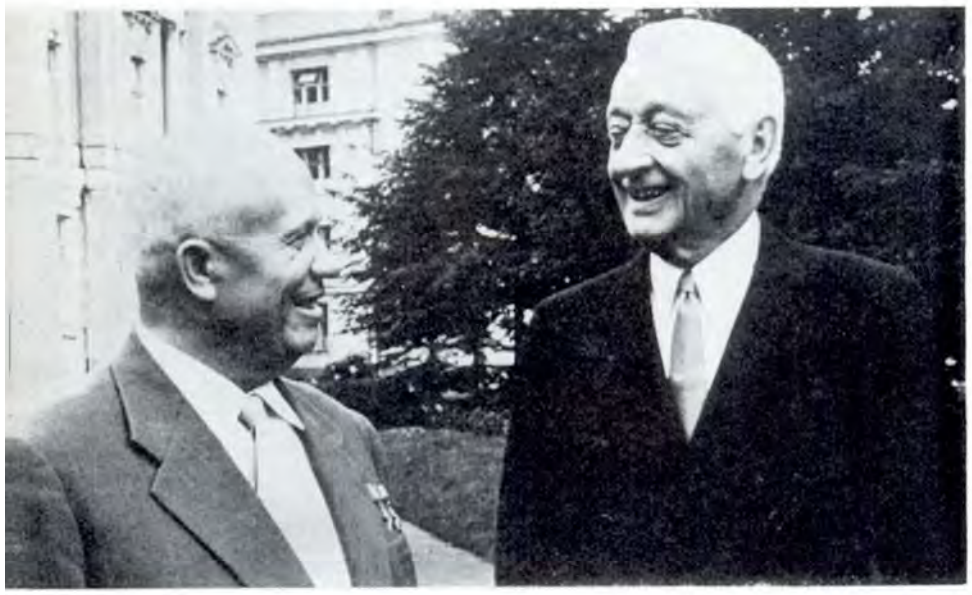
SOVIET PREMIER RECEIVES UN SECRETARY GENERAL DAG HAMMARSKJOLD IN MOSCOW.



NIKITA S. KHRUSHCHEV VISITS THE STATE OF MADRAS DURING HIS TOUR OF INDIA.

INDIAN AND AFRICAN DELEGATES TO THE CONFERENCE OF ASIAN AND AFRICAN WRITERS HELD IN TASHKENT MEET WITH N. S. KHRUSHCHEV AT THE KREMLIN RECEPTION.





AMERICAN INDUSTRIALIST CYRUS EATON VISITS N. S. KHRUSHCHEV AT THE KREMLIN.

# Nikita S. Khrushchev

## *on peaceful coexistence and international cooperation*

relations between all states. *(From the speech at a meeting of Electors of Kalinin Constituency, Moscow, March 14, 1958)*

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. . . If the principles of peaceful coexistence are adhered to, then no ideological differences, though they do of course exist, would prevent the development and broadening of mutually profitable economic ties. Peaceful coexistence is a hard reality whose significance in international relations is growing. Trade constitutes that sound and stable basis upon which coexistence between countries with different social and economic systems can successfully develop and be consolidated. I think you will agree with me that trade has a more than economic significance. Trade is the most normal way of establishing good relations between countries. Trade and economic ties create a good basis for the consolidation of international political relations.

The Soviet Union today has trade treaty relations with 45 countries: with all the socialist countries, almost all the countries of Western Europe, including Britain, France, Italy, Austria, Switzerland, Greece, Sweden, etc., with the majority of Asian and African countries, including India, Indonesia, Japan, Iran, Afghanistan, Burma, the United Arab Republic, and many others. We also have trade agreements with two countries on the American continent—Canada and Argentina.

With a number of countries we have agreements for the development of exchange on the basis of agreed lists of commodities for reciprocal deliveries.

Many western countries are showing an interest in the development of trade with the Soviet Union on the basis of long-term agreements. That is why the Soviet Union has in recent years concluded long-term agreements on reciprocal deliveries with a number of capitalist countries, for instance, a five-year agreement with Finland and long-term agreements with Norway, Iceland and Denmark. In 1957 alone we concluded such long-term agreements with France, Italy, Austria, Afghanistan and Iran. Negotiations are in progress on a long-term agreement between the USSR and the Federal Republic of Germany. All these agreements provide for a substantial increase in trade.

The United States of America is now the only great power and one of the few countries of the world with which the Soviet Union does not have trade treaty relations. If the Government of the United States expresses a desire to conclude a trade treaty or agreement with the USSR, I can assure you of a favorable response from the Soviet side.

We advocate the lifting of all restrictions and bans on trade between the capitalist and the socialist countries not only because we hope it would promote the establishment of confidence in the relations between all nations and bring about a relaxation of international tension, but also because discriminatory restrictions lead to uncertainty in commerce and mistrust between the partners in trade. Connected as you are with business circles, you should know full well how much confidence means in commerce and how adversely its absence affects the development of trade.

We are in favor of selling what we can sell and of buying what we want to buy, and we want our partners to be able to sell and buy what they want. And the things which either you or we cannot sell should not be a subject for reciprocal claims. *(From the interview given to Eric Ridder, publisher of* Journal of Commerce, *and its editor, Heinz Luedicke, March 22, 1958)*

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. . . The Soviet Union undeviatingly comes out for general disarmament, for unconditional prohibition of nuclear weapons, for an immediate discontinuance of the tests of atomic and hydrogen bombs, for the end of the "cold war." In pursuing the policy of peace and striving for the relaxation of international tension, for bringing about an atmosphere of confidence, the Soviet Government has reduced the country's armed forces by 2,140,000 men in the last three years. *(From the speech at the celebration in Budapest of the thirteenth anniversary of Hungary's liberation, April 3, 1958)*

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. . . The Soviet-American agreement on exchanges in the field of culture, technology and education, signed recently, was, in our opinion, a good practical step toward bringing our countries closer together. It is gratifying to see that the conclusion of this agreement was approved by broad sections of the public both in the USSR and the United States, and in other countries as well. It seems to me that it was received in this way first of all because the peoples saw in this agreement a concrete proof of the fact that Soviet-American relations can be really improved . . . *(From the message of the Chairman of the USSR Council of Ministers, N. S. Khrushchev, to the President of the United States, Dwight D. Eisenhower, June 2, 1958).*

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Our point of view regarding the nature of interstate relations between the socialist and capitalist countries has been set forth a number of times. The gist of it, in brief, is first, that the form of state organization and the form of social organization of any particular country must be decided by the people of that country themselves; secondly, that no state or any external force can or should impose on other nations its way of life or its political or social system; thirdly, since man's social development takes place along an ascending line, it inevitably gives rise to new forms of society. Consequently, the appearance of states with a socialist system, as a result of the operation of the objective laws of social development, is just as natural as was, in its day, the appearance of bourgeois states; and lastly, in order to rid mankind of devastating wars and, in particular, of the threat of the most destructive war ever known by humanity—nuclear war—we feel that the principle of peaceful coexistence and cooperation must prevail in relations between the socialist and capitalist states.

What does this principle mean in practice? It does not demand that the capitalist states renounce their existing system or ideology. Naturally, acceptance of this principle will not lead to the immediate elimination of disputes and contradictions that are inevitable under conditions when different kinds of states exist. But this principle demands that the states, in settling outstanding issues between them, should renounce



DURING A CBS TV INTERVIEW N. S. KHRUSHCHEV OUTLINES THE PLANS OF THE SOVIET UNION FOR PEACEFUL CONSTRUCTION AND CALLS FOR FRIENDLY RELATIONS WITH THE U. S.

the use of force in any form, including military force, and seek the peaceful settlement of possible conflicts respecting the mutual interests of the parties concerned. Peaceful coexistence also presupposes the complete and unqualified noninterference of states in the internal affairs of one another with a view to changing their system or way of life, or for any other reason.

I think that the meaning given to the term peaceful coexistence will now be clearer to you. As you see, we stand for a healthy and realistic basis for relations between states with different social systems. The principle of peaceful coexistence does not place any individual state or any group of states at an advantage over other states and does not infringe on anyone's interests; it is of benefit to all who desire peace, not in words, but in deeds. *(From answers to the questions of John Waters, Editor of the Melbourne* Herald, *June 11, 1958).*

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. . . Under socialism there are no oppressors or oppressed; all men and women live by their own labor, and all have equal rights and duties to society. At the highest stage, under communism, the full satisfaction of man's needs will be ensured. And these are not idle words. Under socialism man is a friend to man, regardless of the language he speaks and the God to whom he prays. Religion is a matter for each person to decide for himself.

Socialism is the most just and noble social system, under which the efforts of the whole of society are aimed at promoting the welfare of the people and the constant development of the economy, science, culture and art, at ensuring that the people live better and better. It is well worth working for these lofty aims, sparing neither effort nor knowledge. In the language of Western businessmen, one can figuratively describe the firm of communist construction as sound and upright.

Under socialism the products of labor are distributed in accordance with the quantity and quality of work contributed by each member of society, i.e., according to the principle: from each according to his ability, to each according to his work. Under communism distribution will take place according to the principle: from each according to his ability, to each according to his needs. In order to speed the advance of all the socialist countries to communism, we must do everything possible for each socialist country to develop its economy and increase its labor productivity more rapidly. Each of our countries must render genuinely fraternal aid to the other socialist countries. By uniting our efforts, by promoting cooperation and collaboration, our countries are achieving greater success in economic development. At the same time each socialist country must make the best possible use of its internal potentialities for developing its national economy.

In the process of building communism, all socialist countries will equalize their economies, eliminate differences in level of development, without taking the relatively underdeveloped countries as their criterion. This equalization will not take

A TALK WITH AUSTRIAN BUSINESSMEN AT THE LEIPZIG INTERNATIONAL FAIR.





GREETING DELEGATES TO THE FIFTH INTERNATIONAL CONGRESS OF ARCHITECTS.

# Nikita S. Khrushchev

## *on peaceful coexistence and international cooperation*

place by lowering the level of the countries that are economically highly developed. By no means. The equalization should and will proceed through the more rapid advance of the countries that are relatively less developed economically by bringing them up to the level of the most developed countries. Thus, all the socialist countries will march in a common united front along the road of socialism, along the road of building a communist society. *(From the speech at the meeting of the Bitterfield Electro-Chemical Works in the Palace of Culture during the visit of the delegation of the Communist Party of the Soviet Union to the 5th Congress of the Socialist Unity Party of Germany in the German Democratic Republic, July 9, 1958).*

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. . . The Soviet Union's interest in negotiating with the Western Powers is not to be explained by internal reasons or our international position, but by human, universal considerations, by the fact that we stand firmly for the peaceful coexistence of states with different social and political systems. We want to remove the danger of a destructive war, to deliver the people from constant fear of a new military conflict, and to win for them a peaceful and tranquil life. *(From the speech at the Soviet-Czechoslovak freindship meeting of Moscow working people, July 12, 1958).*

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. . . The Soviet Union is a state powerful enough to defend the cause of peace in a worthy manner: in this lies the happiness of all people who wish to preserve world peace. *(From the talk with the Indian journalists, July 29, 1958).*

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. . . The Soviet Union can carry out its grand plans of economic development successfully and in the scheduled time only on condition that peace is maintained on earth . . .

. . . The doors of our house are flung open to foreign journalists who conscientiously wish to acquaint themselves with the Soviet Union's economic and cultural achievements and who objectively inform the public in their countries about the Soviet Union. *(From answers to the questions of A. E. Johann, West German writer and journalist, September 20, 1958).*

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. . . Non-interference in the internal affairs of other countries is one of the basic principles to which our country adheres in its foreign policy. Every people is master in its own house, and it alone has the right to decide what shall be its internal system.

We resolutely condemn the use of the *diktat* in international relations. The principle of noninterference in the affairs of other countries must be observed by all countries, not only in words but in deeds. *(From answers to the questions of Murilo Marroquim de Souza, Brazilian journalist, October 3, 1958).*

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. . . We have repeatedly had to point out the great responsibility borne by the two Great Powers—the Soviet Union and the United States—in preserving the peace. As regards the Soviet Union, it has on many occasions expressed its sincere desire to normalize relations with the United States, and has backed its words with deeds. The Soviet Union proposed a 50-year pact of nonaggression. It proposed that the two countries should extend reciprocal trade, promote cultural relations, and so on . . . *(From the report to the 21st Congress of the CPSU, January 27, 1959).*

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. . . Our seven-year plan is the most convincing proof of the Soviet Union's peace-loving strivings. We need peace and we are persistently and consistently struggling for it. All the peoples of our planet strive for peace. This is why the Soviet Union's peace-loving policy enjoys such profound respect and support in the whole world. *(From the concluding speech at the 21st Congress of the CPSU, February 5, 1959).*

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. . . The implementation of our seven-year plan depends on our own efforts, on our internal resources. And if we are interested in the development of trade with the capitalist countries, the capitalist countries are interested in this to the same degree, if not more. It is clear to everybody that the development of trade between the Soviet Union and, let us say, the United States of America, could lead to greater employment in the USA . . . *(From the speech at a reception in Leipzig, March 6, 1959).*

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. . . The Soviet Union does not have, nor can it have, any expansionist intentions with regard to other countries . . . The aim of our home policy, the only and the principal aim, is to build up a life worthy of mankind's finest ideals. The aim of our foreign policy, the only and unchangeable aim, is to avert war, to ensure peace and to safeguard the security of our country and of all countries . . . *(From answers to the questions of the* Pravda *editorial board, April 10, 1959).*

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. . . The Leninist ideas of peace and friendship among the peoples are the basis, the foundation of the foreign policy of the Soviet state. We are loyal to the Leninist ideas, we are consistently implementing them and we shall do everything possible to avert war and to establish good relations among the peoples, among the states, irrespective of their social systems. We are in favor of peaceful coexistence!

Peace is the most important condition for the peoples' existence and progress. People combine their most cherished aspirations and strivings for a better life with the hope to live in

peace. The peoples of the Soviet Union who, within a brief span of time, experienced the gravest trials of the two world wars and had made colossal sacrifices, especially value the blessings of a peaceful life. *(From the speech made at the presentation of the International Lenin Peace Prize, May 16, 1959).*

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. . . Our position with regard to meetings of the leaders of different states is well known. We want the heads of government or the heads of state, people vested with great powers and enjoying great trust, to meet more often to exchange their views. We think that each such meeting would result in a better appreciation of the questions that need to be settled and in a better understanding of the position of one's partners. This, in turn, would help the achievement of such decisions as would be of advantage to both sides.

Such talks, however, will only produce good results when all sides proceed from a striving to ensure the durable peace that all the peoples on earth desire so much. If we overlook this principal aim and try to adapt ourselves to something else, a position may arise when it will be said that one side loses something as a result of the talks, while the other gains. We should proceed from the assumption that no one loses anything by agreements aimed at ensuring peace. On the contrary, all peoples stand to gain from this, as the cause of peace is furthered. To my mind, this position is progressive, and it has universal support. The statesmen who really are guided by this principal goal should make their contribution to the noble cause of ensuring durable peace. Then those who will avoid this, those who will not be serious in their approach to the solution of this problem, will not be successful in their policy. This much is certain. This is how we see the tasks which the statesmen should bear in mind in meeting among themselves.

In this connection I should like to refer to our meetings and conversations with the British Prime Minister, Mr. Macmillan, during his visit to the Soviet Union last February. Our meetings unquestionably played a large part in improving the relations between our countries.

They led, for instance, to the conclusion of a new trade agreement of benefit both to Britain and to the Soviet Union. And if there are still some unsettled issues in dispute between our two countries, these are no longer questions of mutual relations between our two countries—Britain and the Soviet Union—but, in the main, those between the NATO countries, Britain included, on the one hand, and the Soviet Union and the other socialist countries, on the other. We have, therefore, ample reason to say that our meetings and talks with Mr. Macmillan have been useful and fruitful. One can cite many other examples of the contacts between top national leaders having led to improved relations between the countries.

Everyone realizes the immense importance which the state of relations between the Soviet Union and the United States of America, the largest nations of the world, has for the cause of peace and international cooperation. Is it, indeed, a matter of doubt that if our powers were to establish good friendly relations and if we were to succeed in establishing cooperation in the cause of peace, peace on earth would be more stable and durable?

Are there any realistic opportunities for relations between the USSR and the United States to be based on the principles of peace and friendship? We are positive that such opportunities are there. There are no territorial disputes between our two countries, nor any insoluble contradictions, nor any issues that could prevent the creation of a climate of confidence and mutual understanding.

It is common knowledge that the Soviet and American peoples fought together against a common enemy during the years of World War II.

We are always prepared to do everything within our power to ensure that relations between our countries are based on the sound foundations of peace and friendly cooperation. A betterment of Soviet-American relations will not fail to help improve relations with other countries and scatter the grim clouds in other areas of the world. Naturally, we want to be friends not only with the United States, but with the friends of the United States as well. At the same time, we want the United States to have good relations not only with us, but with our friends as well.

Therefore, we hope that the exchange of visits between the President of the United States and myself will be useful. On our part, we shall do our best to make the talks and discussions between us contribute toward establishing better understanding between the Soviet Union and the United States of America and toward fostering peace.

. . . We shall go to America with an open heart and in all sincerity, with good intentions, with the earnest desire to help do away with the state of cold war and ensure the possibility of reaching agreement with the President on questions connected with the improvement of relations between our countries, being guided by concern for safeguarding peace throughout the world. *(From the statements at the press conference at the Kremlin, August 5, 1959).*

GUESTS FROM FLORIDA ARE WARMLY RECEIVED BY THE SOVIET PREMIER IN MOSCOW.



AMERICAN TOURISTS POSE FOR A PICTURE WITH N. S. KHRUSHCHEV AT THE KREMLIN.





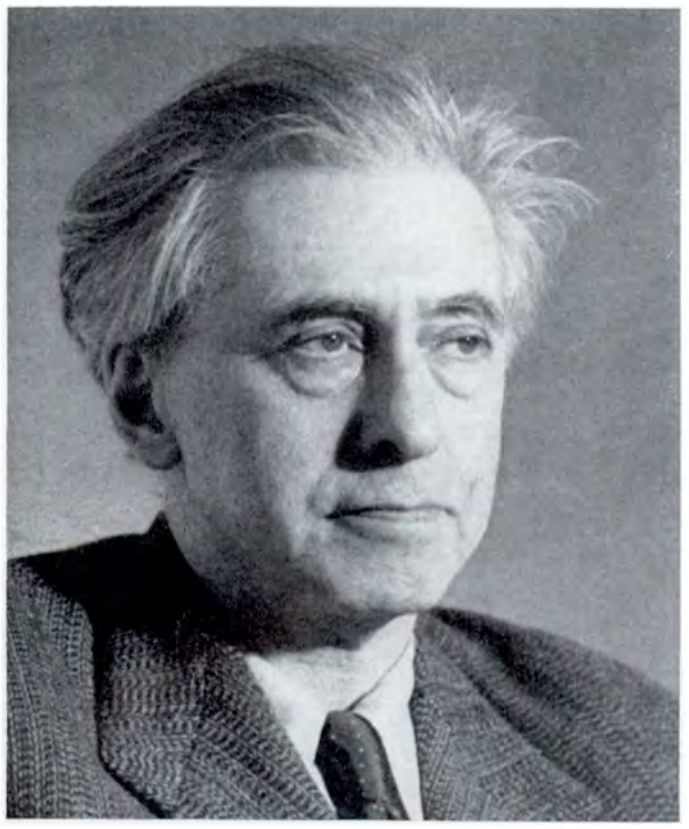
### *"WE MUST LIVE TOGETHER AS FRIENDS"*

Mikhail Guskov,
*Mechanic, Likhachov Auto Plant*

YOU can't walk through a shop in our plant without hearing groups of men discussing Comrade Khrushchev's visit to the United States. We auto workers hail the exchange of visits. We are certain that the meetings will serve to strengthen world peace.

Comrade Khrushchev has time and again said that international security, in the final analysis, depends to a large degree on the relations between the United States and the Soviet Union. That is why we must live together as friends.

# Soviet People
# KHRUSHCHEV



### *"NEW HOPE FOR PEOPLE EVERYWHERE"*

Ilya Ehrenburg,
*Writer*

TWO names—Khrushchev and Eisenhower—can be heard on all radio wave lengths—long, medium and short. The news of the forthcoming exchange visits of the Chairman of the USSR Council of Ministers and the President of the United States is welcomed everywhere with relief and joy. What are modestly termed "unofficial talks" in the communique give hope to the people throughout the world. The meetings of these two statesmen, heading two of the world's greatest powers, can mark the beginning of a new era in international relations and thereby influence the life of every man in every country.

### *"TO BUILD A STILL BETTER LIFE WE NEED PEACE"*

Alexei Bezelyansky,
*Moscow Bus Driver*

I AM an ordinary bus driver but you don't have to be a political wizard to understand how important these mutual visits are.

As I drive my bus along the streets of my native city, I keep noticing how Moscow is growing all the time. Construction is going on everywhere—new housing projects, schools, theaters, all kinds of stores. All this is to build a still better and richer life for everyone in our country. For that we need peace.



# WELCOME EISENHOWER visits

### *"VISITS FURTHER CULTURAL EXCHANGES"*

Sergei Gerasimov,
*Film Producer*



I MET many Soviet and foreign artists at the International Film Festival in Moscow and they all spoke about the exchange visits. The news has stirred everyone concerned with the preservation of peace. The friendly meeting of these two leading statesmen of two great countries will play an important role in determining the future course of international relations. It will also promote further cultural exchanges between our two countries.

### *"GOOD NEWS!"*

Dmitry Malyavko,
*Plasterer*



OUR building team is now finishing the interior of a new apartment house in the southwest section of Moscow. This is our small contribution to the big housing program scheduled by the seven-year plan. It is a plan for peaceful construction that we are building. That is why we workers were so happy to hear that the President of the United States has invited our Nikita Sergeyevich Khrushchev to make an official visit and that the invitation was accepted. This is good news!



### *"ON EVERYBODY'S LIPS"*

Nina Krylova,
*Autobus Conductor*

OUR express bus operates between Vnukovo Airport and Sverdlov Square. We carry many excursionists and tourists from foreign countries. They are all amazed by Moscow's giant-scale construction—the new residential blocks, parks and gardens.

The word "peace" is on everybody's lips these days, both Muscovites and foreign tourists, and it is coupled with talk about the exchange of visits between Nikita Khrushchev and President Eisenhower. Everybody approves.

### *"AN HISTORIC EVENT"*

**Anatoly Sofronov,**
*Writer*



THIS is indeed an historic meeting. People in all five continents are hoping for everlasting peace. Peace and happiness—this is every man's dream, no matter where he lives or what language he speaks.

Those of us who have visited the United States know that there, too, as in our country, the people want peace and friendship between nations. This feeling I heard expressed in New York, San Francisco, Arizona, Ohio, everywhere I went.



### *"HELP SECURE PEACE"*

Boris Chesalov,
*Engineer*

WE ARE glad for anything that will put an end to international tension and create an atmosphere of friendship among nations. My friends and I heard the radio announce the exchange of visits and we read the report of Nikita Khrushchev's press conference. He put it very simply. He was going to America, he said, with a hope for better and friendlier relations that would help secure peace throughout the world.



### *"ICE MUST BE MELTED"*

Nikolai Matsel,
*Crane Operator*

WE HOPE that when the President of the United States comes to Moscow he will have time to visit Moscow factories. We will gladly show him our machine tools, textiles, furniture and everything else we make in our shops. He'll be welcome in our homes.

I read Eisenhower's statement in the papers in which he says that the exchange of visits will help melt the ice in relations between the Soviet Union and the United States. This ice must be melted as fast as possible.



## *"EXCHANGES DEVELOP PEACEFUL COOPERATION"*

Vladimir V. Matskevich,
*Minister of Agriculture of the USSR*

THE exchange of visits between Comrade Nikita S. Khrushchev and President Dwight D. Eisenhower is the greatest event in the history of Soviet-American relations. It could be of great importance in reducing international tension, in developing peaceful cooperation and business, scientific and cultural ties between our countries. Experience has shown that exchanges of various agricultural delegations between the USSR and the USA are mutually beneficial. Such visits help each country to know and to understand the other better.



# KHRUSHCHEV-EISENHOWER visits



## *"WE WANT OUR CHILDREN NEVER TO KNOW WAR"*

Maria Panyushkina,
*Principal, School No. 240, Moscow*

NONE of us want war, we need peace the way we need air and sunshine. I especially feel this when I come to school and see the happy and eager faces of our boys and girls. We teachers are trying to equip the young generation with the knowledge and experience for a good and useful life. We teach them to love their country, to take pride in productive labor, to work for the happiness of people everywhere.

Even the oldest of our pupils, our seniors, know about the horrors of war only from books and from what adults have told them. We want them never to experience it. Our children, and children everywhere, must be spared those horrors.

That is why I add my voice to the voices of the millions of other Soviet people who hail the forthcoming exchange of visits. We place great faith in this meeting. We know it will strengthen the friendship between our two countries.

## *"OUR COUNTRIES FOUGHT TOGETHER"*

Alexander Voronin,
*Barber*

LIKE every Soviet citizen I was glad to hear of Comrade Khrushchev's scheduled visit to the USA and the return visit of President Eisenhower to our country. I took part in the Great Patriotic War when our countries fought together against a common enemy. We all hope that the tensions which developed between the USSR and the USA after the war will be cleared away by this exchange of visits.



VICE-PRESIDENT RICHARD M. NIXON CUTS THE RIBBON TO MARK THE OFFICIAL OPENING OF THE AMERICAN NATIONAL EXHIBITION HELD IN MOSCOW'S SOKOLNIKI PARK.

# RICHARD M. NIXON IN THE USSR

**By Georgi Bolshakov**

VICE-PRESIDENT Richard M. Nixon's visit to the Soviet Union, as well as the trips made by Frol R. Kozlov and Anastas I. Mikoyan, First Vice Chairmen of the USSR Council of Ministers, to the United States are important milestones on the road to better understanding and friendlier relations between our two countries. They have served as prelude to the exchange visits of Nikita S. Khrushchev to the USA and Dwight D. Eisenhower to the USSR.

Mr. Nixon came to open the American National Exhibition in Moscow. His visit was especially welcome because it gave a high American official the opportunity to see the Soviet country, its people, and their way of life at first hand.

During his ten-day stay in the Soviet Union, Mr. Nixon had useful and frank conversations with Nikita S. Khrushchev, Chairman of the USSR Council of Ministers, and with other Soviet leaders. This exchange of opinions on problems facing the two countries, said the Vice-President, he had found highly constructive. There is one proposition on which we agree, stressed Mr. Nixon—that differences must be settled at the conference table and not on the battlefield.

The Vice-President saw Moscow, admired the beauty of Leningrad, crossed the plains of Russia on the high-speed Soviet liner TU-104, visited blossoming Siberia and the industrial Urals. He talked with shipbuilders in Leningrad, miners in Degtyarsk in the Urals, workers in the Uralmash Plant, the builders of an atomic power station in Beloyarsk, a town in the taiga. Everywhere Mr. Nixon met with a warm welcome.

From Moscow the American guest went to Leningrad. There he visited the Metal Works, the country's leading center of turbine construction. Mr. Nixon and the people in his party spoke with the workers at the plant, all of whom stressed the Soviet people's desire to live in peace and friendship with the people of the USA. Pavel Tikhonov, a worker, asked Vice-President Nixon to convey friendly greetings to the American people from the Soviet workers.

Mr. Nixon also visited Leningrad's Admiralty shipyards where he viewed the "Lenin", the world's first atomic icebreaker. Accompanied by Pyotr Ponomaryov, the captain of the icebreaker and a well-known polar explorer, Mr. Nixon went aboard to see the machinery and equipment of the vessel.

The party then took a boat trip along the Neva and the Gulf of Finland on the Albatross, a steam launch. The trip was followed by a tour of the parks, gardens and cascades of fountains of the beautiful Petrodvorets palace.

Early the following morning Mr. Nixon and his party set out by the TU-104 from Leningrad to Novosibirsk. From their plane the American guests got a view of the new Soviet Siberia with its industrial centers, its large, well-planned cities and its far-flung collective and state-farm fields.

The heavy machine-building plant at Novosibirsk interested the




Mr. Nixon visits the Urals Machine-Building Plant in Sverdlovsk. Equipment with the "UMBP" trademark is used by factories in many foreign countries.

American guests. Konstantin Gonenko, the chief engineer, took Mr. Nixon around the plant and demonstrated some of the unique machines with which the plant supplies both home and foreign enterprises.

The American guests were greeted with applause by the audience at the Novosibirsk Opera and Ballet Theater which recently celebrated its 14th anniversary. "Ballet in Siberia! And what an excellent ballet!" they exclaimed admiringly.

With great interest Mr. Nixon and his party watched a performance of "Swan Lake" and when the curtain fell were the first to applaud. They went back stage to congratulate the cast.

Mr. Nixon said he had never seen so stirring and magnificent a performance. He asked if he could have a record of the Novosibirsk theater orchestra's rendition of the music as a souvenir, and expressed the hope of seeing the Novosibirsk company perform in California, his native state.

On the following day the party made a trip to the Novosibirsk Hydropower Station built on the Ob River. Then boarding a motor ship, the Americans sailed to the opposite shore of the man-made Ob Sea where a scientific center is being built in the taiga woods.

In Sverdlovsk Vice-President Nixon visited the Uralmash, short for Urals Machine-Building Plant. Machines and equipment with the "UMBP" trademark may be seen in the factories of many foreign countries. The workers of this plant gave a warm reception to the Americans. Here and there lively conversations were struck up. Mr. Nixon conveyed greetings and best wishes from the American people and from President Eisenhower to the workers.

"For peace and friendship throughout the world, friends!" Mr. Nixon said in Russian.

"We, the workers of Uralmash ask you to convey our best wishes to the workers of the USA," was the reply.

On the last day of their stay in the Urals Mr. Nixon and his party paid a visit to the construction site of an atomic power station. The Vice-President commented that, like his Soviet hosts, he considered the construction of such stations the most beneficial way of utilizing atomic energy. We are looking forward, he said, to the day when atomic energy is used only for peaceful purposes, and not for war. Statesmen must settle all the differences which have arisen between us so that the scientists and engineers of our countries may work jointly on the further solution of problems of the peaceful use of atomic energy.

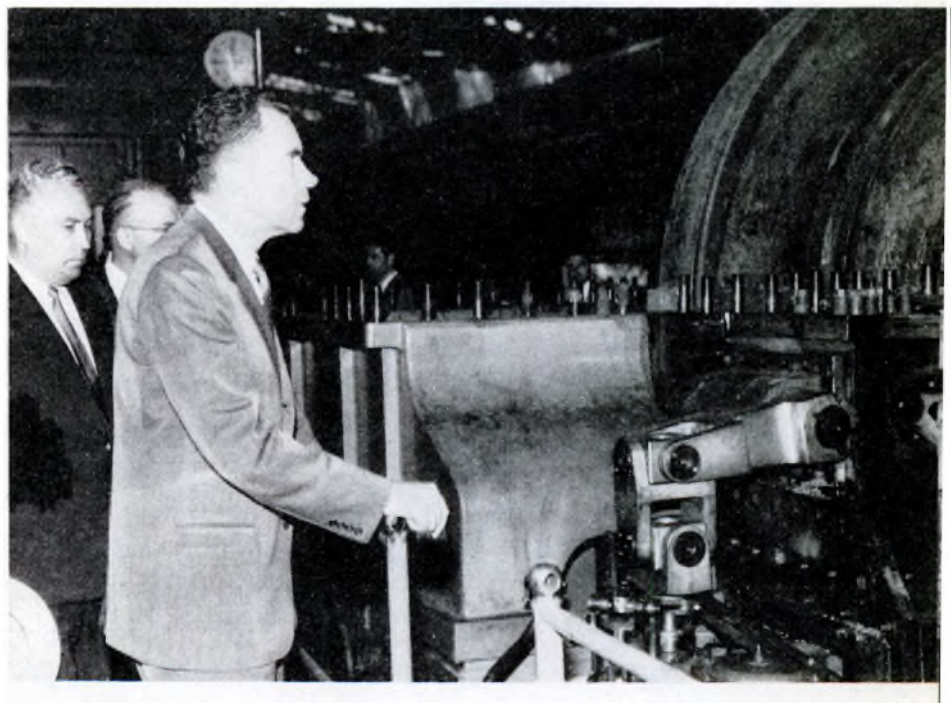
On returning to Moscow Mr. Nixon delivered a speech over Moscow TV and over the national radio network and he held a press conference for Soviet and foreign journalists.

Seeing the guests off at the airport, Frol R. Kozlov, First Vice-Chairman of the USSR Council of Ministers, expressed the hope that Richard M. Nixon's visit to the Soviet Union had given him a "better understanding of our plans and aims which would contribute to greater understanding between the Soviet Union and the USA."



The Vice-President talked to Leningrad ship builders, Urals miners, Siberian metal workers. Everywhere he met with an interested and cordial welcome.

Frol Kozlov, first Vice-Chairman of the USSR Council of Ministers, accompanies Mr. Nixon on a tour of the Leningrad plant where turbines are built.





Leningrad pediatricians show the American Governors through the city's child research institute.

# AMERICAN GOVERNORS MEET THE SOVIET PEOPLE

**By Pyotr Dmitriev**

THE NINE state governors who recently visited the Soviet Union covered a great deal of territory in their 23-day tour. Their original itinerary was supplemented by a number of side trips they asked to make. They were particularly interested, naturally enough, in seeing how Soviet governmental bodies functioned, particularly those on the republic level, and in getting an insight into public health, legal procedure, housing and municipal services.

Extended every courtesy by Intourist, the Soviet travel agency, and by government officials, the American visitors, in spite of their short stay, managed to see a considerable section of the country—Moscow, Leningrad, Kiev, Alma-Ata, Kazakhstan, Rustavi and Tbilisi in Georgia, and other cities.

The sight-seeing trip through the canal linking Moscow with the Volga River was reminiscent, said Governor William G. Stratton of Illinois, of travel on the Mississippi. He spoke highly of the Soviet motor ship and its comfort.

In Moscow the state governors went through the First Psychoneurological Hospital and left favorable comments in the Visitor's Book. They visited one of the corrective labor colonies where serious lawbreakers are rehabilitated through work and education. The governors were impressed by this advanced penal procedure and thought the colony much less like a prison than a reform institution.

The beauty of Leningrad impressed the Americans as it does all foreign tourists. They visited the city's historic landmarks and its museums, talked with workers in a metal plant and with farmers on a suburban state farm. They visited a Russian Orthodox and a Baptist Church.



Visiting governors look over one of the new housing projects in Moscow. They were highly appreciative of the mass construction methods.

### Beautiful Kiev

Kiev, the ancient-modern capital of the Ukraine, made the visiting officials heartily welcome. Nikifor Kalchenko, Chairman of the Council of Ministers of the Ukrainian Republic, gave them a word-picture of the city a half-dozen years from now when the seven-year plan is completed. Its present they were able to see for themselves in Kiev's bustling streets and the many projects in construction.

Both Governors Luther H. Hodges of North Carolina and John E. Davis of North Dakota were moved to comment on Kiev's striking beauty. Governor Davis thought that the city planning was admirable and a model for cities of the future.

Governor LeRoy Collins of Florida spoke in the same vein of the luxuriant green beauty of Alma-Ata during a visit to Kazakhstan's thriving industrial cities. The Americans spent some time in Rustavi and Tbilisi in the Georgian Republic. They visited citrus groves, schools, concert halls and stadiums.

Governor Davis said he was much impressed with the scale on which new housing was being built, particularly in the Georgian Republic. He complimented the Georgians on their sunny land and happy-tempered people. They knew how to rest and play and their cities and farms made it evident that they also knew how to work, he thought.

The governors met with people from all walks of life, high government officials, collective farmers, scientists, factory workers.

Their tour was widely covered in newspapers and by radio and newsreel.

One ten-year-old in a small village just outside of Kiev told them, "I know all about you. The papers write about you every day." To show that he liked what he had read, he presented Governor Collins with a porcelain cup.

## At Home with Soviet Citizens

The party visited with several Soviet families in their homes. Alexander Velin, a Kiev building worker, told them during one of these at-home chats that when he was a PW in a German concentration camp he made friends with an American from Ohio. "We shared our hardship like brothers," he said. "We ought to live in friendship now as we did during the war."

That sentiment was repeated by Governor Robert B. Meyner of New Jersey who said

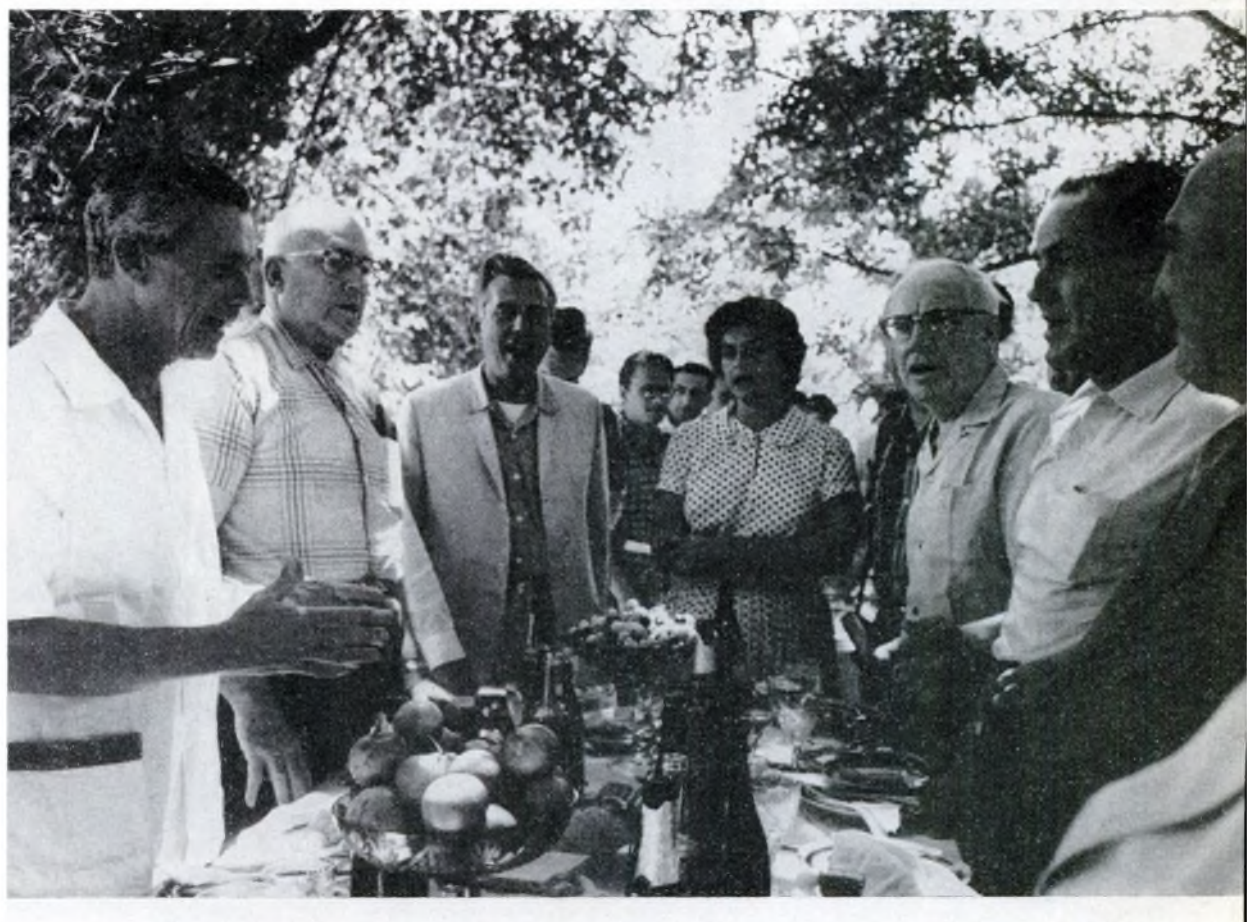


GOVERNOR COLLINS OF FLORIDA TELLS THE SOVIET CHILDREN THAT HIS DAUGHTER LIKES TO PLAY IN SANDBOXES.



Alexander Melnikov, construction worker, offers a welcoming handshake to Governor Stratton of Illinois when the American visitors tour Kiev.

A RESTFUL LUNCH IN THE GARDEN OF AN AGRICULTURAL INSTITUTE IN DIGOMI, A GEORGIAN VILLAGE.





AMERICAN GOVERNORS ACQUAINT THEMSELVES WITH SOVIET JUDICIAL PRACTICE AT A COURT TRIAL IN LENINGRAD.

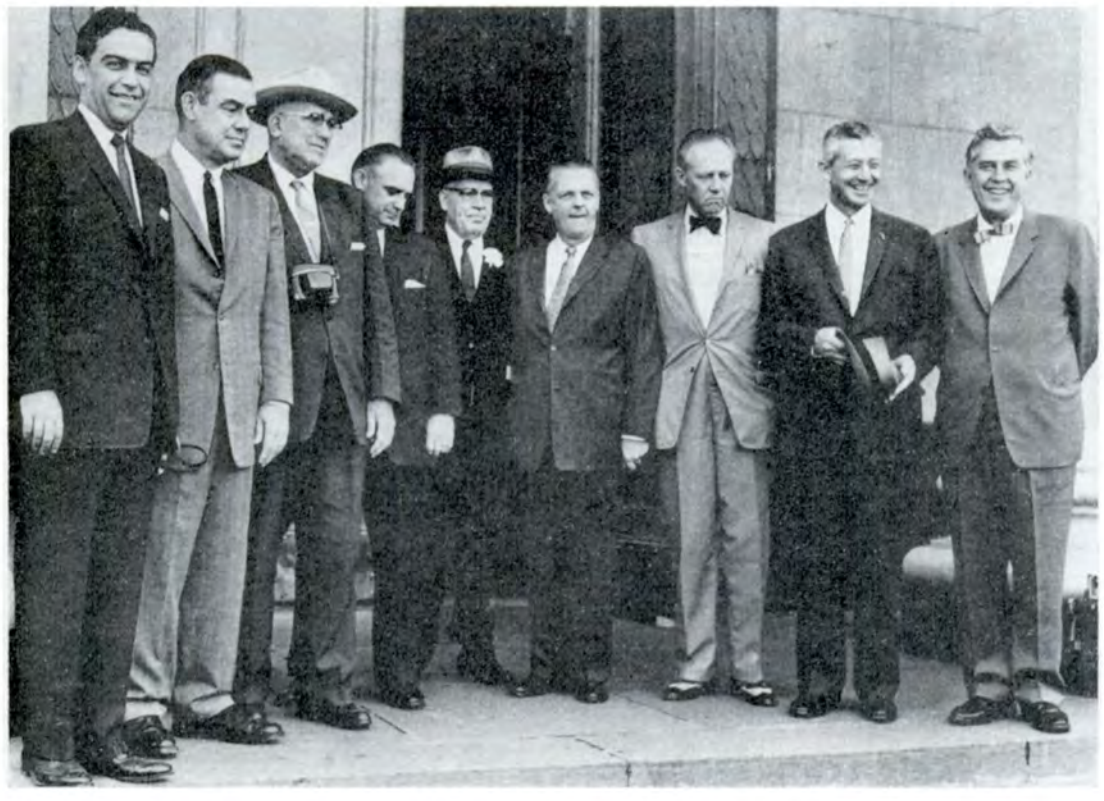
# Governors Meet the Soviet People

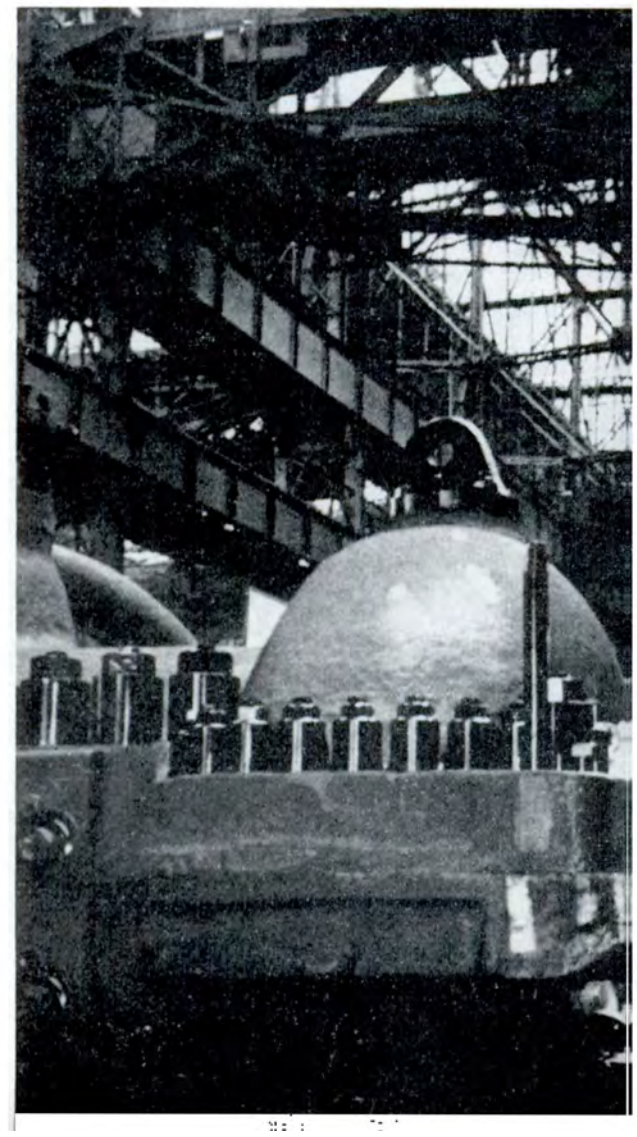
that everything he had seen in the Soviet Union proved to him that the people wanted peace and were sincerely interested in getting to know people from other lands. Ways and means of securing peace must be found, he emphasized.

During their stay in Moscow, the governors were received by Nikita S. Khrushchev, Chairman of the USSR Council of Ministers; by Anastas I. Mikoyan, First Vice-Chairman; and by Mikhail P. Georgadze, Secretary of the Presidium of the USSR Supreme Soviet.

Governor George D. Clyde of Utah summed up the party's feeling. He noted the very cordial reception the visitors had met everywhere they traveled. The strongest impressions he and the other members of the party carried away were wonderment at the speed with which the country had been rebuilt after the war's enormous destruction and admiration for the Soviet methods of mass housing which he described as "absolutely unique."

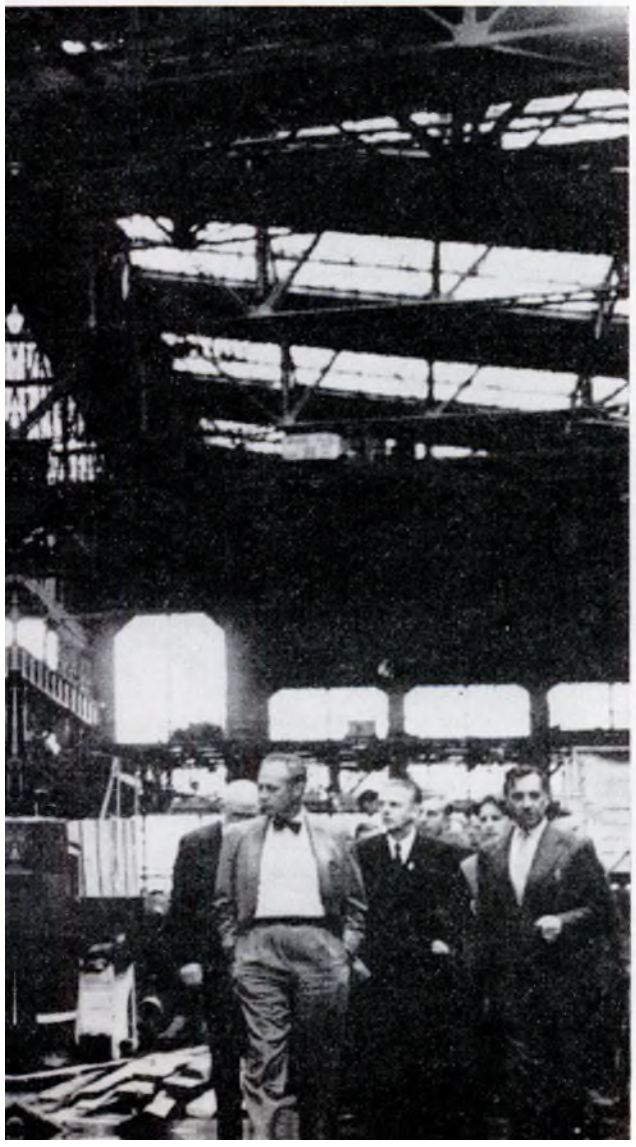
Governors Underwood of W. Virginia; Smylie of Idaho; Clyde of Utah; Davis of N. Dakota; Hodges of N. Carolina; Stratton of Illinois; McNichols of Colorado; Collins of Florida; Meyner of New Jersey.





AN INFORMAL TALK WITH N. S. KHRUSHCHEV AT THE KREMLIN. THE VISITING GOVERNORS WERE ESPECIALLY INTERESTED IN LEARNING HOW THE SOVIET GOVERNMENT OPERATES.

THE U.S. GOVERNORS VISITED A NUMBER OF PLANTS.



GOVERNOR SMYLIE OF IDAHO (CENTER) STOPS FOR A FRIENDLY CHAT WITH LENINGRAD METAL PLANT WORKERS.





HEARTY MEALS BROUGHT AND SERVED ON THE SPOT BY A LOVELY COLLECTIVE FARM GIRL.

# Fruits of Collective Labor



SOVIET COLLECTIVE AND STATE FARMS REPORT GOOD CROPS

DESPITE the drought in some farm areas of the country, the collective and state farms of the Ukraine, the lower Volga, the Urals and other regions report better than average grain and vegetable harvests in this first summer of the seven-year plan. In many sections of Kazakhstan, one of the great Soviet breadbaskets, the bumper wheat crop was larger than the record harvest of 1958.

Bigger crops were sown this spring than last on an expanded acreage totaling 470 million acres. More corn, sugar beets, sunflowers and potatoes were planted in an effort to meet the pledge taken by the farms in the Ukraine, the Kuban and elsewhere, to meet their target figures in less time than the seven-year plan required.

But the weather was unaccommodating, to say the least. On the virgin lands of Siberia and Kazakhstan the temperature soared to the very high 90's and elsewhere there was no relief from parching sun and wind.

Soviet collective farmers did not sit back however. They countered nature's unreasonableness with scientific knowledge, hard work, and massed fleets of farm machines.

A SHORT BREAK FOR A REST WITH GAY ACCORDION MUSIC AND AN IMPROMPTU DANCE.





OF A BAD DROUGHT IN SOME REGIONS OF THE COUNTRY.



AROUND-THE-CLOCK WORK IN THE FIELDS HELPS TO BRING IN A BUMPER HARVEST.

MASSED FLEETS OF MODERN AGRICULTURAL MACHINES COUNTER UNFAVORABLE WEATHER.



The widespread and general use of mechanized equipment turned the trick. In the first half of this year the collective farms acquired nearly 100,000 new tractors, more than 25,000 harvester combines and a large number of other farm machines. That saved time in sowing and harvesting and made for better cultivating and fertilizing.

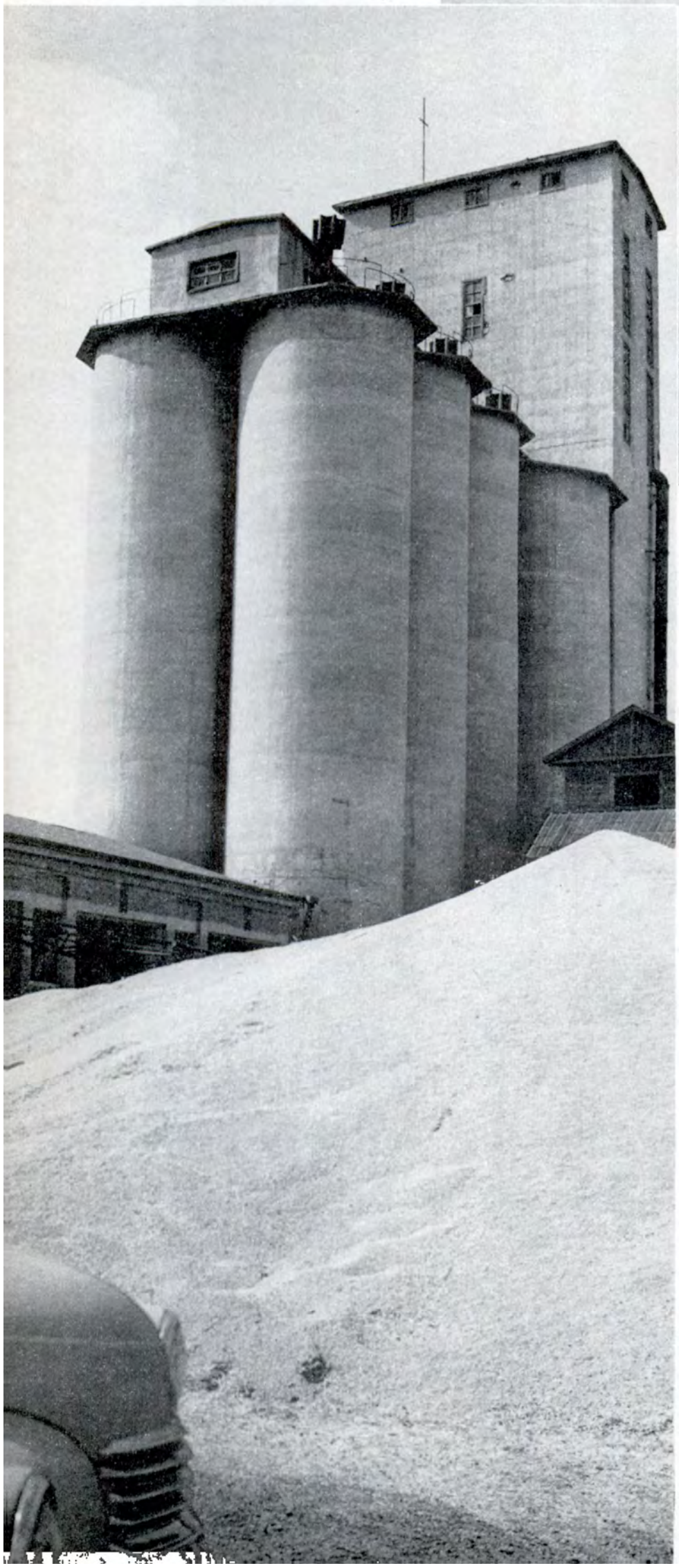
In this first half year there has been notable progress in stockbreeding. The number of cattle, hogs and sheep has grown by 21 million. The country's production of meat rose by 38 percent and milk by 19 percent. The average milk yield per cow increased by 9 percent.

Kazakhstan collective and state farms report remarkable output. Early in August they completed their annual delivery quotas of meat, eggs and karakul hides sold to state and cooperative trading bodies. They delivered three and a half times more meat than during the same period last year.

Bad weather or not, Soviet growers and stockmen haven't the slightest doubt that the job they've undertaken of exceeding U.S. meat and milk production will be done.

Seyatel, a prosperous collective farm village, set in the dry Salsk steppes.

The farm's fields, shaded by tree belts have a rich yield even during droughts.



# THE VILLAGE



By Yuri Grafski

THE KULESHES are a big but fairly representative collective farm family. There is Grigori, the 55-year-old head of the family who is one of the farm carpenters, his wife, Fevronya, chief poultry woman, Grigori's two brothers and their wives.

Brothers Albert and Victor are bricklayers, now busy building a new garage for the farm. Their wives Taisia and Nina work on one of the wheat combine crews and in the poultry division, respectively.

Their collective farm is in a remote village, Seyatel, in the Salsk steppes, a region of beautiful but monotonous blue summer skies and practically no rain. It is a rare summer when drought does not threaten. This summer was not at all unusual. Rain came only on the eve of harvest time.

## Fighting Droughts

But drought is no longer the imminent disaster it once was. The Kuleshes and everyone at the Stalin Collective Farm have the threat well in hand. A glance at the farm fields tells why. They are evenly divided into 225-acre squares, each one boxed in by trees. Protected by these shelter belts of 18- to 24-foot trees, the fertile black earth is impervious to the worst of droughts and the hottest of summer winds.

# IN THE STEPPES



Within each green box the wheat grows higher with each succeeding harvest. The farm's 12,500 acres of plowland is sown mostly to wheat and corn with large sections growing sunflowers, vegetables, watermelons, fruit and grapes.

The farm has 45 big machines—harvester combines, tractors and trucks. The barns and outbuildings of brick house 1,000 head of cattle, 1,500 pigs and about 2,500 sheep. In the poultry yard and ponds are some 70,000 chickens, ducks and geese.

### 400 Owners

All of this is owned collectively by the 400 collective farm families. The farm's income three years ago was six million rubles; this year it will top eleven million. The distribution of this year's larger income has already been decided upon at a general meeting of all collective members.

The individual farmers will be getting four and a half million rubles for their work, fifty per cent more than they got three years ago. Larger sums, totaling 360,000 rubles, have been earmarked for the village kindergarten, club, library and children's summer camp.

Another three million rubles have been allocated for capital construction—new barns, a garage, a machine shop, a community center, a new school.

A million or more rubles will be going into mineral fertilizer, seeds, spare machine parts, fuel, new irrigation projects, and the purchase of more machinery.

The earnings of the six members of the

**MECHANCAL MILKERS LEAVE THESE SEYATEL DAIRYMAIDS TIME FOR AN ANIMATED CONVERSATION.**





THE FARM'S PLOWLAND IS DIVIDED INTO 225-ACRE SQUARES, EACH BOXED IN BY 18 TO 24 FOOT TREES.



NO CHANCE OF A MEAT SHORTAGE IN SEYATEL.

# THE VILLAGE IN THE STEPPES

Kulesh family this year total 56,500 rubles. Their budget figure for food runs to 15-20 percent of this figure. The family grows a great many of its own vegetables, fruit and berries in the kitchen garden attached to the cottage and keeps its own pig and dozens of chickens. At one time the Kuleshes kept a cow but that is no longer necessary with plenty of milk products available at the farm's dairy and meat at the farm's slaughterhouse. The village also has a bakery and public dining room to cut down on the time housewives have to spend in baking and cooking.

### For the Farm Children

Grigori Kulesh's grandson Sasha is one of a hundred or more farm children ranging in age from two months to six and a half years who are taken care of from sunup until dark at the nursery and kindergarten. The cost of this pre-school training is carried entirely by the farm out of its common funds. The village school has 300 children in attendance.

During the summer the children are sent off to a summer camp set up in a picturesque spot near the village. The camp is also maintained out of farm funds.

Two years ago the farm started a music school to teach violin, piano, accordion and wind instruments. It has grown so popular that 150,000 rubles a year are now budgeted for its maintenance.

The farm is now embarked on an ambitious school project that will include a boarding school, workshops of various kinds, a music school and three dormitories for students and teachers. Seven million rubles have been budgeted for construction.

### Health Service

The farm has its own clinic with a trained nurse in attendance. A hospital is still in the planning stage. Complete medical services, including visiting physicians, are supplied by the district medical center without charge.

The village earmarks about 100,000 rubles a year for farm members who need treatment at spas and sanatoriums. Fevronya Kulesh suffered from a stomach ailment and was sent to a sanatorium with all expenses paid by the collective. The farm has a pension system and has built an old folks home for retired elderly people without families.

### No Housing Shortage

Seyatel is a pleasant green village. Its brick-paved streets are lined with single-story cottages owned by the collective farm members. One belongs to Grigori Kulesh; it cost him 20,000 rubles to build it.

There is no housing shortage in Seyatel. Every farm family has its own cottage. Twenty-three new cottages are being built this year but they are mostly for newlyweds.

New homes can be built at relatively low cost since the farm has its own brick yard. The construction work is done by a building team of farm members supervised by farm draftsman - builder Vasily Koptev. These homes, although privately owned, are built with the help of the collective.

### Cultural Center

The club is the social and cultural center of the village. It has an orchestra, chorus, brass band and dramatic group. Each year 100,000 rubles are earmarked for the club's expenses—instruments, salaries for the activ-

The village music school teaches piano, violin and the woodwinds.





NOR OF A MILK AND CREAM SHORTAGE, EITHER.

ity leaders and movies three times each week.

Visiting professional theater companies from Novocherkassk and Rostov stage shows at Seyatel from time to time.

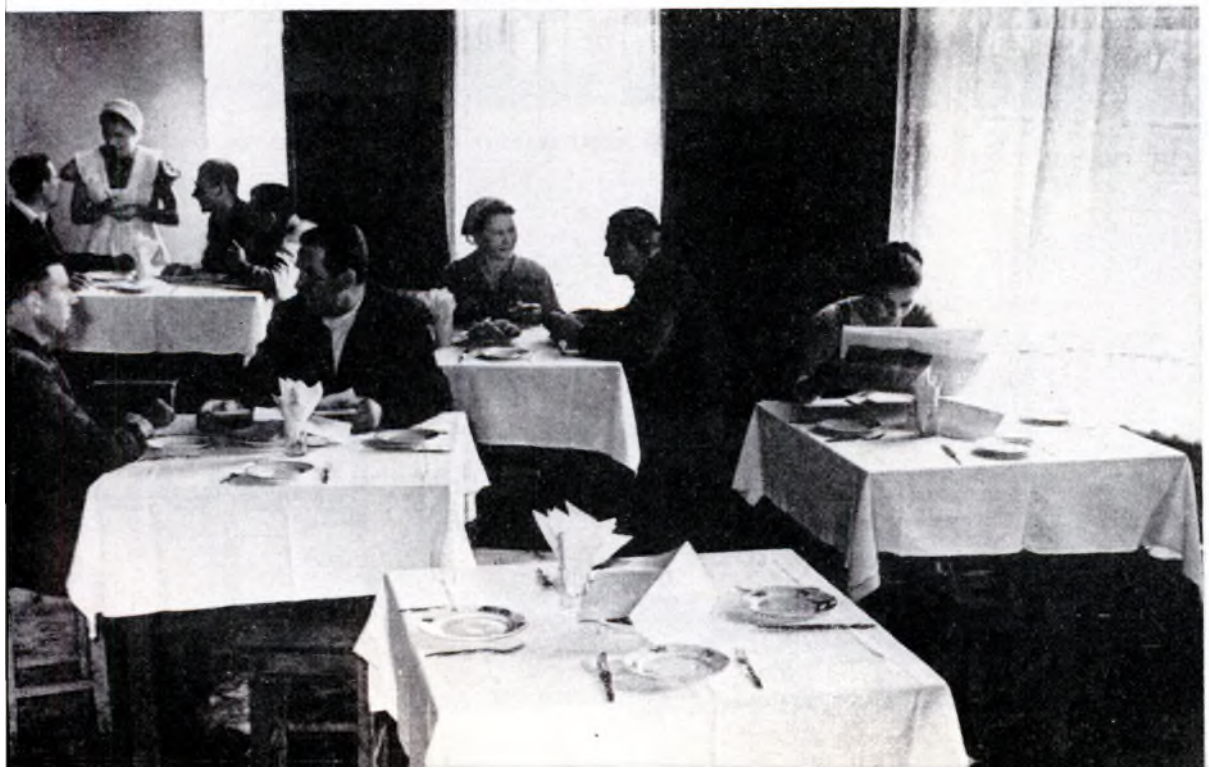
This distant village is by no means isolated from the world of events. The Kuleshes, for example, read three national and two local newspapers. All told the village subscribes to 400 magazines and a thousand newspapers, and the farm people keep most of the 8,000 books in the village library in continuous circulation.

The people of this remote village in the steppes lead a life that is both interesting and fruitful.



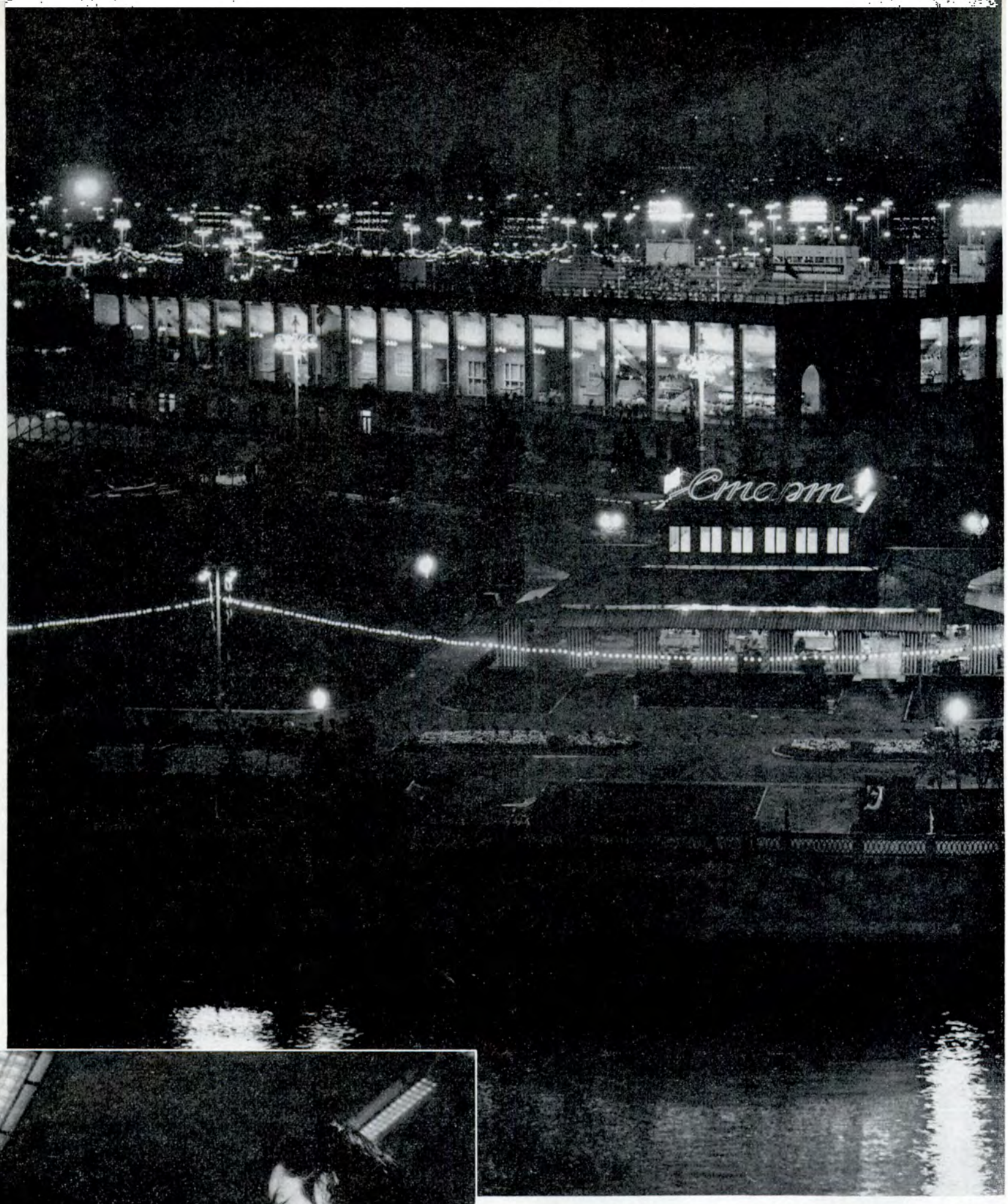
SUNUP TO SUNDOWN CARE IS GIVEN TO THESE SEYATEL YOUNGSTERS AT THE FARM KINDERGARTEN.

SEYATEL HOUSEWIVES SPEND A GOOD DEAL LESS TIME IN THEIR KITCHENS WITH THIS DINING ROOM HANDY.



A FEW OF THE FARM'S 70,000 DUCKS AND CHICKENS.





ALL LIT UP FOR CUSTOMERS—POPULAR TRADE FAIR IN MOSCOW'S CENTRAL STADIUM.



# MORE CONSUMER GOODS



OCCUPANTS OF NEWLY-BUILT APARTMENTS ARE BUYING NEW FURNISHINGS.



LIGHTING FIXTURES OF ALL SHAPES AND SIZES ON SALE IN THIS STORE.

# AND MORE BUYERS

AN EXCHANGE that took place between Nikita Khrushchev and an audience of workers points up the salient fact of Soviet production —that every commodity turned out, whether by heavy or light industries, is designed to meet the growing consumer needs of the Soviet people. This is the basic function of the present seven-year plan, as it has been of the several preceding economic plans.

Nikita Khrushchev was speaking at a meeting of workers of the Dniepropetrovsk Machine-Building Plant. The Soviet Premier said: "Now everyone can see that the material welfare of the Soviet people is augmented from day to day. Indeed, our great industrious people have fine achievements to their credit. They have actually shaken the world with their accomplishments.

"In the past few years remarkable results have been obtained in farming as well. Grain production has risen sharply, and now we have bread in abundance—both black and white. Am I right?"

A host of voices supplied the answer, "You certainly are."

Khrushchev asked again, "Do we have vegetables?"

Voices: "We do. Plenty of vegetables."

Khrushchev: "Do we have milk?"

Voices: "Certainly."

Khrushchev: "And meat?"

Voices: "Yes, but not enough."

Khrushchev: "We have milk, but opinions differ as to meat. Meat production in the last few years has shot up in our country. And this year meat production and procurements are rapidly increasing. As of July 20, the government bought 50 percent more meat than it had by the same date last year. That's not so little, is it, comrades?"

Voices: "Right."

"But we still don't have enough meat," Khrushchev continued. "We must produce more. In response to the call of the foremost collective and state farms, a campaign has begun in the country to overtake and surpass the United States in the production of meat, milk and butter per head of the population.

"In 1958 the U.S. produced 207 pounds of meat per capita. The actual per capita consumption is lower on account of exports. We must also produce more milk, meat and other foodstuffs to satisfy the requirements of the Soviet people in full. We are certain that the task of over-

*By Yakov Usherenko*

MEAT BY THE TRUCKLOAD READY FOR DELIVERY TO RETAIL FOOD SHOPS.



# MORE CONSUMER GOODS AND MORE BUYERS




ONE OF THE SCORES OF NEW COFFEE HOUSES THAT OPENED THIS YEAR.

taking the U.S. in production of meat, milk and butter in the next few years will be successfully carried out. We have all the potentials for it.

"The Party and Government are directing their efforts towards boosting the development of industry and agriculture in order to improve the living standards of the people. Our people now are living better than ever before. We are sure that they will be living even better in the very near future. Consumer goods of better quality are now being turned out in large quantities. And this is only the beginning."

And the audience responded: "You're right."

### More and Better Goods

In the past six months gross industrial output of the Soviet Union was 12 percent higher than for the same period last year. It is 5 percent higher than the target figure of the seven-year plan. In some of the country's light industries, the increase is even greater, ranging from 14 to 28 percent for such commodities as butter, sugar, meat, furniture, refrigerators and washing machines. The seven-year plan control figures provide for a more rapid development of every kind of consumer goods production.

The 200,000 government and the 135,000 cooperative consumer enterprises turn out everything needed to satisfy the demands of the Soviet people. The textiles of the Moscow "Tryokhgornaya Manufactura", the shoes of the Leningrad Skorokhod Factory, the silk fabrics of Margelan (Uzbekistan), the fish products of Tallinn, the canned goods of Riga, the jerseys of Lvov and the furs of Kazan are high quality products. Many have won prizes at the Brussels and other world fairs.

ON SALE—EVERYTHING FROM BALALAIKAS AND VIOLINS TO FINE PIANOS.







THIS SHOP HAS EVERYTHING FOR CHILDREN.



A SHOP FOR MEN'S APPAREL IN MOSCOW.

Consumer goods are also manufactured at many of the heavy industry plants. Shops in the Krasnoye Sormovo Shipbuilding Yards in Gorky turn out items like washing machines and furniture. The Sverdlov region in the Urals, one of the big heavy industry centers, manufactures bicycles, motorcycles, washing machines, radios, refrigerators, and leather footwear.

### New Light Industry Plants

The products of factories built in this first year of the new plan are already on sale in retail stores. The sugar of new refineries built in Krasnodar and Oryol are now sweetening the tea of Soviet consumers.

By 1965 ten million tons of sugar will be produced in the USSR, almost twice as much as in 1958. The per capita sugar output will rise from 57 pounds to 90-96 pounds. Of the 83 new sugar refineries projected by the seven-year plan, 52 are already in construction, 17 will be completed this year.

Before 1965 about 250 new meat packing plants, 100 dairies, more than 200 canneries, hundreds of baking and confectionery factories, wine and beer distilleries and soft drink enterprises will be operating.

Almost twice as much capital will be invested between 1959 and 1965 in constructing light industry plants as was true for the seven years preceding. Finishing touches are now being put on the largest Soviet textile mill in the city of Kamyshin on the Volga. This giant —one of the 170 to be built—will weave more cloth than all the textile mills in Canada put together.

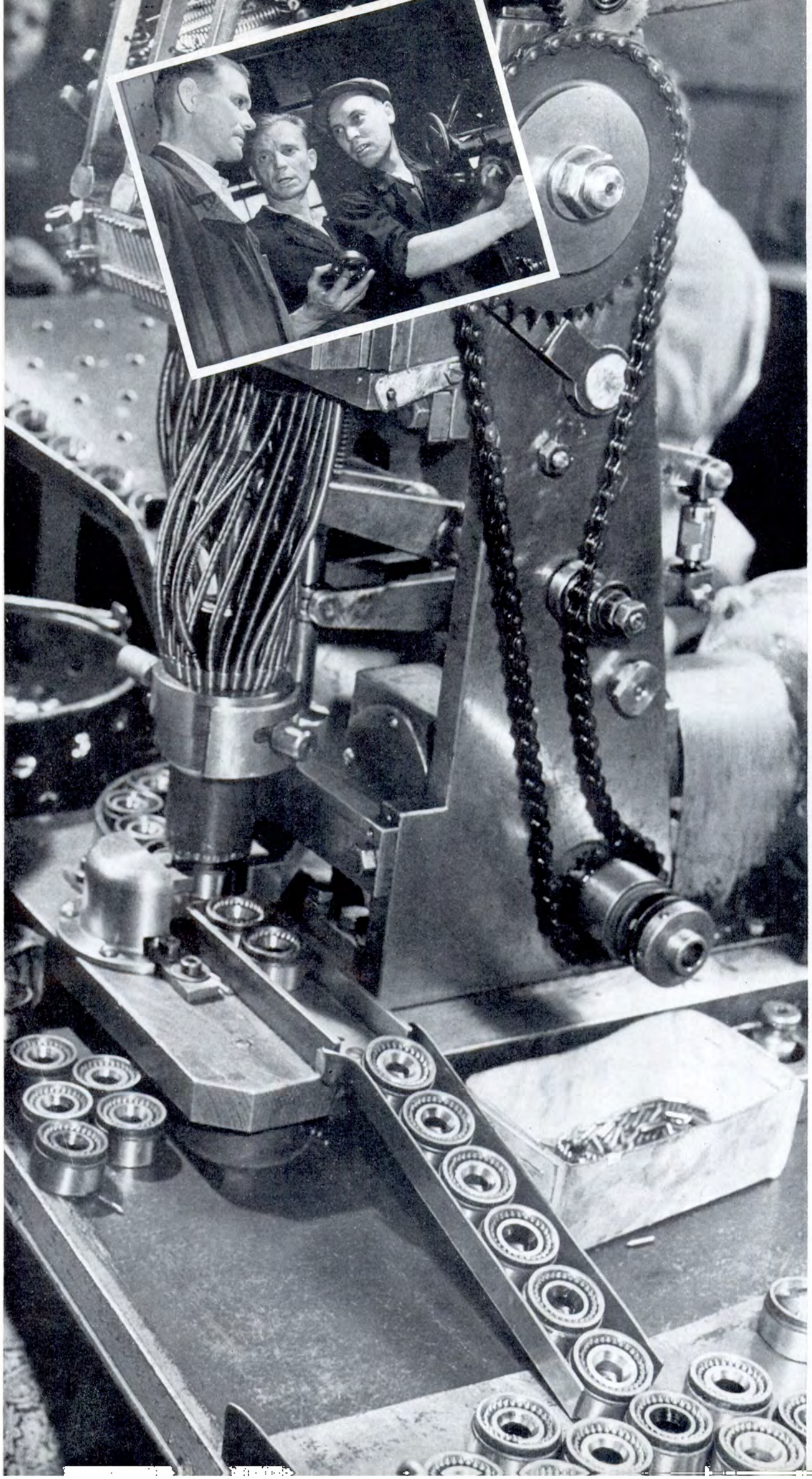
There are more than half a million retail stores of various types. These are predominantly government-owned stores although some are owned by consumer cooperatives and collective farms.

On sale in the state stores is everything from a prefabricated house to a can of caviar. All goods sold by state and cooperative stores have fixed retail prices which have been cut periodically and consistently. This year prices on such commodities as radios, cameras, bicycles, grape wines and some foods were reduced by government order. Many more price cuts are forecast in the seven-year plan.

These stores have been selling larger quantities of goods. By comparison, in the first six months of 1959 they sold 21 percent more meat and meat products; 23 percent more milk and dairy products; 38 percent more fruit; 28 percent more refrigerators; 42 percent more washing machines and 28 percent more television sets than they did during the first 6 months of last year.

This demonstrates a steady rise in purchasing power. During the first 6 months of 1959 the Soviet consumer spent 14-odd billion more rubles on food and goods than he did during the same period last year.

Purchases are usually for cash. There are comparatively few credit or installment buyers. If a family wants a car, piano or TV set it will save the amount needed and then make the purchase. The country's savings banks announce 7 billion rubles more in deposits the first half of this year as compared with last year's deposits—another and very significant index of increased purchasing power and a higher standard of living of the Soviet people.



# *WHAT AUTOMATION MEANS TO US*

***By Ivan Kalganov,***
***Alexander Manushin and Pavel Fedyanin***

***Machine-adjustors, Automatic Shop of the Moscow First State Bearing Plant***

THE THREE of us work in one of the automated shops of the Moscow Bearing Plant. Ours is a very big plant and is visited by a good many foreigners—engineers, scientists, newspapermen and just plain ordinary tourists—interested in seeing the inside of an up-to-date Soviet factory.

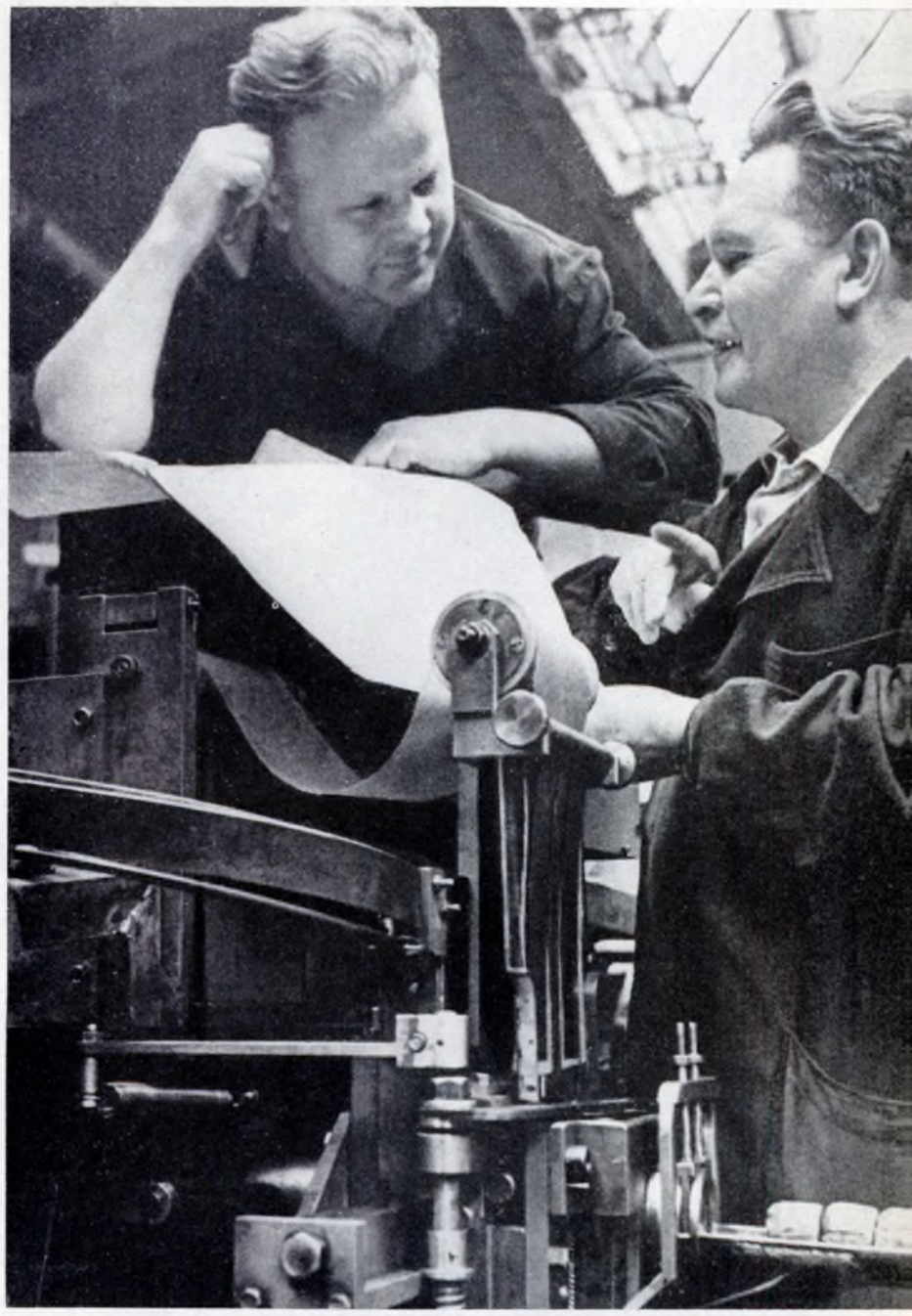
With our shop so highly automated, the question we are asked most often is what effect automation has had on the workers' living standards. What happens to all the men whose jobs are replaced by machines? With automation, these foreign visitors reason, comes over-production and along with that comes unemployment.

We find the question a little strange since our big problem is getting enough workers. We haven't had any unemployment for thirty years, even when the rest of the world was in the middle of the economic depression of the thirties. Our younger people have never experienced joblessness and what it does to people.

### We Benefit from Automation

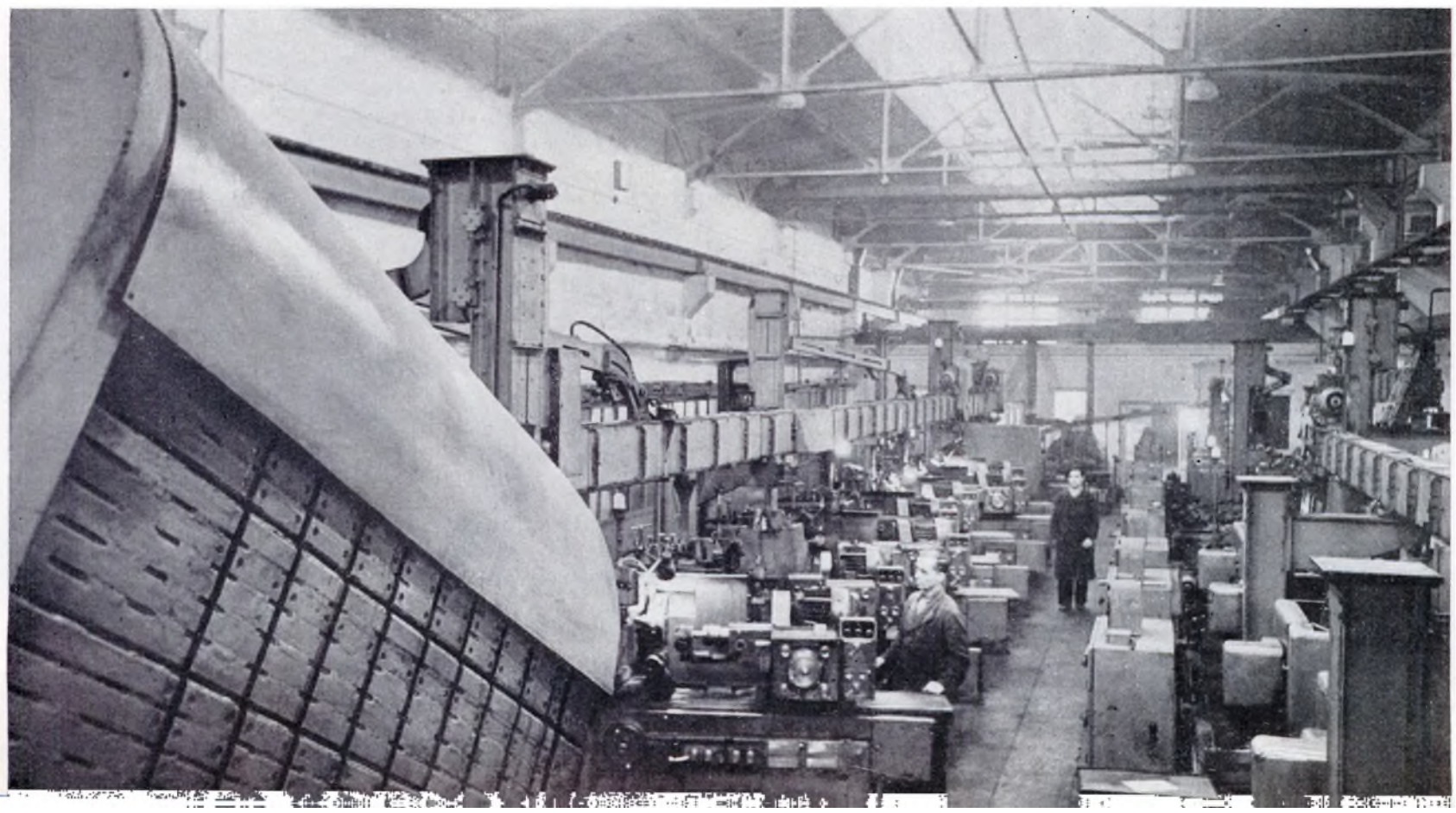
Automation, for us, does mean more production, but not less employment. There is plenty of work for everyone who wants it. When, for example, the first automatic line of forty machine tools was installed in our plant's automatic lathe department, we had sixty workers whose jobs were taken over by machines. Most of them were transferred to other jobs in the shop at no loss in pay. Some, like Yefim Orlov and Georgy Gorshkov who learned new skills, went to work in other shops.

Instead of being hurt by automation, we benefit from it. With automa-



Alexei Viktorov and Pavel Gorokhov and two other mechanics designed an automic machine that greases and packs shaft bearings.

ONE OF THE AUTOMATED PRODUCTION LINES IN THE FIRST BALL-BEARING PLANT IN MOSCOW. IT POLISHES THE BEARING RACE OF THE OUTER RING, ONCE A HAND JOB.





Their old jobs replaced by machines, former adjustors Pyotr Simakov (left) Raya Bakhmutskaya and Ivan Kharybin were taught a new skill—drafting.



A new housing project built by the bearing plant for its workers. Savings brought by automation go to build houses, schools and theaters.

## *WHAT AUTOMATION MEANS TO US*

tion, we are able to increase output and with it the profits of the plant. But the profits do not go to stockholders. A good slice comes back to us directly in larger bonuses and incentive payments and indirectly in more and better housing and other benefits. This year the plant is spending about two million rubles for housing in addition to the 7.5 million allocated by the government for this purpose. Last year about a million rubles of the plant's profit went to build a kindergarten. An additional 1,100,000 is budgeted this year for a new nursery.

### We Automated Our Plant

In a very short period the workers and engineers in our plant did a thorough modernization job on our equipment. We set up eleven transfer machines, 23 conveyor lines, renovated 1,224 and automated 588 machine tools, built 636 new equipment units and more than 1,000 transfer and hoisting mechanisms. We've more than doubled our output since. Our staff, of course, increased at a much slower rate, but it did rise by 13 per cent.

Ring stamping, up to now, was one of our hardest operations. Now we flatten our rings in the forge shop by special expansion machines fitted with apparatus that pre-heat by electric induction outfits developed by plant technicians and engineers. An automatic operator, also designed by plant engineers, is now being put through its paces in the shop. When fitted with these devices, the expansion machines will round off the complete automation of ring stamping.

In the multi-spindle division of the automatic lathe department, Lev Bulgakov, Lev Kvartin and other engineers have designed a very dependable automatic operator for ring replacement that does most of the hard work that was done by hand before.

To operate this machine, the workers had to improve their skills. Once they got their training finished, their rating and with it their wages went up. Mikhail Mayorov and Anatoly Seliverstov were two of the workers involved. They used to cart the rings to their benches, now they are brought by conveyor. All they have to do is to watch the operation of the machine and keep an eye out for some minor trouble that may need an adjustment.

In our roller shop productivity has doubled since charging devices were installed and wages have gone up very noticeably, also. Some of the machine tool operators know their machines so well they are able to get along without adjustors. In the assembly division of the universal joint bearing shop, fitters Alexei Viktorov, Vasily Frolov, Anatoly Karasev and foreman Pavel Gorokhov have designed and built automatic machines which reduce operating time in bearing assembly and packing by as much as three-quarters.

### More Skill—High Wages

Many workers with relatively low skill ratings are transferred to our automatic shop. We train them. Igor Mashkov was a fifth grade worker. He was taught to handle grinding equipment and now works in the No. 3 Small Series Shop. He rates as adjustor, seventh grade, at higher wages than he earned before. He makes up to 1,500 rubles a month.

The same was true of Viktor Maslennikov, who had no specialized training at all and was taught service grinding and equipment assembly.

Yevgeny Khlebushkin was a seventh grade fitter when he came to our automatic shop, but he had little background for this new world of complex precision mechanisms. With instruction, he caught on quickly, qualified for the eighth grade and was placed in charge of a fitter's team with a wage increase of more than fifty per cent.

Once started, he moved right along and now he is working for an engineering degree. He completed his courses in the evening. Nor is he the only one. Juli Palkin, adjustor, and Lyubov Panfilova, inspector, are classmates of his. The training is, of course, given without charge. Schooling, at whatever level, is free in our country.

Some of the workers in our shop have already earned their engineering degrees. Pyotr Simakov worked as an adjustor, graduated from a technical school and qualified as a designer in the plant's automation division. He is one of a number of people from the shop now doing tool designing—an example in life of the way in which industrial automation in a socialist country tends to erase the old line of demarcation between mental and physical labor.

## Working Conditions

Higher paid skills, as important as they are, are not the be-all and end-all. There are some things which don't come in a pay envelope. We are talking of working conditions which are pleasant and work which is satisfying.

We do not have any exhausting night work in our shop. The only work done at night is machine and instrument checking and repairing. The shop is clean and well ventilated. The machines are foolproof—equipped with safety devices where necessary, and operate so efficiently that they need very little looking after.

Not only are our designers constantly figuring out new automation techniques but our shop workers as well. All of us are on the lookout for additional ways of increasing output and cutting production costs. Our shop people have made some 400 improvement proposals of one kind or another in the recent past as part of our pledge to increase our output of bearings by another twenty per cent.

By converting an ordinary grinding machine into an automatic one and tieing it into a centerless grinding transfer machine, we have already been able to bring our ring output up to the level it was to have reached only in 1961, according to the seven-year plan target figure. By 1965 ours will be the last word in automated plants.



More automation means a shorter workday without any cut in wages for adjuster Gorshkov, electrician Novikov and all other Soviet workers.

NIKOLAI IVANOV (LEFT) WAS ONE OF THOSE WHO HAD TO LEARN A NEW SKILL. ONCE HE BEGAN STUDYING, HE KEPT RIGHT ON. HE'S WORKING FOR AN ENGINEER'S DEGREE.





STUDENTS OF THE EIGHT-YEAR SCHOOLS ARE GIVEN A BASIC KNOWLEDGE OF MACHINE OPERATION AND INDUSTRIAL PROCESSES. HERE THEY STUDY AN ENGINE.

# *THE SOVIET SCHOOL SYSTEM REORGANIZED*

*By Yevgeni Afanasenko*
*Minister of Public Education, Russian Federative Republic*



CHEMISTRY, PHYSICS AND MATHEMATICS ARE GIVEN MORE EMPHASIS IN THE REVISED COURSE OF STUDY.

THERE is no exaggeration in the phrase "a veritable cultural revolution" to describe what the Soviet educationl system has accomplished in these past four decades. It has reared a nation of educated men and women, among whom may be numbered many of the most distinguished of contemporary scholars, scientists and men of letters.

Now the Soviet Union has entered on a new phase in its development—it is constructing communism, a society of abundance. This is the goal toward which the seven-year plan is directed. More is therefore required of the school system than heretofore. It must train men and women of larger skills and talents.

In process it must break down the barrier which all previous societies have maintained between mental and manual labor. It must bring the school closer to real life. It must inculcate a profound sense of the social and personal values of productive labor.

This orientation was outlined by the Twenty-first Congress of the Communist Party which met in January. Subsequently the USSR Supreme Soviet drafted a law which




THE WORK-TRAINING PROGRAM IN FARM REGION SCHOOLS REQUIRES THAT NINTH-YEAR STUDENTS PUT IN 2 DAYS A WEEK OF ACTUAL WORK AT NEARBY COLLECTIVE FARMS.

provides for a thoroughgoing reorganization of the school system.

The new law provides for eight years of basic schooling instead of the previous seven. The eight-year school will be compulsory and universal for both town and country. Children will enter at age seven and graduate at fifteen or sixteen.

The eight-year school will provide an additional 1,015 school hours for general academic and polytechnical instruction. The course of study will cover the fundamentals of science, the Russian language, mathematics, geography, history, physics, a foreign language, and singing, drawing and physical culture. Typical of most others is the curriculum draft prepared for schools in the Russian Republic by the Ministry of Education and the Academy of Pedagogical Science.

The Russian language will be studied for the full eight years with much of the time devoted to practice work. Mathematics study will cover a wider area and stress computing techniques and practical problem-solving. Major emphasis in foreign language study will be on development of speech fluency. The geography program will be broadened to include economic geography. The Russian Republic curriculum recommends that in the fourth grade, instead of elementary geography and nature study, a single program of natural science based on local material be substituted.

Drawing will be taught from the first to the seventh grades inclusive, and music and singing from the first to the eighth grades, two years more than the old course of study provided.

### Work-Study Tie-Up

The major point in which the new curriculum differs from the old is in its strong and repeated emphasis upon work-study tie-up. Work training will have a prominent place in the course of study beginning with the very first grade. Considerably more time is allotted for this kind of instruction than was provided for by the old curriculum. In grades 1-4 there are 432 hours provided for manual training as compared with the previous 206—or 11.7 per cent of the academic hours instead of 6 per cent. Beginning with the third grade, all children will be required to do two hours of self-service work—tidying classrooms and schoolyards, repairing furniture and teacher aids, helping out in school lunchrooms and school libraries, and other such activities consistent with the children's health and age development.

A housekeeping program is included in the new curriculum. Girls will study homemaking, sewing and cooking in the fifth to eighth grades. Fifth-grade boys will also be taught certain appropriate fundamentals of homemaking and care of clothing.

The time allotted for work-training in grades 5-8 has been increased from the present 538 to 895 hours, or from 11.2 per cent of the academic time to 21.8 per cent. Children in these grades will help tend parks and public gardens, help raise poultry and rabbits at collective farms or do the simpler shop operations. Two weeks are allotted to such work-training in every grade.

The program is, of course, graded. As the children grow older they will progress from work in school shops and on farm plots to actual productive work consistent with their age level at nearby factories and collective and state farms which will be coordinated with their classroom study. In this way they will be applying and testing the theory they learn in class in actual work situations.

The academic subjects all provide for this kind of coordination. To illustrate—the natural science program in grades 5 through 8 is a relatively comprehensive study of plants, animals, the human body and the develop-



Eminent scientists like Trofim Lysenko take time from their research to meet with schoolchildren.



The botany and zoology courses in the new curriculum link up with current farm practice.



Girls in grades 5 to 8 learn cooking. Boys are also taught the basic elements of homemaking.

# *THE SOVIET SCHOOL SYSTEM REORGANIZED*

ment of the organic world and provides for practical work, laboratory study and excursions. The physics program includes a large amount of applied physics and serves as both practical and theoretical foundation for the engineering specialties.

Students of the eight-year schools will graduate with a basic knowledge of the major industrial processes, learn how to read blueprints, know the simpler measuring and calculating techniques and be able to process the more common materials.

They will be prepared for the advanced level of secondary school covering grades 9-11 which are a prerequisite for college entrance. Or, if they so choose, they may go on to a vocational-technical school which will provide them with a skill in one of a large group of trades.

### Advanced Secondary Study

The course of study for the ninth through eleventh grades has also been changed and the present standards raised. The new programs in mathematics, physics, chemistry and biology include current developments in science and technology.

The physics courses, for example, cover the atom, ultrasonics, semiconductors, the properties of plastics and their applications in industry. In chemistry, students will learn the properties of high molecular compounds, their classification and active methods of synthesis.

The biology courses are linked closely with the latest developments in agronomy and zootechnics. A new course in the "Fundamentals of General Biology" is being introduced. More comprehensive than the old "Fundamentals of Darwinism" course, it provides a theoretical foundation for training students for farm work. The sciences are given more time in the new curriculum—116 more hours in mathematics, 104 in physics and 67 in chemistry.

The level of teaching in the humanities—literature, history and the others—and the standards in these courses are also to be raised.

The function of advanced secondary schooling is dual—to provide a rounded education that will serve as a basis for higher schooling and to teach a trade.

The curricula for these schools call for regular work in factories, mills or collective farms on the average of two days a week for ninth-year students. Depending on local factors, this work time may be concentrated in one or several periods during the course of the school year, with the cautionary note that students are to be put to work at basic rather than auxiliary jobs, the work to be directed by engineers and skilled workers in the various fields. The course of study for the tenth and eleventh grades is directed to further improve vocational skills.

### Vocational Training

In the ninth to eleventh grades of secondary school, the fundamentals of production, vocational training and practical work in production are allotted 1.356 hours instead of the 504 hours in the present curriculum.

The new curriculum for the vocational technical school is illustrated by the course of study for future farmers at an agricultural school on the secondary level. In the ninth to eleventh grades the school gives the following required courses for all the farm specialties: fundamentals of plant growing, fundamentals of animal husbandry, farm machinery building and electrical engineering, electrification of agriculture, the economics and organization of production on collective farms.

In addition, the school offers special courses for the training of tractor mechanics, crop production men, hotbed and truck garden vegetable growers, livestock breeders, dairy hands, pig tenders, poultry breeders, dairy laboratory workers and so on.

The evening general education secondary schools are designed to give a secondary education to young people who have completed the compulsory eight-year school and have gone to work. These schools will pay special attention to the students' independent work. At large industrial enterprises they will offer both day and evening courses for students who work on various shifts.

Rural schools attended by farmers, as well as schools for people in the merchant marine, will be seasonal and will combine classroom and correspondence study.

The new education law provides for a large increase in the number of boarding schools. For the next school year the Russian Federative Republic alone will have accommodations for 250,000 boarding school students as against the present 83,000. These boarding schools are a relatively new feature of Soviet education but have been doing such effective work in all-round general education everywhere in the country that the new law appropriates a large sum for building new ones. The course of study they offer includes extensive academic, polytechnical, arts and physical training courses.

PART OF THE COURSE OF STUDY IN HOMEMAKING INCLUDES INSTRUCTION IN SEWING AND EMBROIDERY.



## Teaching Methods and Textbooks

As part of the school reorganization program, the entire system of teacher training is in process of revision. Teachers in training will now be required to do practical work in factories and on collective farms in order to gather firsthand experience. They will also be required to develop some skill in one of the arts—singing or drawing, for example—so that they will be equipped to lead extracurricular activities of one kind or another.

Educational publishing houses are now at work preparing new textbooks which they expect to have ready for distribution by the beginning of the 1960-61 school year.

Although the reorganization formally takes effect with the opening of the school year this September, the changeover is being made gradually in order not to break away abruptly from the present course of study. In the Russian Federative Republic, for example, the new curriculum will be introduced in the lower grades—1 to 4—this school year. The Republic's educators estimate that it will take a minimum of three to five years to complete the changeover.

The new course of study has these added values: it eases the student's load somewhat by eliminating secondary material and it makes for easier learning by alternating mental and manual activities. Those courses requiring very intensive mental application have been somewhat curtailed. In the early primary grades the class hour is to be reduced to 35 minutes and the midday recess to be increased to 40-50 minutes. The school year for all grades is stretched by an added two weeks to permit fuller use of the spring season for practical work, excursions, and physical education and sports. It is proposed to have four vacation periods during the school year: five days in the fall (November 5-9), twelve days in winter (December 30-January 10), eight days in spring (March 24-31) and the regular summer vacation—85 days for grades 1-4, 72 days for grades 5-7 and 66 days for grades 8-11.



MUSIC AND SINGING COURSES ARE GIVEN FROM THE FIRST TO THE ELEVENTH GRADES IN THE NEW CURRICULUM.

Local industrial enterprises are in process of providing school workshops with machines, tools and necessary materials, and special experimental plots of land are being allocated to urban and rural schools. Since 1956 there have been many pilot projects collecting experience on linking class study with productive work. In Ryazan and other farm regions special experimental and training stations were opened adjacent to rural schools. Collective farm work by teams of school pupils who run through the complete cycle of farm work—sowing, cultivating and harvesting—a type of pilot activity begun in the Stavropol Region, has been picked up by many other school districts.

Pilot projects in factories have been carried on by schools in many industrial cities, Moscow, Gorky, Leningrad, Kuibyshev, Chelybinsk, since 1956 when this work-study orientation was first projected at the Twentieth Congress of the Communist Party of the Soviet Union. The experience accumulated is still being carefully studied.

FOLK DANCING IS ONE OF THE MANY EXTRACURRICULAR ACTIVITIES DESIGNED TO MEET EVERY POSSIBLE STUDENT INTEREST AND TO DEVELOP ANY POTENTIAL TALENT.





# The School I Teach In

**By Nina Kapitonova**
***Principal, School No. 38***

OUR secondary school No. 38 is one of 150 in Sverdlovsk, the largest city in the Urals. Our address is 31 Pavel Bazhov Street, named after a famous Urals writer. We have an enrollment of 1,200 boys and girls, the children of people who work in factories and offices nearby or who live in the vicinity. All parents are required by law to enroll their children in school when they reach the age of seven.

There are sixty teachers on our faculty, the majority of them college trained. Many, like myself, have been members of the No. 38 faculty for a long time. I have been teaching chemistry here for 25 years.

Like all schools in the Soviet Union, we have begun to introduce the new revised course of study which stresses work training. Its aim—and our job as teachers—is to help our children develop into educated, cultured, well-bred men and women, to see that they acquire good work habits and to guide them toward the career for which they are best suited.

The school year opens on September 1 and ends the following June.

September 1, the opening day, by tradition belongs to the first-graders. They are greeted by the older children and taken on a tour of the school where they will be spending at least the eight years required by law and perhaps an additional three years to get a complete secondary education. In our school last fall, 150 small boys and girls were escorted by upperclassmen through our big building. They were shown classrooms, science laboratories, the workshops with their lathes and other machines, the homemaking room, the school garage where classes in driving and car servicing are held.

In the physics laboratory the first-graders saw detailed working models of a blast furnace and a rolling mill our pupils made. Elsewhere they saw a herbarium, a collection of Ural minerals, a short-wave set, a drilling machine. "We made all these things ourselves," the upperclassmen told the newcomers, "and we'll leave them for you to use when we graduate."

Outside, on the school grounds, the children were shown the orchard, berry patch, greenhouse and experimental garden where we have our botany classes.

### The School Year

Like many of the city's schools we now work on an eleven-year curriculum. The first eight years are compulsory, the additional three complete the full secondary school program.

The school year is divided into quarters. Children attend six days a week and will usually have four to six lessons a day in different subjects. A lesson lasts 45 minutes with a ten-minute recess. There is a long recess of twenty minutes in the middle of the day. It is proposed in the draft program to reduce the class hour to 35 minutes and to increase the mid-day recess to 40-45 minutes in the early primary grades.

In grades 1-4 the school year is 38 weeks. In grades 5-7 it is also 38 weeks and includes two weeks of vocational training. In the eighth grade the school year is a week longer and includes two weeks of vocational training and two weeks for graduation examinations.

Here is the schedule of hours for each subject in the first to eighth grades:

*Number of Lessons Per Week in Grades*

| *Subject* | *I* | *II* | *III* | *IV* | *V* | *VI* | *VII* | *VIII* |
|---|---|---|---|---|---|---|---|---|
| Russian Language | 12 | 12 | 12 | 10 | 6 | 8 | 6 | 5 |
| Russian Literature | – | – | – | – | 2 | | | |
| Mathematics | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| History, Constitution of the USSR | – | – | – | 2 | 2 | 2 | 2 | 3 |
| Natural History | – | – | – | 3 | – | – | – | – |
| Geography | – | – | – | – | 2 | 2 | 2 | 2 |
| Biology | – | – | – | – | 2 | 2 | 3 | 2 |
| Physics | – | – | – | – | – | 2 | 3 | 3 |
| Chemistry | – | – | – | – | – | – | 2 | 2 |
| Mechanical Drawing | – | – | – | – | – | – | 1 | 1 |



Work in school garden plots gives the younger children a chance to observe processes they have begun to read about in class. At a state farm in the area the older children are taught how to operate and maintain farm machinery.



Each year on September 1, the seniors play host to the first-graders. They take the newcomers on a tour of the school, show them the classrooms, laboratories and workshops and make them feel at home in their big new world.

At the end of the term, the children always crowd around the bulletin board to see which of them has made the Honor Roll. The names of those awarded medals for high scholarship are inscribed in gold and silver letters, evoking the esteem of both teachers and fellow students.

THERE ARE 60 TEACHERS ON THE FACULTY OF SCHOOL NO. 38. THE MAJORITY OF THEM ARE COLLEGE TRAINED. THIS IS ELI SHNERBERG, PRIMARY SCHOOL TEACHER.

The student editorial board of the school's wall newspaper preparing an issue devoted to the works of Sir Walter Scott and H. G. Wells.





Future scientists and engineers learn how to handle and adjust equipment in the electronics laboratory.





Upper classmen getting their work training from engineer Semyon Yagnotinsky at a ballbearing plant.



In the primary grades the girls are taught homemaking. They learn how to keep a house in order, to prepare the more common dishes, and to cut and sew simple articles of clothing.

Chemistry, taught in the upper grades, stresses laboratory work. The course takes in such current developments as the properties of high molecular compounds and their classification.



# The School I Teach In

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Foreign Language | – | – | – | – | 4 | 4 | 3 | 3 |
| Drawing | 1 | 1 | 1 | 1 | 1 | 1 | – | – |
| Music and Singing | 1 | 1 | 1 | 1 | 1 | 1 | – | – |
| Physical Education | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| Manual Training | 2 | 2 | 2 | 2 | 3 | 2 | 2 | – |
| Work Training | – | – | 2 | 2 | 2 | – | – | 3 |
| Optional Subjects | – | – | – | – | 2 | – | – | 1 |

Notice that we give Russian language for the full eight years. Our children also get rather comprehensive training in mathematics; we emphasize computation and problem solving. Included in our geography syllabus is economic geography. We have replaced our old fourth grade elementary geography and natural science courses with a unified course that stresses the natural resources, industry and agriculture of the Urals, our section of the country.

Those of our students who wish to get a full secondary school education stay on after the required eight years for another three. In the ninth to eleventh grades two-thirds of the school time is devoted to classroom and laboratory studies and the remaining third to work training in one or another trade at a local factory.

This is the distribution of subject hours per week for the final three years, grades 9-11:

*Number of Hours Per Week in Grades*

| *Subject* | *IX* | *X* | *XI* |
|---|---|---|---|
| Literature | 3 | 3 | 3 |
| Mathematics | 4 | 4 | 4 |
| History | 3 | 4 | 3 |
| Constitution of the USSR | – | – | 1 |
| Economic Geography | 3 | – | – |
| Physics | 4 | 3 | 2 |



English is Galina Mazhura's favorite subject and of many of her classmates as well. Study of a foreign language begins in the 5th grade. Emphasis is on developing speech fluency.



A corner of the sunny lunchroom. Both boys and girls wear the traditional Soviet school uniform.

| | | | |
|---|---|---|---|
| Astronomy | – | 1 | – |
| Chemistry | 2 | 3 | 2 |
| Biology | 2 | – | – |
| Mechanical Drawing | 2 | – | – |
| Foreign Language | 3 | 3 | 2 |
| Physical Education | 2 | 2 | 1 |
| Fundamentals of Industrial Production | 2 | 1 | – |
| Theoretical and Practical Vocational Training and Productive Work | 6 | 12 | 18 |
| Optional hours for sports, art studies, etc. | 3 | 3 | 3 |

A large part of our curriculum is devoted to the humanities, the sciences and polytechnical study. In mathematics and the sciences we cover the latest developments in the field.

Homework, we feel, helps the child to retain what he learns in the classroom and we insist upon thorough preparation of assignments. They are carefully gone over and checked in class. Home assignments are not heavy in the primary grades but grow more difficult as the child advances. In the lower grades they will usually require one to two hours a day, in the upper grades two and a half to three hours. Care is taken that they are not so burdensome as to affect the child's health or allow him insufficient leisure time for rest and relaxation.

### Work Training

A primary objective of the school is to train young people to do socially useful work so they can develop their own bents and talents and make their contribution to the social community.

Elements of work training are woven into every one of the subjects studied. Natural history is taught largely through laboratory experiments and excursions. The physics course includes a large amount of applied material that serves as a theoretical basis for learning to run machinery, to use and repair electrical equipment. In the eight years the children are provided with an elementary knowledge of the basic industrial processes. They learn how to measure, calculate, read drawings and work with various materials.

Manual training is given in all grades and gradually increases in complexity. In the primary grades the children learn to cut and paste paper, use needle and scissors, make pen wipers and bookmarks, and model in clay and plasticine. They look after plants in the school garden and take care of animals, fish and birds in the nature room. By the time they reach the second and third grades our girls can cut out and make aprons and protective sleeves, embroider on a printed design and hem handkerchiefs.

In the fourth grade the girls are taught homemaking and the boys carpentry. Fifth-grade boys go on to more difficult woodwork projects. They make bookshelves, small tables, bird houses, boxes for seedlings, bird feeders and cages. Guided by the instructor they may build a fence around the school garden.

Fifth and sixth grade girls are taught to prepare the more common foods and to cut out and make simple articles of clothing. By the time they reach the seventh grade the boys have learned to use tools and machine metal parts. Seventh graders are taught the basic elements of turning and eighth graders the elements of the technology of metals.

### Our Teachers

Manual training we consider one of the important subjects of our curriculum, taught by people who combine industrial and teaching experience. Nikolai Novikov, one of our manual training teachers, who was once a factory foreman, is very good with children in the lower grades. Under his guidance they quickly learn how to handle the basic woodworking tools. The older children are taught metal working and lathe work by Ivan Palchenko and Pyotr Isakov, men with long experience in their crafts.

In the fifth to eighth grades the children work at some socially useful project. They

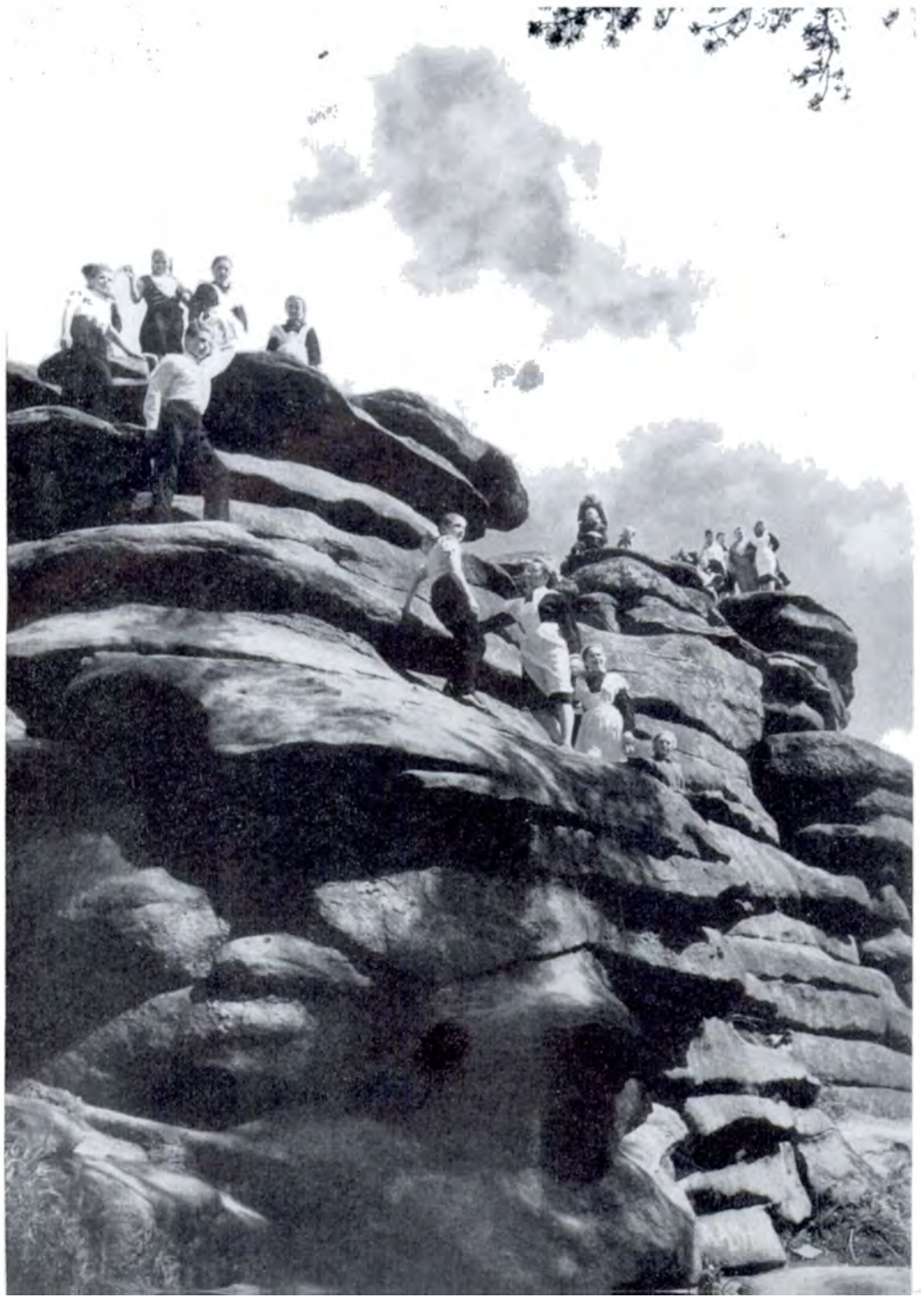


A faculty meeting. Their job, say School No. 38 teachers, is to turn out educated, cultured and well-bred men and women who will contribute their skills and talents to building communism.



Soviet school children, much like those anywhere in the world, have their less-angelic moments.

Through excursions into the country and in town children are given a picture of the natural resources, the industry and agriculture of the Urals Region in which the school is located.



# The School I Teach In

may help plant flower beds, work in the school garden or greenhouses, or help repair a school structure.

Ninth to eleventh-grade students spend six hours a week in two- or three-hour stretches at the bearing plant near the school. There they learn to be turners, grinders, assemblers, inspectors. Last year every one of our students received his trade-qualifying certificate after work training at the plant. They were paid while learning. This type of instruction has much educational value. The students get their preliminary trade training, learn to be responsible for work they are assigned and make practical and concrete use of the knowledge they acquire in class.

Workers and engineers help our students in every possible way and our young people respond by trying to do their very best. Here is a letter we received from the plant administration last term: "The management of the bearing plant wishes to thank the teachers at Sverdlovsk School No. 38 for preparing their students so well for practice training at our plant. We are awarding bonuses to forty of your students for excellent work and should like to have our appreciation of their efforts entered on their school records."

Several of these students who graduated last term were offered jobs at the plant. Maria Kremlyova now works as an assembler, Georgi Shtilianin as lathe operator and Olga Vasilieva as inspector.

The new course of study also gives our students some of the farm skills. Younger children work on the school garden plot. For those in the upper grades we arrange a two-week period of work training on a state farm

near Sverdlovsk. They spend four hours a day at all the regular farm jobs and learn how to run a tractor, a harvester combine and how to repair farm machinery.

### Citizens of a Socialist Society

We are training future citizens of a socialist society, boys and girls who will be expected to do constructive and useful work and to manage the affairs of their country when they grow to adulthood. That is why, from the very first year at school, we train the child to live in a cooperative community.

We try to instill the group spirit in our children by working to make each class a friendly close-knit body united by common interests. Children are encouraged to help one another in their studies and to spend their leisure time together. The class teacher is their guide throughout the school year.

Our children, like those at all Soviet schools, each year elect a Student Council. The chairman and five members are chosen at a meeting of all the children in the school and each class picks a representative to the Council.

We have a Council of twenty boys and girls responsible for maintaining order and discipline in the school and for keeping the classrooms clean. Council members supervise the lunchroom. All cases of misbehavior or lack of discipline—and that includes being late for classes or failure to do homework—are acted upon by the Student Council at its regular meetings held three times each month.

Third-grade children are eligible to join the Young Pioneer Organization. Seniors are eligible for membership in the Young Communist League if they have the necessary requirements of public service and good scholarship. Both these organizations help teachers and parents in the work of character building. They have a far-reaching influence on all the children.

Also of great help to the school are the parents, many of whom serve on the Parents' Committee. Our teachers maintain close contact with these parents and call on them almost constantly for help of one kind or another.

### Our Alumni

We keep in fairly close touch with our graduates. Once a year our school holds a reunion attended by former students now working at the most diverse occupations. We have 1,500 alumni who live and work in Moscow, Riga, Vladivostok, Chita and a hundred other places.

Ludmila Yushina I remember as a fidgety girl with pigtails. She is now a well-known chemist doing research at the Urals Branch of the USSR Academy of Sciences in Sverdlovsk. Another alumna, Nelly Cantor, is a newspaper woman in Chita, Siberia. Maya Lisina teaches at Moscow University. Roman Raksha is a geologist in the Soviet Far East. Nina Kostenko, an honor student at our school, is a children's doctor in Chelyabinsk in the southern Urals.

When I meet these and others of my old students from time to time I feel a sense of great pride in my profession and an awareness, equally as great, of its responsibilities.



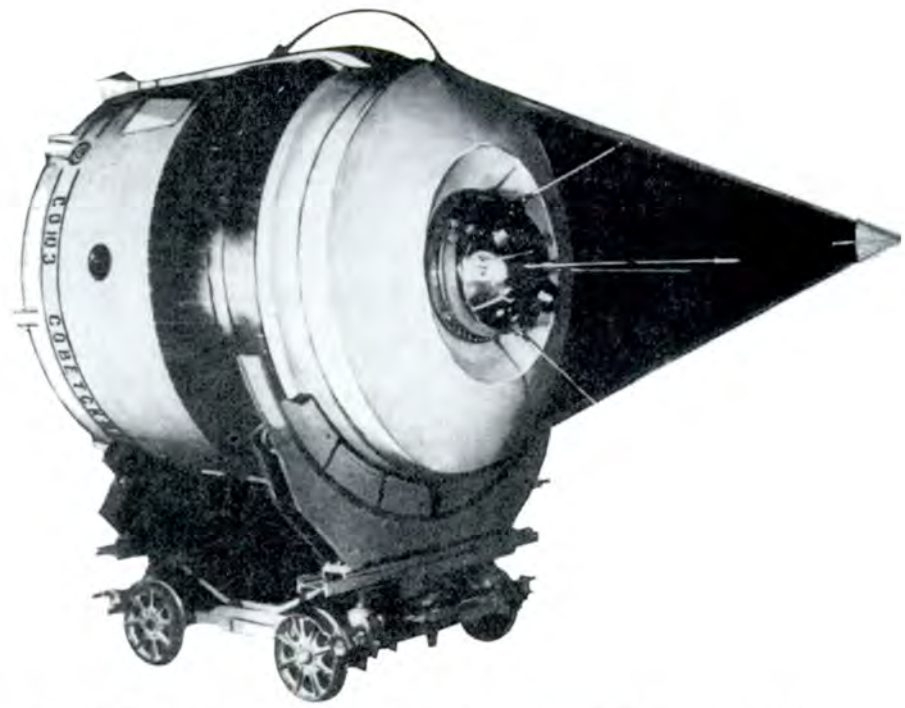


A principle of Soviet education is to train good minds and healthy bodies. Physical culture is given in every school grade and children are encouraged to participate actively in sports.

A few of the 1200 students at the school strike a happy pose for our cameraman. All Soviet parents are required by law to enroll their children at school when they reach the age of 7.



# RESEARCH IN OUTER SPACE



A model of the last stage of the space rocket mounted on a cart. Half of the nose cone has been removed to show the spherical instrument container.

***By Alexander Nesmeyanov,***
***President of the USSR Academy of Sciences***

THE SPACE ERA began on October 4, 1957 when the Soviet Union launched the first sputnik to circle the earth. It weighed 184 pounds. A month later, on November 3, 1957, the second Soviet sputnik, weighing 1,118 pounds took off. It carried the dog Laika, as test passenger, and more intricate scientific apparatus than the first.

On May 15, 1958 the third sputnik was shot into orbit. It weighed 2,919 pounds and was truly a flying laboratory. Circling the earth well over a year now, its radio transmitter, powered by solar and chemical batteries functioning uninterruptedly, has been telemetering scientific data to every part of the earth.

On January 2, 1959, Soviet science launched the cosmic rocket. It skirted the moon at a distance of about 3,100 miles, overcame the earth's gravitational pull and orbited to become the first man-made planet of our solar system. The instruments and batteries it carried weighed 795 pounds. The final stage of the rocket, after the fuel was consumed, weighed 3,238 pounds.

Responsible for the success of these cosmic flights by high-efficiency rockets operating on high calory fuel is the degree of constructional perfection achieved by large-scale Soviet scientific research and exacting industrial standards. To ensure the rocket's stable position in space and its precise adherence to the pre-determined trajectory during the boost, a system of automatic rocket flight control was devised.

Exceptionally high precision is required to maintain the computed coordinates and speed component at the end of the boosting stage in order to set the artificial satellite in an orbit with pre-determined parameters or to carry on a cosmic flight with definite objectives. The solution of this most complicated problem made it possible to orbit the Soviet sputniks. It was an outstanding accomplishment of modern automation.

With the sputniks and the cosmic rocket, basic scientific studies of the upper layers of the atmosphere and cosmic space have been undertaken. They have yielded findings of paramount scientific interest.

## Radiation Research

Research has been going on for some years on the origin of cosmic rays and the interaction of elementary particles of super-high energies with quite unexpected results. It was found that at great altitudes, along with the primary cosmic rays, there was very intensive radiation consisting of particles of relatively low energy.

As distance from the earth increases, the intensity of radiation increases hundreds of times. It reaches a maximum at a distance of 4 radii from the center of the earth, and then drops sharply. At a distance exceeding 10 radii of the earth a constant level is attained which corresponds to the cosmic radiation in interplanetary space. This phenomenon was described in detail in the June issue—No. 6(33)—of this magazine.

Physicists, geophysicists and astrophysicists have been studying the origin and composition of the halo of particles near the earth. It is too soon after the discovery of this phenomenon, however, to choose definitely from among the different hypotheses that have been advanced to explain it.

## Halo of Particles

Last summer, at the assembly of the International Geophysical Year Special Committee in Moscow, this hypothesis was put forward: bombarded by cosmic rays, the earth, like any other celestial body, becomes a source of neutrons. These neutrons appear as a result of the breakdown of the nuclei in the earth's atmosphere by cosmic rays. Since neutrons do not have electric charges they pass through the earth's magnetic field and move away without hindrance. Near the earth some of the neutrons disintegrate to form electrically-charged particles—electrons and protons. These particles, which have comparatively low energy, are trapped by the earth's magnetic field. They can neither enter the earth's atmosphere nor fly off into interplanetary space. Consequently they will move for a very long time in the magnetic field at distances thousands and tens of thousands of miles from the earth. The number of atoms present at such distances from the earth is very small. Collisions with atoms, therefore, are extremely rare and, as a result, the energy of the particles decreases very slowly. In a long span of time they will accumulate in large numbers and the intensity of radiation will be high. At present we may consider it established that it is this process which creates the high energy protons in the inner zone of radiation surrounding the earth.

To explain the origin of the outer zone the hypotheses which seem most valid are those which attribute the phenomenon to the action of the flows of charged particles coming from the sun during heightened periods of solar activity.

Finally, it should be noted that if the products of atomic explosions reach great altitudes they will create intensive flows of charged particles. Since the energy of these particles is small they may be caught in a magnetic trap. As a result atomic explosions may "contaminate" areas of space adjoining the earth.

The sputnik and space rocket flights have yielded signal discoveries. The space around the earth, once thought empty, is now recognized as an area where phenomena of very great scientific and practical importance are occurring.

On the basis of present findings we may make this prediction of fundamental significance for astrophysics—that a similar halo of particles

will surround any celestial body with a magnetic field. The properties of space change noticeably near planets. This, moreover, occurs at distances many times greater than the extent of the atmospheres of these heavenly bodies.

According to the data obtained from the space rocket we may safely conclude that the cosmic rays in interplanetary space will have no harmful effects on the organisms of future space travelers. However, we must qualify that statement. It holds only for a relatively calm state of outer space—the condition which obtained when the space rocket was in flight.

Sputnik III carried a device which checked on the quantity of superheavy nuclei in the cosmic rays. An analysis of the data indicates that an average of roughly one particle with a charge higher than 15 passed through the device every minute. A heavier nucleus was recorded only once in nine days. Hence it may be presumed that the flow of heavy nuclei is negligible. This is of great importance for further development of the theory of cosmic-ray origin.

### Research in the Upper Atmosphere

The sputnik and rocket launchings helped immeasurably to advance the study of the upper atmosphere, a region which extends for approximately 125 miles from the outer edges of the atmosphere. The heat balance of this region is a central research problem. At an altitude of 125 miles the temperature of the surrounding medium is 800-1000° Centigrade and increases with altitude to 2000-3000° Centigrade. This high temperature results in a comparatively slow drop in atmosphere density with altitude. What maintains the high temperature in the upper atmosphere? The latest data provided by the sputniks and rockets offer a partial explanation.

Another critical research problem is the balance of ionization in the upper atmosphere, that is, the process by which equilibrium is established between the time the free electrons and ions appear and the time they are neutralized. Experimental results differ from theoretical computations by as much as 1,000 to 10,000 times. It was found that the phenomena which occur here are more intricate because of other particles present resembling catalyzers that accelerate the processes considerably.

All this research has great practical importance, among other things, for radio transmission. Radio waves travel long distances by virtue of the electromagnetic properties of the ionosphere. An interesting phenomenon which has been known to scientists for some time manifested itself with particular force in the signals from the Soviet earth satellites. The power of the signals received increased at a point situated in the antipode of the transmitting radio station. The phenomenon is known as the antipode effect because the radio waves travel to a diametrically opposite point of the earth when favorable conditions persist in the ionosphere over a lengthy period of time.

The ionosphere may also play a negative role. When radio methods are used to steer a future space ship, for example, the ionosphere may be a source of error in taking bearings or determining velocity. Its structure and characteristics must therefore be known if these errors are to be accounted for. That is why these studies being made by Soviet scientists are so important.

### Density Measurements

Another upper atmosphere research problem is the determination of density. This is studied through various approaches. By comparing the changes in the times of revolution of the sputniks around the earth resulting from their slowing down, one can, with fair accuracy, determine the value proportional to atmospheric density at the orbit's perigee, the point nearest the earth.

With the help of a special gauge, first mounted on Sputnik III, the density at altitudes of 140 to 310 miles was measured. The average density of the upper atmosphere, at altitudes between 200 and 600 miles, was computed from data obtained from the radio signals of the first and second sputniks. An original method was used, based on observation of the diffusion of a cloud of sodium vapor discharged from a high-altitude rocket at 265 miles. Atmospheric density at this altitude was calculated on the basis of the theory of diffusion and the character of the diffusion of the cloud. This same type of cloud was used later to create the artificial comet thrown off by the Soviet space rocket.

These coordinated studies made accurate atmospheric density measurements at altitudes between 375 and 500 miles possible for the first time. They also provided information about upper atmosphere temperatures. At altitudes between 140 and 230 miles the temperature varied between 800° and 1,500° Centigrade. The Soviet studies proved that several postulates which had been accepted before the sputniks made it possible to determine latitudinal and diurnal variations in density were fallacious.

A mass-spectrometer in Sputnik III registered the large number of mass spectra of positive ions that characterizes the chemical composition of the ionosphere at altitudes from 140 to 620 miles. These mass-spectrometrical measurements established the fact that from an altitude of 140 to 500 miles the main gas component of the ionosphere is atomic oxygen. Also detected were ions of atomic nitrogen and heavy particles with a molecular weight of 28 and 30 atomic units. Ions with a mass of 30 may be identified with ions of nitrogen oxide.

The great amount of data received made it possible to discern a definite dependence of all the detected ionospheric components on geographical latitude.

Important results have been obtained in determining the concentration of charged particles. From the ground, by various radio methods, we are able to determine the distribution of electron concentration only up to the height of the ionosphere's main maximum which varies in different circumstances between limits of approximately 185 to 250 miles. Previous to the time the first sputnik was launched the electron concentration changes above the main maximum were problematical.

An analysis of the trajectories of the radio signals of Sputnik I made it possible to determine average electron concentration changes in the outer ionosphere, above the main maximum, at heights of between 200 and 400 miles. The distribution of electron concentration up to altitudes of 290 miles was measured directly for the first time when a Soviet geophysical rocket was launched vertically on February 21, 1958. Analagous data were obtained from other rockets launched the same year.

Concentration of positive ions along the sputnik's orbit, up to altitudes between 550 and 620 miles, was first measured by the ion traps carried by Sputnik III. Since the concentration of positive ions in the upper atmosphere approaches that of electrons, the results yield information on electron concentration.

Study of concentrations of charged particles above the ionosphere's main maximum shows that the dwindling of electron concentration above the main maximum is slower than its growth in the lower part of the ionosphere.

We can assume from these data that at altitudes between 1,240 and 1,960 miles the electron concentration should reach values of not less than several hundred electrons per cubic centimeter or be equal to the conjectured value of its density in interplanetary gas. The earth's atmosphere apparently extends at least to heights between 1,240 and 1,960 miles rather than the 620-odd miles we assumed previously.

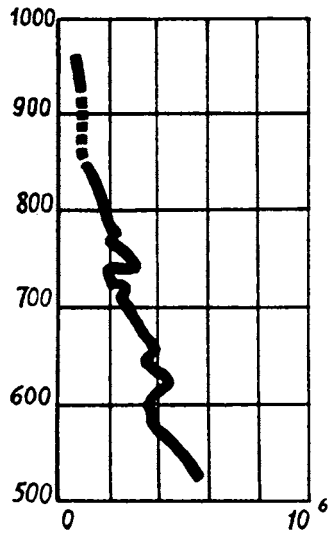
With the Soviet cosmic rocket the first direct study of the gaseous component of interplanetary substance was made. The equipment in-



One of the many stations in various parts of the country to observe the cosmic rocket by telescopic means. This one is at the University of Kiev.

# RESEARCH IN OUTER SPACE

This chart shows changes in the concentration of positive ions with changes in altitude.




stalled in the rocket was intended for the first research stage, direct experimental detection of ionized interplanetary gas in the region between the earth and the moon. With this apparatus it was not possible to measure accurately the concentration of positive particles. Such measurements will be made later. But it was possible to get primary estimates based on the values of the currents registered. These currents characterize the concentration of particles of ionized gas encountered by the rocket.

The data is still being processed but certain interesting conclusions may be drawn even now. To judge by the preliminary data the concentration of the positively charged particles at an altitude of 930 miles in the unlit region of the atmosphere is on the order of 1,000 particles to the cubic centimeter. As the altitude increases to 1,240 miles, also in the unlit region, the concentration of positive particles decreases roughly by a multiple equal to 1.5. At a distance of 13,000 to 13,600 miles the concentration of positive particles proves roughly equivalent to the concentration at an altitude of 1,240 miles in the shaded region. At distances ranging from 68,000 to 93,000 miles the currents registered in the traps warrant the conclusion that the concentration of positive particles in this section of the rocket's route is on an order of 300 to 400 particles per cubic centimeter.

## The Earth's Magnetic Field

Magnetic determinations made by instruments carried in the third Soviet sputnik conclusively proved that ionospheric factors were responsible for the variations connected with the perturbation of the earth's magnetic field. They may be ascribed to the spatial heterogeneity of the ionospheric current local systems crossed by the satellite. The data is very important for constructing a physical model of the ionosphere as well as for a quantitative theory of magnetic perturbations.

New data was obtained for study of the earth's permanent magnetic field. The most interesting information was yielded by the sputnik's flight over the area of the East-Siberian world magnetic anomaly known as the "Asiatic maximum of the geomagnetic field tensity." An analysis and comparison of magnetograms with the ground curves of magnetic field tensity along the sputnik's route point to a slow attenuation of the anomaly. This is important for solution of the problem of the bedding depth of world anomalies as well as for studies of the structure and character of the earth's magnetic field.

Measurements of the earth's magnetic field conducted with the cosmic rocket provided data of great value. At a distance approximately two radii off the earth's center the discrepancy between the measured values of the field and those calculated theoretically becomes discernible and then increases. This change of the earth's magnetic field can be accounted for only by the assumption that the rocket crossed a current stratum at altitudes of 12,400 to 13,000 miles. The change therefore points to the probable existence of an outer ionospheric current system, a fundamental supposition for a valid theory of magnetic storms and polar lights by which the current explanations for these phenomena may be critically appraised.

The third sputnik carried instruments to record the number and force of impacts by meteoric particles. The energy was determined by the impulse recorded on a gauge by the explosion of a meteoric particle colliding with the surface of the instrument.

Assuming a theoretical dependence between the energy of a meteoric particle and the impulse, and further assuming the average speed of particles to be equal to 25 miles a second, the gauge recorded the impact of particles with masses of from one eight-billionth to one two-hundred-millionth part of a gram and with energies ranging from ten thousand to a hundred thousand ergs.

More impacts were recorded on May 15, 1958 than on subsequent days, as many as 4 to 11 impacts per square meter per second. On May 16 and 17 the number of impingements decreased to one four-thousandth, then to one fifty-thousandth and finally to one six-hundred-thousandth. The numerical value of the ratio between the impulse registered by the gauge and the energy of the particle will be determined experimentally—by modeling.

From the study it may be inferred that particles with a mass of about one thousand-millionth of a gram are likely to strike the surface of a rocket once in several hours. It is therefore apparent that danger from meteors and micrometeors is insignificant.

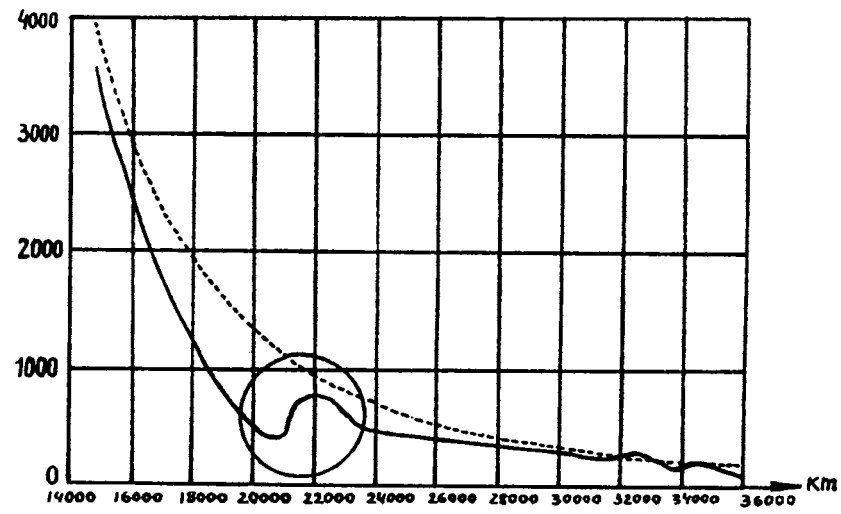
## Research in Space Biology

A new branch of knowledge—cosmic biology—is in the making today. Its major task is to make space flight safe. Rocket flights with test animals warrant the conclusion that no perceptible disturbances of a harmful kind occur in the basic physiological functioning of test animals under conditions closely approximating those of space flight.

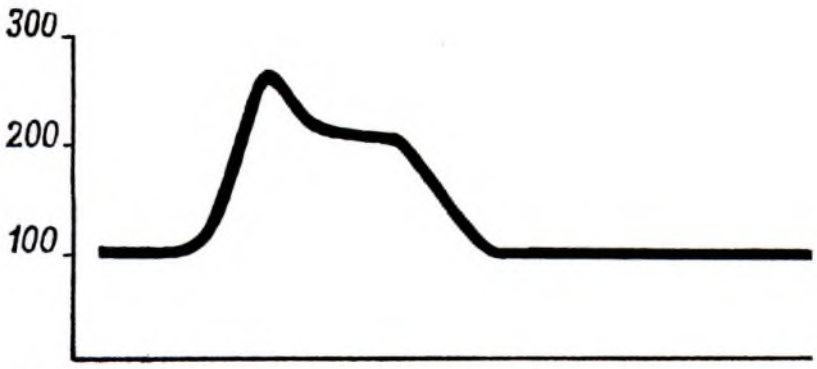
Probably the most difficult of the problems tackled was to bring the animals safely back to earth. Progress has been made in this respect; test animals were returned safely from an altitude of several hundred miles. Further experimental work is projected with test animals in artificial earth satellites where biological conditions most closely approximate those in space flights.

Analysis of data from the second sputnik yielded interesting conclusions with regard to weightlessness, among other factors. It is noteworthy that the test dog carried demonstrated no unfavorable metabolic or motor reactions.

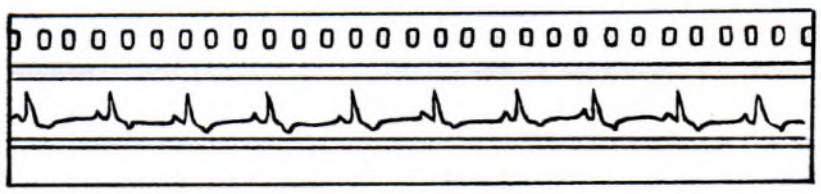
The graph of the dog's heart activity at various stages of the sputnik's flight shows changes in the frequency of contraction. The accelerations, vibrations and noise when the sputnik was orbited sharply increased the frequency of pulsation to maximal magnitude. In conditions of weightlessness pulsation frequency returned to the initial level. Further, respiratory and motor activity show no perceptible deviation from the




This chart shows the change in the intensity of the earth's magnetic field, with changes in altitude recorded during the flight of the space rocket.




This frequency curve of Laika's heart contractions during various periods of the flight was recorded by instruments carried in the dog's container.



This electrocardiogram of the dog's heart action during the interval of weightlessness was recorded by instruments in the second Soviet sputnik.

normal which indicates that the conductivity of the cardiac muscle was not affected.

All in all, the data presently evaluated proves that highly organized animals stand up quite satisfactorily in conditions that closely approximate those in space flight.

## New Research Directions

What are the basic directions of cosmic flight research? One is the creation of sputnik's definitely oriented in space. This orientation would help solve many scientific problems. For example, it would be most desirable for research on a number of problems connected with the sun to have a sun-oriented sputnik.

For studies connected with the earth and its atmosphere the most suitable orientation would probably be to have one of the sputnik axes directed toward the earth and the other coinciding with the orbital direction. For astrophysical research a sputnik would probably be placed so that it retains a constant position with respect to fixed stars.

Another research area involves a variety of highly complex problems of biological safety related to manned flight. We must make certain that the space pilot can function properly during periods of ascent and descent when his body is subjected to great strains, and during the period of orbital flight in conditions of weightlessness.

An area of study being examined is the possibility of using a system of special sputniks to relay TV programs. This would permit long-distance transmission in ultra-shortwave bands without the need for constructing relay lines and cable mains.

With sputniks it would be possible to set up a permanent service for observing the sun's corpuscular radiation and to forecast the phenomena that take place in the upper strata of the atmosphere.

Another major group of research problems relates to the moon. The Soviet cosmic rocket is the prelude to moon-bound flights and flights in near-solar space. Manual flight to the moon with a landing and return to earth is on the agenda of science for a future not too remote.

It will be followed by the construction of special stations on the moon, much like those now set up in regions of the earth difficult of access, like the polar areas. These are projects for a more remote future since they present a whole complex of difficult problems.

Still another group of cosmic flight studies are those connected with research into near-solar space and the planets of the solar system.

The launching of planet-bound rockets equipped with automatic apparatus will make it possible to study a planet's magnetic field and band of radiation and obtain a detailed representation of its surface; to investigate the atmosphere of the planet and its temperature; and even perhaps to see into the possibility of life on planets other than our own.

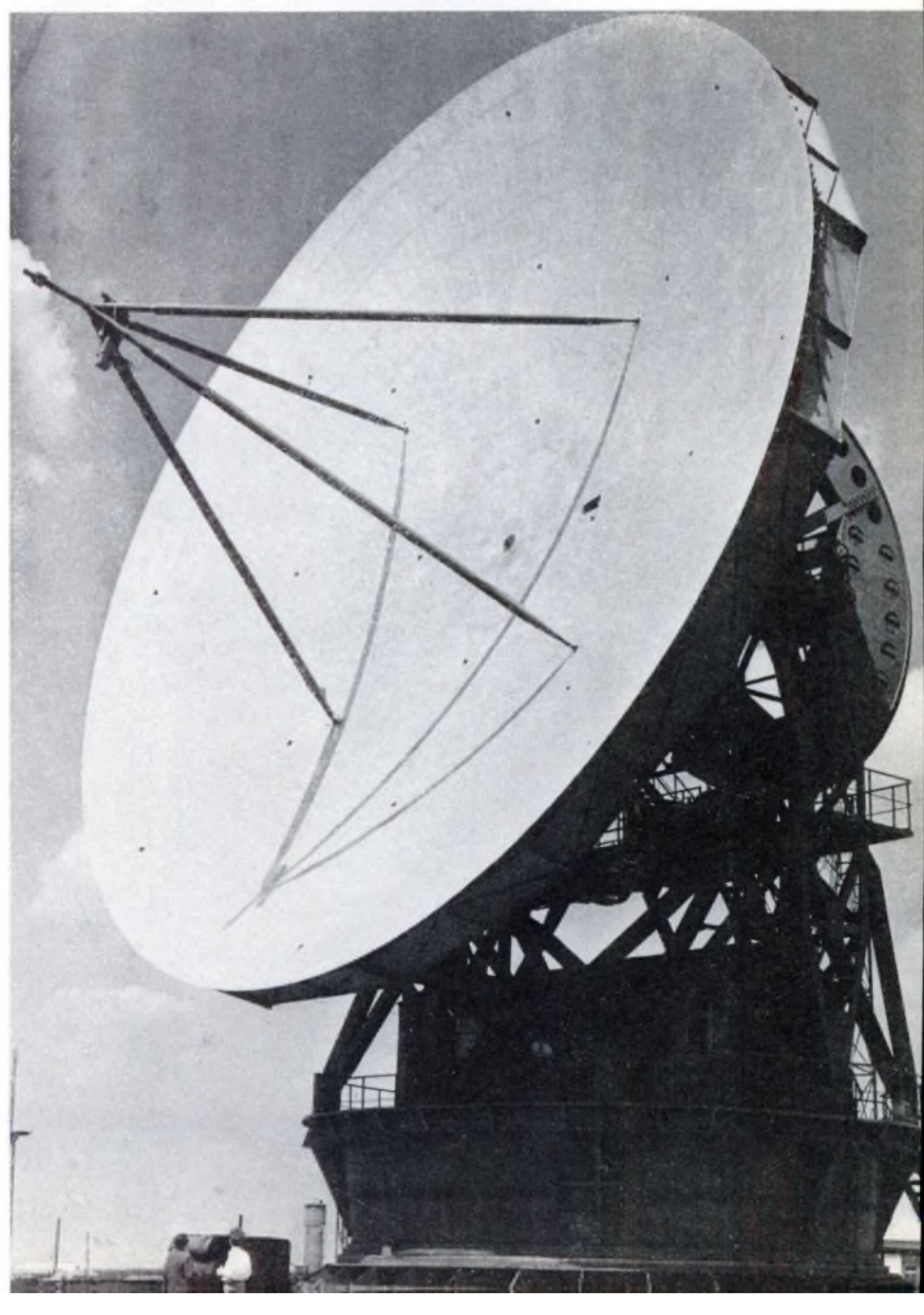
The development of cosmic flight poses for science and engineering a great number of complex problems in scientific research and technical designing. The most important is long-distance radio communication. The Soviet cosmic rocket made it possible for the first time in history to establish radio communication at a distance of some 300,000 miles away from the earth.

Flights in the solar system require radio and tele-communication over distances of tens and hundreds of millions of miles. In view of this, it is especially important to solve the problem of very light, compact and unbreakable radio equipment that can perform without attention for months and even years on a minimum of fuel.

## New Chapter in Astronomy

The range of problems involved in calculating a cosmic ship's motion constitutes a whole new research area in astronomical mechanics. The movement of artificial astral bodies must now be calculated, including such extraordinary astral bodies as are likely to influence their motion. A study of the movement of these artificial bodies will make it possible to obtain new data on the astronomic constants of the solar system and gravitation fields. We are now witnessing the beginnings of a new chapter in astronomy that may be called experimental heavenly mechanics. *(Digest of an address at a general meeting of the USSR Academy of Sciences.)*

A new radio telescope with a parabolic reflector 22 meters in diameter. It is designed for detecting radio-radiations from different cosmic sources.



# HEALTH SERVICE for MILLIONS

*By Prof. Vasili Trutnev*



A UKRAINIAN STEEL MILL CLINIC FOR OVERNIGHT CHECKUP AND TREATMENT.



All doctors must be on call for home visits. The medical and health care services are entirely free of charge and are available to every citizen.

SOME THREE million people, including 360,000 doctors, about one million nurses, doctors' assistants and midwives, many workers of the health services, pharmacologists and others are engaged in caring for the health of the Soviet population. There are more than 17 doctors and 56 junior medical workers for every 10,000 people in the USSR.

All medical workers are state employees. The Soviet state allocates tremendous sums annually for medical service, for medical preventive care and for children's institutions. There are tens of thousands of medical institutions in the country: hospitals, polyclinics, maternity homes, dispensaries, and women's and child consultation centers. All-round clinical service and treatment for all citizens is ensured by hospitals with a capacity totaling 1,500,000 beds.

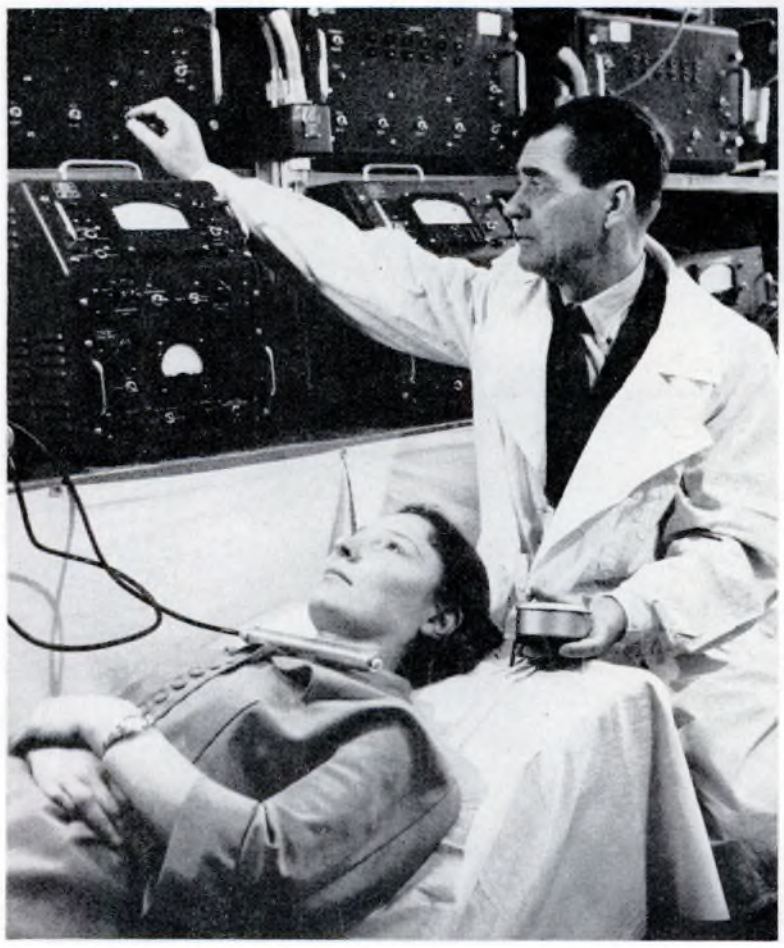
The new hospitals under construction will provide another 530,000 beds. Hospital accommodations in 1965 will exceed two million beds—about 96 beds per 10,000 people. There will be 500,000 doctors by the end of the seven-year period, one doctor for every 420 people. The junior medical personnel will grow to 1,500,000 people.

The steady improvement in the well-being of the Soviet people, the all-round development of health protection, and ample medical service ensure a high birth rate, a sharp decline in the death rate, particularly among children, and an extension of the life span. The USSR has a high birth rate, more than 25 per thousand of the population, and the world's lowest death rate, 7.5 per thousand. The death rate is declining in the USSR each year: compared with 1913, it dropped 75 per cent, and among children almost 85.7 per cent. The average life span of 67 years in the USSR is double that of the pre-revolutionary period.

Such dangerous infectious diseases as recurrent fever, smallpox, the plague and cholera have been wiped out in the Soviet Union. There has also been a sharp drop in the incidence of other infectious diseases which will be completely eliminated in the next few years.

The medical and health care services are entirely free of charge and are available to all people.

Children's institutions are an example. More than 3,400,000 children are today receiving preventive care in the nurseries and kindergartens. Appropriations by the Soviet State for the construction and maintenance of children's pre-school institutions in 1958 amounted to 10 billion rubles, almost double the 1953 expenditures. Pre-school facilities will be doubled in the current seven-year period, the state having allocated more than 103 billion rubles for them.



TRACER ATOMS ARE USED WIDELY FOR DIAGNOSIS AND TREATMENT OF DISEASE.

Large industrial enterprises in the Soviet Union have their own medical departments with polyclinics and other medical units providing treatment and preventive care. The Likhachev Automobile Plant in Moscow has a medical staff of thirteen top specialists, 142 doctors in various specialties, 250 doctors' assistants, midwives and nurses, and has a hospital, a polyclinic, 17 first aid stations in shops, four health centers, holiday homes and sanatoriums near Moscow, on the Riga coast and in the Black Sea area.

The experience of the medical department at the Podolsk Engineering Works, Urals Machine Works (in Sverdlovsk) and others show the success that can be achieved in improving working conditions and lowering the sick rate when physicians work in close contact with the trade union organization. The medical department at the Dolomite Works in Gorlovka (Ukrainian Republic) has set up a council to promote the health service. The plant director and the chairman of the trade union committee make a periodic study of the causes of sickness among the workers and take measures to improve conditions.

The personnel of the hospitals and polyclinics, resorts and dispensaries operates in close contact with scientific workers. The Academy of Medical Sciences of the USSR, established in 1944, is the center of scientific activities. Its main task is to introduce the latest scientific achievements in practice.

The Soviet Union has 80 medical colleges, 11 institutes giving refresher courses for doctors, and 278 medical scientific-research institutes. Over 30,000 scientific workers are engaged in all these institutions, including more than 2,500 with a doctor's degree and about 12,500 with a master's degree, some 2,000 postgraduates and more than 4,000 clinic interns.

The current seven-year plan provides for a further improvement in public health measures: 360 billion rubles have been allocated to construct public health institutions and to further improve medical services during the 1959-1965 period.





SCIENTISTS STUDYING THE EFFECT OF ULTRASONICS ON THE CELLS OF MICROBES.

"ELECTRIC SLEEP" APPARATUS—ONE OF MANY NEW INSTRUMENTS FOR HEALING.





This is a view of Chelyabinsk, a large industrial center in the Urals, where steelmen and machinists double as actors, singers and dancers.



Molière's "George Dandin" is staged by the workers of the city's metallurgical plant.

By Mikhail Tsaryov *Director, Moscow Maly Theater*

# *PEOPLE'S ART*



The hundred member amateur chorus is led by professional Mikhail Kaplansky.

The Malyarovsky brothers, nineteen-year old metal workers, do a Moldavian dance.



WE HAVE five hundred theater companies in our country. These are professional groups. In the past two or three years the number has been swelled by some eight hundred "People's Art Theaters", amateur companies which perform on a high level of competence. Not infrequently they reach very high professional standards.

These amateur groups—instrumental and dance ensembles, choruses, opera and dramatic companies—function at a good many of the larger factories, on collective farms and in the colleges. They are coached by our most eminent actors, musicians, dancers and directors.

Our Maly Theater, for instance, helps the drama group of the Hammer and Sickle Plant stage plays. The directors and actors of the world-famous Moscow Art Theater work with the Krasny Proletari Plant amateur drama group. Every one of our five hundred professional companies is an active sponsor of one of these People's Art Theaters.

These new theater companies are somewhat different from the more customary amateur drama groups that rehearse in odd corners of clubs and community centers and usually have to fight half a dozen other club activities for rehearsal space.

A People's Art Theater has its own permanent stage for rehearsal and production, is subsidized by the trade unions and the government, and has a professional director, and perhaps a few other professional people, depending upon the size and quality of its productions and such other relevant matters.

Besides the considerable number of flourishing people's theater groups in towns they have been formed on farms like the Bessonovka collective farm in the Penza which budgets 25,000 rubles yearly as a subsidy for its amateur dramatic company. The group makes about the same sum from ticket sales for its productions and the total is more than sufficient for all running expenses. Boris Yashinin, a professional theater man, is producer. The theater council elected by the village helps to choose the repertory and to organize audience discussion forums.

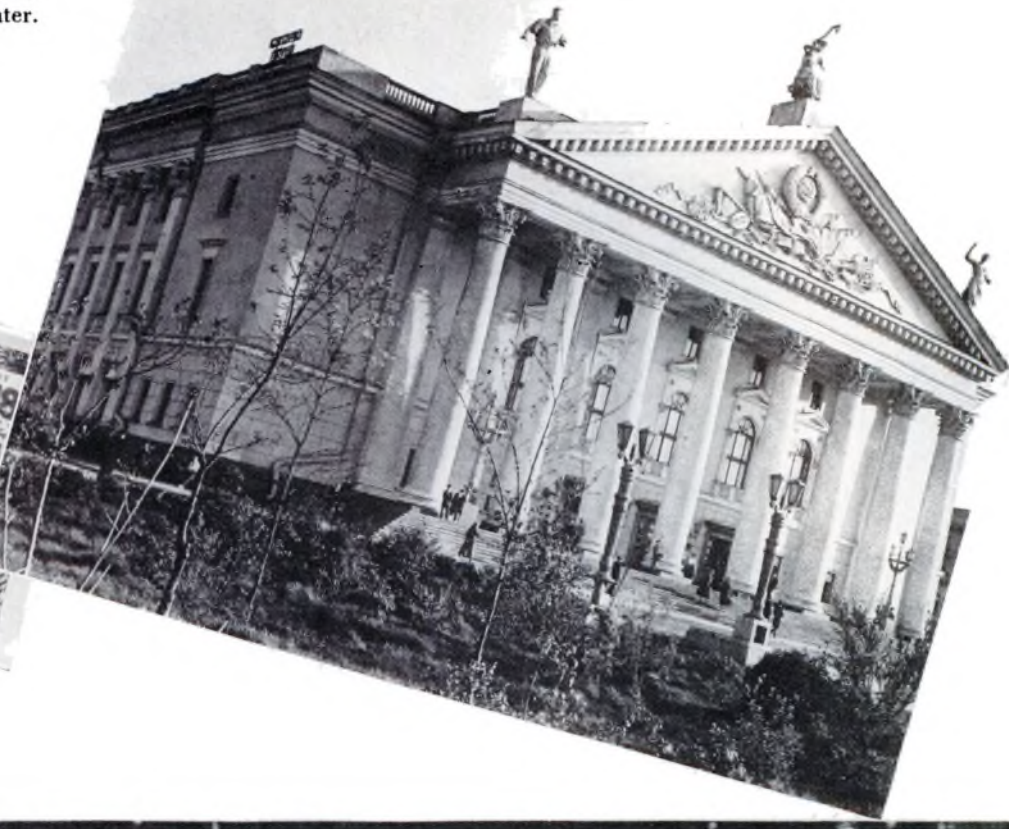
The Bessonovka Theater has yet to celebrate its first birthday. Nevertheless, it has already staged two plays—the Russian classic by Alexander Ostrovsky, *Poverty is No Sin*, and *Mother of Her Children* by the Soviet playright Alexander Afinogenov.

Forthcoming productions now in rehearsal are Ostrovsky's *Dowerless Bride* and the dramatization of Mikhail Sholokhov's panoramic novel of Cossack life, *The Soil Upturned*.

This ambitious amateur company plans to produce four full-length plays and four one-acters a year for performance in its own theater and at the nine village community centers of the big collective farm.

The amateur artists usually stage their popular performances at the very commodious Chelyabinsk Opera and Ballet Theater.



# THEATERS

## An Amateur Theater is born

LAST January show bills plastered all over Chelyabinsk, the big industrial center in the southern Urals, announced a new variety company opening at the city's Opera House. The 300 performers were amateur musicians, singers and folk dancers and the concert was the debut of the regional People's Art Theater.

The program was an elaborate one. It offered a folk song chorus and orchestra, a folk dance ensemble, and a ballet group—all people employed at the Chelyabinsk Tractor Works. The city's steel mills were represented by a brass band, a men's chorus, ballad singers and vocal and instrumental soloists.

These various ensembles had outgrown the confines of their own community clubs. The history of the chorus of the Chelyabinsk Iron and Steel Plant is fairly representative. It was one of the amateur singing groups formed at the plant's Palace of Culture. The chorus grew up very fast and now has a hundred members—blast furnace and rolling mill operators, model makers, engineers, office workers and unskilled laborers.



THE AMATEUR DRAMATIC GROUP AT THE TRACTOR PLANT GOES OVER A SCENE IN THE SCRIPT.



These young Chelyabinsk tractor builders are fine amateur musicians. There are 26 music schools in this art-conscious city.

## *People's Art Theaters*

The Chelyabinsk People's Art Theater has an active core of more than 800 amateur performers and enthusiastic audiences in the thousands.





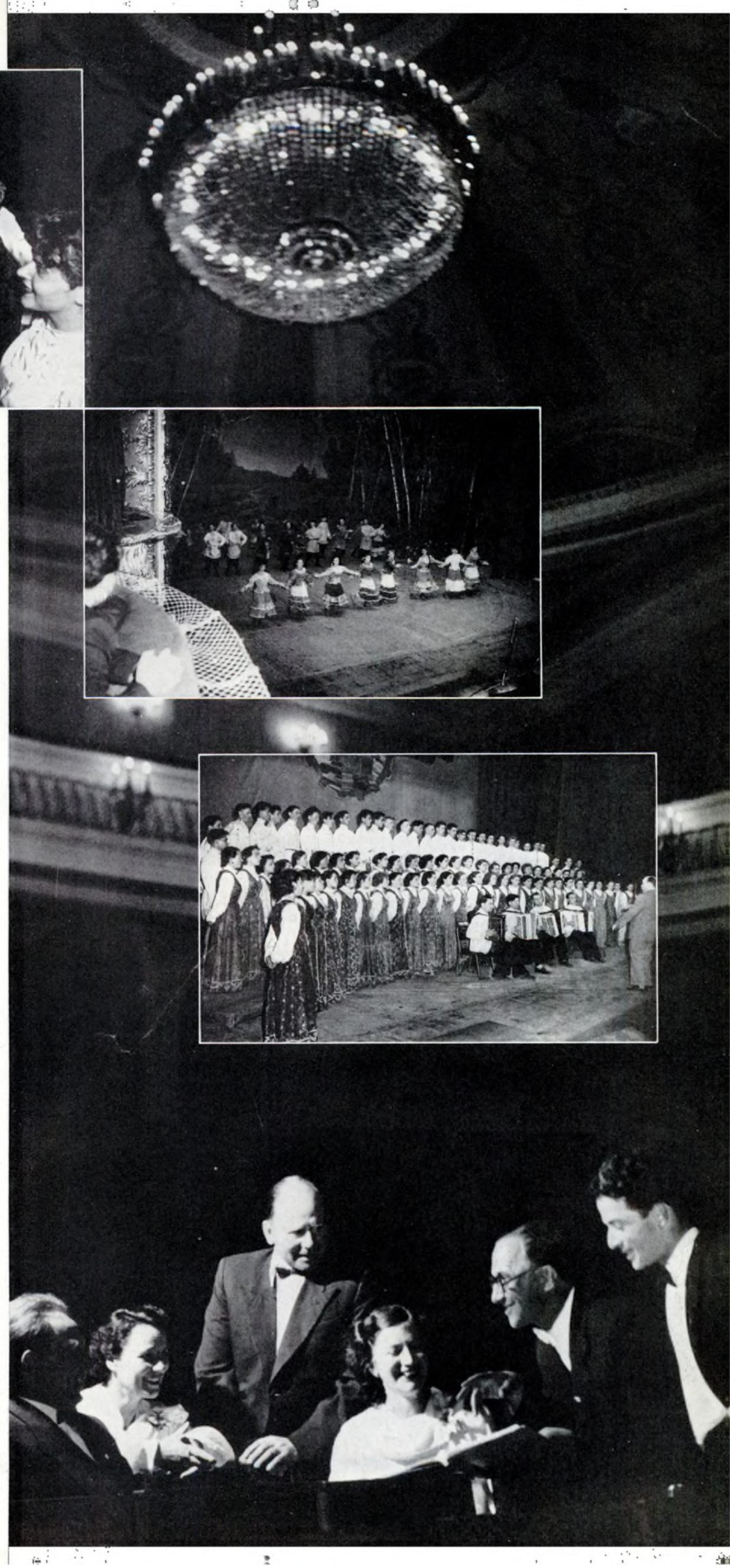
Driver Vitaly Tyunegin has a fine bass much in demand at concerts and parties.



These band musicians are blast furnace and rolling mill operators, engineers and office workers employed at the Chelyabinsk Metal Plant.



Coaching and advising the amateur performers are many of the country's most eminent professional artists.



Some of the members—people like engineer Alexander Astakhov and crane operator Nikolai Shershun—devote literally all their free time to the chorus. The group is led by a professional conductor, Mikhail Kaplansky, and its musical standards would do credit to many professional singing groups. Its repertory includes old Russian and foreign songs, as well as the popular songs of many countries. The chorus performs in many of the towns in the region.

When several such fine amateur groups began to perform in the Chelyabinsk Region, the idea cropped up of getting them all together.

That is the background for the Chelyabinsk People's Art Theater with its present 800 amateur singers, dancers and actors.

A few of the performers: Zoya Tipikina works in the planning department of the Chelyabinsk Tractor Plant. Her forte is folk singing. She expects very soon to enroll at one of Chelyabinsk's 26 music schools to get a thorough-going musical education. Her hope —to sing professionally.

Galina Kazhanova, 22, is a construction foreman. Her passion is dancing and has been ever since childhood. But she also likes science. She manages both somehow and expects to keep up her rehearsals even after she enrolls in the physics faculty of the Polytechnical Institute. Galina does solo parts in folk dances and in waltzes by Strauss and Tchaikovsky.

Klara Antonova, another member of the plant's dance group, was recently asked to join the professional ballet corps of the Chelyabinsk Theater and, of course, happily accepted.

Coaching the amateur singers, dancers and actors are Alexander Kuleshov, Maria Kudryavtseva and other *artistes* of the Chelyabinsk opera and professional theaters. They frequently attend rehearsals, lecture on the history of the theater and hold consultations with their amateur colleagues.



THE GRAND KREMLIN PALACE, CHIEF MEETING PLACE OF ALL IMPORTANT CONGRESSES AND CONFERENCES.

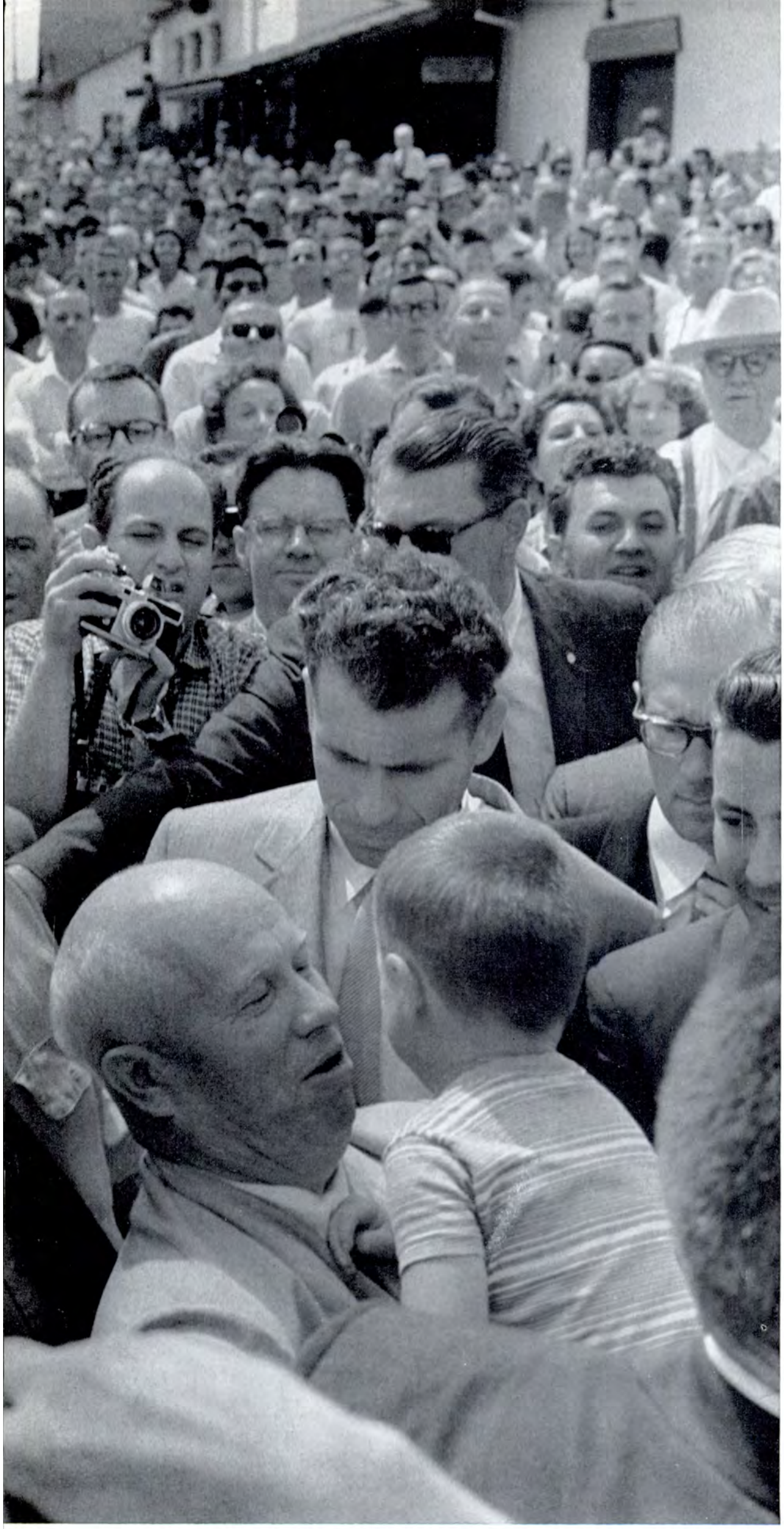
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# USSR

## HISTORIC VISIT OF PEACE AND FRIENDSHIP

No. 11 (38)—20 Cents





MAY REASON PREVAIL OVER FORCE SO THAT YOUNGSTERS LIKE THIS WILL NEVER KNOW THE HORRORS OF WAR.


# USSR

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**Front cover:** A gift of peace and friendship from Nikita S. Khrushchev to Dwight D. Eisenhower—a replica of the sphere landed on the moon by a Soviet rocket.


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PRESIDENT EISENHOWER BIDS CHAIRMAN KHRUSHCHEV FAREWELL AFTER THEIR TALKS AT CAMP DAVID, WHICH SET AN EXAMPLE OF WISE STATESMANSHIP.

# JOINT SOVIET-AMERICAN COMMUNIQUE

The Chairman of the Council of Ministers of the USSR, N. S. Khrushchev, and President Eisenhower have had a frank exchange of opinions at Camp David. In some of these conversations the United States Secretary of State Herter and Soviet Foreign Minister Gromyko, as well as other officials from both countries, participated.

The Chairman of the Council of Ministers of the USSR and the President have agreed that these discussions have been useful in clarifying each other's position on a number of subjects. The talks were not undertaken to negotiate issues. It is hoped, however, that their exchanges of views will contribute to a better understanding of the motives and position of each, and thus to the achievement of a just and lasting peace.

The Chairman of the Council of Ministers of the USSR and the President of the United States agreed that the question of general disarmament is the most important one facing the world today. Both Governments will make every effort to achieve a constructive solution of this problem.

In the course of the conversations an exchange of views took place on the question of Germany, including the question of a peace treaty with Germany, in which the positions of both sides were expounded.

With respect to the specific Berlin question, an understanding was reached, subject to the approval of the other parties directly concerned, that negotiations would be reopened with a view to achieving a solution which would be in accordance with the interests of all concerned and in the interest of the maintenance of peace.

In addition to these matters, useful conversations were held on a number of questions affecting the relations between the Union of Soviet Socialist Republics and the United States. These subjects included the question of trade between the two countries. With respect to an increase in exchanges of persons and ideas, substantial progress was made in discussions between officials and it is expected that certain agreements will be reached in the near future.

The Chairman of the Council of Ministers of the USSR and the President of the United States agreed that all outstanding international questions should be settled not by the application of force but by peaceful means through negotiation.

Finally, it was agreed that an exact date for the return visit of the President to the Soviet Union next spring would be arranged through diplomatic channels.



NIKITA S. KHRUSHCHEV MADE A REPORT TO THE NATION AT A WELCOMING RALLY IN MOSCOW THE DAY HE RETURNED FROM HIS AMERICAN TOUR.

# HISTORIC VISIT OF

**FROM THE EDITORS: Countless reams of press reports and comments have been written all over the world on the historic visit of Chairman of the USSR Council of Ministers N. S. Khrushchev to the United States, his talks with President Eisenhower and his meetings with the American people. But only Nikita S. Khrushchev himself can really relate his candid impressions of the tour. This he did upon his return to Moscow where he made a report on his visit to the USA at the great gathering of Muscovites assembled in the Sports Palace to welcome the Chairman home.**

**We publish here the full text of N. S. Khrushchev's report to the Soviet people, made by him on September 28, 1959.**

DEAR COMRADES,

We have just left the plane which completed a nonstop flight from Washington to Moscow. We have come straight to you, dear Muscovites, to share with you our impressions and to tell you about the results of our visit to the United States of America undertaken at the invitation of the President of the United States, Dwight Eisenhower.

In accepting his invitation we proceeded from the fact that the international situation and the relations between our states, two Great Powers—the Soviet Union and the United States—have long been in a state of tension. To continue this state of affairs means to perpetuate a situation fraught with all kinds of surprises, with grave consequences for our peoples and the peoples of the entire world. That is why the most farsighted statesmen of some countries have come to realize the need for making an effort to end the "cold war," to do away with the tension which has developed in international relations, to clear the atmosphere and create more or less normal relations among states. Then the nations would be able to live and look to the future without fearing for their destinies. The twentieth century is a century of the greatest flowering of man's intellect and talents. In our time people create with their own hands the things that mankind only dreamed of for centuries, expressing these dreams in tales which seemed to be sheer fantasy. Must we, in this period when flowering human genius is penetrating the secrets of nature and harnessing its mighty forces, reconcile ourselves to the perpetuation of relations that existed between people when man was still a beast?

In those distant times these relations could be explained by the fact that man was in the first stage of his development and differed but little from animals, but today, when man has reached an unparalleled level in the development of his scientific knowledge and, step by step, more and more subordinates the forces of nature to his will, making them serve society—



MEETINGS WERE HELD ALL OVER THE COUNTRY AT WHICH SOVIET PEOPLE UNANIMOUSLY AND WHOLEHEARTEDLY ENDORSED THE HISTORIC MISSION.

# PEACE AND FRIENDSHIP

today nothing can justify the preservation of the kind of relations that existed between primitive people.

Our time can and should become a time for the realization of great ideals, a time of peace and progress.

The Soviet Government perceived this long ago. Precisely for this reason we have repeatedly proposed that the Great Powers arrange a summit meeting so as to exchange views on urgent international problems. When we made these proposals, we believed in man's reason. We believed that, given a reasonable approach, the proponents of different political views, countries with different social systems, would be able to find a common language so as to resolve correctly in the interests of consolidating peace the contemporary problems that alarm all mankind. In our age of great technical progress, in conditions when there are states with different social systems, international problems cannot be resolved successfully otherwise than on the basis of peaceful coexistence. There is no other way. Those people who say they do not understand what peaceful coexistence is and are fearful of it contribute, willingly or unwillingly, to the further development of the "cold war," which will certainly extend if we do not interfere and stop it. It will reach such a pitch that a spark might result capable of producing a world war.

Much would perish in this war. It will be late to discuss what peaceful coexistence means when the talking is done by such frightful means of destruction as atomic and hydrogen bombs, as ballistic rockets which are practically impossible to locate and which are capable of delivering nuclear warheads to any part of the globe. To disregard this is to shut our eyes, stop our ears and bury our head as the ostrich does when faced with danger. If we people imitate the ostrich and hide our head in the sand, then the question arises: What is the use of having this head if it is unable to avert the threat to its very life?

No, we must display the reason of man, confidence in this reason, confidence in the possibility of reaching agreement with statesmen of different countries, and by joint efforts mobilize people to avert the war danger. It is necessary to have the will and courage to go against those who persist in continuing the "cold war." It is necessary to bar the road to it, to thaw the ice and normalize international relations.

I must say from this high platform to the Muscovites, to all our people, to the government and the Party, that President Dwight Eisenhower of the United States has displayed wise statesmanship in assessing the present international situation, that he has displayed courage and strong will. Despite the complexity of the situation which prevails in the United States, he, the person who enjoys the full confidence of his people, has come out with a proposal to exchange visits between the heads of government of our countries. We pay our respects to this



**ARMED FORCES GUARD OF HONOR** salutes the Soviet guest upon his arrival at Andrews Air Force Base. In answer to the President's welcoming speech Nikita S. Khrushchev expressed the earnest desire of the Soviet people to live in peace and friendship with the American people.

# HISTORIC VISIT OF PEACE AND FRIENDSHIP

important initiative aimed at consolidating peace. Undertaking this step, he was confident that we would accept the hand he offered us, since we have repeatedly approached both President Eisenhower and the other heads of government on this question. And the President of the United States was not mistaken in his expectations.

Dear Comrades, I report to you with satisfaction that we have fulfilled a part of the agreement with President Eisenhower on the exchange of the visits. Availing ourselves of the President's kind invitation, we undertook a trip to the United States and had important meetings and talks there.

I should like to share with you my impressions of this trip and tell you briefly about its results. I think it is best to tell you everything as it was. The truer the account, the better it will be for the strengthening of relations between the peoples of our countries. If I were to say that all outstanding questions were resolved after our tour of some American cities, after our meetings and talks with many Americans, it would be incorrect. Only a politically blind person could think that everything will turn out as he says.

No, one visit or one tour is not enough to resolve questions of such importance; this calls for greater efforts. Many more meetings will be necessary to achieve full understanding, to achieve what always has been the aim of our Party, our people, our Soviet state—to ensure peaceful coexistence between states with different ways of life and to ensure the security of peoples on the basis of noninterference in internal affairs.

I want to tell you how we felt when we first set foot on the soil of the United States of America.

To tell you frankly, my feelings were mixed. The point is that immediately after the announcement of the forthcoming exchange of visits, many publications and some public figures in the United States launched a propaganda campaign against my coming to the United States. They were creating an atmosphere that did not warm me even though the temperature in the United States is considerably higher than in Moscow. They wanted to meet me with a cold shower. I was particularly disappointed when, flying from Moscow to Washington, I read Vice President Nixon's statement timed for my arrival. He

had chosen an audience which, seemingly, could not be suspected of any belligerency. It was the American Dental Association. However, Mr. Nixon's speech was by no means of medical significance. He, so to speak, added cold to the toothache. One might think that he was afraid lest it become warmer, lest the "cold war" really end. I do not understand why this was necessary.

However, when we arrived in Washington, we were given a welcome which was worthy of our great country, our great people. President Eisenhower must be given his due; he did everything that had to be done for a welcome at such a level. You certainly have read in the papers what a welcome was given to us in the capital of the United States and what a speech was made by the President. I am not going to repeat: it was a warm welcome.

Shortly after our arrival in Washington I met the President at the White House. Also present were Vice President Nixon and Secretary of State Herter. I have a somewhat restless character and I am a blunt man, so I asked in our very first conversation—though it may not perhaps have been very diplomatic—why the Vice President had found it necessary to make such a statement on the eve of my arrival. I will not speak of the unfriendly statements and articles by people of lesser standing.

The President said he had not read Nixon's statement. I told him then that it need not be read as it was already a matter of the past.

This is one feature which shows in some measure the preparations made to receive the guest from across the sea.

Another point. You Muscovites, and not only you but indeed all Soviet people—the Russians, Ukrainians, Byelorussians, Uzbeks, Georgians, Kazakhs, Armenians, all peoples—always give a worthy welcome to your guests. Whatever country your guest may represent, whatever his political convictions may be, we meet him with bread and salt because he is our guest, and we show him inner, and not merely outward, respect. But there, in the United States, I witnessed the following sight on the first day: We were riding in a car with the President. There were huge crowds of people. Some raised their hands and waved but—I saw this—jerked their hands back quickly as if from a live wire.

It was difficult for me to understand this at first. I decided to look more attentively at the faces of the people standing along both sides of our route. I began to greet people by slight nods and many of them replied in the same way. What was the matter then?

I was told afterward that ten minutes before we drove with the President to the White House, some automobile had passed along our route with a poster saying: Welcome the guest worthily, politely, but without applause and greetings.

I later asked Mr. Lodge, the President's personal representative who accompanied me during the tour of the United States, whether that was true. I received the explanation that a car with such a poster had actually passed, but it was allegedly not known to whom it belonged. You see, it had broken through the police cordon. When the officials gave me this explanation, I told them I could not imagine how the police, who guarded me so well, failed to notice the car carrying such a poster.

I am sure that the President did not know anything about this and that it was all done contrary to the wishes of not only the President but also the others who organized the ceremony to welcome us. However, as the saying goes, the words cannot be cut out of a song.

From the very first steps on American soil I was so closely guarded that it was absolutely impossible to contact ordinary Americans. This guarding turned into a sort of house arrest. I was taken around in a closed car and could see the people welcoming us only through its window. But the people greeted me, though very often they could not even see me.

I do not by far take all the feelings of friendship which were expressed by the American people as referring to myself or even to our communist ideology. The Americans told us in these greetings that, like us, they stood for peace and friendship between our peoples.

I am not going to speak in detail about all our meetings with



**A PARADE OF WELCOME** with Army, Navy, Marine and Air Force units and motorized and mounted police in the line of march greeted the visiting Soviet guest as he drove through the streets of Washington on his way to Blair House where he and his family stayed. It was a welcome worthy of our great country and our great people, said the Chairman.



**300 THOUSAND WASHINGTONIANS** lined the streets to greet the Chairman of the USSR Council of Ministers with shouts of "Peace and Friendship" on his arrival in the capital. It was a warm welcome, the first of many Khrushchev was to receive on his tour through the United States.

# HISTORIC VISIT OF PEACE AND FRIENDSHIP

**FRIENDSHIP FLAGS** of two states were carried by Washingtonian John Nawrot as he and thousands of others welcomed Khrushchev.




the Americans. You apparently know about them from the papers. We visted Washington and then New York where I had the honor to submit to the United Nations, on behalf of the Soviet Government, a plan for general and complete disarmament.

From New York we went to the West Coast of the United States, to Los Angeles and San Francisco, and then to Iowa and to Pittsburgh, a major industrial center in Pennsylvania. Finally, we returned to Washington. It was a big trip. We saw various parts of the United States and met people in various walks of life. We had many good meetings and frank conversations. But there also were meetings of a different kind.

On the first half of our trip we noticed that the same record was played over and over again. Speakers asserted that I had once said that we would "bury the capitalists." At first I patiently explained that what I had really said was that we would "bury capitalism," in the sense that socialism would inevitably supersede this moribund social form just as capitalism, in its time, had superseded feudalism. But then I saw that the people who stubbornly repeated these questions did not need explanations. They had a definite aim, that of using communism to intimidate people who had only the vaguest notion of what it is.

I had to speak my mind about this when at a reception in Los Angeles, the Mayor of the city, who was no worse than the other mayors but less diplomatic perhaps, started to say the same thing all over again.

I said: Do you want to organize an unfriendly demonstration for me in every city, at every meeting? If you are going to receive me in this way then, as the Russian saying goes, "it is not hard to turn back from the gate." If you are not yet ready for talks, if you have not yet realized the need for liquidating the "cold war" and fear that it will be liquidated, if you want to continue it, we can wait, the wind is not blowing in our faces either. We have both enough patience and enough wisdom. Things are going well in our country. Our people have time and again displayed such reason, such strength, such will and such ability to overcome difficulties that they will be able to stand up for their country and for the cause of peace. They will reply worthily if the forces of aggression attempt to test us by the bayonet.

I had to enter into diplomatic negotiations then. I asked



**SIGHT-SEEING FLIGHT.** After the White House visit, Nikita S. Khrushchev and the President took a helicopter flight over the nation's capital.



**A WEST POINT CADET,** Captain Ofstett of Texas, was introduced to Nikita S. Khrushchev by Mrs. Eisenhower at the White House.

Comrade Gromyko, Minister of Foreign Affairs, to go and tell Mr. Lodge, the President's personal representative who was accompanying me, that if the situation were not set straight I would not find it possible to continue the trip and would have to return to Washington and then to Moscow.

All this seemed to have produced its effect. Mr. Lodge told me through Gromyko that he recommended that I go on to San Francisco and other cities on our itinerary and that the local authorities would take measures to prevent any recurrence of this.

I must tell you that these negotiations through Comrade Gromyko took place at night, and when I awoke in the morning, everything had indeed changed. And when we left Los Angeles for San Francisco, I was, figuratively speaking, "uncuffed" and had the opportunity to leave the railroad coach and meet people. People shook my hands, and I shook their hands in return, they applauded and smiled just as you Muscovites smile when welcoming guests, rejoicing at their arrival and doing everything possible to make the guests feel welcome.

When we came to San Francisco, the sun shone brightly and it was a fine day, the kind we have in summer. The climate of this remarkable city was absolutely different—we were warm from the sun, but even warmer from the cordial and unconstrained welcome given us.

We are exceptionally thankful to the Mayor of San Francisco, Mr. Christopher; to the Governor of California, Mr. Brown; the people of San Francisco, all those who approached our visit with understanding, a visit of peace and friendship between our peoples, among the peoples of all countries.

We were given every opportunity to meet and talk with the common people. True, we were not able to take full advantage of this, but it was due to the short duration of our stay. Honestly speaking, our suspicions about the evil intentions of the local authorities were dispelled. We immediately established good contacts with the residents of that big and beautiful city.

I wish to note particularly the meeting with the longshoremen. The head of the Pacific Coast Longshoremen's Union, Mr. Bridges, invited me and my companions to come and talk with the dockers. This was a heartfelt meeting. Among the longshoremen, ordinary and sincere people that they are, I felt as though I were among Soviet workers. The greetings I conveyed to them from the Soviet workers were received with enthusi-

**IN BELTSVILLE, MD.,** the Chairman was taken on a tour of the farm research center and had a look at its poultry and livestock.



**TRIBUTE TO LINCOLN.** The name of Lincoln is revered in the Soviet Union for our people know him as the great leader who in the Civil War headed the progressive struggle for man's freedom. His memory will live on through the ages, Nikita Khrushchev said when he visited the Memorial.

**WITH CONGRESSIONAL LEADERS.** The Chairman was invited to meet with members of the Senate Foreign Affairs Committee for a lengthy question and answer session. Discussions like this, he commented after the meeting, go a long way to help us understand each other.





# HISTORIC VISIT OF PEACE AND FRIENDSHIP

asm, and they asked me to convey their warm greetings in reply.

I also remember the visit to a plant producing computers in San Jose, near San Francisco. Its manager, Mr. Watson, the workers and employees met us cordially and showed us all the complex production processes, making all explanations in Russian—a touching forethought. The plant itself, its layout and the organization of production made a very good impression.

One of the people making the explanation had a slight Ukrainian accent, and I asked him (in Ukrainian): "And what is your name?"

He replied: "Marchenko."

I said: "How do you do. Are your parents living?"

He said: "Yes."

"My best regards to them."

He thanked me.

But our stay in hospitable San Francisco was drawing to a close and we were to fly to another American city, Des Moines, in Iowa. It is one of the main centers of agricultural production in the United States.

After a warm meeting with the governor of the state, the mayor of the city and representatives of business and public circles, we went out of town to the cornfields, so dear to my heart. And I must tell you that the Americans know how to



**A DINNER** in honor of President Eisenhower was given by the Chairman at the Soviet Embassy. With the President and Mrs. Eisenhower are their son and daughter-in-law. Previously the Chairman and his family had been honored at a White House dinner attended by many distinguished guests.

grow corn. It is all planted in squares and the fields are in good condition. True, even there on the farm of a great authority on corn, my old acquaintance Garst, I found some shortcomings. The corn was planted too densely in clusters and I, of course, called his attention to this in a friendly fashion.

We enjoyed the lavish hospitality of our host, Mr. Garst, who arranged an interesting meeting with farmers for us. There we also met the noted Democratic leader Adlai Stevenson, who had come from Chicago, and our conversation with him was very frank and friendly.

Another incident comes to mind. When we arrived at the University of Iowa, one of the young people gave me a student newspaper. It carried a big article in which the students, I was told, welcomed our arrival. It said, however, that the students would meet us without enthusiasm, without cheers. But what happened? The students in whose name the article had been written, those young people thirsting for life, displayed as much enthusiasm as our youth. They shouted, applauded and expressed their feelings in a most lively way. I heard them shouting, "Comrade Khrushchev," "Nikita" and other simple words that came straight from the heart.

I must also tell you about the warm welcome given us by the people of one of America's biggest industrial centers, the city of iron and steel workers and machine builders, the people of Pittsburgh. They displayed great friendliness and respect for us. I even felt mildly apologetic when I drove from the airport to the city. We arrived in Pittsburgh at midnight. The night was dark, but as we drove to the city, there were cars parked along the entire route, there were people standing, and I saw their smiles and heard their greetings.

In Pittsburgh we visited the machine-building plant of the Mesta Company. We felt that the management did everything to show us the plant, to let us see the working conditions there. We made the rounds of the plant and conversed with workers. I wish to stress one thing: When we entered, there were greetings, but they were restrained. However, the more we talked to the workers, the warmer the meeting became, and the workers loudly expressed their sentiments of respect for us, representatives of the Soviet state, of the Soviet people.

I also carried away the memory of my meeting with the businessmen and intellectuals of Pittsburgh which was held at the local university. As usual, a dinner was given there, and during this dinner speeches were made which, it seemed to me, were distinguished by a more realistic understanding of the need for establishing friendly relations between our countries.

Listening to my speech, some people may think that in describing these friendly meetings Khrushchev has drawn the curtain on hostile demonstrations. No, I do not intend to hush up incidents of hostile or unfriendly attitudes toward us. Yes, there were such incidents. You should know that just as the American newsmen were my "sputniks" during the tour of the United States, pro-fascist refugees from different countries migrated from city to city, displaying their few miserable posters. We also met hostile and grim American faces.

There were very many good things, but the bad should not be forgotten either. This worm, and a long one it is, is still alive and may show its vitality in the future, too.

Why do I say this? Is it that I wish to cool the relations between the Soviet Union and the United States? No. I speak of this because you ought to know the truth, so that you may

**LET'S DISARM COMPLETELY IN FOUR YEARS.** Nikita Khrushchev addressed the UN General Assembly, where he submitted the Soviet Government's proposal for general disarmament. The proposal, he said, is prompted solely by the desire to secure truly lasting peace among the nations.

**DAG HAMMARSKJOLD** shakes hands with Nikita Khrushchev and his wife as they arrive at the UN dinner given in honor of the Chairman.



# HISTORIC VISIT OF PEACE AND FRIENDSHIP

see not only the side that is pleasant to us, but also the other, the backstage side, which should not be concealed. There are forces in America working against us and against the easing of tension, for the preservation of the "cold war." To close your eyes to this would mean showing weakness in the struggle against these evil forces, against these evil spirits. No, they must be exposed, they must be shown to the world, publicly whipped, they should be fried in the devil's pan. Let those who want to continue the "cold war" be angry. They will not be supported by the common people of the world, they will not be supported by reasonable people.

The trip to Pittsburgh rounded off our tour of the United States.

Concluding my account of the trip across that country, I should like to express our sincere gratitude to the mayors of the cities and the governors of the states that we visited, to the representatives of business circles, the intellectuals, the personnel of enterprises and universities, the workers and farmers, and to all the representatives of public organizations. I should like to note, particularly, the amount of work done by the Mayor of New York, Mr. Wagner; the Mayor of San Fran-



**AT HYDE PARK** Eleanor Roosevelt showed the Khrushchevs around. The Chairman said the visit brought to life the memory of a man who helped to improve Soviet-American relations.



**TO AN OUTSTANDING STATESMAN,** a fighter for progress and peace among nations—to President Franklin Roosevelt.

cisco, Mr. Christopher; the Mayor of Pittsburgh, Mr. Gallagher; the Governor of Pennsylvania, Mr. Lawrence; the Chancellor of the University of Pittsburgh, Mr. Litchfield; the President of Iowa State University, Mr. Hilton; the representatives of business circles, Eric Johnston, Robert Dowling, Cyrus Eaton, Thomas Watson, Frank Mesta, Roswell Garst and others.

The numerous gifts presented to us were a remarkable manifestation of respect for our country, its great people. The Mayor of New York presented us with a civic medal and the Mayor of Pittsburgh presented us with a symbolic key to the city. By the way, I said: I accept this key as a symbol of trust. You can rest assured, I promise you, that this key will never be used without the permission of the host.

The International Harvester Company presented us with a film on the mechanization of corn growing. President Eisenhower presented us with a pedigreed calf from his private farm, Admiral Strauss with a calf and steer, farmer Coolidge with a pedigreed hog. We received many other presents, for which we are grateful.

I wish to note that in the main the American press, radio and television gave wide coverage to our stay in the United States without bias. Of course, there were unfriendly sallies of individual newsmen, but they did not set the tone for the American press.

During the tour of the United States, my friends and I were accompanied by Mr. Lodge, personal representative of the President; Mr. Buchanan, State Department chief of protocol; Mr. Thompson, the United States Ambassador to the Soviet Union; their wives; and other officials. I must thank them, and particularly Mr. Lodge. He did everything to make our trip pleasant and to acquaint us with the life of the great people of the United States.

I jokingly said to Mr. Lodge: If I, a representative of the working class, of the Communist Party of the Soviet Union, and he, a representative of the capitalist world, were, by chance, abandoned on an uninhabited island, we would find a common language and ensure peaceful coexistence there. Why, then, cannot states with different social systems ensure coexistence? Our states are also, so to say, on an island: After all, with present-day means of communication, which have brought the continents so close together, our planet really resembles a small island, and we should realize this. Understanding the need for coexistence, we should pursue a peaceful policy, live in friendship, not brandish arms but destroy them.

On September 25 we again met with the President at the White House and left with him by helicopter for his summer home, which is called Camp David. We stayed there September 25, 26 and 27. We had frank, friendly talks and explained the positions of our governments on basic international problems as well as on questions related to the improvement of Soviet-American relations. Taking part in these meetings and conversations and doing a useful piece of work were Mr. Herter, Secretary of State of the United States, and Comrade Gromyko, the Soviet Foreign Minister, as well as the other comrades who accompanied me.

The chief outcome of the exchange of views with the President of the United States is recorded in the joint communiqué. There can be no doubt that this document will be received with satisfaction by all those who are interested in consolidating peace.

It should be taken into account, however, that we could not, of course, clear away with the President in one try all the rubble of the "cold war" that has piled up during many years. It will take time to clean up this rubbish, and not only to clean it up but to get rid of it. Things dividing us are still too fresh in memory. Sometimes it is difficult for certain statesmen to put aside old positions, the old views and formulas.

But I will tell you with all frankness, dear Comrades, that I got the impression from the talks and discussions on concrete questions with the President of the United States that he sincerely wants to end the "cold war," to create normal rela-




**A NEW YORK CITY CIVIC MEDAL** was presented to Nikita Khrushchev by Mayor Wagner at an official luncheon. During his stay in the city the Chairman talked with industrialists, financiers, educators and civic leaders, stressing the importance of improving relations between the two countries.

# HISTORIC VISIT OF PEACE AND FRIENDSHIP

tions between our countries, to promote improved relations among all countries. Peace is indivisible now, it cannot be ensured by the efforts of two or three countries only. So we must fight for peace in such a way that all the nations, all the countries, are drawn into this struggle.

We exchanged views with the President of the United States on questions of disarmament. He said that the United States Government was studying our proposals and that the United States, just as we, wanted complete disarmament under proper control.

It seems that there is now no reason for delaying the solution of this question; but on the other hand, the question of disarmament is so serious that we should not press our partners for its solution. The question must be studied, of course, so as to find a solution which would really create an atmosphere of trust and ensure disarmament and peaceful coexistence among states.

So let us not make hurried statements, let us be patient and give the statesmen time to consider our proposals. But we shall not sit on our hands, we shall advocate the need for complete and general disarmament. We regard our proposals as a basis for agreement. We are ready to discuss any amendments to our document, to our proposals. We are ready to discuss other proposals, too, if they are submitted for the purpose of attaining the same goals as ours.

We exchanged views with the President on the German question, also, on the question of concluding a peace treaty. We tried to prove, and I think we were successful in this, that our proposals concerning the peace treaty were incorrectly interpreted in the West. Some people tried to stir up unnecessary excitement, said that they are an ultimatum, etc. Those who acted in this way were obviously guided by a desire to prolong the "cold war." They went so far as to claim that our proposals for a peace treaty with Germany were something short of a declaration of war. It surely takes some nerve to distort the peaceloving position of the Soviet Union in such a way.

We also exchanged views on holding a summit meeting. Both President Eisenhower and I set forth the positions of our governments and agreed that this meeting is necessary and useful.

We discussed with the President of the United States the date of his return visit to the Soviet Union. At first the President planned to come to the Soviet Union at the end of October this year. However, he asked me what the best time was for traveling in our country. I began thinking. We Muscovites like Moscow the year round. But for us, as for all people, spring is

the most pleasant time of the year, because it is the time of joy, of the lush flowering and awakening of life. So, I told him that to my mind, it was best to come here at the end of May or early in June. It would be good if the President brought along with him his wife, son, his son's wife and his grandchildren. We should be happy also to welcome the President's brother, who came to our country with Mr. Nixon.

The President was kind enough to invite me to his farm. He showed me his cornfields; I could not miss the chance of seeing the President's corn, of course. I was also shown the heifers and steers at the Eisenhower farm. Handsome animals they were. I must say, however, that it is not a big farm for the President to have, considering the greatness and wealth of his country. It is not a rich farm and the soil there is not too good. But the President said he wanted to put some work into it, to improve the soil and leave something behind to be remembered by.

At the farm I made friends with the President's grandchildren and held a conference with them. I asked them whether they wanted to come to Russia. All of them, big and small, unanimously declared they wanted to come to Russia, to see Moscow. The President's eldest grandson is eleven years old and the smallest granddaughter is three or four years old. So I have won their support. I told the President jokingly that it was easier to agree on a visit with his grandchildren than with him because his grandchildren have a favorable environment while he, obviously, is confronted with some obstacles which do not allow him to realize this desire of his in the spirit and at the time he prefers.

I wish to tell you, dear Comrades, that I do not doubt the President's readiness to exert his will and efforts to reach agreement between our countries, to create friendly relations between our nations and to solve urgent problems in the interests of consolidating peace.

At the same time I got the impression that there are forces in America which do not move in the same direction as the President. These forces are for the continuation of the "cold war" and for the arms race. I would not be in a hurry with a final reply to the question as to whether these forces are large or small, influential or not influential, and whether these forces can overcome the forces supporting the President—and he is backed by an absolute majority of the American people.

Time is a good adviser, or as the Russian people say, "Morning is wiser than evening." This is a wise saying. So let's wait for morning, especially since we arrived in the afternoon and it is evening when I am speaking. It will take perhaps several mornings before we clear this up. But we shall not rest idle while waiting for the dawn, we shall not wait to see which way international relations tilt.

For our part we shall do everything we can to tilt the barometer's hand away from "Stormy" and even from "Changeable" to show "Fair."

I am confident, Comrades, that in the present conditions, when the forces of peace have grown immensely, when the socialist camp has some one billion people and tremendous productive potential, when the Soviet Union has reached great heights in industry and agriculture, science, technology and culture, we can do a great deal for the sake of peace.

In our actions we rely on reason, on truth, on the support of all the people. Moreover, we rely on our mighty potential. And let it be known to those who want to continue the "cold war" so as to turn it sooner or later into a shooting war, that in our time only a madman would start a war and he himself would perish in its flames.

The peoples must strait-jacket these madmen. We believe that sound statesmanship and human genius will triumph. Citing Pushkin: "Hail reason, down with obscurity!"

Dear Muscovites! We are boundlessly happy to return home, to see the faces of the Soviet people which are so dear to our hearts.

Long live the great Soviet people, who are successfully building communism under the leadership of the glorious Leninist party!

Long live Soviet-American friendship!

Long live friendship among all the peoples of the world!





**NEW YORK IS A GOOD CITY,** but Moscow is better, the Chairman said as he viewed the skyline from the Empire State Building.

**GOVERNOR ROCKEFELLER** called on Nikita Khrushchev to convey to him cordial greetings from the people of the Empire State.



**NEW YORKERS WERE OUT** in mass to greet Khrushchev though they often couldn't even see him as he was whisked by in a closed car.






**SALUTE TO PEACE**—this was the slogan with which Pittsburgh met Nikita Khrushchev. The whole city was out on the street to greet the representative of the Soviet people. "We welcome the peaceful efforts of Eisenhower and Khrushchev," said the people of Pittsburgh, joining the people of

# N. S. KHRUSHCHEV SPEAKS

**FROM THE EDITORS: Excerpts from the speeches made by Nikita S. Khrushchev in the United States and from his talks are published on the following pages. They cover a wide range of vital international problems: Soviet-American relations, peaceful coexistence, disarmament, peace treaty with Germany, world trade, as well as various aspects of life in the Soviet Union.**

## We Came With an Open Heart

We have always considered reciprocal visits and meetings of representatives of states useful. Meetings and discussions between the statesmen of our two great countries, the Soviet Union and the United States of America, are of especially great importance.

All the peoples are profoundly interested in the maintenance and consolidation of peace, in peaceful coexistence. War does not promise anyone any good; peace is advantageous to all the nations. This is the basic principle which we believe the statesmen of all countries should be guided by in order to realize the aspirations of the peoples.

We have come to you with an open heart and good intentions. The Soviet people want to live in friendship with the American people. There are no obstacles to having the relations between our countries develop as relations between good neighbors. The Soviet and the American people, like other peoples, fought well together in the Second World War against the common enemy and broke his backbone. In peaceful conditions we have even more reason and more possibilities for friendship and for cooperation between the peoples of our countries. *(From the speech at Andrews Airfield, September 15, 1959.)*

We have come with a feeling of friendship for the American people and a sincere desire to bring about an improvement in the relations between our countries, to strengthen world peace. This is the main purpose of our visit.

We would like to reach agreement with your government on issues of vital importance. These issues are many, but first of all I should like to point out what they are: the relaxation of international tensions and the abolition of the cold war, disarmament, a peace treaty with Germany, world trade and improvement of the relations between our countries. *(From the address at the National Press Club in Washington, D. C., September 16, 1959.)*

## Problems Should Be Negotiated

In international affairs, in solving controversial problems, success is possible provided states concentrate not on what divides the present world but on what brings states closer together. No social or political distinctions, no differences in ideology or religious beliefs must prevent the member-states of the United Nations from reaching agreement on the main thing—namely, that the principles of peaceful coexistence and friendly cooperation be observed by all states sacredly and unswervingly.

If disagreements and differences in social systems are pushed to the fore, this is bound to doom to failure all our efforts to preserve peace. In the 20th century it is impossible to undertake crusades as the medieval fanatics did to wipe out heretics with fire and the sword, without running the risk of confronting humanity with the greatest calamity in its history.




other cities in their cordial welcome. "I have never seen such big crowds," said City Mayor Gallagher. "Pittsburgh liked Soviet Premier Khrushchev and Mr. Khrushchev liked Pittsburgh. It was a hearty meeting," the New York Times correspondent Homer Bigart reported to his newspaper.

# TO THE AMERICAN PEOPLE

The United Nations is itself the embodiment of the idea of peaceful cooperation between states with different social and political systems. Just look at the many states belonging to different social systems. What a multitude of races and nationalities, what a diversity of world outlooks and cultures are represented in this hall!

But with a different approach among states to controversial problems, a difference of views on the causes of present international tension, we should be prepared for the fact that overcoming these differences will require persistent effort, restraint and wise statesmanship on the part of governments. The time has come for the efforts of the United Nations in strengthening peace to be supplemented by the efforts of the heads of government of all states, by the efforts of the broad masses of people supporting the peace and security of the nations. Everything indicates that the time has come to usher in a period of international negotiations, conferences and meetings of statesmen in order that the pressing international problems be solved one after another.

For the principles of peaceful coexistence to become completely established in the relations between states, it is necessary, in our opinion, to end the "cold war." The peoples cannot permit the unnatural state of the cold war to continue any longer, just as they could not permit the plague and cholera epidemics to rage unchecked.

What does ending the cold war mean and what must be done to accomplish this?

## End the Cold War

First of all, it is necessary to put an end to calls for war. There is no hiding the fact that belligerent speeches continue to be made by certain shortsighted statesmen. Is it not time to put an end to the brandishing of arms and the threats against other states?

The cold war is doubly dangerous because it is going under conditions of an unbridled armaments race, which, like an avalanche, is increasing suspicion and distrust among states.

Nor must it be forgotten that the cold war began and is proceeding at a time when the aftermath of the Second World War has not yet been eliminated, when a peace treaty with Germany has not yet been concluded, and when an occupation regime is still maintained in the heart of Germany, Berlin, on the territory of its Western sectors. Eliminating this source of tension in the center of Europe, in the potentially most dangerous area of the world, where major armed forces of the opposing military alignments are close to each other, would furnish the key to improving the entire international climate. We appeal to the Governments of the United States, Britain and France to make every effort to reach agreement on real steps for achieving this goal.

Who can deny the great importance of developing contacts between peoples for ending the cold war and improving the



**THE PEOPLE OF LOS ANGELES** were waiting for the Soviet guest to arrive after his jet flight across the country from New York. Khrushchev visited Hollywood where he met American movie actors and producers and in the evening attended a city reception given in his honor.

**LET'S SPEED UP SOVIET-AMERICAN MOVIE EXCHANGE,** said Nikita Khrushchev to Eric Johnston, the President of the National Motion Picture Association, at a luncheon tendered him on behalf of the American motion picture industry at the Twentieth Century Fox Hollywood studio.





# End the Cold War

international climate? We are in favor of extending the practice of mutual visits by statesmen as well as by representatives of political, business and public circles, for developing international economic, cultural, scientific and technical cooperation.

I should like to say that the United Nations will fulfill its noble mission far more successfully if it succeeds in getting rid of the elements of the cold war, which often handicap its activities. Surely it is the cold war that has produced the intolerable situation in which the People's Republic of China, one of the biggest powers of the world, has for many years now been deprived of its lawful rights in the United Nations.

It is inconceivable that anyone could earnestly think that a stable and reliable solution of major world problems can be achieved without the participation of the great People's China. . . .

The restoration of the lawful rights of People's China would not only greatly enhance the prestige and authority of the United Nations but would also be a notable contribution to improving the international climate generally.

I should like to hope that the United Nations will find the strength to get rid of all the sediment of the cold war and will become a really universal organ of international cooperation working effectively for world peace.

It may, however, be asked: The abolition of the cold war, the strengthening of peace, and the peaceful coexistence of states are, of course, supremely noble and attractive goals, but are they attainable, are they realistic? Can we even now, in present-day conditions, place the relations between states on a new basis?

From this platform I resolutely declare that the Soviet Government considers the achievement of these goals not only urgent but also quite realistic. The Soviet Union is convinced that the necessary conditions are now at hand for a **radical** change for the **complete** abolition of the cold war in the interests of all humanity.

### Ice Begins to Break Up

It is especially heartening that important steps have been taken to develop Soviet-American relations. Scarcely anyone doubts the fact that the development of the international situation as a whole depends in many respects on how the relations between the United States and the Soviet Union, the two strongest powers in the world, develop. That is precisely the reason why the very first sprouts of something new which have appeared lately in Soviet-American relations are meeting with most sincere approval all over the world. The ice in Soviet-American relations has undoubtedly begun to break up and we are sincerely glad of this.

The exchange of visits between the heads of government of the Soviet Union and the United States can be a milestone in the sequence of events ensuring an improvement in Soviet-American relations. We have had, and will continue to have, an exchange of opinions with the President of the United States on problems of Soviet-American relations and on pressing international problems. We trust that Mr. Eisenhower wishes to contribute to removing the tension in the relations between states.

At one of his news conferences the President of the United States expressed a readiness to conduct realistic negotiations with the Soviet Union concerning a reasonable and reciprocally guaranteed plan of general disarmament, or disarmament in the field of special types of weapons, to make a real beginning in solving the problems of a divided Germany and to help reduce tension in the world by other means. Permit me to express the hope that our exchange of views with President Eisenhower will be fruitful.

We are among those who hope that the exchange of visits between the leading statesmen of the United States and the Soviet Union and the forthcoming meetings and conversations will help pave a direct road to the complete ending of the cold war, provided, of course, there is a mutual desire to achieve this goal. That is how we regard our visit to the United States and the coming visit of President Eisenhower to the Soviet Union.

Many other facts could also be adduced typical of the new, favorable trend in the world situation.

The signs that the relations between states are becoming warmer are not, of course, a result of chance favorable circumstances. The world, we think, is really entering a new phase of international relations. The grim years of the cold war could not pass without leaving their traces. The ordinary people and the political leaders in various countries have done much thinking and have learned a lot. Everywhere the forces actively supporting peace and friendly relations between the nations have grown immeasurably.

It would, of course, be unjustified optimism to assert that the atmosphere of distrust and suspicion in the relations between states has already receded into the past, that peace on earth is already secured and that no further persistent efforts by states are required. Unfortunately, this is by far not the case as yet. Circles hampering the relaxation of international tension and sowing the seeds of new conflicts are still active and influential in many countries. These people support the old and departing, they cling to the heritage of the cold war.

But the course of events, especially of late, shows that attempts to hinder a relaxation of international tension, to put spokes in the wheel, can only lead to discomfiture of those who refuse to give up such attempts since the people of the world will not support them. *(From the address at the United Nations General Assembly, September 18, 1959.)*



**AT THE SANTA BARBARA STOPOVER** Nikita Khrushchev for the first time during his American tour was able to meet with ordinary Americans. Enroute he went through the railroad cars carrying the press to greet the 300 newsmen and photographers accompanying him

**THE PRESIDENT'S PERSONAL REPRESENTATIVE,** Henry Cabot Lodge, accompanied the Chairman on his U.S. tour. In the observation car Mr. Lodge pointed out spots of interest to Nikita Khrushchev, Ambassador Menshikov and Sergei Khrushchev on the way to San Francisco.



# For General Disarmament

We, all of us, are faced with many unresolved international problems. Not all of them are equally important as to their significance or urgency. Some of them concern the relations between individual countries, others affect the interests of the peoples of several countries and continents. But there is one problem whose solution is awaited with hope by the peoples of all countries, large and small, irrespective of their social system and way of life: It is the **problem of disarmament.** Its correct solution will determine to a great extent whether mankind will proceed to war with its disastrous consequences, or whether the cause of peace will prevail. The peoples are thirsting for peace, they want to live without fear for their future, without fear of losing their loved ones in the flames of a new war. . . .

A dangerous situation has developed in the world today. Various military alliances are in existence and the arms race proceeds without a moment's letup. So much flammable material has accumulated that a single spark would be enough to place everything on the verge of a catastrophe. The world has reached a point where war may become a fact, owing to some ridiculous accident such as a technical fault in a plane carrying a hydrogen bomb or a mental aberration affecting the pilot at the controls.

It is well known, moreover, that the arms race already constitutes a heavy burden for the peoples. It leads to the rise in prices of consumer goods and to reduction of real wages. It has a harmful effect on the economy of many states and disrupts international trade. Never have so many states, so many people been drawn into military preparations as at present. If we consider, in addition to the military, the number of people directly or indirectly connected with the production of arms and involved in various branches of military research, we will find that more than 100 million people have been taken away from their peaceful labor—the most vigorous and able-bodied people, men of science and technology. A priceless fund of human energy, knowledge, ingenuity and skill is thrown away as though into a bottomless pit, squandered on growing armaments.

The annual military expenditures of all states today total approximately 100 billion dollars. Is it not time to call a halt to this senseless waste of the people's means and energy for the preparation of war and destruction?

The Soviet Government, guided as it is in its foreign policy by the principles of peaceful coexistence, stands for peace and friendship among all nations. The aim of our domestic policy—the sole one—is to create a life worthy of the best ideals of mankind. Our seven-year plan is permeated with the spirit of peacefulness and with concern for the welfare and happiness of the people. The aim of our foreign policy —the sole and unchanging one—is to prevent war, to ensure peace and security for our country and for all countries.

Some people in the West expected that the material resources of the Soviet Union and the other socialist countries would be

**DURING STOPOVERS** all along the Southern California coast, the Chairman met with receptions similar to this one at San Luis Obispo. In that city Khrushchev picked up a small tearful boy who was frightened by the surrounding crowd and made friends with him (see the inside front cover).



exhausted in the cold war, that their economy would be undermined. But their calculations have been wrong. Even though it has to bear a definite armaments burden, the Soviet Union is able nevertheless to ensure the rapid development of its economy and the ever fuller satisfaction of the growing requirements of its people. Of course, the people's material requirements would be better satisfied if the arms burden were removed.

The Soviet Union is a resolute and consistent champion of disarmament. In our state there are no classes or groups interested in war and the arms race, in the conquest of foreign territories. You will all agree that to accomplish the great tasks we have set ourselves—to raise the well-being of the Soviet people and implement the economic construction plans—we need peace. Like the other states that cherish peace, we would like to devote all our economy and resources to peaceful purposes in order to provide our people with an abundance of food, clothing, shelter and the other necessities of life. With the arms race going on, however, we cannot devote all our efforts to peaceful construction without endangering the vital interests of our people, the security interests of the country.

### We Prove Our Words by Deeds

All peoples need peace. At the conclusion of the Second World War, the Soviet Union submitted concrete disarmament proposals in the United Nations. We proposed the complete prohibition of atomic weapons, a substantial reduction of the armed forces and armaments, and a large cut in arms expenditures. We went on record for the liquidation of military bases on foreign territories and the withdrawal of armed forces from foreign territories.

We have proved our desire to solve the disarmament problem not only by words but by deeds. The Soviet Union has time and again taken the lead in proposing specific steps toward putting an end to the arms race and getting down as soon as possible to practical measures toward disarmament. Immediately after the end of the war, we carried out an extensive demobilization of the armed forces of our country. The Soviet Union has closed down all the military bases it had on the territories of other states at the end of the Second World War.

You will recall that the Soviet armed forces have been reduced, unilaterally, by a total of over two million men. The Soviet forces in the German Democratic Republic have been reduced considerably and all Soviet troops have been withdrawn from the Rumanian People's Republic. We have also effected a considerable cut in our military budget.

In 1958 the Soviet Union unilaterally suspended tests of atomic and hydrogen weapons in the hope that the other powers would follow this noble example. It is only to be regretted that these hopes were not justified. The Soviet Government has now decided not to resume nuclear tests in the Soviet Union if the Western Powers do not



**A FRIENDLY HELLO** on the way from Los Angeles to San Francisco. The warm reception that Khrushchev received enroute was only a sampling of the enthusiastic California greeting.




**PEACE ON EARTH** in any language was heartily endorsed by Khrushchev. The slogan was held aloft in Glendale, California.



**IN SAN FRANCISCO** there were more than 10,000 people gathered on Nob Hill outside the Mark Hopkins Hotel waiting to extend friendly greetings to the Chairman

**MAYOR GEORGE CHRISTOPHER** giving San Francisco's cordial welcome to the Soviet guest.



# For General Disarmament

resume tests of atomic and hydrogen weapons. Only if they resume the testing of nuclear weapons will the Soviet Union consider itself free of the commitment taken.

### Disarmament Under Control

The problem of disarmament has been discussed for more than 14 years now in the United Nations and at other international forums, but no practical results have yet been achieved. What is the reason for this? I should not like to rake over the past or consider at length the obstacles and differences that arose in the course of the disarmament talks, much less level accusations against anyone. This is not the main thing today. We think the main thing is to remove the major roadblocks that have been raised in the way of disarmament, to try to find a new approach to the solution of this problem.

The experience of the disarmament talks clearly shows that the question of control has been raised as one of the main obstacles to agreement. We have been and are in favor of strict international control over the implementation of a disarmament agreement when it is reached. But we have always been against separating the system of control from measures for disarmament, against the organs of control becoming, in effect, organs for the collection of intelligence information in conditions where there would, in effect, be no disarmament.

We are for genuine disarmament under control, but we are against control without disarmament. It would be easy for the opponents of disarmament to make any measure conditional upon demands for control that the other states would be unable to satisfy in the conditions of a universal arms race. Indeed, those same countries which, for some reason or other, advance such far-reaching demands for control would not be inclined to accept these demands themselves if it came to carrying them out.

Still another difficulty exists. As long as disarmament is conceived only as partial disarmament and it is assumed that some armaments will remain after the conclusion of a disarmament agreement, countries would still retain the material possibility of launching an attack. There would always be a fear that with the aid of the remaining types of armaments and armed forces the possibility of launching an attack would continue to exist. The awareness that such a possibility remains was in no small measure an obstacle in the disarmament negotiations. Many states feared that disarmament measures would affect precisely those types of armaments in which they had the greatest advantage and which they believed to be particularly necessary for themselves.




**HEARTY RECEPTION AND WARM GREETINGS.** The people of San Fancisco have charmed us, said Nikita Khrushchev. I felt I was among friendly people with the same thoughts as the people of the Soviet Union. We were warm from the sun here, but even warmer from the welcome given us.

Naturally, under these circumstances, in the atmosphere of the cold war and mutual suspicion, no state speaking seriously and not for propaganda could reveal its military secrets, the organization of its defense and war production, without damaging the interests of its national security.

All the delegates will, I am sure, agree with the necessity of focusing the collective reason of all states as well as the United Nations on the search for a new approach to the solution of the disarmament problem. The task is to find a lever by which mankind could be stopped from backsliding into the abyss of war. At the present time only one thing is necessary and that is to rule out the very possibility of wars being unleashed. So long as there exist large armies, air forces and navies, nuclear and rocket weapons, so long as young men on the threshold of life are first of all taught to wage war while the general staffs work out plans for future military operations, there is no guarantee of stable peace.

### The Soviet Plan

The Soviet Government, having comprehensively considered the obtaining situation, has come to the firm conviction that **the way out of the deadlock should be sought along the road of general and complete disarmament.** With such an approach the possibility of creating any military advantages for this or that state would be completely ruled out. **It is general and complete disarmament that will remove all the barriers that were raised during the consideration of questions of partial disarmament and will clear the way for the establishment of comprehensive and complete control.**

What does the Soviet Government propose?

**The essence of our proposals is that over a period of four years all states should effect complete disarmament and should no longer have any means of waging war.**

This means that armies, navies and air forces shall cease to exist; general staffs and war ministries shall be abolished; military educational establishments shall be closed; dozens of millions of men shall return to peaceful creative labor.

Military bases in foreign territories shall be abolished.

All atomic and hydrogen bombs at the disposal of states shall be destroyed and their further production terminated. The energy of fissionable materials shall be used exclusively for peaceful economic and scientific purposes.

Military rockets of all ranges shall be destroyed and rocket facilities shall remain as a means of transportation and exploring outer space for the benefit of all mankind.

At the disposal of states there should remain only strictly limited contingents of police (militia) agreed upon for each country, armed with small arms and intended for maintaining internal order and protecting the personal security of citizens.

**To ensure that no one would violate his obligations, we propose the setting up of an international control body comprising all states.** A system of control over all disarmament measures should be initiated, which should be created and should function in conformity with the stages by which disarmament should be effected.

**If disarmament is comprehensive and complete, then upon its attainment control will also be general and complete.** The states will have nothing to conceal from one another; none of them will have at their disposal a weapon that could be used against the other, and therefore the controllers will be able to manifest their zeal to the hilt.

Such a solution of disarmament questions would ensure the complete security of all states. It would generate favorable conditions for the peaceful coexistence of states. All international problems would then be resolved not by force of arms but by peaceful means.

We are realists in politics and understand that it takes time to work out such a broad disarmament program. While such a program is being elaborated, while the questions are being negotiated, one should not sit with folded hands and wait.

**The Soviet Government believes that the elaboration of a program of general and complete disarmament should not hold up the solution of such an acute and fully mature question as that of the discontinuance of nuclear weapon tests for all time. All the prerequisites now exist for such a solution. We hope that the ap-**



**A VISIT TO THE IBM PLANT** in San Jose, California, gave Khrushchev his first chance to see Americans at work. The Chairman and his party were told about the complex processes involved in manufacturing the RAMAC computer and were pleased that the explanations were given in Russian.

# For General Disarmament

**propriate agreement on the discontinuance of tests will be concluded and put into effect without delay.**

The danger of a rocket-nuclear war looming over humanity requires courageous and far-reaching solutions to ensure peace.

### Reliable Peace Will Be Insured

The decision to carry out within a short space of time general and complete disarmament and its implementation would signal the start of a new stage in international life. The agreement of states to commence general and complete disarmament would be a convincing factual confirmation of the absence of any aggressive designs on their part and of the sincere desire to build their relations with other countries on the basis of friendship and cooperation. With the destruction of weapons and the abolition of armed forces there would remain no material possibility for the pursuit by states of any policy other than a peaceful policy.

Having achieved complete disarmament, mankind would experience a feeling similar to that which overcomes an utterly exhausted desert traveler tormented by the fear of perishing from thirst and exposure, who after long wanderings reaches an oasis.

General and complete disarmament would provide the opportunity of switching enormous material and financial outlays from the manufacture of the instruments of death over to creative purposes. Human energy can be directed toward creating material and spiritual wealth which enriches and ennobles the life and work of human beings.

The implementation of a general and complete disarmament program would provide the opportunity of switching enormous sums of money over to the building of schools, hospitals, houses, roads, to the production of food and consumer goods. The money thus released would provide the opportunity of substantially reducing taxes and lowering prices. This would beneficially affect the living standards of the population and would be welcomed by millions of ordinary people. Just the money spent by states over the past decade for military needs would be enough to build more than 150 million houses which could comfortably accommodate many hundreds of millions of people.

General and complete disarmament would also generate entirely new opportunities for rendering aid to the states whose economies are at present still underdeveloped and which need assistance from the more developed countries. Even if only a small part of the money released as a result of the termination of the military outlays of the Great Powers were earmarked for aid to such states, this could open up virtually a new epoch in the economic development of Asia, Africa and Latin America.

All the artificial obstacles in the way of the development of international trade which today exist in the shape of discriminatory restrictions, proscription lists, etc., would vanish. The industries of such countries as the USA, Britain, France, West Germany and other highly developed countries could, at last, receive large orders from other states. The utilization of the money released as a result of disarmament would create the broadest possible opportunities for the employment of the population. Therefore assertions that disarmament would lead to a crisis or economic depression in the industrially highly developed countries of the capitalist world are erroneous.

When no state, in fact, has the opportunity to undertake military action against other states, international relations will begin to develop under the hallmark of confidence; suspicion and fear will vanish, and all nations will be able to regard one another as true good neighbors. The door will open wide to economic, commercial and cultural cooperation among all states. For the first time reliable and enduring peace, to which all the nations so strongly aspire, will become a reality.

Being convinced that these great aims can and must be achieved by the joint efforts of all states united under the sign of the peaceful principles of the United Nations Charter, **the Government of the Union of Soviet Socialist Republics submits for consideration by the United Nations a Declaration on General and Complete Disarmament, comprising concrete proposals on this question.**



**THANKS FOR THE TOUR,** Khrushchev said, shaking hands with IBM Executive Edward Corwin, who had shown him around the plant.



**WE SHOULD FOLLOW YOUR EXAMPLE** and build more self-service lunchrooms, Khrushchev told IBM President Tom Watson as they had a cafeteria lunch together.

It goes without saying that if at present, due to certain reasons, the Western Powers do not manifest their readiness to embark on general and complete disarmament, the Soviet Government is ready to come to agreement with other states on the appropriate partial steps of disarmament and the strengthening of security. The major steps, in the opinion of the Soviet Government, are the following:

1) The creation of a zone of control and inspection with a reduction of foreign troops on the territories of the respective countries of Western Europe;

2) The creation of an atom-free zone in Central Europe;

3) The withdrawal of all foreign troops from the territories of European states and the liquidation of military bases on foreign territories;

4) The conclusion of a nonaggression pact between the NATO member-states and the states party to the Warsaw Treaty;

5) An agreement on the prevention of surprise attack by one state upon another.

The Soviet Government deems it appropriate to recall its proposals on disarmament of May 10, 1955, which contain concrete considerations regarding partial steps in the field of disarmament. It is convinced that these proposals are a good basis for agreement on this vitally important problem.

The idea of general and complete disarmament is not being submitted by the Soviet Union for the first time. As far back as the period between World Wars I and II the government of our country came out with a comprehensive program of complete disarmament. The opponents of disarmament were at that time wont to assert that the Soviet Union made those proposals because it was a weak state economically and militarily. Perhaps at that time this false thesis could delude someone, but it is now universally evident that talk of the Soviet Union's weakness is absurd.

**The new proposal of the Soviet Government is prompted by the sole desire to secure truly lasting peace among nations.**

We sincerely say to all countries: In counterbalance to the slogan "Let us arm!" —which is still current in some quarters— we put forward the slogan "Let us disarm completely!" Let us rather compete in who builds more homes, schools, hospitals for their people; produces more grain, milk, meat, clothing and other consumer goods; and not in who has more hydrogen bombs and rockets. This will be welcomed by all the nations of the world. *(From the address at the United Nations General Assembly, September 18, 1959.)*

# Peace Treaty With Germany

There are, of course, other pressing international problems as well. It is no news to you, of course, that the Soviet Union attaches great importance to the conclusion of a peace treaty with Germany. It is high time to adjust the problems inherited from the Second World War if we do not want to have a third.

Why do we insist so stubbornly that a peace treaty at last be concluded with Germany? Because the absence of a peace treaty poisons the relations among scores of states. It would be impossible to provide conditions for a stable peace in Europe without eliminating the vestiges of the last war. There is no certainty that these vestiges will not fertilize the soil for new war. I know well the importance of fertilizers in agriculture, but I am against such fertilizers in politics.

It is our deeply held conviction that it is impossible to put up with the situation where, fourteen years after the end of World War II, the countries which fought against Germany still have not concluded peace with it and, consequently, the occupation regime is still preserved in West Berlin.

Some Americans are sometimes heard to reason as follows: Europe is far away; there are two German states on the territory of Germany and one of them is even an ally of the United States, and one more ally is never a hindrance. We can well do without a peace treaty.

Pardon me, but only thoughtless people can reason thus. Think about this yourselves. Twice in the lifetime of one generation your country has had to send its sons to the fields of battle in Europe, to



**I FEEL AT HOME AMONG YOU,** Khrushchev told the West Coast longshoremen. I'll take your greetings back home to the Soviet workers and I extend their greetings to you. I consider this meeting with rank-and-file American workers one of the highlights of my trip to the United States.

# Peace Treaty with Germany

fight against Germany. And what will happen if your present ally, West Germany, provokes a third war? With things as they are today, it would be more than a question of sending the breadwinners of American families to fight far away from the American shores. The territory of every belligerent would become a theater of military operations. The modern means of destruction are such that war can instantly spread to the entire globe.

You must understand that it is not because we have any fear of the German militarists that I remind you of the dangers involved in the absence of a peace treaty with Germany. We are sufficiently strong to curb the revenge-seekers and, if necessary, to bring them to their senses. You will agree, however, that it is impossible to ignore the fact that certain quarters in West Germany are harboring plans for setting the Soviet Union and the other powers at loggerheads, aggravating the relations between them and keeping the world in a state of international tension.

It is known that the postwar development of Europe and Germany has led to the establishment of two German states. Both these states exist regardless of our wishes and our attitude toward them. We must take this into account. The best policy is a realistic policy. There is only one way out—to acknowledge that there exist two German states, i.e., recognize the *status quo* in the German question, and conclude a peace treaty with the two German states instead of further dallying with the elimination of the remnants of war.

To allow only one possibility—the conclusion of a peace treaty with a united Germany, which, of course, would be the best thing—would be tantamount to scrapping the question of a peace treaty.

### Berlin Question

Conclusion of a peace treaty would also settle such a problem as the question of Berlin which leads to constant friction between the powers. It is sometimes said that the Berlin question allegedly did not exist a year ago and that the situation in Berlin was not bad. But need we wait until some seemingly insignificant incident in Berlin leads to war? We are in favor of preventing conflicts by measures taken in good time.

Neither the Soviet Union nor the German Democratic Republic have any ulterior motives or secret designs with regard to West Berlin. No one has any claim to incorporating West Berlin into the German Democratic Republic or changing the social and economic scheme of things there.

The communiqué issued after the talks between the heads of governments of the United States and the Federal Republic of Germany late last month said that President Eisenhower had reaffirmed "the pledge of the United States and its allies to protect the freedom and welfare of the Berlin population." Well, this formula accords with our intentions as well. The Soviet Union has declared that the most reasonable thing in the obtaining conditions would be to declare West Berlin a free city.

We proposed, and we still do, that the independent existence of West Berlin should be ensured by the most reliable of guarantees known in international relations, with or without the participation of the United Nations. This should ensure the freedom and welfare of the people of West Berlin. *(From the address at the National Press Club in Washington, D. C., September 16, 1959.)*

We [the President of the United States and the Chairman of the USSR Council of Ministers—Ed.] have indeed agreed that the negotiations on the Berlin issue should be resumed and that no time limit should be extended indefinitely.

The Soviet government would like to express once again its confidence that all the parties concerned will strive for settling the question of West Berlin without delay and in accordance with the interests of easing tension in Germany and in Europe, in accordance with the interests of consolidating peace. *(Answer to question of TASS correspondent, September 30, 1959.)*



**A PRECIOUS GIFT** is what Khrushchev called the work cap that Dave Adrian gave him. He gave his hat to the longshoreman "as a peace exchange."



**WORK STOPS** as Khrushchev looks over a suburban housing development. By 1965 the USSR will build housing for 50 cities the size of San Francisco.

# Promote World Trade

We are also prepared to do our best for the development of world trade. It is high time to do away with the bankrupt policy of discrimination in trade and thereby clear the atmosphere in the relations between our countries.

Indeed, is it possible to consider normal the present volume of Soviet-American trade? All the goods exchanged by our two countries in a year can, figuratively speaking, well be carried by two ships. And yet our states account for more than half of the world's industrial production. The question arises: What are the aims of the policy of trade discrimination? Considering the matter soberly, this policy serves only one thing—to maintain mistrust in the relations between our states.

Trade is like a barometer; it shows the direction of the development of policy—whether clouds will gather overhead as before a thunderstorm, or whether it will be clear and fair. We sincerely want the barometer always to indicate fair weather, and to this end it is necessary, we are convinced, to promote international trade to the utmost. *(From the address at the National Press Club in Washington, D. C., September 16, 1959.)*

Some people may have thought, perhaps, that I would come to the United States to lobby for the development of Soviet-American trade without which, in their opinion, the seven-year plan cannot be accomplished. I want to say in all frankness that I have not come here to beg. We have always advocated the development of international trade, since the inception of the Soviet state in fact; and if we raised this question today, it is certainly not because the seven-year plan cannot be fulfilled without such trade. Those who think so are deeply mistaken.

We attach considerable importance to the development of international trade, guiding ourselves by the same rule that many people seem to follow in your country as well, judging by the motto reproduced on a postage stamp issued recently in the United States: "World peace through world trade."

We agree with this approach. True, when

**A TOUR OF THE BAY** evoked the hope that the Golden Gate would open for brisk mutual trade.





**RED ROSES** for Khrushchev were brought to the lobby of the Mark Hopkins Hotel by eight-year-old Patricia Garson.



**STOP AT A SUPERMARKET.** Nikita Khrushchev, very much interested in American food production, asks if he might peek into the shopping basket of a California housewife.

**ONE MOMENT PLEASE.** Helen K. Blythe was in a hurry to get her camera set for a photograph of the Soviet guest when he left his San Francisco hotel for a morning stroll.



# Promote World Trade

I said something of the kind a while ago, remarking that trade was important as a means of relaxing international tension, I was criticized by some people in the United States. Your papers wrote at the time that Khrushchev only started to talk about trade because to him trade was nothing but politics. Now, if it comes to speaking of who has turned trade into an instrument of policy, one will have to mention first an American agency you all know well which has developed a special embargo list by which you businessmen have to abide in trading with the Soviet Union. Let's not quibble, however. History will establish who has geared trade to policy and how.

### No Reason for Discrimination

I want to stress that the Soviet Government always has been and always will be for international trade on the basis of equality and mutual advantage, without any discrimination, the trade spoken of by Franklin whose words, "Commerce among nations should be fair and equitable," can be seen engraved above the main entrance to the U.S. Department of Commerce.

We are fighting and we will fight against all embargo lists in trade as an unreason-

able practice. If you do not want to trade in so-called strategic or other goods, don't; it's your business. But do not introduce discrimination against any country or group of countries. This practice disrupts the normal flow of international trade and leads to political complications. Indeed, it is known from history that countries resort to such restrictions only when they contemplate a military campaign against the country against which they discriminate. Let us then clear the road to ensuring normal relations among all countries regardless of their social systems.

We trade—on the basis of equality—with many countries. Suffice it to say that the volume of our foreign trade last year was seven times the 1938 figure and reached (in world prices) 34.589 billion rubles (more than 8.6 billion dollars).

Our trade with Britain is not going badly at all. Trade with West Germany also is on the rise. It should be noted that the West German Government correctly understands the interests of the state in this matter and, far from obstructing, contributes to the development of trade. We welcome this. Good economic relations are now being built with Italy. Our relations with France are not at all bad. Why then must America remain apart? However, that's up to you. The question of trade is one of profit. If you do not find it profitable to buy our goods or to sell your goods to us, do what you consider necessary.

Don't forget one thing, however. It sometimes happens that too choosy a bride will wait too long and find herself an old maid. Such maidenly conduct is especially out of place in business where, more than anywhere else, the rule so aptly expressed in the British saying, "First come, first served," reigns supreme. We also have a rather good proverb to this effect: "He who comes late must be content with a picked bone."

Some people—who are politicians rather than businessmen—say in justification of the stagnancy that has persisted in American-Soviet relations for nearly ten years that this situation is normal and even to the advantage of the Western world. They seriously maintain that by refusing to trade with us, the United States retards the economic development of the Soviet Union and weakens its defensive might.

There are few people in this hall, however, who would believe this, I think. You are all familiar with press reports on Soviet sputniks, rockets and the growth of our economy which has never been so swift as in the past decade. But if any of you still have any doubts, however small, come to the Soviet Union and see for yourselves, as your colleague Mr. Harriman did recently.

By the way, I discussed a number of questions with Mr. Harriman, including the question of trade. I told him—and I can repeat it here—that the results of the ban on trade with our country imposed in the United States as a repressive measure against the Soviet Union have been the very opposite of those hoped for by its authors.

We have even benefited to a certain extent by the policy which the United States



**PRESENTED WITH A GAVEL** at an official banquet in San Francisco, Nikita Khrushchev said he would be the happiest man on earth if the gavel were to be used for the first time in sealing an understanding reached by the heads of American and Soviet governments to sign a treaty of non-aggression, cooperation and friendship between the two countries.



**WELCOME TO IOWA.** The people of Des Moines were out on the streets to greet the Soviet guest. It was in Iowa that the present-day contacts between Soviet and American people were initiated in 1955 with an invitation to a Soviet agricultural delegation to visit the United States.

# Promote World Trade

pursued with regard to the Soviet Union in the field of trade. We have had to develop the manufacture of machinery we did not have before and intended to purchase from you, so that we are no longer dependent on anyone in this respect.

Thus, the artificial curtailment of trade with the Soviet Union has strengthened rather than weakened us.

Look what tremendous successes we have scored in our economy within these ten years, how our technology, our science have developed. We cracked the secret of using hydrogen energy before you did. We have developed an intercontinental ballistic rocket earlier than you, which you in fact do not have to this day. And an intercontinental ballistic rocket is indeed a condensation of creative human genius.

So what sense is there in your restrictions? The continuation by the United States of America of the policy of discrimination against the Soviet Union in trade simply represents senseless obstinacy. *(From the address at the Economic Club in New York, September 17, 1959.)*

### We Buy From Many Countries

*Khrushchev (answering a question):* I was told that the biggest press built in the United States had a pressure of 50,000 tons, whereas we have built a 70,000-ton press.

Even if there is something we don't have, we shall make it ourselves.

A number of our machines are better than yours and we sell them to you. For instance, you have bought a license for the production of turbodrills for the oil industry.

We could buy your machines, too. We would, for instance, buy chemical equipment from you, because you are well advanced in its production. We can produce this equipment ourselves, but it will take some time. That is why we are ready to purchase this equipment from you and pay according to the usual international practice. We could also buy equipment for the oil refining industry.

Formerly we did business with Dupont. We are ready to do business with that company again, if this is not precluded by the State Department. But if you don't sell us equipment for the oil refining industry, we shall build it ourselves, and we shall fulfill our plans ahead of schedule.

It is worth noting that we buy chemical equipment in other countries, and it is better than yours. Last year we bought two chemical plants from Krupp's. The Americans have bought a similar plant in Germany. We have bought a tire factory in Britain. The equipment for this factory has already been delivered to the Dniepropetrovsk economic area. It is now being installed. We have even been told that Britain has outstripped you Americans in this branch of production.

*Tikhonov* (Chairman of the Dniepropetrovsk economic council): The United States does not have such advanced technology in tire production.

*Khrushchev:* Since signing a trade agreement with Britain, we have concluded many contracts with British companies. Italy holds an important place in the manufacture of equipment for the synthetic fiber industry. We buy this equipment there and also in France. In short, all your partners sell us what we need, and we buy it from them. Only America does not trade with us.

Well, we have a saying: You don't stand to gain anything from pouting your lips and refusing to eat the porridge. Don't eat our Russian porridge, if you like! That is your business. Probably our porridge does not suit your stomach. We have no complaints. If it benefits you then go ahead and sell, if it doesn't, don't; if it benefits you then go ahead and buy, if it doesn't, don't. That is the law that underlies trade.

I see that the Americans fear communism as a rabbit fears a python, and they lose all common sense. Well, we can afford to wait until you become normal and begin trading.

*Question:* Why then, despite all this, do you take over a lot from the capitalist countries?

*Khrushchev:* We are not fools! Why should we disregard sound experience? You have yielded a great deal in the field of production organization. Ford, for instance, developed the conveyer-line method. We have borrowed this method and are improving it.

*Question:* We are interested in trade with

you. But why do the Soviet organizations buy only models of machines?

*Khrushchev:* I shall tell you frankly. If John Deere wishes to sell us tractors and farm machinery, that would be unrealistic because we have our own farm machine industry. We buy, and we can buy, say, a score or a hundred tractors or other agricultural machines. This is done to compare them with our models, to see which are better.

But why should this displease you? How many tractors or combine harvesters do you sell to one farmer? Will Garst buy a thousand tractors from you? Indeed, no farmer will buy even a dozen machines. He will buy one or two, while we will buy 10 or 100. It is pointless to argue about models.

I will tell you point-blank: We are not interested in buying tractors, harvester combines, planes or rockets. We want to buy chemical equipment, equipment for engineering and oil refining plants. As for tractors, gentlemen, we can sell them to you ourselves. If you wish, we can sell you even one tractor.

### Firm Credits

*Question:* Mr. Khrushchev, you have raised the question of credits. What is your position now?

*Khrushchev:* We are not asking for credits. But if the American industrialists want to receive big orders from us, they will get them if they give us credits. What we have in mind are firm credits, like the ones given us by the British. As for government credits, they are obviously impossible with the present relations between our countries. If there are firm credits, we shall pay a reasonable interest—but, I stress, a reasonable one. We shall not agree to high interests.

*Question:* What do you mean by a reasonable interest?

*Khrushchev:* Not more than you receive from others—the interest operating on the international market. We are not in a situation in which we need to cry for credits.

You are businessmen and in a position to see how fast we are developing. One per cent of above-plan production is worth 11 billion rubles in the Soviet national economy. This year we are five per cent above the operating program. This means that by the end of the year we shall have another 50 billion rubles. At the end of the seven-year plan one per cent will amount to 19 billion rubles. I am quoting these figures to show that our plan has been drafted realistically. *(From the answers at the dinner given by the editor of* Journal of Commerce, *September 24, 1959.)*

### For Economic Cooperation

All of you are well aware of the fact that we are offering you economic competition. Some describe this as our challenge to the United States of America. But speaking about challenges, one might say, and that would be even more correct, perhaps, that it was the United States that first challenged all the world; it is the United States that developed its economy above that of all






**THIS ROADSIDE SIGN** reads "Comrade Khrushchev, we must strive for a peaceful world together. Mrs. Lockner." The Iowan housewife won a local competition for a welcoming slogan



**AT THE JOHN DEERE EQUIPMENT PLANT** in Des Moines, Iowa, Nikita Khrushchev stopped to talk to one of the workers while he was being shown the farm machinery in production there

**ADLAI STEVENSON** came to Des Moines from Chicago to renew his acquaintance with Nikita Khrushchev, whom he had met in Moscow last year, and they had a frank and friendly talk.





**THAT'S A GOOD EAR OF CORN,** Nikita Khrushchev told his old friend Roswell Garst. They had a lot to talk about when they met at the farm of the Iowa corn-grower.

# Promote World Trade

countries. For a long time no one dared to challenge your supremacy. But now the time has come when there is such a state which accepts your challenge, which takes into account the level of development of the United States of America and in turn is challenging you. Do not doubt that the Soviet Union will stand on its own in this economic competition, will overtake and outstrip you.

But what's wrong about that? No matter who wins in this competition—you or we—both the Soviet Union and the United States will gain, because our nations will live in conditions of peace and even better than we do now.

Incidentally, competition, as we Soviet people see and practice it, by no means excludes cooperation and mutual assistance, and we are ready to extend this rule to the United States of America, if that's acceptable to you. Have we not cooperated with you in the past? About thirty years ago, when our country started building up a large-scale industry, good economic ties were established with the largest U.S. companies. Ford helped us to build the automobile works in Gorky. The prominent American specialist Cooper acted as a consultant for the construction of the hydropower plant on the Dnieper, which was the world's largest at that time. Your engineers

**NOW THERE'S A REAL AMERICAN,** said Nikita Khrushchev jokingly as he patted Jack Christensen, who traveled 100 miles to meet the Soviet guest at Garst's farm.



**KHRUSHCHEV AND GARST** both agreed that good hybrid seed, fertilizer and machinery makes for tall corn.



helped us to build tractor plants in Stalingrad and Kharkov. Americans, along with the British, acted as consultants during the construction of the Moscow subway. We were grateful to your specialists for that cooperation and many of them returned home with Soviet decorations and honorary certificates, not to speak of material remuneration.

So what is there to prevent us from resuming and developing economic cooperation at the present, qualitatively new, phase when not only could we learn from you, but you too could learn a lot from our engineers, designers, scientists? Such cooperation could definitely be of mutual advantage. *(From the address at the Economic Club in New York, September 17, 1959.)*

# Peaceful Coexistence

*Question:* You are often quoted as having said at one diplomatic reception that you will "bury" us. If you didn't say that, perhaps you will deny the statement, and if you did, would you explain what you meant.

*Khrushchev:* Here in this hall there is present only a small fraction of Americans. It would take more than my life span if I conceived the idea of burying all of you.

I really did speak about that, but my statement was deliberately distorted. What I meant was not physical burying of anyone or at any time, but a change in the social system in the historical development of society. Every educated person knows that at the present time there exists more than one social system in the world. Various states, various peoples have different systems.

The social system changes with the development of society. Once there existed feudalism; it was supplanted by capitalism. Capitalism was more progressive than feudalism. Compared with feudalism, capitalism provided better conditions for the development of the productive forces. But capitalism begot irreconcilable contradictions. Every system, when it outlives its time, begets its heirs.

Capitalism, as Marx, Engels and Lenin have proved, will be replaced by communism. We believe in that. Many of you do not believe in that. But in your country too there are people who believe in it.

At the reception in question I said that in the course of historical development and in the historical sense capitalism will be buried, that capitalism will be supplanted by communism. You might say that this cannot be. But is it not a fact that the feudal lords burned at the stake people who fought against feudalism and nevertheless capitalism triumphed.

Capitalism is fighting against communism. I am convinced that communism —the social system which creates better conditions for the development of the productive forces of a country, which enables every individual to express himself, which ensures complete freedom of society, of every individual in society—will win.

You may disagree with me. I disagree with you. So what should we do?

We must coexist. You go on living under capitalism and we shall build communism. The new, the progressive will triumph; the old, which is outliving its time, will die. You believe that the capitalist system is more productive, that it creates better conditions for the development of society, that it will triumph. But the brief history of the existence of our Soviet state does not speak in favor of capitalism. What place did Russia hold in economic development before the Revolution? Russia was a backward, an illiterate country. Now we have a mighty economy, we have a highly developed science and culture.

I do not remember exactly how many engineers are graduated in our country every year.

*Yelyutin* (Minister of higher and secondary specialized education) : Last year we trained 94 thousand engineers and this year 106 thousand engineers were graduated, that is to say, three times as many as in the United States.

*Khrushchev:* In your country there are some who say that if the Soviet Union has more scientists we shall perish. We accept this "risk" and create the conditions so as to have more scientists, so that all people should be educated, because without that it is impossible to build communism. Communism is science. *(From the answers to questions at the National Press Club in Washington, D.C., September 16, 1959.)*

**THE VISITING SOVIET GUEST WAS SHOWN** the process of harvesting corn for silage. Leaving Garst's farm Khrushchev gave his host some friendly advice, telling him that the corn, in his opinion, was planted too densely. "On our farms we would leave only two or three stalks in the cluster."





**AN ENTHUSIASTIC GREETING.** The students of Iowa State University in Ames met Nikita Khrushchev with shouts of "Comrade Khrushchev"—"Nikita"—"We Welcome You" in the exuberant manner typical of all young people. It reminded the Chairman of the way Soviet students greet guests.



**MEETING STUDENTS** at Iowa State University, Nikita Khrushchev stopped for a chat with Jane Collins of Marshalltown who is one of the undergraduates majoring in home economics.

**PEACEFUL COEXISTENCE IN ACTION.** Streamers lettered in English and Russian were displayed by members of the Wakonda Church in Iowa as Nikita Khrushchev rode by.




# Peaceful Coexistence

### Let's Compete Peacefully

The question of the state and social systems prevailing in this or that country is one to be solved by each nation in the respective country. If you like capitalism, and I am sure that you do, God be with you. Continue in your efforts. But take care. A new system has emerged, a system that is treading—that has started to tread—on your heels. And if, if at any time you start lagging behind, we shall certainly surpass you.

So let us compete peacefully, and let the peoples themselves be the judges of which system provides the greater possibilities for the development of the productive forces and which system satisfies to a greater extent the needs of the people. Let the people themselves choose, and let them decide on this question. But let us regard each other with respect and build our relations irrespective of the social and state systems prevailing in our countries, so as to increase the friendly ties between us on the basis of peaceful coexistence, on the basis of peace.

I tell you in all sincerity, we want to live with you in friendship and peace. *(From the speech at the luncheon given by the Mayor of New York, September 17, 1959.)*

The main thing which we must search for now is not questions on which we are divided and with which we are all fed up, completely fed up; we must search for what brings us closer together in order to



**ON THE CAMPUS** of Iowa State University, the Chairman was greeted by University President James Hilton. One of the pleasurable aspects of his U.S. tour, Nikita Khrushchev noted, was the friendly manner in which he was received by the students and the frank talks he had with them.

build our relations on this foundation, to secure better mutual understanding, to narrow the gap on those issues on which it can be narrowed.

Could you really persuade me that the capitalist system is better than the socialist! And I don't want to think that I could persuade you that the communist system is better. Obviously, we all stick to our opinions, but this does not prevent us from living in friendship, being good neighbors, seeing to it that the relations between our countries improve.

I should like to assure you, ladies and gentlemen, that I don't in the least intend to press you into the communist kingdom. I am just telling you that maybe you will still remember my words when you get to know the Soviet people better, their thoughts and aspirations. Today you may not agree, but the time will come when you will agree that the communists have the most noble thoughts and aspirations.

We seek to build a communist society based on the most noble ideals. Communism is not of today but of tomorrow. But we are already building it. We are building a society where man is the friend of man, where there is no hostility, where there will be no bloodshed, where all people will be equal. These noble ideals common to all mankind must be understood also by believers who are non-communists. They must remember from the Holy Bible the call to love one's neighbor.

Do not judge the Soviet people, the communists, by the yardstick of the Civil War alone. The Civil War was imposed upon our people, who were forced to rebuff their enemies. Your ancestors, Americans, waged a savage civil war when the North fought the South, and killed each other in that war. The finest people in your country fought for the democratic ideas proclaimed by Lincoln and then they won victory.

We are now striving for communism, proceeding from the finest human motives. We are waging the struggle not with weapons, but with the word, with peaceful means, with our work. He who does not want to accept our convictions may stick to his own. We understand people who respect their system. *(From the speech at the dinner given by the Mayor of San Francisco, September 21, 1959.)*

# Life of the Soviet People

Thanks to the victory of socialism the peoples of the Soviet Union have attained great successes. And although we are not yet as rich as you, we are on the right road toward reaching the highest standard of living in the world. This is the goal toward which our people aspire, and it will be attained!

The question of the social and state structure or, in other words, the question of whether to live under socialism or capitalism, is the internal affair of each nation, and the principle of noninterference by states in each other's domestic affairs should strictly be adhered to. If all states are guided by these principles, there will be no particular difficulties in ensuring peace among our peoples.

To live in peace we must get to know each other better. Permit me to tell you, if only briefly, something about our country, the life of our people and their plans for the future. I trust that you will understand me when I say that the impressions I have gained here—and even the things I have liked in your country—have not shaken my faith that the political, economic and social system in the Soviet Union is the fairest and most progressive.

The Soviet Union is a state of the working people. We have no capitalists. Our factories and mills belong to the people. All the land in the country, with its wealth, belongs to the people. The farmers till that land collectively, in cooperatives. Each has an income depending on his work, not on invested capital.

Under socialism a workingman's remuneration is determined by the quantity and quality of his work for society. When we expand our production still more and accumulate more wealth, we will go over to the communist principle of distributing it: Each will work according to his ability and receive everything according to his needs.

The Constitution of our state is really the most democratic. It ensures universal, equal and direct election of legislative bodies, with secret voting. It ensures the right to work, to study and to rest.

Before the Revolution it used to be the case in our country that whoever had capital had position. For the first time in history we established the just rule in our land that those who work well enjoy distinction in the community.

Consider, for example, the composition of the highest body of state in the Soviet Union, the Supreme Soviet of the USSR. All in all, there were elected 1,378 deputies

# Life of the Soviet People

to the Supreme Soviet. Out of this number 366 are women. More than a thousand deputies are directly occupied in industrial and agricultural production. These are workers, engineers, collective farmers, agronomists. The rest are statesmen and people prominent in public life, in science, culture, literature and art, teachers and doctors. As you see, there are no capitalists in our country, and none of their representatives are in the Supreme Soviet. In our government are men who come from the working people.

About myself I can say that my grandfather was an illiterate peasant, a serf; he was the property of a landlord and could be sold or even, as was often the case, exchanged for a dog. My father was a miner, and I too worked in a mine as a mechanic. I took part in the Civil War, and afterward the Soviet Government sent me to study at a workers' school and then at the Industrial Academy. Now the people have entrusted me with the high post of Chairman of the Council of Ministers. Both of my first deputies recently visited your country: Anastas Mikoyan and Frol Kozlov. Who are they? Anastas Mikoyan is a carpenter's son, while Frol Koslov is a smith's son and was himself a worker and then an engineer. Neither capital nor important posts are inherited in our country. Everyone in Soviet society really enjoys freedom. The only thing we do not have is freedom to exploit the labor of others, to privately own factories and mills, land and banks.

We of the older generation started life in capitalist conditions. Why do we consider that the socialist way is fairer? For hundreds of years mankind developed in conditions in which the minority appropriated the wealth created by the majority. And always people have sought a better organization of society, without exploitation of man by man.

We are grateful to Marx, Engels and Lenin, who blazed the trail to this society, and we have taken it. We have been followed along this road by many nations of Europe and Asia. The working people, on taking over political power, put an end to the tendency to acquire wealth at the expense of others.

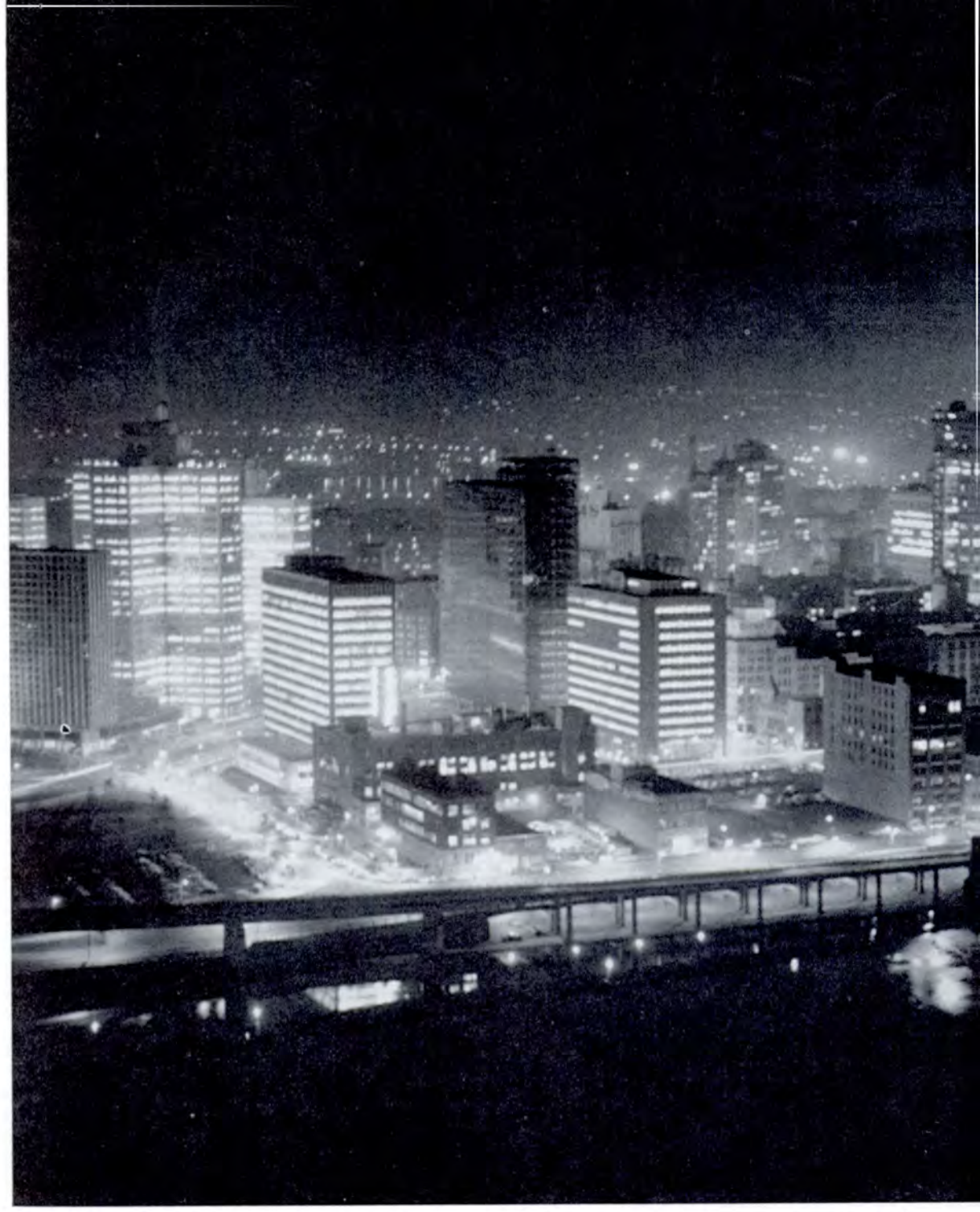
Human greed is indeed a terrible thing. Has there ever been a case of a millionaire not wanting to become a multimillionaire?

I want to be understood correctly. It is one thing when a man has a pair of shoes and wants to have another pair or so, when he has a suit and wishes to have several more, and when he has a house and desires to build a better one for himself. This is a legitimate desire. Socialism does not restrict people's tastes or requirements. But it is quite another thing when a man has a factory and wants to have two, or when he owns a mill and wants to get ten. Clearly nobody, not even with the help of his whole family and not even if he were to live several lives, could earn a million dollars, let alone a billion, by his own work. This can be accomplished only if one appropriates the labor of others. But that runs counter to man's conscience. As you know, even in the Bible it is said that when those who bought and sold turned the temple into a house of moneylenders and changers, Christ took a scourge and drove them out.

Therefore, religious people, if they are guided, in accordance with their morals, by the principles of world peace and love for their fellow men, must not oppose the new, socialist system. For it is a system asserting the most humane and truly just relations in society.

In order for you to understand why we are so proud of our Soviet land I must say a few words about our past, before the Revolution. Our people were living a very hard life at that time: Nearly 80 per cent of the population was illiterate; hunger and disease were taking a toll of millions of lives.

This should make it clearer to you why the Soviet people are so glad that their country has in a short space of time become the second industrial power of the world. We have increased our industrial production 36-fold, wiped out illiteracy, and are now training almost three times as many engineers as the United States.



**ILLUMINATED WELCOME** in Pittsburgh's Golden Triangle. Lights were kept on far past midnight and even at that late hour there were people all along the way waiting to greet the Soviet guest.

### We'll Double Our Production

Our people would now be even better off if we had not had to spend nearly half of these 40 years on wars forced upon us and on postwar economic recovery. Let me remind you that during the war the Nazi invaders destroyed and burned down 1,710 of our cities and towns and more than 70,000 of our rural communities, leaving about 25 million people homeless. We lost many millions of people and sustained damages estimated at about 500 billion dollars.

If it were not for this terrible devasta-





**A KEY TO THE CITY** was presented to the head of the Soviet government by the Mayor of Pittsburgh. "This key will never be used without permission of the host," Khrushchev said.

**ON A TOUR** of the Mesta machine-building plant in Pittsburgh the Chairman met and stopped to talk to many workers who sent their regards and warm greetings to the Soviet people.



tion and these losses, we would probably have already overtaken the United States of America in production and in living standards.

Our people are now working on a seven-year plan. Under the seven-year plan we are to double our industrial production. During this period we are to invest the equivalent of about 750 billion dollars in the national economy.

The United States is at present the richest and economically most highly developed power. The figures for your country are the ceiling of achievement in the capitalist world. You must bear in mind, however, that the average annual rate of industrial expansion in the Soviet Union is three to five times higher than in your country. For this reason in the next 10 to 12 years we will surpass the United States both in physical production and in production per head of the population, while in agriculture this will be accomplished much sooner.

Large-scale housing construction is going on in our country. I will give you an example. In the past eight years alone more apartments have been built in Moscow than in its entire 800-year history before the Revolution. Next year the people of Moscow will get new apartments with an aggregate living space exceeding one-fourth of that of the total number of apartments in our capital before the Revolution.

During the seven-year plan we are going to build about 15 million apartments in cities and 7 million houses in the countryside. This is just about the same as building fifty new cities like San Francisco. Another not unimportant point is that our rent is the lowest in the world and amounts to only 4 to 5 per cent of the family budget.

### For the People's Well-being

We are anxious that there should be more comfortable homes and that Soviet people should get more consumer goods of high quality. Our words are not apart from our deeds. In the past six years our agriculture has increased sales of meat to the urban population threefold, and milk more than twofold.

In the near future we are going to abolish—I repeat, abolish—all taxation of the people. I think that you well appreciate the significance of this measure.

The Communist Party, the Soviet Government and trade unions care for the well-being of all Soviet people.

A Soviet citizen does not worry about such a thing, for instance, as unemployment. In the Soviet Union it is not the man who seeks the job, but the job that seeks the man.

All our children study. Not only a high-school, but college education as well, is free in the Soviet Union. The students receive scholarships from the state. In general, we are giving a great deal of attention to bringing up the children. The nursery, kindergarten, school with full board, and then a start in life—such is the bright road for the rising generation.

The merits of the Soviet system of education are well known. It is the graduates of





**SOUVENIRS.** Ken Jackey, a Mesta Plant machinist, and Nikita Khrushchev exchanged mementos after a friendly chat.

# Life of the Soviet People

Soviet schools—scientists, engineers, technicians and workers—who astonished the world with the first sputniks. We are proud that the Russian words "sputnik" and "lunik" are understood all over the world without translation.

Two million teachers and nearly 400,000 doctors look after the Soviet people's needs.

We take care of our people's health. The sickness rate has drastically diminished in our country, while the mortality rate is the lowest in the world. Every industrial and office worker and professional has an annual holiday with pay from the state. The



**GREETINGS WERE BECOMING WARMER** as the Soviet guest made the rounds of the plant. At first the workers were restrained, but as we talked the atmosphere became more relaxed, said Khrushchev.



**HAMMER AND SICKLE,** a part of the Soviet coat of arms, was improvised by lathe operator Paul Mayer from a hammer and micrometer to welcome the Chairman of the USSR Council of Ministers.

finest sanatoriums, health resorts and rest homes have been turned over for the people to rest in. Everyone in our country gets free medical treatment: the simplest and the most complex operation does not mean any expense for the patient. You sometimes do not understand certain aspects of our way of life. A Soviet citizen, similarly, does not understand how it can be that in the event of misfortune, when someone is taken severely ill and requires an operation or hospital treatment, this calls for the payment of money. But what if he hasn't got it? What happens then? Does the person lay down and die?

In our country when a person is sick and does not work he continues to draw his wage or salary. And when old age comes, he does not feel unneeded, he gets a pension from the state. Farmers get pensions from their cooperatives.

You may say: But surely all is not so fine and smooth in their country. Unfortunately, it isn't. We have our difficulties, our shortcomings and unsolved problems. I can assure you that the most emphatic and uncompromising critics of these shortcomings are we Soviet people ourselves. *(From American Television broadcast, September 27, 1959.)*

### Advantages of Socialism

Some people—blinded, to put it mildly, by their dislike of socialism and communism—are dreaming of the ruin of countries which have taken to this road of development. In his dreams, a man usually sees what he hopes for while awake, and he is sometimes disappointed when he awakens: He opens his eyes and sees the same faces and the same things he saw when he dozed off to see his unrealizable dream.

Some people often dream that Socialist Russia is the same as it was before the Revolution. But let us compare the rates of development of the Soviet Union since we overthrew the old, rotten regime, and of the United States of America, in the same period. Compared with 1913, industrial production in our country has increased 36 times over, and only four times in your country. Why are we developing our economy and culture more quickly than you? I do not want to impose my ideology on you, even though I do not hide my membership in the Communist Party, or my political views—this is well known to you. Figures themselves show convincingly that the source of our rapidly growing might is the Socialist Revolution which enabled our country to take to the road of development along which the locomotive of Soviet economy advances ever more quickly. The old Russia could not even dream of such a rate of development. You will disagree with me, perhaps. But how then will you explain the miraculous results achieved? How?

In old Russia, 76 out of every 100 people aged over nine were illiterate. Nearly eighty per cent of the children and teenagers were unable to attend school. Today all our children go to school, and there are practically no illiterate people in the country. We now have nearly forty times more specialists with a specialized secondary or higher education than there were in prerevolutionary Russia, and our higher schools train nearly three times more engineers than the higher educational establishments of America. Last year, for instance, we graduated 94,000 engineers while you graduated 35,000.

We have now worked out and made a start on a vast seven-year plan for the development of the national economy. I will mention only one figure to give you a measure of its scope: Our capital investment alone will total nearly 750 billion dollars in these seven years. Implementation of this plan will bring us close to the level of economic development attained by the United States.

Where do we get the means for all this? Where do we get the money? The answer lies in the advantages of the socialist system, for there are no miracles, you know.

It may be that some people still do not believe in the reality of our plans. But this is "ostrich" policy. When an ostrich sees that he is being overtaken, he is said to hide his head in the sand. Our development will not cease if you choose to shut your eyes to reality.

I can already disappoint those who are playing the ostrich. Do you know how the seven-year plan is being fulfilled in the first year of its operation?

Our plan for 1959 provided for a 7.7 per cent increase in production. Actually, our production increased 12 per cent in the first eight months of the year. Apparently, we shall produce more than ten billion dollars' worth of goods over and above the plan this year. Consequently, far from setting an impossible rate of economic development, our plan provides favorable conditions for industry so as not to create stresses in our economy, to ensure additional accumulation through overfulfillment of the plan,




**LARGE CROWDS** packed the streets of downtown Pittsburgh to pay their respects to the Soviet people by greeting the head of their government who came to the United States.

**THE PEOPLE OF PITTSBURGH,** one of America's biggest industrial centers, came out to greet us wherever we went, Khrushchev said in his report to the Soviet people.





# Life of the Soviet People

and make more rhythmical the work of our industries. Consequently, we can catch up with the United States in over-all economic development, and then in per capita production, more quickly than envisaged in our plans. *(From the address at the Economic Club in New York, September 17, 1959.)*

### "What Sort of Slavery Is This?"

Some people in your country are still muttering that the people of the Soviet Union are practically slaves. Now, what sort of slavery is this? Can slavery produce such an unparalleled flowering of science and art as we have in our country?

The culture of Rome, like the culture of Greece, perished because it was built on slave labor which shackled the forces, the will, the freedom of the people. Science and art can only reach their full flowering in conditions of the greatest freedom of the individual and freedom of society.

We have different conceptions on this subject. You say that profit, or, as you say, business, is the main driving power of human energy, mind and enterprise. We say something different: The main driving power is man's conscience, the conscience that he is free, that he is working for himself, for his neighbors, for his society, and that the means of production belong to the society and not to individuals who profit by exploiting other people's labor.

We are against your conception, and you are against ours. So what should we do? You go on living under capitalism, with your concerns and with everything you have! Don't help the "stray sheep from God's fold"—the Soviet people—who have chosen the road of building socialism. You yourself will only be better off if we fail and return to the kingdom of capitalism. Why should you worry if it seems to you that we are on the wrong track?

### "Time Is the Best Judge"

You have done your duty as a citizen. You have warned us that we are following a road along which, in your opinion, lies a pit into which we shall fall. That is enough, and thank you for your warning. But I want to tell you that it is not a pit that I see ahead but bright prospects, the future happiness of mankind. Some of you may think that I don't understand certain simple things. That, of course, is their business. But I also have the right to tell them that they have not yet risen to an understanding of the new thing that communist construction represents.

Where, then, is the way out of the present situation? In a brawl? It was precisely



**FAREWELLS.** After Khrushchev's visit to the Mesta Plant, a civic luncheon at the University of Pittsburgh and a sight-seeing tour, the people of the iron and steel city came to bid the guest a happy journey home and asked him to convey their warm friendly greetings to the Soviet people.

in that way that questions were settled in the past. But things were much simpler then. People would come to grips and tear out a handful of hair, a beard or a mustache, and a new beard or a new mustache would grow in its place. Now, as you know, there will be nothing to grow again should a new brawl begin. As a Russian proverb says: "When the head is cut off, who cares about the hair!"

It is precisely for this reason that we say: Gentlemen, let us live in peace, let time decide who is right and who is wrong. Time is the best judge. Such is our position. I have come here so that we may understand each other better, so that you may have a better understanding of what our people are like. I am not a delegate for diplomatic negotiations; I am a guest of the President, a guest of your great nation, and therefore I should like to speak in a way which will find reasonable decisions and settle controversial questions, so as to preclude war and ensure peace and friendship between the people of our countries and among all peoples. *(From the speech at the luncheon at 20th Century Fox studios in Los Angeles, September 19, 1959.)*

We should not aggravate our relations, we should not raise questions which will be solved by life at the proper time. Let's not quarrel about these questions. Because the more we quarrel, the tighter the strings will be pulled. We should not strain the strings but relax them so that we will draw closer to each other, be friends and do our best to secure peace in the whole world.

We want to live in friendship with the American people, with the American Government—and I stress, with the Government, not separating the people from the government—because only that way can we achieve the results for which we are striving, friendly relations between our countries, peaceful coexistence. *(From the speech at the luncheon at the IBM Plant, San Jose, California, September 21, 1959.)*

### Talk With U.S. Trade Union Leaders

Mr. Curran, President of the National Maritime Union, said that he wished, as he put it, to ask something about everyday life of Soviet trade unions.

"I was in the Soviet Union in the thirties," he said, "when we shipped the equipment you purchased. We rejoice at your technical progress. I am interested to know whether the system of collective agreements will develop along with technical progress in your industry, will the workers have the right to strike? How do your trade unions uphold the interests of the working people?"

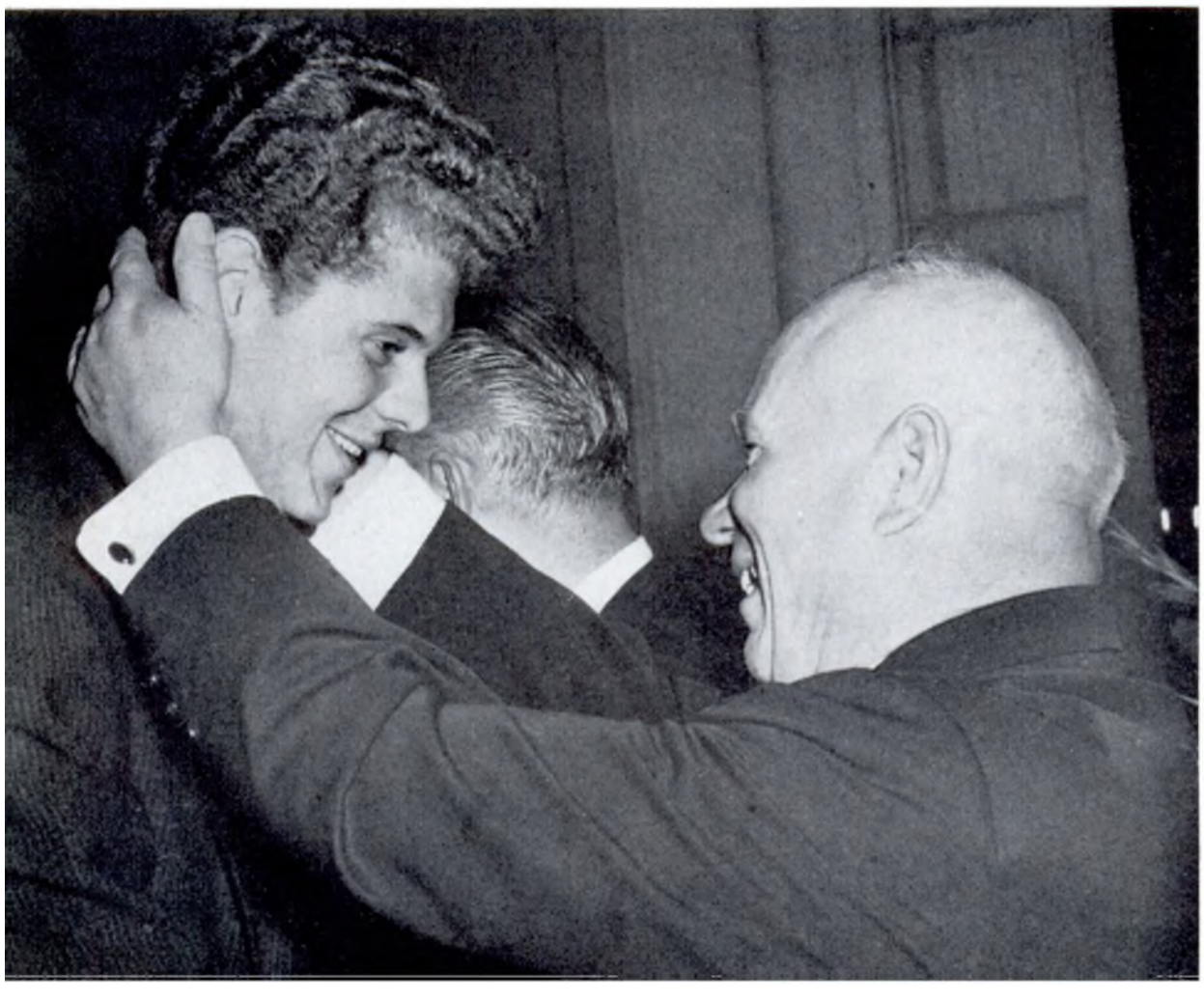
"I understand you," Khrushchev said, "I appreciate that you have a class conscious approach to questions of trade union activity. But obviously you haven't the slightest idea of conditions in a socialist state, the status of the working class and the role of the trade unions there. You measure everything by United States standards, to which you are accustomed.

"I like the forthrightness of your question and I will reply to it frankly. We had strikes in our country during the first years after the October Socialist Revolution. I myself used to go and speak with the workers during the strikes. Now our workers don't strike. Why? You will find the answer to this question yourself if you recall certain facts. In what capitalist country would the government draft plans for raising the living standards of the working



**MR. AND MRS. CYRUS EATON** were among the 1,000 Americans from different parts of the country present at the reception given in honor of Nikita Khrushchev at the Soviet Embassy on September 24. Many of them had visited the Soviet Union and were happy to renew old acquaintances.

**VAN CLIBURN,** whom Khrushchev met in 1958 when the Texan took first prize in the Tchaikovsky piano competition, was greeted with: "When you come to Moscow again, you'll be our guest."



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class without the workers bringing pressure to bear on them? It is inconceivable that in capitalist countries the workers' earnings could be raised and hours reduced without strikes to achieve this. We in the Soviet Union are tackling this job as a problem of prime urgency. The government, the workers and trade unions are working hand in hand to solve the question of further raising earnings while reducing working hours.

"This only calls for the creation of the economic prerequisites. Tentatively speaking, I believe that were our proposal on general and complete disarmament adopted, we could start going over to a six-hour day, and increase wages at the same time, not in 1964, as provided for in the seven-year-plan, but much earlier. The Soviet workers are always kept abreast of events in the develop-

ment of the national economy and know full well whether or not there are practical possibilities at the moment for further wage increases."

Speaking on the question of the exchange of information, Khrushchev pointed out that the Soviet people are for the exchange of truthful information, which would promote the strengthening of peace and international rapprochement.

"Our views on the question of exchanging information differ, just as they do on other questions," Khrushchev said, "but this does not mean that we can't find a common language on problems concerning our two nations. We say to you: Raise yourself higher and try to get a broader view of events! Come to our country and see how the Soviet workers live and work, how the trade unions operate in our country, how they uphold the workers' interests.

"We have different approaches to events; we are advancing to communism along our own road, while you wish to consolidate capitalism. So we hold different positions. Let us recognize this indisputable fact. But maybe we could try and find grounds for businesslike cooperation. We believe this is feasible. This cooperation is needed by the entire working class in the struggle for its basic interests, in the struggle for peace.

"We have come to this meeting not to sharpen relations, they are bad enough. If we hurl accusations at each other, this will not be of any benefit to the working class. Let us be reasonable, let us not touch on all the questions that divide us. Let us pool our efforts in the struggle for world peace."

### Closer Contacts Between Unions

Mr. Weaver of the United Electrical Workers asked Khrushchev what the starting point should be and how the ground for cooperation with the trade unions of the socialist countries could be found. "For our people it is important to get answers to the questions put at today's talk," he said.

"As for the points on which your trade unions have conflicting views with trade unions of the socialist states," Khrushchev replied, "you know that we have a different approach to many social events and assess them in a different way.

"To our mind, the trade unions should establish more frequent contacts. Of course, not everything can be resolved at once. However, if cooperation among trade unions begins to develop and grow on individual, even insignificant questions at first, the two nations will in the final analysis arrive at cooperative efforts. You will not be able to understand the views of our trade unions right away, any more than our trade union officials will understand you at once. This is why both sides should study each other more closely, delve into each other's activity, get to know more about each other's work. We may argue, we may not agree with each other, but if we wish to strengthen peace, to improve the workers' living standards, why should we strain our relations? Only our common enemies will stand to gain from this.



**THE NEIGHBORHOOD CHILDREN** wouldn't let Nina Khrushchev get away without a handshake when she was invited to drop in at the suburban home of John Armitage, a State Department employee.

"Do you want to change our social system? I hope not! Nor do we want to interfere in your home affairs—to try and change the system you have. We have always said, and we now say: Let us be tolerant toward each other. Although we are divided on many questions, we have a common cause for the sake of which we should pool our efforts—that is, the struggle for peace. The peoples want peace and they are fighting for it.

"As for the concrete questions of the trade union movement, to be frank, I have never worked in this field and I am not an expert. But we have experienced trade union officials. Why don't you contact them?

"They will not try to convert you into communists. I believe that you, too, will not make them advocates of capitalism. But an exchange of views between you would undoubtedly be useful." *(From the talk with American trade union leaders in San Francisco, September 21, 1959.)*

### All Nationalities Are Equal

*Question:* There is much interest in the United States in the position of various nationalities in the Soviet Union, including the Jewish population. Could you say a few words about that?

*Khrushchev:* In the Soviet Union there is no national question as it is understood here. All nationalities live in friendship, all enjoy equal rights. In our country the attitude to a person is not determined by his nationality or religion. That is a matter of one's own conscience. First of all we are concerned with man as such. In our






**MEETING WITH THE NEWSMEN** whom Khrushchev jokingly called his "sputniks." An unprecedented number of American and foreign journalists—more than 2,500—covered this history-making mission.

# Life of the Soviet People

country all nationalities—Russians, Ukrainians, Turkmenians, Uzbeks, Kazakhs, Byelorussians, Georgians, Armenians, Kalmyks, Jews—if I enumerate all the peoples of the Soviet Union the time allotted for the press conference will be too short—all of them live in peace and accord.

We are proud of the fact that such a multinational state as the Soviet Union is strong and is developing successfully. All the peoples of our country trust each other and advance in a single column toward a common goal—communism. The position of the Jewish population, in particular, may be seen from the following fact, for instance: Among those who created the conditions for the successful launching of the moon rocket Jews also occupy a worthy place. *(From the answers to questions at the National Press Club in Washington, D.C., September 16, 1959.)*

### "Ours" Is Replacing "Mine"

*Question:* Was it a mere coincidence that the Soviet Union launched its moon rocket on the eve of your arrival here? Does the sending of the pennant to the moon mean an intention to claim the right to the possession of the moon?

*Khrushchev:* The coincidence of my trip to the United States with the sending of the Soviet rocket to the moon is a simple but, I would say, pleasant coincidence. If anyone of you is in doubt about this coincidence, I would advise you to ask your own scientists to explain what is involved. Go ahead, tell them to time the launching of a moon rocket to such and such a date and see what comes of it!

Now, gentlemen, I should like to answer the second part of the question which has been put to me, that is to say, whether the delivery of the pennant to the moon will give the Soviet Union reason to claim some kind of a property right to the moon. Please get me right, I do not want to offend anyone; we hail from different continents and we have different psychological outlooks.

Those who put the question this way are thinking in terms of private capitalist psychology, and I am a man of the socialist system, of a new world outlook and of new conceptions. And in our country the conception of "mine" is withering away and a new concept of "ours" is striking root. Therefore the launching of a rocket into space and the placing of our pennant on the moon we regard as our achievement, and in saying "our" we mean the countries of the whole world, that is to say, we mean that it is also your achievement, an achievement of all people inhabiting the earth. *(From the answers to questions at the National Press Club in Washington, D.C., September 16, 1959.)*

### We Value Man

*Question:* Mr. Khrushchev, we are always trying to get advance information from you and therefore I should like to ask when you intend to toss a man up to the moon?

*Khrushchev:* You have used a rather unhappy expression, "to toss up a man." We do not intend to toss up a man because we value man very much and shall toss up no one.

We shall send man into space when the necessary technical conditions are created. So far such conditions do not exist. We do not want to "toss up" in such a sense. Tossing up is something like tossing out. We value human beings very much. *(From the answers to questions at the National Press Club in Washington, D.C., September 16, 1959.)*

### "One Road and One Goal"

*Question:* You said in your speech [at the National Press Club in Washington—Ed.] that there should be no interference in the internal affairs of other countries. How do these words tally with Russian interference in Hungary's affairs?

*Khrushchev:* You see, the so-called Hungarian question has stuck in somebody's throat like a dead rat: distasteful as it is, they can't spit it out. If you want to channel our conversation in that direction, I can present you with more than one dead cat. And it will be fresher than the question about the well-known events in Hungary.

As for Hungary, I have spoken quite comprehensively about that in my speeches. With especially great pleasure and happiness I gave my answer to the Hungarian people when I was in Hungary as a guest, representing there our valiant Soviet Union. That was soon after the Hungarian events.

All Hungary applauded us, so I know no other way of expressing better the true attitude of Hungarians to the Soviet Union. We have long since solved all questions with Hungary and are advancing victoriously onward in one column. They are building socialism and we, communism.

Our goals coincide, we have one road and one goal.

Furthermore, I can say that I shall not pose counter questions of such a kind since I came to the United States with different purposes, I came with good intentions and an open heart. I did not come to ferret out various questions to worsen the relations between our countries, between our governments, but to improve the existing relations, to remove, if I may say so, from the road the stones which prevent our countries from becoming closer to each other.

Therefore I do not want to do anything that would run counter to this main purpose—that of improving the relations between our countries and ending the cold war, anything that would interfere with ensuring friendship and the consolidation of world peace. *(From the answers to questions at the National Press Club in Washington, D.C., September 16, 1959.)*

### We Help Other Countries

The Soviet Union would also be prepared to join other powers in rendering economic assistance to the so-called underdeveloped countries by using a part of the means that would be made available in the Soviet Union and other states by the conclusion of an international agreement on disarmament and the reduction of military budgets. We have already stated our readiness to assume such undertakings, and I am empowered by my government to say this again from the rostrum of the General Assembly. *(From the address at the United Nations General Assembly, September 18, 1959.)*

We are not waiting for a disarmament agreement. Even now we are giving extensive economic aid to underdeveloped countries. On the one hand, we aid them through the United Nations: with funds, medicines and food. On the other hand, we give them aid on a bilateral basis.

In India we are helping the government to build an iron and steel mill, chemical and engineering plants, and pharmaceutical factories. We are giving the Indian government loans, providing it with projects of industrial undertakings, sending our specialists to help the Indians, and training engineers, technicians and skilled workers for the operation of the undertakings under way. We are also rendering considerable assistance to the Arab and African nations. The Soviet Union is known to be giving friendly assistance to Cambodia, Burma, Ceylon, Ethiopia and other countries.

The Soviet Union has never exploited anyone, nor does it exploit anyone now. It gives the underdeveloped countries assistance as a friend, without attaching any political strings to this aid. For instance, we have shipped thousands of tons of grain to Yemen. But that country is a kingdom and has no socialist system. Is this selfish aid? What do we get from it? We don't make capital out of this. We simply act as friends. *(From the talk with American trade union leaders in San Francisco, September 21, 1959.)*



**SECRETARY OF STATE** Christian Herter was the host at a luncheon given in honor of the Soviet guest upon his return to Washington from the cross-country tour. Next day Mr. Herter, together with USSR Foreign Minister Andrey Gromyko, went to Camp David to take part in the meetings of the heads of government. They did a useful piece of work, Khrushchev commented later.

# For Peace and Friendship

Speaking figuratively, relationship between two such great industrial powers as the Soviet Union and the United States can be pictured as movements along parallel lines. You move along your own line and we move along ours. Some people would, perhaps, be content with this course of development. Of course, using this parallel of separate development would be better than quarrels and conflicts.

But this relationship between our countries can be visualized in still another way: somewhere, at some point, let us say, these lines draw nearer. In other words, contacts are established, and economic, cultural and scientific exchanges are started. We favor such developments and are prepared to open our technical achievements to you, making no secret of them. You would act likewise with respect to our country.

True, such an approach is not generally accepted. In your country everyone keeps technical secrets to himself and will not disclose anything even to his own neighbor, to say nothing of another country.

What then is to be done? We suggest approaching the matter simply on the basis of mutual benefit. Although our peoples live differently and adhere to different ways of life and have different customs, we still have to live under the same sky. Although the climate in your country is milder and warmer, the political cold stems from you, not from us. It is true that Northerners are not afraid of the cold but still we would like a more favorable wind, strong and not cold, to blow in the world.

Neither you nor our people want war, so let us live like good neighbors. As we say in our country, "To live in the world is to live in peace." Let us base our relations on the principle of peaceful coexistence. This could not give you advantage over anyone. Nobody's vanity suffers from this, nobody loses; everybody stands to gain from it.

A good start has been made; both sides are exchanging high-level visits. My visit to the United States and the forthcoming visit of the President of the United States to the Soviet Union will help us, we are confident, to come to know and understand each other still better and to find a way to cooperation. If both of us have the will for this, there will be a way.

The slogan to overtake and surpass the United States has become very popular in our country. Some of your fellow countrymen have even been scared by this slogan. They see in it a threat to America. But what threat to you Americans can this slogan contain? Our economic interests do not clash anywhere. Is not our country engaged in large-scale peaceful construction, interested in a reliable and stable peace, in the development of comprehen-



**HISTORIC TALKS.** Chairman of the USSR Council of Ministers Nikita S. Khrushchev and President Dwight D. Eisenhower walk to the helicopter that took them to Camp David for their discussion.

# For Peace and Friendship

sive economic, technical and trade contacts with other countries? Of course it is.

Could not countries that are highly developed industrially render serious and ever-growing assistance to the economically undeveloped countries? I want to assure you that the aim of our seven-year plan is a peaceful one. Our plan is designed to improve the life of the people.

Regrettably, we live at a time when not all of the steel is smelted for peaceful purposes. How happy the peoples of our countries and the peoples of the whole world would be if all of the steel that is smelted here in America, and particularly here in Pittsburgh, and in the Soviet Union, as well as in other countries, were used for peaceful purposes.

I think you will agree with me if I say that even if we have two lives we should devote them solely to this great and noble task, the consolidation of peace among nations. One of our prominent sculptors created a stirring piece of sculpture called "Let us beat our swords into plowshares." This is a very good sculpture which deservedly attracts everybody's attention. It represents a blacksmith beating a sword into a plow. If any of you visited our exhibition in New York you might have seen this talented work of art. The sculptor succeeded in embodying into bronze what is now the thought and creed of millions upon millions of people. Is it not time, ladies and gentlemen, to send the stocks of arms to the open-hearth furnaces for remelting?

### Cold War Must Be Outlawed

Is it not time to beat tanks into tractors and guns into threshers and direct all the power of the atoms to peaceful purposes only? As regards the Soviet Union, I have already said in the United Nations that we are prepared to do so today.

We live in a rather complicated international situation although at times there are bright gaps in the gloomy sky. Are we not living through such days now?

The state of international relations over the recent years was correctly named the cold war. Under conditions of tension the cold war may easily turn into a hot war, into a very hot one, a nuclear war which could not only burn but also incinerate. The surest way to avoid this unenviable proposition is to destroy the means of war, to beat swords into plowshares. We propose that the cold war be outlawed everywhere and for all times to come.

True, there are people who are interested precisely in the opposite. They are afraid that if there are no war orders peacetime production will yield no profits. They fear that the termination of the manufacture of arms and the switching over to peaceful trade may constantly keep industry and the entire economy in a state of fear, but this mood springs from lack of foresight. Such people live according to the principle of not looking farther than their own noses.

Believe me, if it comes to using the arms now manufactured, not only the profits derived from the production of armaments but even very many of their owners will perish in the flames of war. Please understand me correctly, I do not want to reproach anyone, I am merely trying to stress the idea that even witches can be used only when they do not turn into cinders and ashes. It is no secret that special responsibilities for the preservation of peace rest with our two countries.

### Ensure Mutual Confidence

Just think how international relations would look if the United States, the biggest and mightiest country of the capitalist world, and the Soviet Union, the biggest of the countries of socialism, established good relations, or still better, relations of cooperation which we would like to develop into friendship.

I agree with Mr. Eisenhower, who once wrote that, given mutual confidence be-

tween America and the Soviet Union, no other differences between states would present a threat to universal unity and peace. These words were written soon after the termination of World War II in which he had played so outstanding a part. Now Mr. Eisenhower is President of the United States of America. Why should not these good ideas be realized?

We, for our part, are prepared to do everything to insure mutual confidence between America and the Soviet Union and thereby continue to ensure peace on earth for all peoples. There are no serious obstacles to our two countries living in peace and friendship. There are, of course, ideological differences between our two countries, but they present no obstacles. These differences existed during World War II but they did not prevent us from being good friends, nor should they prevent the pooling of our interests now in the struggle for peace on earth.

We are encouraged by the fact that people here in the United States also are beginning to incline to the same ideas, and the more such people there are, the better. We should understand each other well. We do not ask for peace, we merely consider that peace, not war, is the natural state of mankind.

Because of my visit to the United States, various guesses have been made in some countries as to the purpose of the exchange of visits between representatives of our countries. It has even been alleged that Khrushchev intends to divide the world between himself and Eisenhower. I must state that such assertions are absolutely groundless and absurd.

These people's reasoning is the reasoning of highway robbers, and their way of thinking is that if you are strong, grab everything you can. But our morals are quite different. Our strength serves only the good of our people and of other peoples and we use our strength to ensure peace and universal security, to serve no other aim.

The exchange of visits and our talks on the question of the international situation and on Soviet-American relations are useful, not only to our two countries but to all the other countries as well. The settlement of at least some of the outstanding issues between the Soviet Union and the United States of America cannot fail to influence favorably the entire international situation and the relation of our countries with all countries, big and small. *(From the address at the University of Pittsburgh, September 24, 1959.)*




**AT CAMP DAVID** in Maryland's Catoctin Mountains, Chairman Khrushchev and President Eisenhower began their exploratory discussions on how to solve the problems that have divided the two countries.

### Respect for Each Other

We know that the Americans are a freedom-loving people and that they are ready, as in the past, to stand up for their convictions, for the right to live as they see fit. These sentiments are close to the Soviet people as well. If you claim this right for yourself, you cannot deny it to others, whatever opinion you may have as to whose state and social system is better. The question of how to live and what ideology and views to have should be settled by the peoples themselves, without any outside interference.

The Soviet Union stands for the development of relations between states on the basis of the principles of peaceful coexistence. These principles were bequeathed to us by Vladimir Ilyich Lenin, the great founder of the Soviet state. And we are true to these principles. We consider that the relations between states should not be marred by differences in outlook. All countries should also have close economic and cultural contacts among themselves. This will enable the peoples and their statesmen better to know and understand each other. This will make for the establishment of mutual trust and peaceful cooperation.

The Soviet Union and the United States are faced with this alternative: either the latest achievements of scientific and technical thought—the discovery of the secret of the atom, the development of rockets and the penetration of outer space—will be placed in the service of a peaceful future and the prosperity of mankind, or they will be used for the purpose of destruction and annihilation and, as a result, the earth will be covered with ashes and graves.



**IN HIS TELEVISED FAREWELL SPEECH** Nikita Khrushchev said that the improvement of our relations would require mutual desire and efforts to solve the problems which divide us.



**VICE PRESIDENT NIXON,** on behalf of President Eisenhower, wished Chairman Khrushchev a pleasant journey as he was about to board the TU-114 turbojet for the trip to Moscow.

# For Peace and Friendship

### Meet Each Other Halfway

The Soviet people have long made their choice for peace.

We are convinced that the American people also are for peace. But if our interests coincide in this, the most important question, the question of ensuring peace, we must keep in step, and, pooling our efforts and energy, press for a radical turn in the climate of international relations. Let us consider, then, how to effect Soviet-American cooperation.

As for the Soviet Union, it is prepared to consider any proposal which might help toward the establishment of good-neighbor relations between our two countries. Naturally, efforts are required on both sides or, as you say, it is necessary for each side to meet the other halfway.

This, of course, cannot be done all at once. It would be naive to think that we would find, one fine morning, that all disputes have been resolved and all differences ironed out. Too much misunderstanding and prejudice born of the cold war have accumulated for this. But the Soviet Government believes that if we all work hard together, the storm clouds in the relations between our countries can well be dispersed. *(From the address at the National Press Club in Washington, D. C., September 16, 1959.)*

### For Peaceful Coexistence

History shows that the Soviet Union and the United States did not have in the past, and do not have now, any territorial disputes to interfere with good friendly relations between them. It is also well known that among the Americans there are quite a few people who want good relations with our country.

The peoples of the Soviet Union sincerely want to strengthen and develop friendly relations with the American people. You know that in the past there have been quite a few good examples of friendly cooperation in the relations between our countries. In the years of the Second World War the Soviet Union and the United States fought shoulder to shoulder against the common enemy which threatened all mankind. And that accelerated victory and brought peace, the benefits of which are enjoyed by all nations. Soviet people want the experience of friendly cooperation between the peoples of our countries to be consolidated and extended still further in present-day conditions in the interests of strengthening peace.

We stand for an improvement in Soviet-American relations in the belief that this accords with the interests of both countries.

The establishment of friendly relations between our countries would be a big step toward strengthening universal peace and good relations among all peoples. All mankind now pins great hopes on the Soviet Union and the United States making a big contribution toward the settlement of the major problems of our time, to the strengthening of the cause of peace.

If we succeed in improving relations between our countries, in arranging mutually profitable trade, in extending still further cultural, athletic and other contacts, we shall thereby be making a big contribution to the cause of easing international tension, to the cause of peaceful coexistence, of strengthening world peace. And this in turn will have a favorable effect on the life of all peoples, of all mankind.

### Defend the Cause of Peace

During our stay in the United States we have had many interesting meetings and talks with representatives of various sections of the American people. These meetings and talks show that the American people do not want war, that they crave for peace. We have heard many kind words addressed to the Soviet people, many friendly good wishes. We are appreciative and grateful for the expression of these sentiments and, for our part, we assure you that the Soviet people are looking forward to President Eisenhower's visit to our country and will welcome him in a worthy manner.

In concluding my speech I should like to proclaim once again the unshakable determination of the Soviet people to defend the cause of peace and to improve and develop friendly relations and cooperation between our countries, between the peoples of all countries. This is the aim of the proposals for general and complete disarmament submitted by the government of the Soviet Union to the United Nations. The Soviet proposals for the signing of a peace treaty with Germany serve the same purpose. In our opinion these problems are not insoluble, naturally given a desire to settle them. And where there's a will there's a way. These problems can be solved because all peoples have a common goal—the most noble and vitally important goal—to preserve peace.

### Develop Friendly Cooperation

For the sake of attaining this lofty goal all nations must make efforts and display a maximum of desire. What is essential is the cooperation of all the countries of the world and, above all, cooperation between our two countries so that a thaw may set in and the ice of the cold war may finally melt away. It is an ill wind that blows nobody any good. May the winds of peace and friendship blow over the fields and may clouds appear in the sky only when a good rain is needed for a rich crop! May two words—"peace" and "friendship"—emblazoned on the banners of both of our peoples guide the minds and actions of our governments! *(From the Speech to Des Moines Chamber of Commerce, September 22, 1959.)*



**I THANK AMERICAN PEOPLE** from the bottom of my heart for their kind hospitality. I hope that in our relations we will use the good American word Okey more often.




# A NEW PAGE

## Soviet Press

A VISIT which will go down in history—this was the headline of an editorial on Nikita Khrushchev's tour of the United States published in *Pravda*, main organ of the Communist Party and the most widely circulated newspaper in the country. Voicing the heartened feeling which the Soviet people experienced during the tour of the Chairman of the USSR Council of Ministers, *Pravda* wrote: "The warm welcome given to the Soviet guest in the United States is convincing proof that there are no insurmountable obstacles in the way of establishing good-neighbor relations between the world's two biggest powers."

The Soviet Union and the United States, with their economic, political and military weight, have a great influence on the international climate. This helps explain why everyone concerned for the future of the world anxiously awaited the outcome of the talks

# IN SOVIET-AMERICAN RELATIONS

## comments on N. Khrushchev's American tour

between Nikita Khrushchev and Dwight Eisenhower. Reflecting public opinion, the *Pravda* editorial said:

"The Soviet people were gratified to learn that this exchange of views was friendly and frank and that in many matters considered the participants displayed the same awareness of the critical nature of the current international situation and the necessity for improving Soviet-American relations. Everyone who holds the cause of peace dear welcomed the Joint Soviet-American Communique which recorded the major results of the exchange of views between Khrushchev and Eisenhower. People in all countries are particularly gratified by the agreement between the leaders of the two great powers that all outstanding international issues should be solved by peaceful means, through negotiations rather than by use of force."

The Soviet press unanimously hailed the wise statesmanship of the leaders of the two great powers when they jointly proclaimed that all problems in dispute should be settled by peaceful means. The newspaper *Izvestia*, the official organ of the Soviet Government, wrote that this "has opened a new page in Soviet-American relations and bright prospects for rapprochement between our two nations. It is a step that leads toward a relaxation of international tension generally."

The Soviet people want to live in peace and friendship with all nations of the world. They hate the cold war and are in favor of peaceful competition in every field of human endeavor which will redound to the people's good. They are in favor of the development of international trade without any limitations or restrictions, of wide scientific and cultural exchanges. That is why all Soviet people give their full support to the principle of peaceful coexistence of countries with different economic, social and political systems, the principle which was repeatedly explained by Nikita Khrushchev during his American tour.

The newspaper *Trud*, main organ of the Soviet trade unions, wrote: "We want peace and friendship with the American people. The only wish we have is to see the sky over our heads clear of the cold war clouds, to see the gardens bloom, to see the cities grow, to see the children happy and to be sure that neither our children nor our grandchildren will ever hear the thunder of guns or the explosion of atomic bombs."

This thought in one form or another was echoed from every corner of the country, by all kinds of people. Letters from readers poured in by the sackload to every Soviet newspaper and magazine. On the eve of Nikita

# Soviet people hail N. Khrushchev's visit to the United States

## Beat Swords Into Plowshares

**Yevgeni Vuchetich,** *Sculptor*
Moscow

NO ONE ON EARTH hates war as much as our people do, a nation that experienced incredible sufferings and losses as a result of war. And when the head of our government flew to America the people said to him with the voice of their hearts: "May success be with you." We followed his visit with a feeling of special pride for our country. We admired the great dignity with which he defended our ideals.

The entire world listened to Nikita Khrushchev's speech on disarmament at the United Nations General Assembly. The entire world applauded him, the man who from that lofty tribune expressed the thoughts and hopes of all peoples. And we believe the hour is near when all nations will beat their swords into plowshares.

I tried to express this idea in one of my sculptures which reflects the spirit of our people. I am proud that this sculpture was chosen for display at the Soviet Exhibition in New York last summer.

Ours is an epoch-making time, and we artists have a great responsibility. I would even go so far as to say that we Soviet artists owe a debt to our nation, the nation that landed a rocket on the moon and sent another rocket around it. That nation has every right to demand of their artists equal daring if not equal feats.

We cannot help but think of the historical destiny of mankind, for this destiny to some degree depends on us, too. We do not merely create spiritual values. Through our art we speak to the masses, influence their consciousness, move their hearts and stimulate their thoughts.

## We Must Coordinate Our Efforts

**Ivan Artobolevsky,** *Member of the USSR Academy of Sciences*
Moscow

WITH all my scientific colleagues in the Soviet Union, I subscribe to the earnest hope that the visit of Nikita Khrushchev to the United States will serve to ease the dangerously tense atmosphere in which the world has been living these past years.

During my stay in the United States last year at the invitation of the Friends Service Committee, I had the opportunity to talk to people of all walks of life—scientists, students, workers. The recurring theme of our talks was peace, how we can strengthen our contacts.

Soviet scientists consider their exchanges with colleagues abroad of vital importance to their own research and to the progress of science for peace generally. The USSR Academy of Sciences through its various divisions is in close touch with more than 165 scientific institutions in the United States. We are always happy to welcome visiting colleagues from the United States and to share our findings. The agreement on scientific exchanges concluded in July between the National Academy of Sciences of the United States and our Academy of Sciences opens even wider prospects.

Both our countries have done new and altogether unprecedented scientific work, and we have much to learn by comparing notes. On my visit I saw that American scientists and engineers are working on many of the problems that also engage our attention. How much we could learn, how much we could give the world, if we worked alongside each other, in a coordinated effort.



# *Soviet press comments*

Khrushchev's departure for the United States *Izvestia* wrote that "he has truly boundless support for his mission. Millions of friends of peace are with him in thought. With him are the hopes of all human society."

Many of the letters published in Soviet newspapers and magazines pointed to the paradox —a happy paradox this one—that two soldiers of World War II, Khrushchev and Eisenhower, were meeting as envoys of peace. Semyon Shapirin, a steelworker from Stalingrad, speaks for every war veteran in his letter to *Trud*. "I shall never forget the horror of the Stalingrad battle when people perished in the conflagration and bomb explosions, and the fruits of our labor were destroyed." Shapirin writes that in the time of common danger the

# *Interviews with Soviet people*

## Joint Discussions Are Helpful

**Yuri Zavadsky,** *Theater Producer*
Moscow

A NEW ERA in Soviet-American relations, or at least the beginning of a new era—this is one of the main results of Nikita Khrushchev's visit to the United States. We believe that this will be an era of stable peace and real friendship between our nations.

For people who work in the arts, peace and friendship have special significance, since art as a means of communication between peoples cannot develop in an atmosphere of hostility and suspicion. We must get to know each other, get together and discuss problems that disturb us. This is possible only in an atmosphere of peace and friendship.

May there be more meetings between the leaders of states, more personal contacts of workers in various fields. The more meetings and contacts there are, the warmer and better will relations between nations be.

## Our Common Enemy Is War

**Sergei Kuznetsov,** *Collective Farmer*
Moscow Region

THERE is not a single family in our village that did not lose someone near and dear during the last war. There is nothing more precious to us than peace, and on his visit to America, Nikita Khrushchev carried with him our heartfelt yearning for peace.

I fought in a tank regiment and was wounded three times. I saw action at the Oryol-Kursk Front and participated in the Battle of Berlin. I met our American allies at the Elbe crossing during the last days of the war. We spoke different languages but we understood each other very well in spite of that.

There was understanding and friendship in the way we shook each other's hands. Let's clasp hands again in the common fight for peace.

## World Without Fear

**Vera Aripova,** *Seamstress*
Moscow

I WAS AMONG those who welcomed Nikita Khrushchev home on his return to Moscow from his American trip. Many people had gathered in the streets. They stopped Khrushchev's car and showered it with flowers. The sun shone brightly and people who came to meet him were all filled with joy.

The Muscovites warmly congratulated Khrushchev on the successful visit to the United States. I am happy that this trip helped to improve relations between the Soviet Union and the United States and lessened international tension.

I should very much want this visit of Khrushchev's to mark the beginning of a new period in the life of all people on earth, a period without wars, when our children will know what guns look like only from the pictures in their history books.

## In Spite of Differences

**Mikhail Kolpakov,** *Farm Machine Operator*
Moscow Region

IT'S ALWAYS BETTER to argue than to fight, and it's better still to agree. This is the way to peace and friendship between those who have different opinions. All of us here on our collective farm believe it was very wise statesmanship when Khrushchev and Eisenhower declared that all disputes should be resolved through peaceful negotiations and not by the use of force.

We must meet more often, and I mean not only our statesmen but ordinary people as well. This will be of mutual benefit to both our nations.

Once our collective farm was visited by a group of American farmers. They seemed to be quite interested in the way we live and work. We also found much of interest in what they had to tell us. Both the guests and hosts borrowed some valuable practical ideas from each other, and this exchange of experience was very useful to both of us.

Our American guests did not become collective farmers after our talks, and we did not accept what they call free enterprise. They like their system, we prefer ours. We both uphold our beliefs. But this difference of opinion should not prevent the further development of mutually beneficial personal contacts. We believe these contacts will help us get to know each other better and will build friendly relations.

friendship between the Soviet and American peoples saved mankind from fascist barbarism.

The Soviet people are busy with peaceful construction. Everyone's thoughts are concentrated on the seven-year plan, a plan for great progress in the country's economy and the well-being of the population. Both the people and the government wish to use the resources of the nation—material and mental—for the successful fulfillment of this peaceful program and not for the armaments race.

"Let us beat swords into plowshares"—this is perhaps the major theme of press comments on the Soviet proposal for general and complete disarmament proclaimed by Nikita Khrushchev at the United Nations General Assembly. The feeling of deep satisfaction voiced by millions of people was reflected in this editorial comment in *Pravda:* "The heads of government of the Soviet Union and the United States singled out universal disarmament as the most crucial problem now facing the world and expressed their willingness to exert every effort to find a constructive solution to this problem."

Elimination of the cold war, with its atmosphere of mutual suspicion and mistrust and the arms race it engenders—this is a unanimous demand of ordinary people the world over. They believe that Nikita Khrushchev's visit to the United States and the forthcoming visit of Dwight Eisenhower to the Soviet Union will help create a healthier climate in international relations. "May this exchange of visits," reads an editorial in the newspaper *Sovietskaya Rossiya*, "crush the ice of the cold war with the same force with which our atomic icebreaker *Lenin* will forge its way through the Arctic ice and with the same speed with which our space rockets raced to the moon."

Apart from editorial comments and letters from the readers the Soviet press reports on countless meetings all over the country at which people discuss the results of Nikita Khrushchev's visit to the United States.

There are different approaches to various aspects of this visit reflecting different occupations or personal interests. There are different opinions on one or another detail. But all



## Peace for Our Children's Happiness

**Anna Martynova,** *Seamstress*
Moscow

I AM THE MOTHER of three children. All my sons have received an education and are now working for the good of our country, for their own happiness. There are other mothers like me in the shop who also want happiness for their families.

When we mothers—whether here in the Soviet Union or in any other country—speak of our children's happiness we mean first of all peace for their future. War can only bring us new horrors, and peace is associated in our minds with new successes in building a more prosperous life. This is the major aim of our seven-year plan.

We need peace to achieve our goals. And since the talks between Khrushchev and Eisenhower, the prospects for a more peaceful world have become much brighter.

## Feelings of the Plain People

**Ustinia Sokoreva,** *Charwoman*
Irkutsk

I WANT to thank Nikita Khrushchev for his solicitude for the plain working people, for our peaceful life. I know that when he went to America he had in mind the happiness of all people. He suffered along with all of us many losses in the past war. He lost a son and I lost my daughter Tatiana, a volunteer.

May we never go through sufferings and disaster again. We plain people will not permit war.

## There Is No Reason for Mistrust

**Nikolai Yelizarov,** *Collective Farmer*
Ivanovo Region

WE have nothing to fear from the American people, just as they have nothing to fear from us. We want to live in peace and friendship with the people of the great trans-Atlantic power. After the war a black cat crossed the path between our two countries. But there is no reason for mistrust. Now it's time for mutual suspicion to be replaced by good friendship.

## No More War Orphans

**Oksana Esaulova,** *Teacher at Children's Home*
Moscow

MANY OF OUR CHILDREN lost their parents during the war. Perhaps that is why I so deeply hope that the thunder of war will never again roar over the earth. I am a mother, and it is terrible to think that I may lose my son. A new war will mean the death of millions of people. That is why when we learned of Nikita Khrushchev's visit to the United States we felt as if a warm breeze had blown over the earth.

I tried not to miss a single word of what Khrushchev said when he was in the United States. It sometimes seemed to me that he had read my thoughts and wishes.

Soviet people sent a rocket to the moon and built an atomic icebreaker. Every day is like a step into a radiant future. We want lasting peace. We want to be friends with all peoples. If the proposal of the Soviet government on universal disarmament is accepted, our people will achieve even greater success, mothers will feel easier about their children, and there will be no more war orphans. That is my dearest wish.

## U. S. Merchant Ships Welcome

**Vasili Machkovsky,** *Seaport Dispatcher*
Leningrad

THE LONGSHOREMEN OF LENINGRAD followed with keen interest Nikita Khrushchev's visit to the United States. Our discussions about his tour were especially lively when we read about his meeting with the longshoremen of San Francisco. Of course we were pleased that the head of our government received a warm welcome there and had friendly talks with the port workers and their union leaders. When he conveyed the Soviet workers' greetings to them, they included greetings also from the longshoremen of Leningrad to our fellow workers in America. And we felt that part of their greetings were addressed to us here in Leningrad.

We port workers and sailors of the merchant fleet have special reasons for wanting the cold war to end since all the activity of our port depends on the development of international trade.

We trade successfully with dozens of countries. Our country imports a great deal and also exports a tremendous quantity of goods which other countries want to buy. Every month we see in our port more and more ships flying foreign flags. We shall be glad to welcome American merchant ships as well.




# *Soviet press comments*

participants of these discussions are unanimous in their endorsement of this historic mission. They wholeheartedly approve it as a new and most important contribution of the Soviet Union to the cause of peace and friendship between the nations.

When people discuss the results of the visit —whether privately or at public rallies—everyone speaks his mind. Here is what Yulia Tumanova of Samarkand had to say: "Every person, not only in our country but throughout the world, who has something he cherishes on our planet—a country of which he is proud, or people dear to him, a hobby he enjoys, a city he loves, or even trees he has planted—cannot but rejoice over the visit of Khrushchev to the United States and the forthcoming visit of Eisenhower to the Soviet Union, because the exchange of visits between the leaders of such powerful countries as the USSR and the USA promises better understanding."

Improvement in Soviet-American relations is associated in the minds of people with the quest to get to know each other better through broader exchanges in every field.

"There have been several exchange visits of agricultural specialists between our countries this year. We want to trade experiences and ideas on a much wider scale than now," said Yevgeni Chekmenev, Deputy Minister of Agriculture. A similar desire for more personal contacts, for coordinated efforts in solving problems, for wider exchanges in general was voiced by scientists, engineers, doctors, artists, educators and specialists in other fields. "Art brings people closer together and helps make friends. Further exchanges of artists are sure to benefit both our countries," said Nadezhda Nadezhdina, director of the Beryozka Dance Company which toured America last year.

# *Interviews with Soviet people*

## Truth About the Soviet Union

**Valentin Katayev,** *Playwright*
Moscow

WHAT did Nikita Khrushchev take with him to the United States? First of all, the finest sentiments of the Soviet people for the American people. He took with him an olive branch of universal peace, so needed by mankind tormented by the danger of a world war, the most horrible of all wars imaginable.

But the main thing is that Khrushchev took along with him to America the truth about the Soviet Union, the great truth about the people of a country of victorious socialism, about a people whose epoch-making achievements in a short time converted backward Russia into one of the greatest industrial powers of the world, a country which is engaged in peaceful competition with America and is sure to surpass it.

## A Step in the Right Direction

**Yakov Romas,** *Member of the USSR Academy of Arts*
Moscow

I HAD THE PLEASURE visiting New York and Washington recently. My chief impression after this trip can be expressed in the few words: The American people do not want war. The Americans can also rest assured that my people, who experienced all the horrors of the fascist invasion during World War II, are striving for peace.

I consider that Nikita Khrushchev's visit to the United States and the Soviet-American talks fully correspond to the hopes of both our nations. This visit, it seems to me, is a significant step toward easing international tension and strengthening world peace and the security of all peoples. It is another example of the Soviet Union's sincere desire to live in friendship with every nation.

## Our Countries Can Live in Peace

**Mikhail Finagin,** *Printer*
Moscow

OUR PRINTING PLANT turns out reading matter of different kinds. I happened to like especially two jobs I worked on in the last couple of months. One was a two-volume edition of selected works of Ernest Hemingway with a printing of 300,000 copies. The other was a reprint of an article by Nikita Khrushchev "On Peaceful Coexistence" which appeared first in the American magazine *Foreign Affairs* and then was published in Russian in booklet form just before his trip to the United States.

About Hemingway—like most Soviet people, I'm interested in American authors because our countries have so much in common in spite of differences in political ideas. I read a good many of the American writers that our printing plant puts out in translation.

And I liked the article by Khrushchev because it shows how, in spite of our differences, our two countries can live together peacefully and compete in the production of food and books instead of atom bombs.

## Come and See for Yourself

**Ivan Vasilyev,** *Taxi Driver*
Moscow

MY JOB is to drive people around the city, and since Moscow always has a great many visitors from other parts of the country and from abroad, I have a good chance to hear the different opinions people have on events of the day. During September I had as many passengers as usual, but I would not say I heard much difference of opinion on Nikita Khrushchev's visit to the United States. Everybody agreed that it would help establish better understanding between our countries.

As I see it, we should have more contacts, and not only between statesmen but also between ordinary people. We always welcome tourists from other countries in our capital, and we should like to meet even more guests in the future. Come and see for yourself how we live. It will be a great pleasure to show our every guest around.

I think American tourists would be interested in seeing both the historical monuments and the everyday activity of the city. People who have come here all seem to be astounded by the amount of construction that's taking place. We are building for peace and the Soviet government's proposals on disarmament are the logical reflection of our peaceful construction.

The exchange of visits between Khrushchev and Eisenhower is rightfully regarded as one of the most important events in postwar history. It is considered to be the most effective contribution to the improvement of the international climate during the recent period.

"The thirteen days spent by the head of the Soviet Government in the United States stirred the world," wrote *Pravda*. "The endless stream of favorable comment on Khrushchev's trip does not leave a shadow of doubt but that the vast majority of mankind enthusiastically welcomes this history-making visit. The public at large in all countries views the exchange of visits between the leaders of the two biggest powers in the world as the beginning of a joint quest for ways of achieving rapprochement between the Soviet Union and the United States and strengthening world peace. The success of Khrushchev's trip across the ocean and the favorable outcome of the meetings and talks at Camp David have filled the hearts of millions of people with great hope that the cold war will be ended.



## We Endorse This Mission

**Ignas Skurauskas,** *Worker in Computing Machines Plant*
Vilnius

WE followed Nikita Khrushchev's trip to the United States with great interest. Every speech and every talk of the head of our government was taken by us to be the expression of our thoughts, feelings and strivings.

Now that he is back home, we send him from our Lithuania our congratulations and want to declare that we wholeheartedly endorse this historic mission of peace and friendship.

We know what war means. Our Lithuania was a bloody battlefield during the recent wars. Thousands of our people died. We won't permit that to be repeated.

## Our Future Is at Stake

**Lydia Selivanova,** *College Student*
Moscow

YOUNG PEOPLE in our country waited impatiently for every piece of news on Khrushchev's tour of the United States. And the discussions that followed were the most animated I can remember. Small wonder! For peace and, consequently, our life today and our future were at stake.

We hope that one of the results of the exchange of visits between Khrushchev and Eisenhower will be that we'll see more young Americans in our country to swell the ranks of our many foreign friends.

## Exchange of Cultural Values

**Abram Room,** *Film Director*
Moscow

DURING conversations with my colleagues in Hollywood, I felt a real wish on their part to cooperate with Soviet film people in promoting the exchange of films between our countries. We film workers of the Soviet Union sincerely wish the same.

As a film worker I expect a great deal from the Khrushchev-Eisenhower meeting, but first and foremost—the termination of the "cold war" which poisons the minds of people. This will help expand exchange of our cultural values.

## My Own Thoughts Were Expressed

**Pavel Pulkach,** *Lathe Operator*
Moscow

WORKING PEOPLE in our country have a lot of confidence in Nikita Khrushchev. He comes from the midst of workers and he knows our thoughts and strivings pretty well. We all want to live in peace and friendship with other nations no matter what kind of system they have. That is why we wholeheartedly endorse the policy of our government aimed at eliminating the "cold war."

I think everybody will agree that if the international climate turns warmer, it will be beneficial to both Soviet and American workers. We were allies during the war. Then why can't we join our efforts now to promote peace on the planet which we share as neighbors. Our differences must not prevent good-neighbor relations.

We all here read with interest the press reports on the meetings Nikita Khrushchev had with the American people. When he explained in his speeches and talks the Soviet foreign policy or the Soviet way of life, I felt as though my own thoughts were being expressed.

## Visits Develop Frienships

**Alexander Gitalov,** *Farm Machine Operator*
Ukraine

LIKE Nikita Khrushchev, I had the pleasure of meeting Roswell Garst, the Iowan who has been doing such fine missionary work for hybrid seed corn, fertilizer and mechanical cultivation. Mr. Garst visited the Soviet Union on three occasions and Nikita Khrushchev, on his tour of the United States, stopped off at Coon Rapids to visit the Garsts and to see their farm and hybrid seed company.

Last year I spent three months working on the Garst farm, touring the corn belt, looking at farms and farm machinery, getting acquainted with American corn-growing techniques, trading experiences—and last, but by far not least—making friends. I enjoyed every minute of my stay.

It will be a very long time before I forget my meetings with Mr. Finley. While he had been touring the Soviet Union he had taken films of our farm life and of many of the displays at the USSR Agricultural Exhibition.

He proved himself an excellent amateur cameraman when he worked his reels into a very interesting documentary. I saw the film on one of my visits to his home and found it as fascinating as did his American friends.









MOSCOW










# NATIONAL HOLIDAY OF THE SOVIET PEOPLE

## The Forty-Second Anniversary of the Great October Socialist Revolution

Anniversary rallies like this one in Moscow's Sports Palace are held all over the Soviet Union to commemorate the Great October Socialist Revolution of 1917.



HUGE street parades and festive demonstrations on November 7 are the climax of the national holiday of the Soviet people commemorating the Great October Socialist Revolution of 1917 (it fell on October 25 according to the Julian calendar used in old Russia). On the eve of the holiday anniversary rallies are held throughout the country to sum up the results of emanicipated labor, and the Soviet people are proud that their achievements have been growing both in scope and significance with each passing year.

The Great October Socialist Revolution marked the beginning of a new era in the country's history. The Soviet people deeply believe that the new economic, social and political system born of the Revolution is the fairest and most progressive. It ensures unlimited opportunities for the development of both the individual and the nation. The result is the Soviet Union of today, a country whose flourishing economy, technology, science and culture ensure a constant rise in the living standards of the working people.

The Great October Socialist Revolution also marked the beginning of a new era in world history. It signaled the emergence of a new type of society, the socialist system. This new way of life has proven its merits and has replaced the capitalist system in a number of countries in much the same way as earlier in mankind's history capitalism replaced feudalism. Almost one billion people, nearly half of population of our planet, now live and work under socialism.

In the forty-two years since the October Revolution the Soviet people, under the leadership of the Communist Party, have transformed their country from one of the world's most backward lands into a great power, second only to the United States in volume of industrial and agricultural production. But this period was not one of uninterrupted peaceful construction. The Soviet people had to defend their country and their way of life in several wars forced upon them by numerous enemies. Nearly half of these past forty-two years was spent in fighting and postwar reconstruction.

# NATIONAL HOLIDAY

# OF THE SOVIET PEOPLE



School children take trips to the Museum of the Revolution to see the heroes and events of their country's history immortalized in paintings and sculptures.



Seats are at a premium at the special performances in honor of the day given by leading artists at theaters, concert halls and community centers of the country.



Night turns into day as a striking display of fireworks lights up the sky.

If it were not for the vast losses of material and human resources and the loss of time, Nikita Khrushchev said in his recent speech on American TV, the Soviet Union would probably have already overtaken the United States in production and in living standards. But the Soviet people have every reason to believe that this goal is now in sight.

Celebrating the anniversary of the October Revolution this year, the Soviet people report the first results of the seven-year plan, an over-all program of great progress in every sphere of national endeavor. With the plan only in its first year, there is every reason to believe that it will be not only fulfilled but overfulfilled by 1965. That will mean a long stride along the road of building communism, creating an economy of abundance the like of which no country has yet seen.

There is much to celebrate this November 7. New highs were reached in industry and agriculture. More housing was built. More and better quality consumer goods became available. Real income increased. There were new outstanding achievements in science and technology. There were new successful developments in friendly relations with foreign countries. The Soviet people were particularly gratified by the heartening results of Nikita Khrushchev's visit to the United States and his talks with Dwight Eisenhower.

The Soviet people, like people in any other country, hope that this visit will go down in history as the most significant step in post-



The first day of the celebration is thus brought to its traditional close.



The children have as much fun during the holiday as the grown-ups. They enjoy concerts, puppet shows, excursions and parties arranged especially for them.



Members of a Latvian collective farm wind up the evening with a festive dinner dance, which in all probability will last until the wee hours of the next morning.

war years toward the development of good-neighbor relations between the world's two biggest powers. They hope that it will open a new period in which reason will prevail over force, in which negotiations and not wars will govern in solving issues and disputes.

This policy of peaceful coexistence of countries with different systems will make it possible to channel additional resources now frozen by the "cold war" into various fields of peaceful competition. There will be no losers in this type of competition since the achievements of all nations can be pooled for the general good.

Peace and friendship among all nations, free labor for man's happiness—these are the main themes in the celebrations all over the country commemorating the Great October Socialist Revolution.

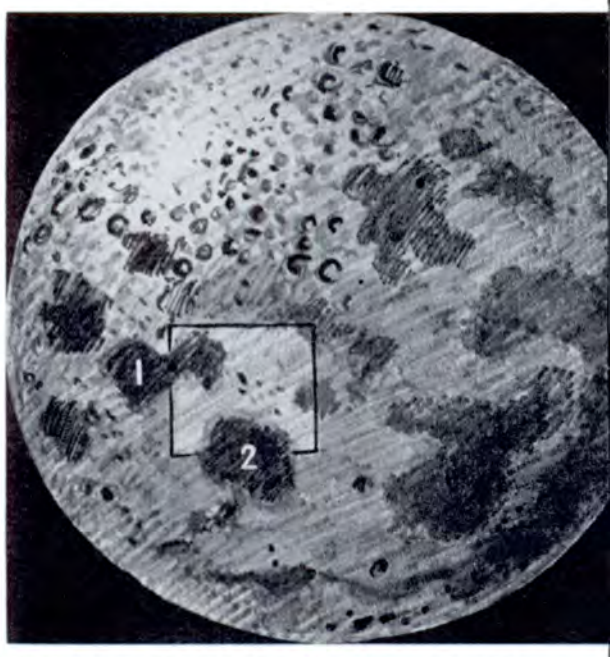
As usual, the people come out into the streets of cities and villages in an almost endless festive procession. They march with their children on their shoulders or with their arms around their friends. Their happiness and pride in the achievements of the year, one more year since the Revolution, is unconcealed. Everyone is in his best dress. People who have never met before join each other in a gay dance or song.

In the evening a myriad of electric lights illuminate festively decorated cities. The people then sit down around their holiday tables and toast the happy future of their country and the happiness of all mankind.



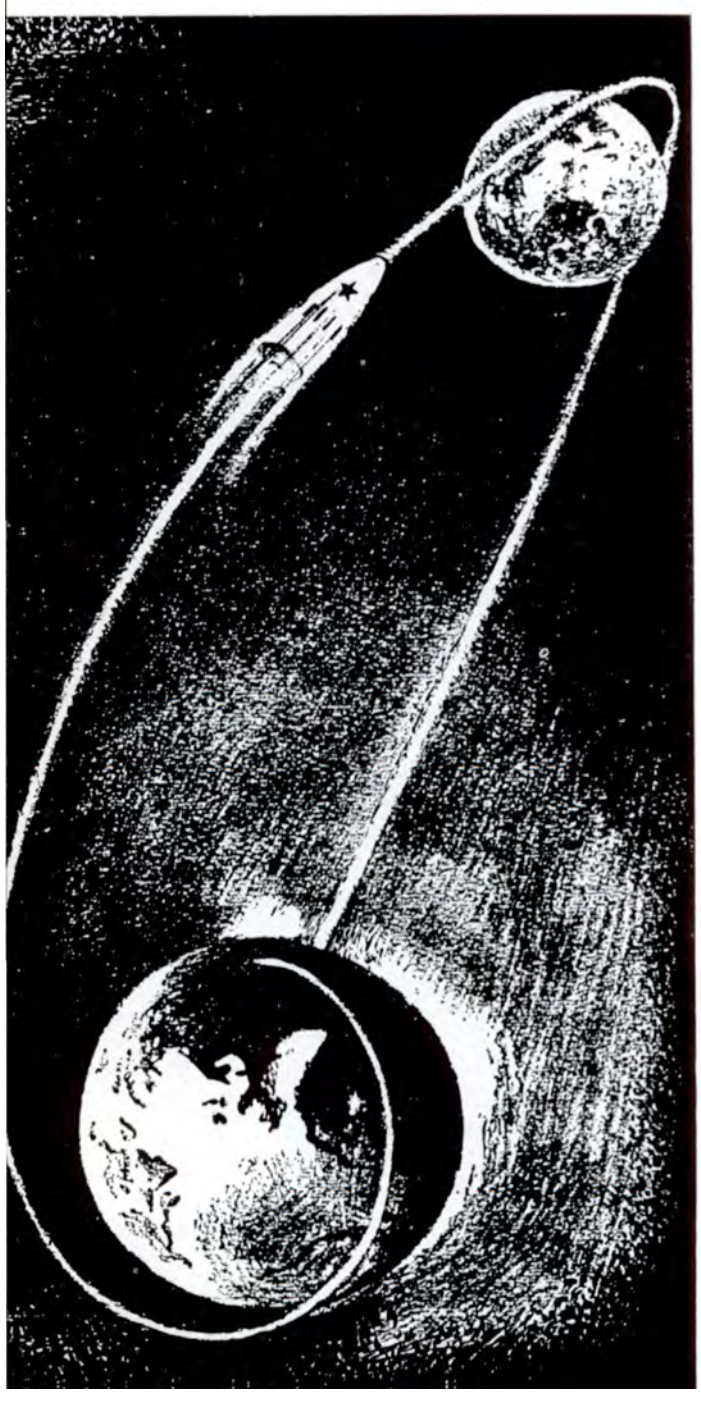
It's a custom that nobody stays alone on the holiday and everybody is either guest or host, with the woman of the house outdoing herself in preparation of the table.




**Left:** Elements of the sphere and ribbon pennants carried to the moon by the second Soviet cosmic rocket. Inscribed on them are the Soviet coat of arms and "USSR—September—1959." **Right:** Lunar map with a square showing the rocket's impact area: 1—Sea of Tranquillity; 2—Sea of Serenity.

# Automatic Interplanetary Station



## The Soviet Union's Third Cosmic Rocket

ON OCTOBER 4, three weeks after the moon was first reached by a man-made projectile (see article on opposite page), another cosmic rocket, the Soviet Union's third, was launched under the program of research in outer space and preparation for interplanetary flights. This was also a multistage vehicle and its last-stage rocket had placed an automatic interplanetary station in a preset orbit to circumnavigate the moon and return to the vicinity of the earth. Both the station and the rocket are moving along the orbit close to each other.

The last-stage rocket weighs 3,424 pounds without fuel. The total weight of the station is 614 pounds. Installed in the last-stage rocket, in addition, are measuring instruments and batteries weighing 345 pounds. Thus, the over-all payload is 959 pounds.

On October 6 the interplanetary station passed the point in its preset orbit closest to the moon—about 4,350 miles. Circumventing the moon, it continued to move away from the earth and the moon, and by October 10 reached the maximum distance from the earth—some 292,000 miles. Thereafter the station proceeded back toward the earth and on October 18 passed our planet from north to south at a distance of about 29,500 miles.

Keeping on its extremely extended elliptical orbit the interplanetary station will circle the earth twice each month.

The interplanetary station is designed for a broad range of cosmic research. The scientific data and the parameters of the movement of the station are radioed back by two transmitters working on frequencies of 39.986 megacycles and 183.6 megacycles. At the same time the 183.6-megacycles connection is used to check elements of the station's orbit.

The station's instrumentation is ground-controlled from the coordinating and computing center. The parameters of the movement are measured by an automatic tracking network of ground stations.

The specifications of the movement elements made at the coordinating and computing center during the first days showed that the automatic interplanetary station was moving firmly along the preset orbit. The data obtained by the ground telemetering stations confirmed that the scientific and measuring instruments, the thermal regulation and power supply systems functioned normally, according to the predetermined program.

Later it was announced that the interplanetary station radioed invaluable information on the scientific research it carried out in the vicinity of the earth and of the moon. Among this data are photographs of the side of the lunar body unseen from the earth.




Photographs taken at the Astrophysical Institute of the Kazakh Academy of Sciences show three phases of the artificial sodium comet emitted from the rocket for optical observation of the trajectory. The flash was triggered in the region of the sky indicated by the circle on the stellar map.




This chart shows the trajectory of the second Soviet cosmic rocket. 1—the position of the moon at zero hour; 2—the position of the moon at the time the rocket made impact; 3—the area of the moon where the rocket landed.

# ROCKET TO THE MOON

ON SEPTEMBER 14, Radio Moscow interrupted its usual program to read a terse bulletin from TASS, official press agency. It announced that the Soviet Union's second cosmic rocket which had been launched two days earlier had landed on the moon. To commemorate this historic event the rocket carried a Soviet pennant in the form of a sphere whose surface was made of pentagonal segments inscribed with "USSR—September—1959" and the Soviet Union's coat of arms.

Within seconds the momentous news flashed around the globe. Soviet science had once again pushed forward the boundaries of man's knowledge of outer space.

Only two years before, on October 4, 1957, the first Sputnik had been successfully launched. One month later it was followed by Sputnik II. On May 15, 1958, the third Sputnik was launched and it is still orbiting around the earth. On January 2, 1959, the Soviet Union launched the world's first cosmic rocket which passed close to the moon and became a satellite of the sun, the first artificial planet in our solar system.

The multistage rocket that landed the Soviet pennant on the moon was launched on September 12. Its last stage, having traveled the distance of some 235,000 miles, struck the moon on September 14 at 4:02 P.M. (Eastern Standard Time).

An artificial comet—a sodium cloud—was emitted from the rocket on September 12 at 1:39 P.M. (Eastern Standard Time) for visual tracking of the trajectory. The flash was observed in the constellation Aquarius and was photographed by widely-scattered astronomical stations in the Soviet Union and other countries.

The rocket was launched to investigate cosmic phenomena en route to the lunar body. It housed a container with precision-built scientific apparatus, measuring instruments and radio equipment. The detailed program of research was completed at the moment the rocket crashed into the moon and the radio transmitters ceased to function.

Commenting on the epoch-making lunar probe, Nikita Khrushchev, while speaking to an American audience during his recent tour of the United States, said: "The launching of a rocket into space and the placing of our emblem on the moon we regard as our achievement, and in saying *our* we mean the countries of the whole world, that is to say, we mean that it is also your achievement, an achievement of all people inhabiting the earth."

Replica of the sphere pennant landed on the moon by the cosmic rocket—a gift from the Soviet Premier who commented: "Our pennant, an old-timer on the moon, will greet your pennant and they will live in peace and friendship."





"This is what the moon will soon look like," the lecturer in the Moscow Planetarium says of an artist's conception of the surface of the moon, with manned rockets taking off for space exploration.

# ROCKET TO THE MOON

## Rocket's Last Stage

The last stage of the second Soviet cosmic rocket weighed 3,330 pounds without fuel. It carried an air-tight instrument container filled with gas and regulated automatically to maintain a stable temperature. The total weight of the container, including instruments and power sources, was 860 pounds.

The rocket was equipped with instruments and measuring apparatus to study the magnetic field of the earth and the magnetic field of the moon; the radiation belts around the earth; the intensity and variations in intensity of cosmic radiation; the heavy nuclei in cosmic radiation; the gas component of interplanetary substance; and meteoric particles.

Through high-efficiency radio instruments everything this space scout "saw" and "heard" was transmitted to earth. Ground receivers tracked the position of the rocket in space and determined the elements of its movements, while high-speed electronic computers calculated the orbit and kept observation stations informed in advance of the rocket's position.

## Precise Accuracy

Precision of the highest order was required for the moon shot. Imagine a gun on a revolving platform shooting at a swiftly-moving target a great distance off and you have some picture of the complexities involved.

An interesting calculation is cited by Vyacheslav Arsentiev, a researcher of the Sternberg Astronomy Institute of Moscow. With an initial speed of flight of *less* than 10,848.9 meters a second, the rocket will not reach the moon and must return to the earth. With an initial speed of *more* than 10,849.7 meters per second it will pass by the moon (assuming the rocket doesn't hit it) and go off into cosmic space.

Thus, with the initial velocity of almost 11,000 meters—6.8 miles—a second, the rocket's speed must be maintained within the bounds of *only* 0.8 meters—2 feet 2 inches—per second, or with a precision of a few one-thousandths of one per cent.

The trajectory of the rocket had to be most rigidly plotted, too. An infinitesimal miscalculation would have been sufficient to throw the rocket off course. One leading West German astronomer, reported the press, compared the Soviet moon shot to "a marksman hitting the eye of a fly six miles away with a small caliber rifle."

## Theory and Engineering

The course of the rocket to the moon can be divided into two phases: the first where the rocket was boosted up to the required speed by its engines and put into orbit, and the second where the rocket was in a coast flight, with the engines of the last stage cut out and the instrument container jettisoned. An extensive program of theoretical research and engineering computations had been carried out which made it possible to determine the flight components and launching time so that the rocket could reach the moon under the best possible conditions.

In principle a rocket can be launched to the moon on any day, with the lunar body being at any point in its orbit around the earth. It is more advantageous, however, to choose a time when the boost phase of the rocket's flight will be at the least angle to the earth's surface and speed losses due to terrestrial gravitation will be reduced to a minimum, thus allowing a greater payload to be sent to the moon.

While planning for a rocket flight, the time of collision had to be chosen so that the moon as observed by ground tracking posts would be near its highest culmination. At that time its height above the horizon would be about the largest. In such a case there would be the best possible conditions for radio communication.

According to computations, a rocket launched from Soviet territory should start its flight when the moon is beyond the horizon, near its lowest culmination. In other words, the difference between the launching time and the moment when the moon is at its highest should be about 12 hours. From this follows that if at the moment of collision the moon should be at its highest, a moon flight should last either 12 hours, or 36 hours, or 60 hours, etc.

A flight of about 36-hour duration was chosen for the second Soviet cosmic rocket. A 12-hour flight would call for extremely great initial velocities. In a flight of 60 hours or more, if the rocket was to hit the moon so that the moment of collision could be observed, the rocket's flight control at the end of the boost phase would have to be prohibitively accurate.

To keep the parameters of the rocket's flight at the end of the boost phase sufficiently within the computed values, a flight control system was installed in the rocket which was operating all the time while the rocket was being boosted up to the required speed. The rest of the rocket's flight was unguided, being maintained only by the gravitational fields of the earth, the moon and other celestial bodies.

This helps explain why the flight parameters at the end of the boost phase had to be maintained as close to the computed values as possible. An error of a mere 0.01 per cent of the rocket's maximum speed would shift the point of impact on the moon some 155 miles. Any deviation of the speed vector would likewise shift the rocket off the preset course. If the rocket engines were to be switched off at the wrong time it would also have a great effect on the location of impact.

Successful landing of the rocket on the moon also required a great accuracy in choosing the exact launching time. This is explained by the fact that the plane of the rocket's path rotates together with the earth's rotation about its axis. A mistake of only ten seconds in the

launching time would move the point of impact some 125 miles.

The launching of a space rocket at the preset moment accurate to within several seconds makes high demands on the over-all organization of the shoot-off as well as on dependability of the shooting gear. The efficiency of the Soviet launching system can be judged by the fact that the second cosmic rocket was sent to the moon with a deviation of about one second from the set time limit.

All theoretical research and engineering computation connected with the launching of the second Soviet cosmic rocket proved almost unbelievably accurate, so much so that the time of arrival on the 235,000-mile-long voyage was only 84 seconds off the predicted figure. The rocket sent to the moon landed in the area predetermined, a distance one-fourth the radius from the center of the lunar disk, at the point between the Sea of Serenity and the Sea of Tranquility.

### From First Sputnik to Moon Rocket

The systematic and rapid development of outer space research in the Soviet Union attests to the high level attained by many branches of Soviet science, technology and industry. The advance from first sputniks to moon rockets is not only a problem of considerably increasing the acceleration velocity from 4.9 to 6.8 miles a second. Even this calls for much greater power in the engines of all stages of the rocket system, but far greater difficulties faced the scientists and engineers when they had to solve the problem of control and communication. They also had to solve the problem of investigating interplanetary space which is substantially different from the atmosphere of the earth even in its upper layers.

The artificial satellites discovered that space at great altitudes is not empty but is filled with quite dense cosmic matter. This finding meant a whole new group of problems for space rocket builders. The successful launching of three Soviet cosmic rockets during nine months of this year has demonstrated that solutions were found to these problems.

As the exploration of the universe keeps expanding, the size, weight and instrumentation of the research rockets also mounts. The very first sputnik was a sufficiently complex rocket whose instruments provided valuable information about the density of the atmosphere and the structure of the ionosphere. But the second and third sputniks were real laboratories carrying numerous instruments and auxiliary devices assuring their long-term service. The list of geophysical, astrophysical and other measurements included in the programs of the second and third sputniks considerably exceeded everything it was originally planned for studies in the upper atmosphere during International Geophysical Year.

Once the sputniks had explored the earth's upper atmosphere and reached its boundaries, the next task was to study the properties of interplanetary space. The very first launching of a Soviet cosmic rocket last January successfully fulfilled the principal requirements of interplanetary flight: the attainment of the escape velocity and a high degree of accuracy of movement along a preset trajectory.

The big payload of the rocket's last stage was used to carry a container packed with numerous instruments and auxiliary apparatus. For the first time radio communication was maintained over the enormous distance, and an artificial comet was created for checking the trajectory optically. The major scientific findings of this pioneering rocket—for example, concerning the radiation belts surrounding the earth—were quickly made public and have already been reported by Soviet scientists at international conferences.

Systematically improving technical and scientific equipment, Soviet scientists and engineers accomplished the second task of interplanetary flight—the reaching of the nearest heavenly body. The numerous scientific instruments within the container of the moon rocket carried out a vast program of diverse measurements. Perhaps the most important of its findings is the discovery that there is no perceptible magnetic field of the moon and, correspondingly, no radiation belts around it. This discovery is of fundamental significance for our knowledge of the universe.

### Ground-Controlled Interplanetary Station

Only three weeks after the Soviet pennant was delivered to the moon, the third of the planned tasks—a-round-the-moon flight and the return to the vicinity of the earth—was accomplished.

The launching of the third Soviet cosmic rocket is a very significant contribution to the fulfillment of the program of research in interplanetary space. The last stage of the rocket carried an automatic interplanetary station which will circle the earth twice every month.

Compared with the first two cosmic rockets, the third one has several important features of its own. The package of instruments is designed for a longer period of operation, because the interplanetary station completes one full round on its orbit within only a fortnight. To power the scientific and measuring equipment, more durable solar batteries are used in addition to usual chemical ones. For more economical electricity consumption the work of the instruments and radio transmission of information they gather are conducted according to a fixed program in more or less short sessions. The instruments work automatically and are controlled from the earth, which means that they are switched on only when valuable information is expected.

Computations for the movement of the automatic interplanetary station as soon as it separated from the rocket's final stage had to be extremely accurate. The second cosmic rocket showed that even the slightest digress of the initial speed of its container from the designed velocity would have meant a miss. The accuracy required for the initial characteristics of the flight of the third cosmic rocket had to be still greater. Here it was necessary to preplot the movement of the interplanetary station over a far longer period of time and figure out the position it would take in space after it had traveled some 600,000 miles—from the earth to the moon and back to the vicinity of the earth.

Since the first sputnik was launched two years ago tremendous advances have been made in radio communications. It is radio-electronics that ensures a dependable tracking and computing service, an intricate system which provides an operational check on a space rocket flight. And it is by radio that we receive scientific data gathered by space rockets.

From Sputnik I we received information from altitudes of several hundred miles. From the first and second cosmic rockets we received radio signals already from some half a million miles away. As for the third cosmic rocket, the automatic control of the instruments it carries has been effected from the earth for the first time in the history of radio engineering and electronics.

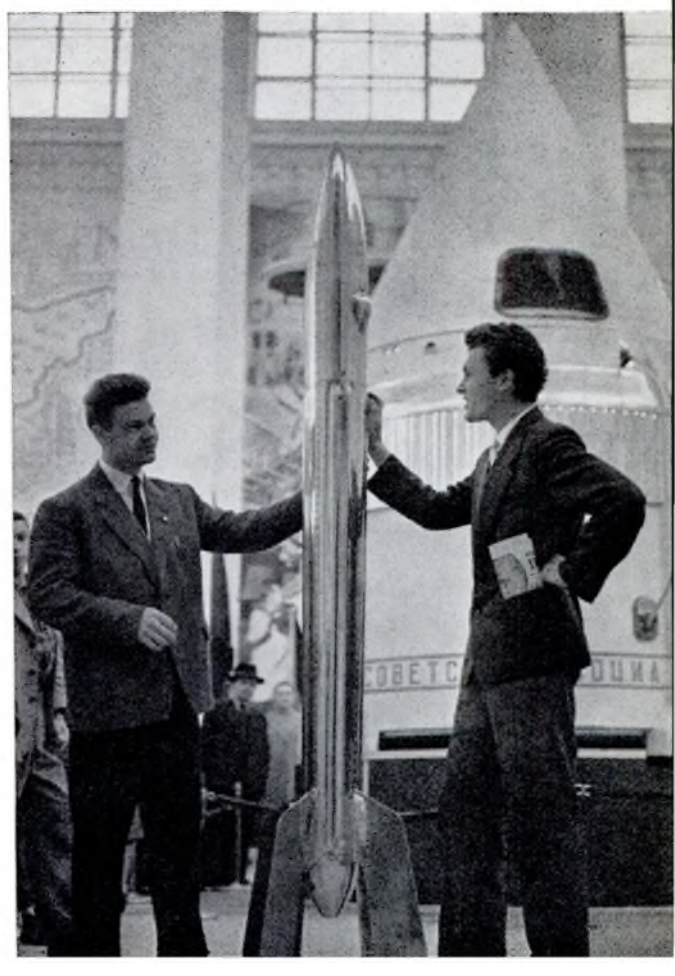
### International Cooperation

Each Soviet space rocket is a great contribution to international cooperation in the exploration of the universe. Scientific data received from the rockets is promptly published in the Soviet press, and Soviet researchers report on their findings at international scientific conferences sharing their knowledge with colleagues in other countries.

Justly proud of their successes in cosmic explorations, the Soviet people at the same time sincerely rejoice at every success attained in this field by their friends abroad. Speaking in Washington on the day of his arrival from Moscow Nikita Khrushchev said:

"We have no doubt that the splendid scientists, engineers and workers of the United States engaged in the conquest of space will also send their pennant to the moon. The Soviet pennant, an old-timer on the moon, will greet your pennant and they will live in peace and friendship, just as you and we should live in peace and friendship on the earth, as should all the peoples inhabiting the earth, our common mother, who rewards us so abundantly with her gifts."

A 1933 geophysical rocket and the last stage of the cosmic rocket launched in January 1959.





LETTER TO UNKNOWN AMERICAN FRIENDS

from Valentina Degilevich

*"Let's exchange letters, visits and friendship"*

—suggests Moscow housewife

DEAR FRIENDS:

I am a Russian woman, a mother and wife. I have wanted to write to you for a long time, and I thought this would be a fitting occasion since the eighth of March is celebrated in our country as Women's Day. I spoke to my friends about it and then, by an unanimous decision, asked LIFE magazine if they would publish this open letter to you, my unknown friends overseas.

I am a Muscovite. Being born eight years after the Soviet state was formed I have lived all my life as a Soviet citizen. My father was a mechanic and my mother a factory worker.

When the Nazis attacked our country I was sixteen and I was going to school. I left school to work in a munitions plant. It is no pleasure to recall those hard years. Both my father and my brother fought at the front. My father was reported missing in action and my brother was wounded several times and was left an invalid for life.

After the war I worked in a secretary-and-typist and read my husband Pyotr. He drives an ambulance. We have two children —Galya—it means "calm" in Russian—who is eight years old, and Alyosha four. My husband is on call but a great deal of the time he has two days off. He spends a lot of time with the children, he likes cooking toys for them. He's a good father and a good husband. He's an active man and doesn't like to sit around. In his spare time he enjoys fishing, amateur photography, skating, Gorodki, and goes hunting every now and then.

As for me, the children take up most of my time. I stopped working after my first baby was born and now I am glad to have all my time to devote to my family and to arranging up our cozy home. I don't mind housework and the daily chores, cooking, cleaning and sewing, and I like playing with the children and bringing Galya with my first interest.

Ours is a close-knit family, and not much different from millions of other families in the country. I'm happy with my family and often I ask myself what makes up that happiness. It's true that we live comfortably. We have a pleasant apartment in the center of Moscow and a summer cottage in the suburbs. We have a car, a wonderful invention in this modern age. But it's more than that. Happiness, it seems to me, is not just comfort and savoury bodies, it's also a good future for our children. I suppose every mother feels the same way. I do about those near and dear to her.

I want to make sure my children will be happy. I don't want them to have to go through the horrors of a war. I want my Galya not to have to leave school the way I did to make ends meet. I want her to learn, to play the piano she has just begun, and Alyosha to have the chance to be like his father when he grows up—he says he wants to be a driver, perhaps out of an ambulance or of a space vehicle.

What I want most of all is a peaceful future for my children and for your children and for the children of mothers everywhere.

My husband was in the army during the war and lost no end of suffering and bloodshed. "I try not to forget those horrors of war," he often says. "I want the children to know about them, but when they are older so they'll know enough to make sure that it's not going to happen again."

Why yes, I tell him, that was sad I said all of us have to make sure that doesn't happen again. I cannot help feeling terribly worried when I hear of H-bomb tests and long-range missiles, as if a week all beginning to talk. And then I read about exchanges between young students and artists and writers, and exchanges between young musicians and other students, dancers, travelogs, operettas and theaters and I listen to your speech Vice-Chairman on a TV broadcast and I feel better. I feel that we are beginning to be friends.

We are people who live in different countries and we have different





# VALENTINA DEGILEVICH
## replies to her American friends

**In the March issue of our magazine, No. 3 (30), we carried an open letter that Valentina Degilevich, a Moscow housewife, wrote to her unknown friends, women in the United States like herself. She suggested that they write to her. They did in the hundreds. Valentina Degilevich has asked us to print this answer to all those she has not yet been able to answer individually.**

DEAR AMERICAN FRIENDS:

Thank you for your many warmhearted affectionate letters. When I read them I felt as though I were visiting with you and your families. I was very happy that a letter from me, an ordinary Russian housewife with two children, made so many friends in the United States. And not only women friends but men as well, including bachelors.

I received so many letters that if I tried to answer them all I should have to neglect my duties as wife and mother, or pass them on to my husband. I am sure you would not want me to do that. My husband and I both have our jobs to do. You wrote me, Mrs. Reba Sanders, that your first obligation is your home and children. I feel the same way.

Every letter from you, my friends, is an exciting event for my family. My children,

Alyosha and Galya, immediately go for the snapshots that many of you send. We keep them in an album and when we have guests the children bring it out to show.

A friend translates your letters into Russian for me and Pyotr, my husband, and we stay up late many an evening talking about them. To better understand the things you write about, I have been reading magazine articles and books about your country, both its present and past. I also read the monthly magazine *Amerika* which is published in Russian by the U.S. government.

I should like to share my thoughts and feelings with you. It is heartening to me that your letters make the point that what mothers in America—just like mothers here—most earnestly wish for is peace. To all of us the word *peace* spells happiness and a bright future for the children we brought into the world.

Although you have been spared the death and destruction of war on your own soil, many of you have had to endure the anguish of losing your dear ones on battlefields elsewhere in the world. You know what war is; there is no mother alive who does not. I am sure that Mrs. Eleanora Odecake, who wrote me from California, speaks for all women in America when she says she wants a future of peace for her children.

Mr. and Mrs. Cledget wrote me, "It is true that we live in different countries, some people here say in different worlds, but we are sure there must be common ground where we can meet."

Yes, my friends, there must be and there is this common ground for understanding and friendship. And that ground is the mutual desire for peace, for the friendly relations that existed between our two countries when we fought as allies.

When our Premier Nikita Khrushchev reported on his visit to your country I watched him on TV. Listening to his speech all of us here had a feeling as though the ice of the "cold war" had begun to melt.

What is needed now is good will and trust. And here is where plain people like ourselves have a job to do, and are doing it, if I can judge from the great number of letters I received from you in America. Certainly we women know from our own family experience that in order to live together in peace and friendship people must trust each other.

You probably know that we Soviet people are now working hard at our seven-year plan. Day by day our country is becoming a finer and a better place to live in. As you Americans would put it, we have had to lift our country up by its own bootstraps.

We started with nothing forty years ago, or we could call it less than nothing if we think of what was left after the First World War, the Civil War and the foreign intervention. The Second World War left 25 million of our people without homes. You can imagine what the housing situation has been like for these years during which we have been rebuilding.

You must have listened to Premier Khrushchev when he spoke over your TV the day before he left America and the figures he cited on the amount of housing that is being constructed under the seven-year plan—enough to build 50 new cities like San Francisco. My husband and I are not important people with big jobs—Pyotr works as an ambulance driver—but we got one of the new apartments. And so did millions of others.

There are some people in your country who say—they live well because they are members of the Communist Party. That doesn't happen to be so. Neither my husband nor I belong to the Communist Party. But there is no dividing line between our ideals and those of Communists. Our beliefs and views coincide. And I'd like to say that we are indebted for our family's happiness and well-being to the Communist Party and the untiring and devoted labor of its members.

Some Americans say that we do not know enough about your country. That is true; we should like to know much more. But we do know that Americans work industriously, efficiently, inventively. "Although we are far apart if you measure by miles, we have much in common," writes Silbert Copriva of San Diego, California. I agree with him. Friendliness and kindness, industriousness and hospitality are traits we share in common.

What can we do to get to know each other better? How can we build what Mrs. Barbara McDonaugh calls a bridge of friendship to span the oceans? I think we must meet each other more, visit more, get to know about each other's cultural, scientific and technical achievements.

To use your words, my dear Mrs. Irene Thomas, "the exchange program is one of the best ways of bringing our people closer together. We must study the customs and way of life of other nations and exchange ideas. There is much we can learn from each other."

My family saw the American "Holiday on Ice" show and heard the New York Philharmonic Orchestra play. We went out to Sokolniki Park to the American National Exhibition. We enjoyed them all.

We were glad to hear how much you liked the Moiseyev dancers and the Bolshoi Ballet when they toured your country. I hope that many of you saw our exhibition in New York and got some idea of the way we live and the things we have been doing. I think that all of this brings us closer and helps us understand each other better.

I would not be honest with you, however, if I didn't tell you frankly that I was disturbed by this comment in a letter I received from Mrs. Bess Strasburger. She wrote, "We Americans want peace. But if it hadn't been for the cold war many workers now employed in military production would be jobless."

This is like saying that in order to live, weapons must be made to kill people, to keep destroying what people strive to build and create. But this is a rejection of life itself. It means that we must forever live in fear of war.

I have been thinking of what you wrote, Mrs. Strasburger. To my mind, peace does not mean that workers now in war industries need to be jobless. Why can't the enormous sums now spent on weapons be used to build better housing, hospitals, schools, roads?

Furthermore, to quote Mrs. Erlo Thompson from Ontario, California, "There are many great scientific and economic goals we can reach if we work together"—goals that would give much to the world.



AUTUMN WEEK-END AT THE COUNTRY COTTAGE.

VISIT TO THE AMERICAN EXHIBITION IN MOSCOW.



We Soviet women and you American women must do everything to build friendship. We must do this for our children, so that my Alyosha and Galya and your Charles and Roy, dear Mrs. Jeanette Young, can have the chance that we did not have—to grow up in a world without war, in a world where mothers scan the sky not for death-bringing rockets but for sputniks—both yours and ours—launched to explore space.

I believe, just as you do, Mrs. Young, that our countries can live in friendship. So let us be real friends, true friends for our own and for our children's sake, for the sake of world peace.

My husband and children join me in sending you, my dear American friends, warmest greetings and best wishes.

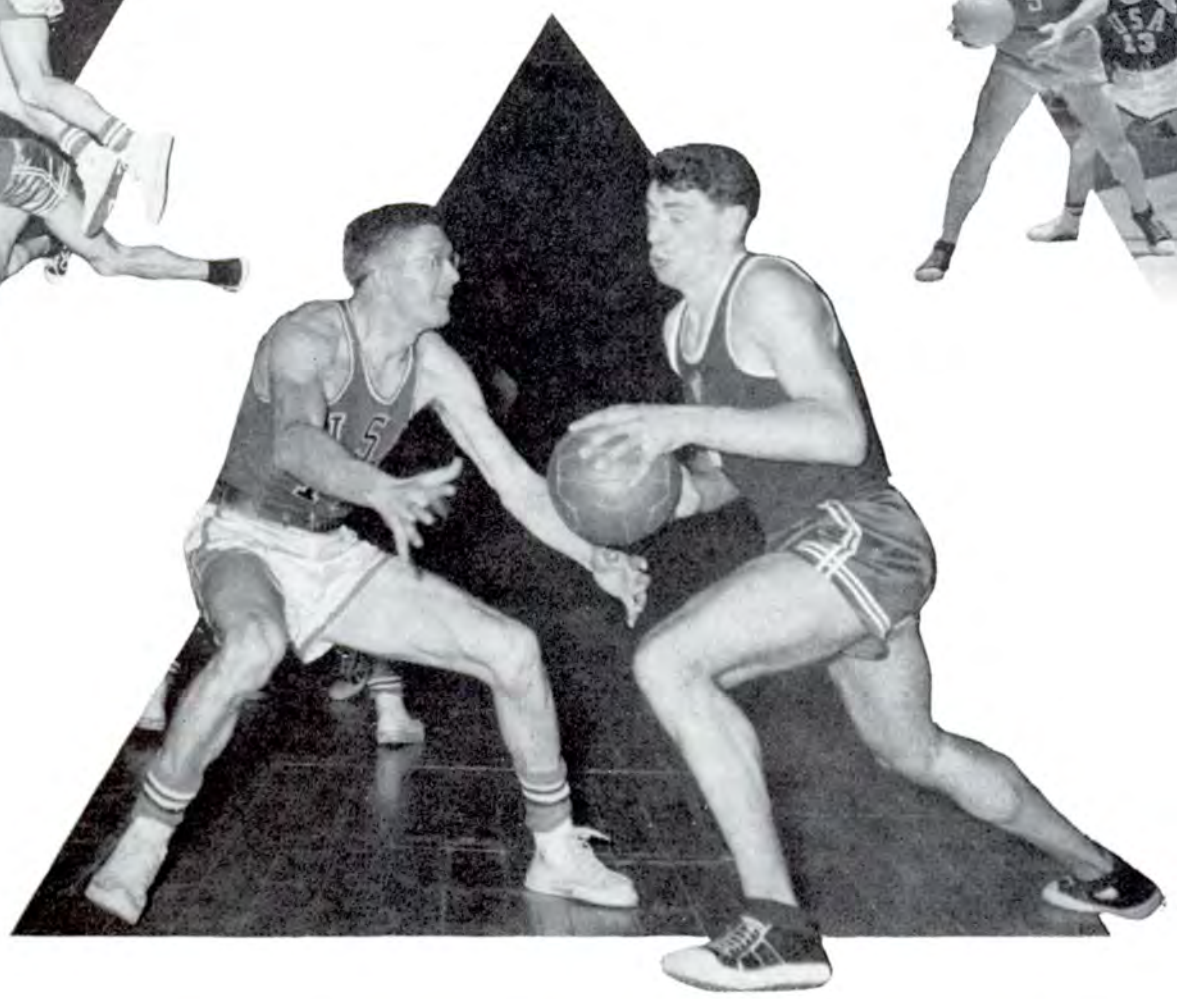
Your Soviet friend,

Valentina Degilevich

Apartment 350
14 Lomonosov Prospect
Moscow, V-269, USSR







# USA-USSR BASKETBALL MATCH

**By Stepan Spandaryan, *USSR Men's Team Coach***

THERE is much talk and prognostication in basketball circles on both sides of the Atlantic regarding the USA-USSR matches scheduled for New York's Madison Square Garden on November 27. This is the first time our women's and men's national teams will be playing in the United States. A return visit this is—the American teams played in the Soviet Union last year.

The Soviet men's team will play six games in the United States—against the U.S. national team and other teams. We're looking forward to tough competition. We know that Americans play quality basketball. This isn't just hearsay. Our team took a licking last year. But we've learned a couple of things since then and we've been overhauling our tactics, techniques and style. The games will show how much we've learned.

I refuse to be a crystal-gazer. Basketball forecasters notoriously come to grief. One thing I will predict, though, is that the competition will be friendly and that it will help make for better understanding between our two countries.

The American tour will be winding up our season. It has been a busy year and a good one for the USSR team. It started off well in January with triumph at the world championship in Santiago, Chile, where our lads didn't have a single setback. Then, in May, we won the European crown for the fifth time.

Our women's team has just won the world's championship. The girls are looking forward to meeting their good friends in the United States with whom they are well acquainted.

### The Line-Up

The line-up of the USSR men's team? There are the old-timers—men like team captain Maigonis Valdmanis, Janis Krumins, Victor Zubkov, Mikhail Semyonov, Arkadi Bochkaryov, Vladimir Torban and Valdis Muiznieks. They were among those who played opposite American basketballers last year. We also have some new men who got their championship schooling in the European matches. Here's the rundown on some of the new players:

Mikhail Studenetsky, guard, is an engineer who graduated from the Moscow Light Industry Institute. He's 25 years old, 6 feet 1 and his long-distance shooting is something to see.

Yuri Korneyev, a very fast forward, is a student at the same school. He's 22 and a high 6 feet 5.

Albert Valtin attends the Kiev Teachers College. He's the same age as Korneyev but an inch and a fraction taller. He gets around the court like a whirlwind, jumps high and, in general, will be a threatening forward. He's short on experience but coming along fine.

Gennadi Volnov could also do with somewhat more experience. He's a serviceman, 22 years old, as tall as Valtin and very fast on his feet.

Alexander Petrov plays center. He is from Baku Teachers College, 20 years old and stands 6 feet 8.

Our boys have been eagerly awaiting their American tour and that goes for both new men and old-timers. They hope to come away from the United States, the birthplace of basketball, with new ideas for new plays, just as last year's team did.

The old-timers ask me to convey their greetings to friends they made last year—to Birdy Holderson, Dean Boushka, Bert Born, Jim Palmer, Bobby Jangerard, the Kelly brothers, Joe Dean and the rest. They hope to be playing opposite these top-ranking American basketballers again.


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The Bratsk Hydroelectric Station in Siberia typifies the vastness of the seven-year plan's construction projects. When completed, it will be the largest power plant in the world.

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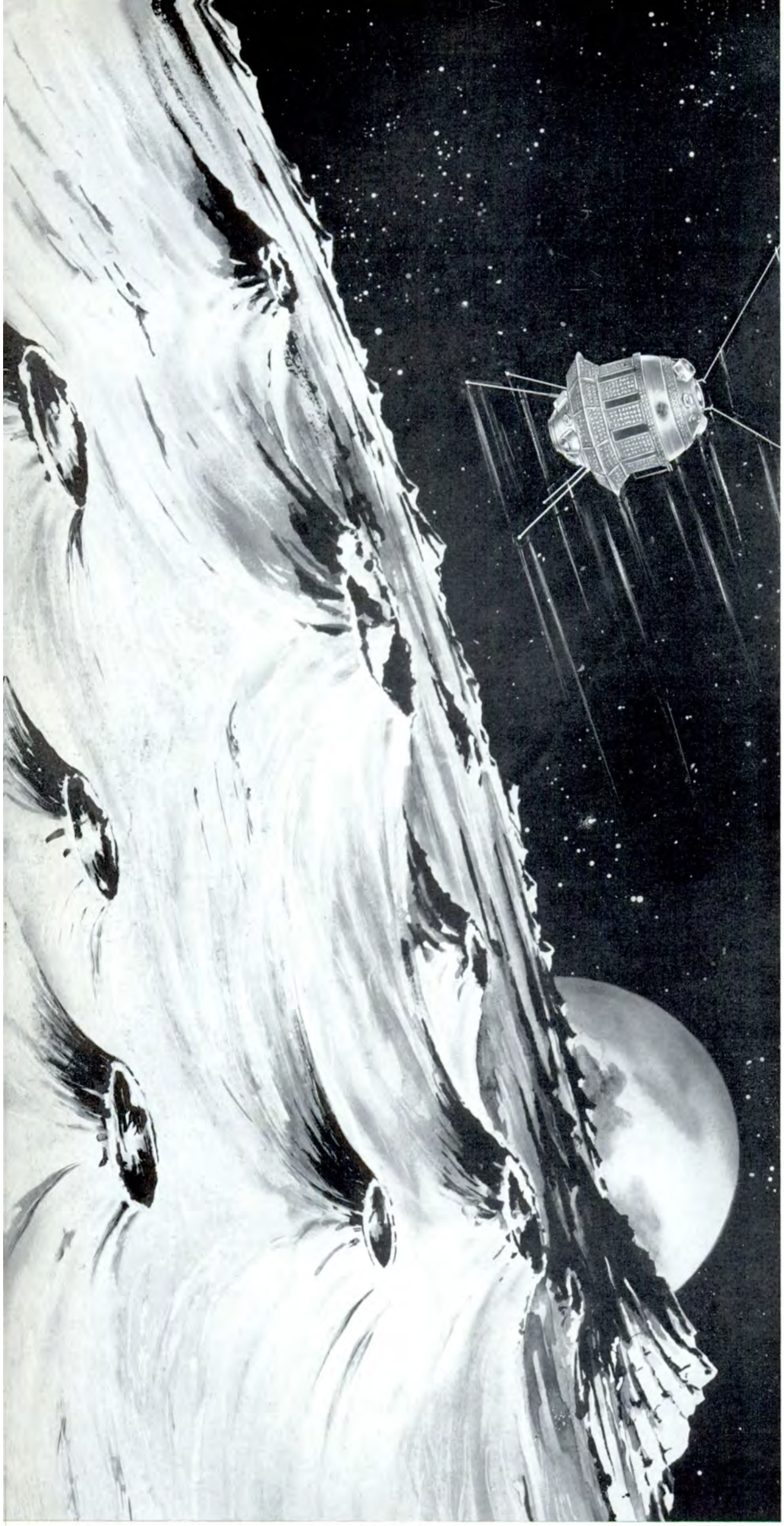
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# 1959

# *YEAR OF GREAT ACHIEVEMENTS*

THE YEAR 1959 will go down in the history of the Soviet Union as a year of great achievements, one which saw mankind's century-old hopes changing into the realities of day-to-day living.

For the Soviet people 1959 was the first year of the seven-year plan. It was a year of marked progress in every sector of the Soviet national economy, one that established the certainty that the great program for industrial, agricultural, technological and scientific development, on which the Soviet people are embarked will be completed long before 1965, the scheduled end of the plan.

A good start has been made in the first year of the seven-year period. Preliminary data indicate that Soviet industry will fulfill its annual plan by 104-105 per cent. This means that as much as 40,000-50,000 million rubles worth of produce will be manufactured over and above the plan. The year witnessed a substantial rise in the well-being of the Soviet people. More commodities of better quality were available, millions of families moved into newly built apartments, the working day was cut. Thus, with their creative effort and the acceleration of technical progress, the Soviet people introduced effective changes in the initial figures of the seven-year plan.

During the year the Soviet Union expanded its foreign trade very considerably. The most comprehensive trade agreement of the post-war years was concluded with Great Britain following Prime Minister Macmillan's visit to the Soviet Union. Even the short time during which the agreement has been in operation promises a very considerable increase in the volume of trade between the two countries.

Twenty years ago the USSR was in 16th place in volume of foreign trade; it has climbed to 6th place and is moving upward rapidly. At present the Soviet Union has trade agreements with 70 countries, among them France, Italy, West Germany, Sweden, Finland, Latin America and, of course, the socialist countries.

Trade relations have values other than mutual profit, although this is by no means a negligible factor. Equally important is the fact that they are part of the normal pattern of peaceful and friendly relations. It is for both reasons that the Soviet Union looks forward to the resumption of large scale American-Soviet trade.

The economic gap between the Soviet Union and the United States is narrowing with extraordinary rapidity. It will not be long before it is completely closed and the Soviet Union, propelled by the vastly creative efforts of its people, will surge far ahead in the race for the productive leadership of the world, for the happiness and welfare of the people. The year of 1959 has proved it.

The outstanding advance of the year was in Soviet science. It was in 1957 that the Soviet Union launched the first sputnik and with it opened the space age. The moon then seemed a remote and inaccessible planet to be reached after many years of research. Only two years later, however, on September 12, 1959, Soviet science shot a rocket to the moon and left on its surface a sphere with the coat of arms of the USSR.

The congratulatory messages had hardly ceased pouring in when a new Soviet space laboratory circumnavigated the moon, moving with incredible accuracy along a plotted trajectory and photographing the hidden side of the moon. These great feats and such other scientific achievements as the world's first atomic icebreaker, *Lenin*, launched this year, stand as tributes to Soviet scientists. But in a larger and more significant sense they are tributes to thinking and exploring man.





N. S. KHRUSHCHEV: MAY THE TWO WORDS—PEACE AND FRIENDSHIP—GUIDE US.

# 1959
## *YEAR OF GREAT ACHIEVEMENTS*

### Camp David Spirit

This year now ending was one of the most hopeful and promising of our turbulent era, its leading motif expressed in the momentous phrase from the Camp David Joint Soviet-American communique, that "all outstanding international questions should be settled not by the application of force but by peaceful means through negotiation."

This was a year of great meetings. By far the most significant were those between Dwight D. Eisenhower and Nikita S. Khrushchev. The Soviet leader's thirteen-day visit to the United States is conceded to be the most important international event of the postwar period. It was particularly notable, aside from its official character. for the fact that the Soviet envoy met the American people and that they met him, and that the meetings served to further American-Soviet friendship.

With untiring cordiality and good will, Chairman Khrushchev spoke with Americans of all walks of life—statesmen and politicians, men from the world of business and finance, union longshoremen, midwest farmers, Pittsburgh steelworkers, housewives shopping in a supermarket and told them of the peaceful aspirations of the Soviet people. His speeches helped immeasurably to break down old misconceptions and prejudices that had accumulated over the years of the cold war—that period of unhappy isolation between the people of the two countries.

Speaking at a meeting recently, Khrushchev reiterated the statement he had made on frequent occasions during his visit: "The majority of the American people do not want war and are eager for peaceful cooperation between our countries."

The Chairman's visit to the United States was followed by one to China where he conveyed the cordial greetings of the Soviet people to the Chinese people on the occasion of the tenth anniversary celebrations of the People's Republic of China. At a reception in Peking, Khrushchev emphasized the close ties of friendship between the two socialist countries. "The past decade showed the giant force latent in the Chinese people," he said. "It was the struggle for national independence and the endeavor to build socialism which released that spiritual power."

There were other official meetings of statesmen during the year that helped to cement relations. British Prime Minister Harold Macmillan and Foreign Affairs Secretary Selwyn Lloyd toured the Soviet Union. Anastas Mikoyan and Frol Kozlov, both First Deputy Chairmen of the USSR Council of Ministers, visited the United States. Vice-President Nixon came to Moscow to open the American National Exhibition.

These visits and the many exchanges of scientists, educators, musicians, businessmen and tourists all helped to thaw the ice of the cold war, to create a friendlier climate for the forthcoming summit talks in the spirit of the Camp David communique. For that alone, 1959 was a milestone year.

### Disarm Completely

The year will stand out in history for the sweeping disarmament proposal made by the Soviet Union—a plan for complete and general disarmament. "The essence of our proposal," said Khrushchev in his speech to the United Nations General Assembly, "is to have all states disarm completely within four years so they will have no means left to wage war." In the interim and should the Western Powers not be prepared for so sweeping a measure to free the world of the threat of war, the Soviet Union is prepared to consider any serious proposals for partial disarmament.

Peaceful coexistence requires that the arms race be ended. It means that efforts must finally be made to dispose of the left-overs of the Second World War. It means that the cold war must cease.

In his speech before the Supreme Soviet, the Chairman of the Council of Ministers of the USSR once again stressed that the Soviet proposals on disarmament were prompted solely by human considerations and are aimed at banning war with the terrible disasters it can bring in this age of thermonuclear weapons. With regard to controls, the Soviet Union proposes that they be established and strictly enforced to guarantee that all the states which make the sacred pledges on disarmament carry them out.

In its appeal to the parliaments of all countries of the world adopted October 31, 1959, the Supreme Soviet of the USSR pointed out that solution of the disarmament problem is in the hands of the people.

"A special responsibility," the appeal says, "lies with the parliaments, governments and statesmen. The people, the electorate expect the parliaments to have their say. It is precisely the parliaments and governments that must persistently and purposefully search for way of solving disputed international problems; above all, the most pressing problem of our time—the problem of disarmament. . . .

"There are realistic ways for solving the problem of total and general disarmament. These are set forth in the Soviet Government's proposals submitted to the United Nations. Now it directly depends on the governments and parliaments of other countries above all, the biggest powers, on their good will and desire, whether the manufacture of instruments of death and destruction is stopped and the arm stockpiles destroyed, whether mankind goes along the path to a fatal war or takes to the path of peaceful development."

The USSR Supreme Soviet and the Soviet government in conformity

with the will of the Soviet people, are doing their utmost to settle the disarmament problem and to turn the achieved relaxation of international tension into a lasting peace. The USSR Supreme Soviet expressed the hope that the parliaments and members of the parliaments of all countries will do their best "to achieve disarmament and open up before mankind the path to eternal peace on earth."

### Time of Peace and Progress

Toward the close of the year the Supreme Soviet of the USSR met in Moscow to consider and adopt the year's program for economic development and the national budget for 1960. At the joint final session of the Soviet of the Union and the Soviet of Nationalities, the USSR's two legislative bodies, N. S. Khrushchev delivered a report on foreign policy and the international situation. In his assessment of the international situation, the head of the Soviet government stressed the fact that of late tension in international relations had relaxed considerably and that more favorable prospects existed for the consolidation of peace throughout the world. How did this come about? What are the major reasons for the changes in the international situation?

Khrushchev indicated that the underlying reason that times had changed was the growth in strength and international prestige of the Soviet Union and of all the socialist countries. He declared that a more sober assessment of the situation had begun to prevail in the West, together with a more realistic appraisal of the relationship of forces which had taken place on a world scale.

Such an approach, he noted, must inevitably lead to the conclusion that plans for the use of armed force against the socialist world have become outdated. "Life itself demands," he said, "that states with different social systems learn to live in peace on our planet, to coexist peacefully."

Peaceful coexistence is an objective necessity prompted by the present situation in the world and by the present state of development of human society.

The principle of peaceful coexistence of states with different social systems, the Chairman indicated, means non-interference in each other's domestic affairs, the necessity for mutual concessions and compromises, the need for both sides to strive to solve problems by peaceful means, not by recourse to arms. But it must be kept in mind that mutual concessions in the interest of peaceful coexistence must not be confused with concessions of principles. There can be no concessions with regard to questions of ideology.

"The only possible existence is coexistence," a recent editorial commented in the British newspaper *Star*. That is as close to the heart of the matter as any one is ever likely to come. In this age of hydrogen bombs and intercontinental missiles, war is inconceivable. It would bring death and destruction to every corner of the globe. The only sane alternative in a world with two different systems is peaceful coexistence.

There are bound to be differences in two ways of life as basically dissimilar as capitalism and socialism. But these are differences of ideology, they do not necessarily affect relations between states. The Soviet Union and the United States have no territorial disputes, nor are they contending for markets and sources of raw material. Here then the most basic element for hostility and armed conflict is ruled out of the international picture.

The peaceful competition between the two systems is essentially a constructive one—which system is the more progressive, which can give its adherents more of the good things of life—food, clothing, housing, education, leisure and security.

Common interests in the preservation of peace, this decisive issue for all, is, in the Soviet people's opinion, the real bond that will promote peaceful coexistence between two different social systems. The year 1959 strengthened the hope among Soviet people and also among all the people of the world that the idea of peaceful coexistence would triumph.

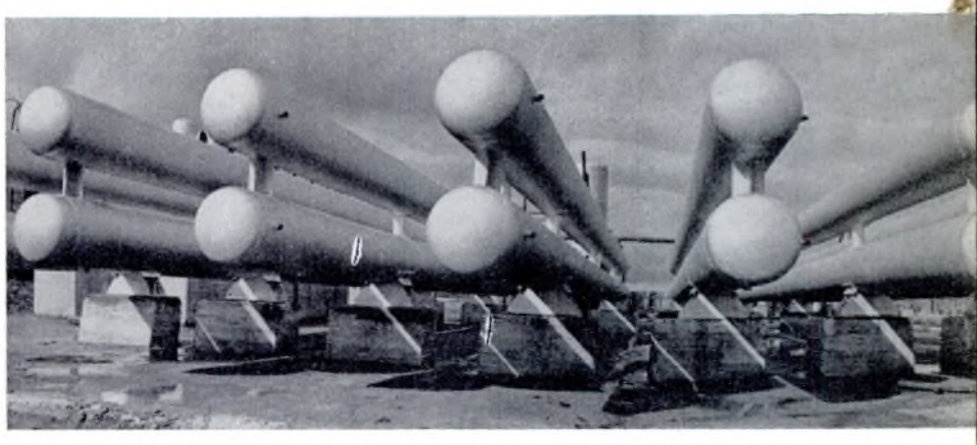
Nikita S. Khrushchev in his report to the Soviet people on his visit to the United States phrased the question which every right-thinking person, every humanist, is asking in this time of great discoveries: "Must we, in this period when flowering human genius is penetrating the secrets of nature and harnessing its mighty forces, reconcile ourselves to the perpetuation of relations that existed between people when man was still a beast? . . . Today nothing can justify the preservation of the kind of relations that existed between primitive people. Our time can and should become a time for the realization of great ideals, a time of peace and progress."



IN 1959 THE USSR BUILT MORE THAN 925 MILLION SQUARE FEET OF URBAN HOUSING.

SOVIET TECHNICAL SCHOOLS GRADUATED 106,000 ENGINEERS IN 1959.





1959 INDUSTRIAL OUTPUT WILL TOP THE TARGET FIGURE BY 4 TO 5 PER CENT.

MORE GRAIN, MEAT AND DAIRY PRODUCTS FOR THE SOVIET FAMILY.






# The Year's History in pictures

ON THE FOLLOWING PAGES we present a photo-chronicle of some of the most important events of the outgoing year. Were space available any number of other events in addition to the ones we have chosen would be included.

These photos are in the nature of a sampling. They do not give a detailed picture of the day-to-day progress of the Soviet Union nor of the work under way that opens new horizons for the Soviet people and for the people of the world.

The journalist Lincoln Steffens, in his famous autobiography, said about the Soviet Union, "I have seen the future and it works." Here we have the future brought up-to-date by a people who had chosen socialism as their way of life at the time Steffens was writing that phrase. For 42 years socialism has been a daily reality in the Soviet Union. Developing out of that reality is a new type of man.

This developing socialist man is depicted in other articles in this issue—*Communist Work Team at a Railroad Depot*, *People's Universities* and *Degtyarsk—Copper City in the Urals*.

His work and accomplishments are described in the articles *The First Year of the 7-Year Plan*, *Moon's Hidden Side Photographed by Soviet Space Camera*, *Atomic Icebreaker* and in these photos.

Readers will find the beginning of the *1959 Photo-History* on the front and back covers of the magazine. Pictured are the Soviet cosmic rockets which flew to the moon and around it; the airliner TU-114 which flew N. S. Khrushchev on a good-will mission to the United States; the *Lenin*, the world's first atom-powered icebreaker embarking on its maiden voyage; and the labor triumphs of the first year of the seven-year plan.

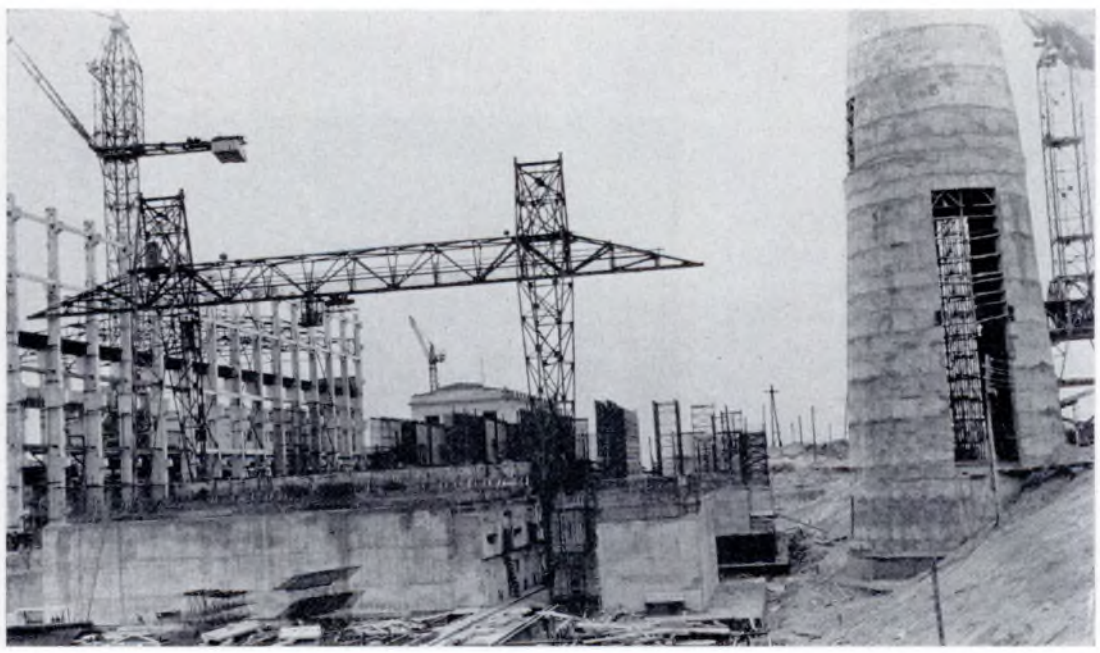


**THE CONGRESS OF COMMUNISM BUILDERS,** the Soviet people named the Twenty-First Congress of the Communist Party of the Soviet Union, held in Moscow on January 27—February 5. The Congress adopted the USSR Seven-Year Plan for 1959-1965, presented by Nikita S. Khrushchev, First Secretary of the Party's Central Committee and the Chairman of the USSR Council of Ministers.

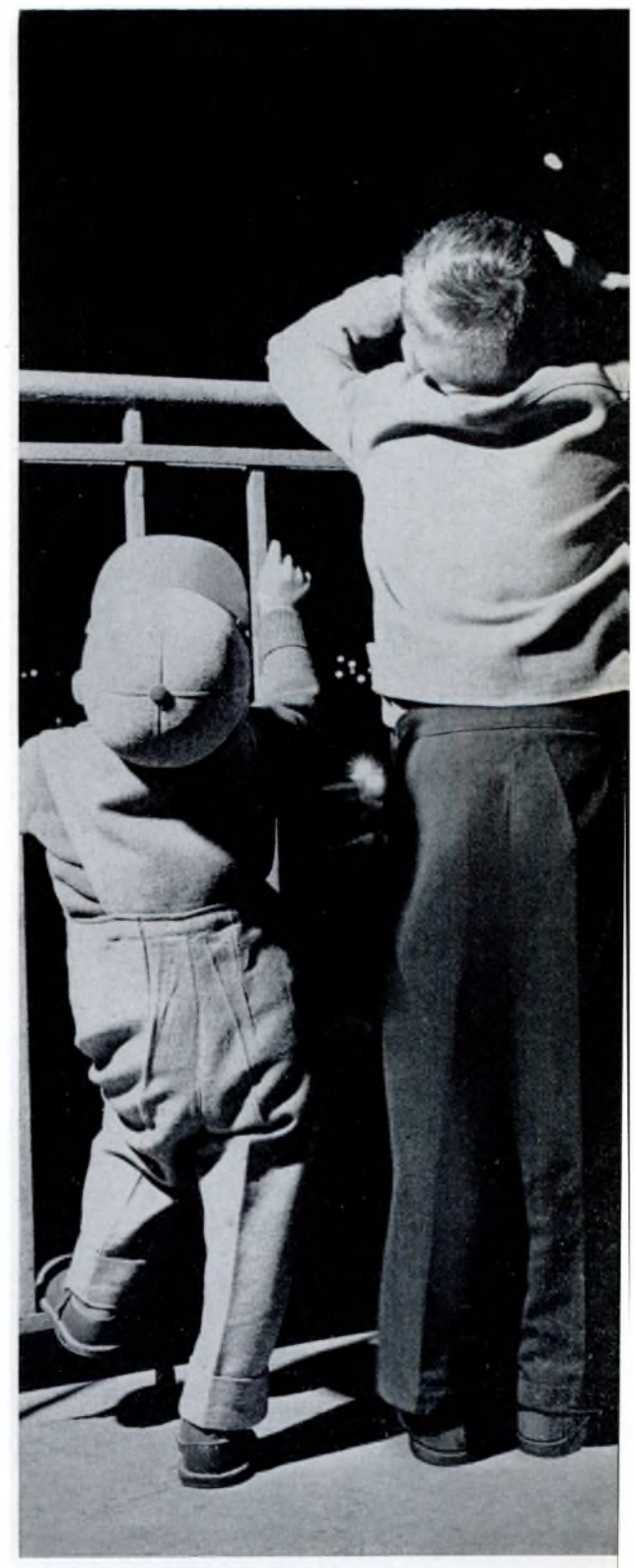
# MEMORABLE EVENTS OF 1959



**HEROINE OF SOCIALIST LABOR.** The title was given textile worker Valentina Gaganova, (third from right), who left an advanced group to join a lagging team of shopmates, though it meant a cut in pay, in order to show them how to raise their production level. Gaganova's initiative, motivated by her communist attitude toward work has been emulated by thousands of Soviet workers and farmers.



**AN ATOMIC POWER STATION** going up near Voronezh, one of many under construction in the first year of the seven-year plan. Atomic stations will absorb an increasingly larger share of the country's power balance. This year marked the fifth anniversary of the Soviet Union's—and the world's—first atomic station that pioneered an intensive atomic power development program.



**THREE COSMIC ROCKETS** were launched this year in the Soviet Union's space exploration program. Their flights were followed by young and old all over the world.

# Memorable Events of 1959

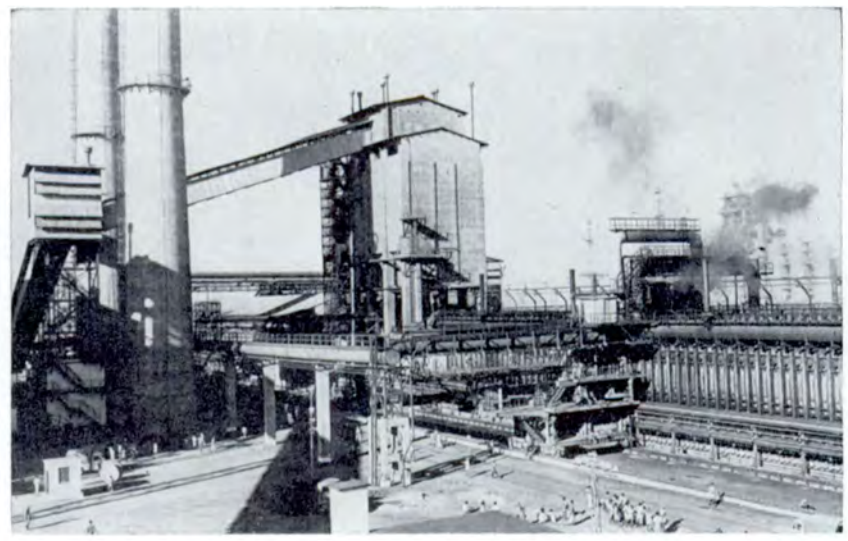





**BRITISH PRIME MINISTER** Harold Macmillan made an official visit to the Soviet Union. The fruitful talks between Mr. Macmillan and N. S. Khrushchev led an almost twofold increase in the exchange undertakings between Britain and the Soviet Union. The Prime Minister's visit was one of a number of meetings with foreign statesmen this year which contributed to improved international relations.



**ANASTAS MIKOYAN,** the USSR's First Deputy Premier, made a cross-country tour of the United States in January. His talks with Americans of many different walks of life helped to build better understanding between the Soviet and American people.



**FRIENDLY ASSISTANCE** given to underdeveloped foreign countries with no political strings attached. This is one of the buildings in a metallurgy plant constructed in Bhilai, India, this year by Soviet and Indian workers. Projects like this one are financed by Soviet long-term, low interest loans.



**AT THE LEIPZIG SPRING FAIR,** one of many exhibitions at which the Soviet Union displayed a large assortment of industrial and consumer goods. During 1960 the USSR plans to take a larger part in these fairs, which promote friendship by providing a medium for better understanding among nations.



**THIRTEEN HUNDRED DELEGATES** represented the country's 53 million industrial and office workers at the Twelfth Trade Union Congress which met in Moscow in March. The Congress considered the job required of the unions by the seven-year plan.



**THE AVIATION INDUSTRY** turned out many new models of passenger planes during the year. Both the TU-104B, a turbojet which carries 100 passengers, and the turboprop TU-114, shown in this photo, went into service in the Soviet Civil Air Fleet.



**ART EXHIBITIONS** seen by Muscovites this year included a show of the Art of the Socialist Countries, paintings from New Zealand, modern Greek engravings and the fine arts of Iceland. Soviet Artist Sergei Konenkov opening one of the art shows.



**PEOPLE'S UNIVERSITY** is the term usually used to describe the USSR Exhibition of Economic Achievements in Moscow. People from all over the country come to see the displays of outstanding factories, farms, design and research institutes, to learn about the latest developments in every field of endeavor.



**A NEW TWO-DECKER BRIDGE** to span the Moscow River was built this year. It carries the cars of the expanding Moscow Metro and cuts travel time to the southwestern section of Moscow, one of the fastest growing parts of the city, where whole blocks of apartment houses have been built at a very fast rate.



**USSR SUPREME SOVIET DEPUTIES** visited Britain this spring. The delegation headed by Mikhail Suslov (second from left), met with Members of Parliament and political leaders to exchange legislative experience and further interparliamentary contacts.

# Memorable Events of 1959






**A LENIN PEACE PRIZE** was awarded to Nikita Khrushchev this year for his work on behalf of world peace, and to the American scholar William DuBois, the German labor leader Otto Buchwitz, the Greek writer Kostas Varnalis and the British journalist Ivor Montagu.





**FOR OUTSTANDING CONTRIBUTIONS** to science, technology, literature and the arts Lenin prizes are awarded annually. A group of this year's winners (left to right), playwright N. Pogodin, actors B. Smirnov and M. Straukh, film director Y. Solntseva, sculptor A. Kibalnikov and composer A. Khachaturyan.



**AN AGREEMENT** concluded between Great Britain and the Soviet Union in March very much broadened the areas of exchange between the two countries in the arts, education, science and technology. G. Zhukov (right) and K. Mayhew sign the agreement.



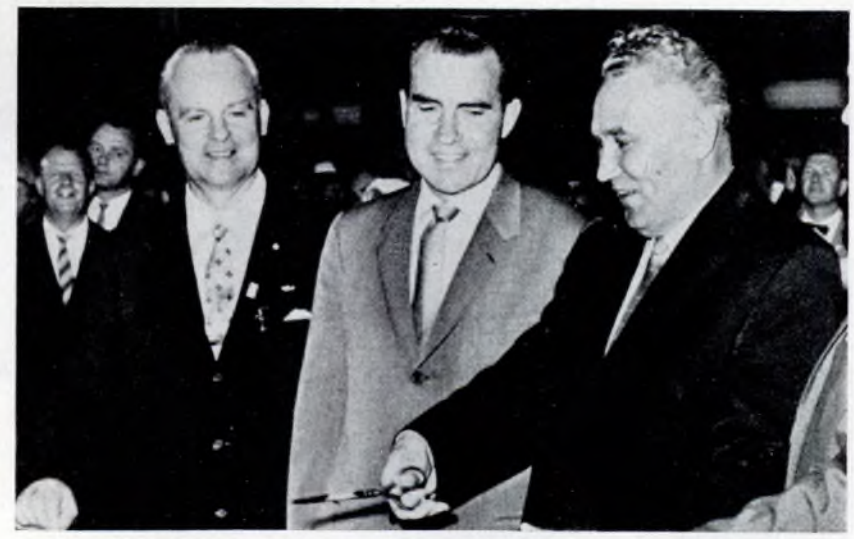
**THE AMERICAN NATIONAL EXHIBITION** opened on July 24 at Sokolniki, one of Moscow's most popular parks. It was officially opened by Vice-President Nixon who flew to the USSR for the occasion. It ran for 42 days and was visited by more than 2 million people from all over the Soviet Union who came to get acquainted with the United States.



**A WORLD YOUTH** and Student Festival was held in Vienna during the summer. Attending as delegates were 800 young Soviet workers and students. The Soviet and French delegations get together.



**THE ANGARA RIVER IS DAMMED OFF.** The great project was completed in an extraordinarily short time. The builders are now working on the hydroelectric station, trying to get that too done ahead of schedule. It will be the largest in the world.



**THE SOVIET EXHIBITION OF** Science, Technology and Culture held at the Coliseum in New York last summer was opened by Frol Kozlov, USSR First Deputy Premier. During the 42 days of its run, 1,200,000 Americans saw 10,000 displays which gave them a glimpse of the life and work of Soviet people.



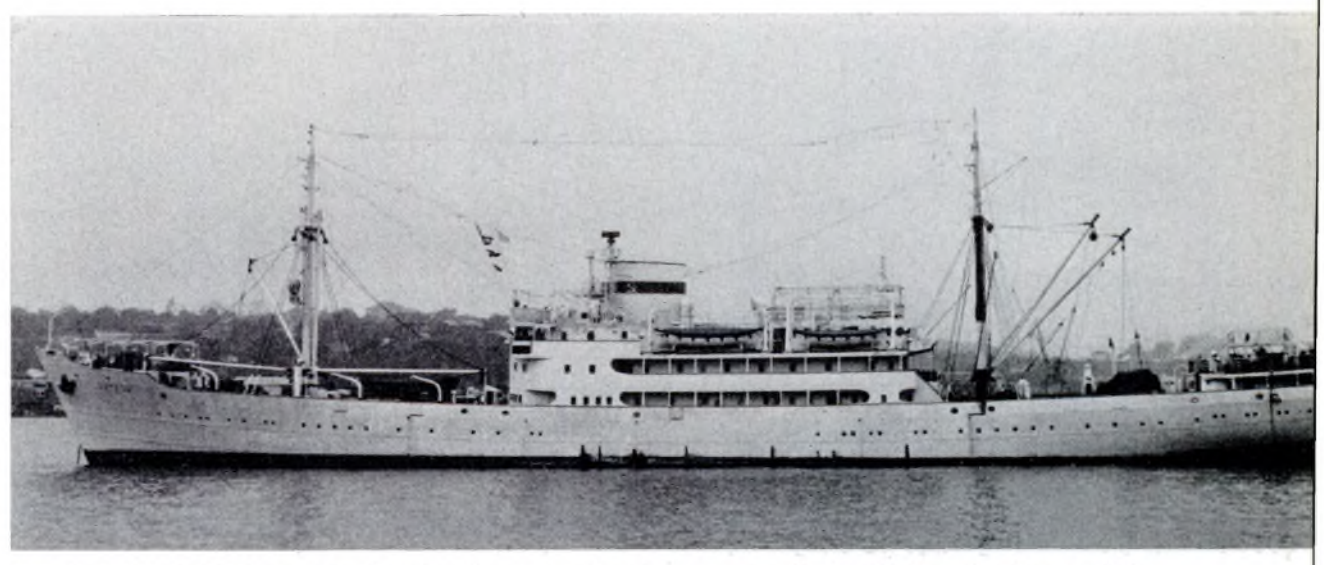
**THE THIRD WRITERS CONGRESS** met this year. Men of letters from 49 of the nationalities of the USSR participated. The discussion emphasized the greater demands that Soviet writers were making on themselves with regard to the quality of their material and their sense of responsibility to society.




**A HOUSE OF FRIENDSHIP** with Peoples of Foreign Countries was opened in Moscow this year to serve as a center for international meetings, art exhibitions, seminars, film festivals, concerts and other events that help to build understanding.



**TOWARD MANNED FLIGHT.** On July 10 one of these dogs made his fourth cosmic voyage. These veterans bring back invaluable data.



**THE WORLD'S OCEANS** were explored and a comprehensive program of scientific investigation carried on by such floating laboratories as the "VITYAZ," part of a flotilla of Soviet scientific ships that include the "Zarya," the only non-magnetic vessel in the world; the "Ob" and the "Lena" that explore the Antarctic waters, and the "Mikhail Lomonosov" that dropped anchor in New York for the Oceanographic Congress.

# Memorable Events of 1959






**LET US DISARM,** Khrushchev said in a speech to the General Assembly of the United Nations when he visited the United States this fall. He proposed a plan for complete and general disarmament within a period of four years so that no nation would have the means with which to wage war. "The new proposal of the Soviet Government," he said, "is prompted by the sole desire to secure a truly lasting peace."



**SOVIET-AMERICAN** cultural exchange program had a successful year. The Bolshoi dancers were among the Soviet artists who performed in the USA, while Soviet audiences applauded visiting American artists.



**NATIONAL FESTIVALS** have become traditional, providing the opportunity to review the artistic achievements of the various republics. This is a dance company at the ten-day festival of Karelian cultural arts held in Moscow this summer, during which opera groups, choruses and drama companies performed in the theaters of the capitol.



**AMERICANS IN LARGER NUMBERS** visited the Soviet Union this year. All of them met with the customary Russian friendliness and warmth. Here a group interested in atomic developments is on a visit to the Institute of Joint Nuclear Research at Dubna.



**WORLD'S FIRST ATOMIC ICEBREAKER,** the "Lenin", was launched this year as part of the USSR program for development of atomic energy for peaceful purposes. John McCone, who is head of the United States Atomic Energy Commission, is taken through the new ship by builder V. Chervyakov.



**MISSION OF PEACE AND FRIENDSHIP** is what people the world over called the visit of the head of the Soviet Government to the United States, hailing it as the most important step in postwar years toward the establishment of lasting peace.



**MEETINGS WITH AMERICANS** convinced us, said Nikita S. Khrushchev that American people do not want war and are for peace and friendship with the Soviet people. Mesta machine plant workers in Pittsburgh asked the Chairman to convey their warm greetings to the workers of the Soviet Union.



**AMERICAN FARMERS** on a tour of the USSR find that Soviet farm machinery handles well. This exchange delegation was one of many which bore witness to this year's growing USSR-USA contacts.



**ON A VISIT TO CHINA** with a Soviet government delegation Nikita Khrushchev is greeted at the Peking airport by Mao Tse-tung and Chou En-lai. The delegation arrived to celebrate the tenth anniversary of the People's Republic of China. The friendly visit demonstrated the friendship and fraternal cooperation that exists between the two great socialist countries.



**AUTOMATION** of industrial plants was speeded up during the year to meet the target figures of the seven-year plan ahead of schedule. The work was spurred by a plenary session of the Central Committee of the Communist Party that was held in June.



**THE SUPREME SOVIET** met before the close of the year to consider a report on progress made during 1959 and to adopt a budget for the year ahead whose allocations for higher wages, more housing and social services and larger quantities of consumer goods attest to a constantly rising Soviet living standard.

# MISSION OF PEACE

## APPROVED BY



IT IS a basic precept of socialist democracy that government officials, whether they hold a village post or lead the nation, report on their activities to the people. It was in affirmation of this principle to which the Soviet Union has adhered since its founding days that Nikita S. Khrushchev went directly from the plane which brought him home from his historic American visit to a great meeting in Moscow attended by 15,000 people. There he made his report to the nation.

Following that welcoming rally he spoke at a mass meeting in Vladivostok, then to the builders of the giant Bratsk hydroelectric project in Siberia, then to the people of Krasnoyarsk and Novosibirsk.

After the Chairman's reports, meetings were held in every town and village, every factory and collective farm at which the Soviet people discussed the visit, its values and its probable consequences. Together with peace-loving people in every other country, they were unanimously agreed that N. S. Khrushchev's historic mission was a great contribution to world peace.

At these meetings of machine builders in a Moscow plant, metal workers in a Siberian mill, clothing workers in a Moldavian factory, cotton growers on an Uzbek collective farm, men and women pledged their efforts to build for peace by completing the country's seven-year economic plan ahead of schedule.

Typical of the meetings held elsewhere in the Soviet Union was the rally at the Tryokhgornaya Mills, one of the oldest textile plants in Moscow. As is customary at important public gatherings, the most highly respected workers of the mill sat in honored places on the stage beneath a portrait of Lenin. The auditorium was festooned with a great streamer that read "Long live friendship and cooperation between the people of the United States and the Soviet Union in their joint work to end the cold war and bring peace to the world."

This was the theme of the meeting. It began with a report by Vsevolod Parkhitko, correspondent of the newspaper *Sovietskaya Rossia (Soviet Russia)*, who together with forty Soviet newspapermen had covered N. S. Khrushchev's tour across the United States. The speaker termed the visit an event which had stirred the minds and hearts of people everywhere in the world. After a short account of the Chairman's visit the floor was thrown open for discussion.

# AND FRIENDSHIP

## THE PEOPLE



The first person to speak was **Darya Smirnova,** a spinner, who has been working at the mill for the last 26 years, ever since she finished trade school.

"Like everybody else," she said, "I followed Nikita Khrushchev's tour with great interest, for he was taking the trip on our behalf, on behalf of all the Soviet people, as an emissary of peace. It was we, the Soviet people, who had authorized the Chairman to tell the American people and their statesmen that we do not want war.

"We authorized Nikita Sergeyevich to tell the American people that the Soviet people want to live in peace and friendship with them.

"The last war left many wounds in our hearts which will never heal. I was 23 years old when it began. My husband went to the front and never came back. It is sad to be widowed at 23. That is what the war did to me and that is why I hate it.

"N. S. Khrushchev expressed my hatred for war in his American speeches. He was perfectly right when he said that war could and should be avoided, that countries with different social systems could and should dwell on one planet together.

"One feels like thinking, reading, and talking about such events as this visit all the time. Particularly important, to my mind, was Nikita Sergeyevich's speech at the United Nations General Assembly. Like most of my countrymen, I welcome the Soviet Union's proposal for general disarmament. The realization of this plan would free enormous resources for peaceful purposes: for the development of industry and agriculture, science and culture, and a better life for all the people in the world.

"N. S. Khrushchev was our emissary for peace and he fulfilled his mission well. We Soviet people have the custom that the good actions of one man must be followed by the good actions of others. Nikita Sergeyevich worked honestly for the glory of peace, and we must not lag behind him. Our sphere is labor. Let us fulfill the annual production plan a month and a half ahead of time. Let us meet the target figures of the seven-year plan in five years. It is altogether possible."



Carpenter **Alexander Savrasov** then asked for the floor on behalf of the war veterans.

He said: "This is the first time in the history of the Soviet State that the Chairman of the Council of Ministers of the USSR went to America. N. S. Khrushchev's visit and his talks with President Dwight Eisenhower have already yielded results. The ground has been laid for establishing stable peace. The road has been opened for friendlier relations between the people of the Soviet Union and the United States. War as a means of solving differences is slipping into the past. There must be no place for war on earth.

"I was a soldier and spent the whole of the second World War at the front until I reached Berlin. All those years I saw the death and ruin of war. I saw the tears of Russian and German mothers. Now I am working at this textile mill and my son is working here with me. I don't want him ever to have to go to war. N. S. Khrushchev's visit to the United States is one of the guarantees that he will not have to. War veterans welcome the Khrushchev-Eisenhower agreement that all international disputes must be settled not by force but by peaceful means."



The next to speak was young weaver **Antonina Sivukhina.** Just past 20, Antonina came to the Tryokhgornaya Mills three years ago straight from secondary school. She took a training course and became a weaver. She is now enrolled for an advanced correspondence course at the Moscow Textile Institute.

Her sincere words about the hopes and aspirations of the Soviet people, the hope that Nikita S. Khrushchev's visit to the United States will strengthen world peace, were warmly applauded by the workers.

"I am very glad," said Antonina Sivukhina, "that N. S. Khrushchev has visited the United States. It is difficult to express the importance of his mission in a few words, but the main thing, in my opinion, is that now the people have a clearly-stated plan of peaceful coexistence with no misinterpretation possible. This plan is understandable to all: to disarm and live in friendship.

"Nikita Sergeyevich has expressed our thoughts and wishes, and that is why we young people have been reading his speeches so eagerly. We, the young people, need peace, for it is on this that our hopes for the future are pinned."



Young engineer **Cecilia Rosinskaya,** a shop superintendent, spoke of the hopes of the Soviet and American people for a lasting peace.

"The great American, Abraham Lincoln," she said, "once declared that the best thing a man could have was a friend. This splendid idea fully expresses the cherished aspirations of the Soviet and American people. The correctness of Abraham Lincoln's words is shown by Nikita S. Khrushchev's successful visit to the United States."

# Let's Work Together

**By Vyacheslav Yelyutin**

**USSR Minister of Higher Education**

ALL OF US who accompanied Nikita S. Khrushchev on his historic visit to the United States were most gratified to observe with what warmth Americans welcomed the head of our government. It attested to the fact that there are no insuperable barriers to normal, friendly relations between our two great countries.

### Increasing Contacts

Scientific and cultural exchanges are playing an important role in fostering better mutual understanding and friendly, good-neighbor relations between the Soviet Union and the United States. In line with a provision of the exchange agreement signed two years ago, 22 American graduate and undergraduate students studied at Soviet universities in 1958 and 17 Soviet students studied at American universities. This year the process was repeated with 27 students from each country.

We talked with our Soviet exchange students attending the University of California. There is no doubt whatsoever, judging by that conversation and others we had with Americans, that the exchanges are mutually serviceable.

American scientists and educators who visit our country are unfailingly impressed by the earnest desire of the Soviet people for peace and their resolution to build their industry, agriculture, science, education and culture in a world without war. They see evidence of that in the unceasing efforts of the Soviet colleges and universities to promote international communication; in the training provided by Soviet colleges to students from 47 foreign countries; in the active participation of our scientists in international congresses. This is being done in the interest of developing education. It serves the noble aims of disseminating scientific knowledge and bringing up a well-educated young generation.

During our American tour we visited the Universities of California, Columbia, Drake University in Des Moines and Iowa State University, and talked with the presidents and many of the professors and students. They all stressed the desirability of closer contacts between American universities and colleges and ours.

### Education of the Soviet People

American university people were very much interested in our methods: the way we combine theory with practical and productive work training; how we train our specialists; in the fact that our government not only subsidizes all higher education but pays maintenance stipends to more than four-fifths of the total student body.

Some American college people were surprised to find that our courses of study for the training of engineers, agronomists and others of the applied science professions include the humanities, economics, philosophy, history of the Communist Party and foreign languages. They had been under the impression that we paid only scant attention to these general education studies and concentrated almost completely on the specialized courses.

### Reason Will Triumph

We came away from these conversations with our American colleagues convinced that they wished us well, that they were as eager as we to expand contacts and to communicate ideas and experience. Our talks emphasized the positive areas in which we could work together rather than those issues on which we differed. They believed with us that in order to create understanding and build friendship we must devote our greater attention to those problems which can unite us, rather than to those which may serve to divide us.

Our peoples are united by lofty, humane ideals—the struggle for the consolidation of peace, for progress and prosperity for the whole of human society. Education and science have the long-standing tradition of serving the humane purposes of a peaceful life for the people. These aims are persistently advancing new demands, namely, to unite the efforts of our scientists, the whole of our youth, of our intellectuals in the fight for the right of all nations to live in peace and to settle all questions only by peaceful means. Human reason is gaining the upper hand in international relations and it will triumph in the end.

WITH NIKITA S. KHRUSHCHEV, YELUTIN (WITH LIGHT TIE) VISITS IOWA STATE UNIVERSITY.



MINISTER OF HIGHER EDUCATION YELUTIN TALKS TO AMERICAN TEACHERS.



# We Offer a Hand of Friendship

**By Vasili Yemelyanov**

***Chief, USSR Central Administration for Use of Atomic Energy for Peaceful Purposes***

IN OCTOBER 1957, when the first Soviet sputnik went into orbit, the correspondent of an influential Dutch newspaper dropped in at the Soviet office of the International Atomic Agency in Vienna. By all indications the journalist honestly wanted to understand the remarkable event and to find an answer to a question which disturbed him profoundly.

"How do you explain," he asked, "the fact that the Soviet Union was the first to build an atomic power station, to develop an intercontinental rocket, to put an artificial earth satellite into orbit? Is it because there are more gifted people in your country than elsewhere? And if so, why?"

Why indeed? The question has been bothering a great many people these past few years. Here is a country which only recently lived through a terribly destructive war that razed whole cities, amazing the world by its scientific and technological accomplishments. How was it possible?

During his memorable tour across the United States, Nikita S. Khrushchev time and again answered the question in his speeches and in his replies to questions, explaining the sources of the tremendous achievements of our socialist country.

The Soviet Union has organized its scientific research and its technology most productively. This is a fact which even economists and scientists in capitalist countries now acknowledge. But organization is not the heart of the answer. The answer lies in the immeasurable superiority of the socialist system over the capitalist system. And it is this that explains the Soviet Union's successes.

We Soviet people are well aware of the fact that America is a rich country. But we know also that our own rate of economic development is faster and that soon the Soviet Union will not only come abreast of the most productive country of the capitalist world but will forge ahead of it.

## Scientific Potential

In general, American scientists and engineers appraise the potential of Soviet science and technology with a fair degree of accuracy. There are some, however, who still operate on the old comparison of a technically developed United States and a backward Soviet Union, with only an occasional Soviet scientist making a major contribution. But those times are far in the past. Today the Soviet Union graduates three times as many engineers as the United States.

Twelve years ago, when we had not yet recovered from the war, we asked American firms to sell us laboratory equipment to equip scientific institutions we were rebuilding, which had been destroyed in the war. There were certain types of vacuum pumps, for example, that pumped at a rate of thousands of liters per second that we needed to build such machines as accelerators of nuclear particles. At the time, we did not know how to make such pumps, nor were they made in Europe. A number of American firms were making pumps with a capacity of 5,000 to 7,000 liters per second.

But there were those who held rather unreasonable positions and guided themselves by this rule: Hold others back as far as possible and as long as possible. The decision was against selling vacuum equipment to the Soviet Union.

And what was the result? We learned how to make the pumps ourselves. More than that. Soviet specialists developed advanced and varied designs of vacuum equipment that were superior. And when they were needed, our scientists designed and our engineers built vacuum pumps with a capacity of 40,000 liters per second for a 10 billion electron-volt proton synchroton, the most powerful in the world.

What we needed, we ourselves built. We made our own instruments and mechanisms and in process, we reared a brilliant group of designers equipped to solve any of the problems posed by the explosive growth of today's science and technology.

When we visited scientific institutions during our stay in the United States with Nikita Khrushchev we were very much interested in what we saw, but we did not look on awe-struck. We were equals in a common search for knowledge. We spoke to our American colleagues in language we had both mastered and that we both understood. We could appreciate and respect the complex and arduous research projects American scientists had under way because we were carrying on similar studies at home. We could make a valid judgment of a new type of instrument because we too were constantly working on new designs for equipment. In any number of research areas, whether theoretical or applied, our scientists were working along parallel lines.

We met with many American scientists during our tour of America. The common and often expressed wish was for cooperation and pooling of research. At a dinner given by the Economic Club in New York, one of the speakers, Dr. M. Kelly, expressed, I believe, the feeling of most American scientists. Dr. Kelly wants to see international scientific cooperation broadened. He is for extensive development of scientific and cultural exchange. On these propositions Soviet scientists are with him to a man.

Soviet scientists are well aware that scientific progress requires peace, while the solution of new scientific problems calls for coordinated efforts by scientists in different specialties—moreover, by scientists of more than one country. That is why Soviet scientists are for cooperation.

We offer American scientists the hand of friendship.

THE USSR'S VASILI YEMELYANOV (LEFT) AND THE USA'S JOHN McCONE—ATOMIC ENERGY ADMINISTRATORS.



# *Fight Jointly Against Disease*


***By Alexander Markov***

***A Member of the Collegium of the USSR Ministry of Health***





**ON HIS U.S. TOUR, PROFESSOR MARKOV VISITED CHILDREN'S CLINICS AND OTHER MEDICAL INSTITUTIONS.**

VERY little time has gone by since N. S. Khrushchev returned from the U.S.A. During this time, however, there has been, in all countries, a growing conviction about the truly worldwide importance of this event. In all countries, press commentators with the most widely differing views are writing that the ice of the cold war is breaking up and melting and that the air is becoming warmer.

Our meetings with Americans became increasingly cordial with every day we spent in the United States.

An important condition for improving the relations between the U.S.A. and the U.S.S.R. is mutual acquaintance with the life of the peoples in our countries. Our stay in America was naturally too short to give us an opportunity to study that country in every detail. Nevertheless many of the features of the life of the people of the U.S.A. did not escape our notice.

Undoubtedly the people of the United States are distinguished by their industry, initiative and enterprise and have achieved much in the all-round development of their country.

One carries away a striking impression of the American cities, with their dazzling neon lights, their skyscrapers, their heavy motor and pedestrian traffic. We should like to note, as one of the good characteristics, the discipline of American pedestrians. No one crosses the street when the lights are against him.

A cursory acquaintance with America very clearly revealed to me one feature which has entirely disappeared in our society. I have in mind the social contrasts.

As a medical specialist I was naturally interested in the way medical assistance to the population is organized. I wanted to see clinics and medical research centers, and also to meet doctors, health workers and scientists.

In big American cities there exist what are called out-patient clinics—the nearest approach to our own polyclinics. But in America it is necessary to pay in order to have a medical examination. Therefore the doctors working in those clinics cannot even dream of preventive examinations of the population.

It is to the credit of American medical workers that they are trying to find various ways of providing medical services and are preaching the ideas of the doctor's duty to give disinterested medical aid.

Beyond doubt, American scientists are skilled specialists, very competent in their own branches of science. As a rule, however. they have little knowledge of the work of Soviet scientists as they do not know Russian and do not read Soviet scientific magazines in a systematic way. In our conversations they admitted this shortcoming and pointed out that Soviet scientists do keep abreast of the progress made by medical science in the West.

### For Broader Contacts

As a rule our proposals for increasing contacts in the field of medical science met with a favorable response from American scientists. Many of them have visited the Soviet Union in the past few years; most of them dream of paying such a visit.

Among the medical practitioners and public health officials we met, we found a similar desire for broader contacts and for friendly joint work with Soviet medical workers in combating disease. They said that all mankind stood to gain from the competition between the United States and the Soviet Union in medical science, no matter who took first place. To some extent, allowing for the social conditions existing in each country, that is true.

So let us develop peaceful coexistence and let us compete in a friendly way in ensuring the well-being of our peoples—such is the will of the peoples of the United States and the Soviet Union. Let the American and Soviet medical specialists fight jointly against disease.

**CONFERRING WITH SOVIET COLLEAGUES AT HOME.**



# Develop Our Contacts

*By Nikolai Tikhonov*

*Chairman, Dniepropetrovsk Economic Council*



NIKOLAI TIKHONOV (IN THE FOREGROUND ON KHRUSHCHEV'S LEFT) AT THE MESTA PLANT IN PITTSBURGH.

**I HAD THE GOOD fortune to accompany Nikita S. Khrushchev on his visit to the United States.**

The economic contact that developed between our countries during the years before World War II, and particularly during the war years, helped to defeat our common enemy and to bring the American and Soviet people closer together. During the postwar years, however, these contacts were reduced to the vanishing point.

We here in industrial management are keenly interested in American progress. We would all like to visit American plants and see how they organize production. Not that we underrate our own organizational methods and production techniques. We do not consider them at all inferior to those used in American plants. In some areas of pure and applied science and engineering we lead the way. But we are eager to learn from American experience and apply what we find helpful to our own industrial development. Two-way exchanges of this kind cannot help but be mutually beneficial.

We were provided the opportunity of visiting and inspecting the modern computer IBM plant in San Jose, Calif., and were favorably impressed. We also made the rounds of the John Deere farm machinery works, the Firestone tire plant in Des Moines and a factory producing jet nozzles. The factories we did visit cannot, of course, give anything like a full picture of today's American industry. The newest of the works we saw were probably those manufacturing electronic computing machines, jet nozzles, and tires. Compared with our comparable plants there is no noticeable difference between them. As for the John Deere farm machinery plant and the Mesta works, we would not consider them the most up-to-date at all. True, the Mesta works has splendid designing personnel who make it possible to manufacture highly efficient metallurgical equipment.

We were impressed, at every plant we visited, with the order and neatness of the shops and the plant grounds. I had noted the same thing on a tour I made of a steel mill on a previous visit. This is an example for us to emulate.

ECONOMIC COUNCIL CHAIRMAN NIKOLAI TIKHONOV.



From talks with the American metal workers during our trip through the country we learned that after last year's exchange of delegations between U.S. and Soviet steel specialists, the Americans started to intensify the construction of agglomeration mills in order to improve the efficiency of blast furnaces. Our blast and open-hearth furnaces are now about 20-25 per cent more efficient than those used in the United States, and we hope to improve them in the very near future.

Mr. Jenks, Vice-President of U.S. Steel, the world's largest steel producer, visited our country with a steelmen's delegation last year. He told me he was most interested in Soviet methods and wanted to visit soon again.

American steelmen, I learned, want to be kept informed of future blast-furnace developments in the USSR, particularly our use of natural gas. The director of a Des Moines tire factory was interested in Soviet tire production methods.

At present our countries do not have either consistent or extensive economic, scientific, technical or cultural contacts. Does this help or hinder progress? The answer is obvious. Lack of systematic exchange makes for inevitable duplication of efforts. The same scientific and technical problems are sometimes worked on simultaneously and with absolutely the same approach and solution by researchers in both countries. Given normal relations, this could be avoided, thereby speeding research progress in both countries.

We favor a greater exchange of technical information and more frequent meetings of American and Soviet engineers. The strengthening of economic, technical and cultural relations will benefit both countries and will help to consolidate world peace.

# The First Year

OUR AIM is to give the Soviet people a standard of living higher than any country in the world has yet achieved. Some describe this as our challenge to the United States. "But what's wrong about that?" asked Nikita S. Khrushchev. "No matter who wins in this competition—you or we—both the Soviet Union and the United States will gain, because our nations will live in conditions of peace and far better than we do now." What are the realities of this economic challenge? What headway has the Soviet Union made this year in peaceful competition with the most advanced capitalist nation in the world?

The two countries are generally comparable in such factors as population, natural resources, percentage share of industrial workers and overall industrial and agricultural pattern. Both have a highly productive and many-faceted economy.

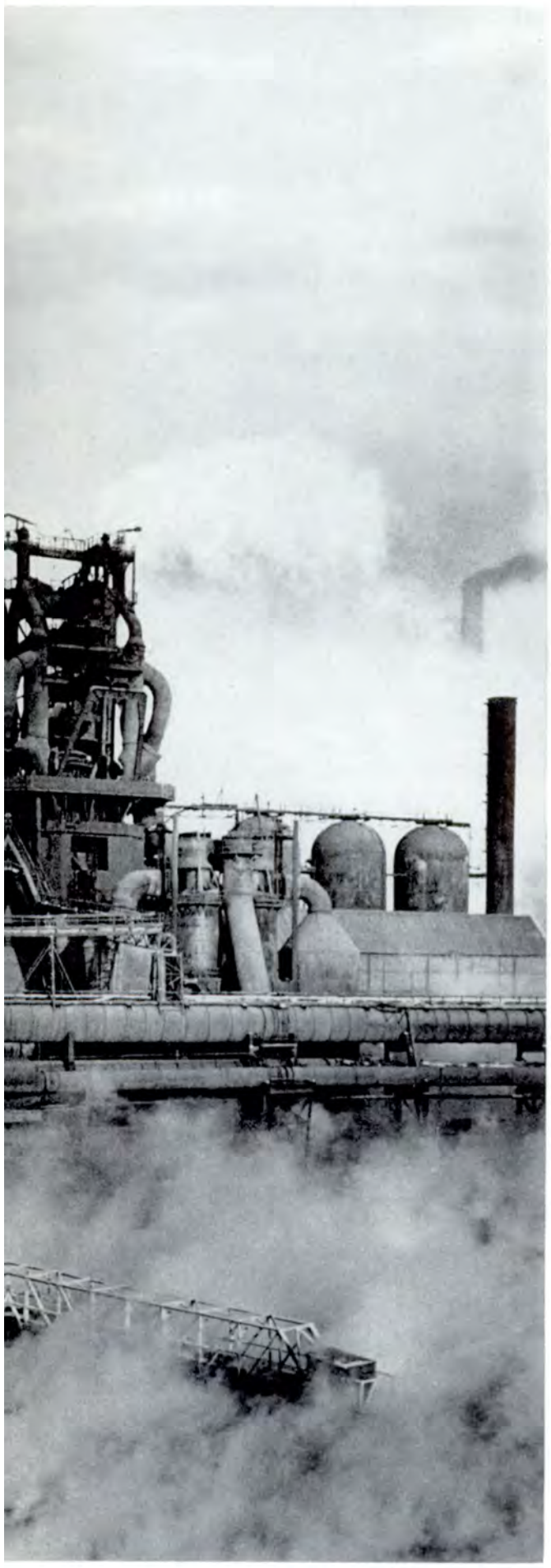
They have gone through different courses of development. In its 42 years, the Soviet Union has had to fight two incalculably destructive world wars and each time has rebuilt its gutted factories and burnt farms. The United States has gone through a relatively unimpeded 150 years of evolution; it has not suffered the ravages of a war fought on its own soil. Nevertheless, the comparative graphs of economic development show that the Soviet Union is destined to outproduce the United States.

The statistical evidence is now acknowledged by economists everywhere. There has been no denying the fact that the socialist economy of the USSR over a long period has been growing at a faster rate than that of the United States and other capitalist countries. Thus, in the period 1930-1957 the average annual rate of growth for the USSR was 11.5 per cent while for the USA it was 3.2 per cent; for Great Britain it was 2.2; for West Germany, 3.3; and for France, 1.3.

Were it possible to rule out the war years and the time required for reconstruction and to consider only the eleven pre-war years and the eleven post-war years as an uninterrupted period of development, the differentials would be even more startling: USSR—16.2 per cent: USA—2.7 per cent; Great Britain—3.2 per cent; France—3.1 per cent.

### Catching Up with American Industry

As a result, the gap between the USSR and the USA in production of major commodities has been narrowing with each passing year in both absolute and per capita figures. For 1958, the per capita output of Soviet steel was 40 per cent lower than that of the U.S.; the year before, 1957, the figure had been 58 per cent. Similarly in 1958, the tonnage of cotton fabrics produced was 41 per cent short of the American figure as compared with 58 per cent for the previous year.



IN 1959 INDUSTRIAL OUTPUT ROSE BY 12 PER CENT.



NEWLY-BUILT CANALS BRING WATER AND LIFE TO THE DESERT



NEW CHEMICAL PLANTS ARE BUILT IN THE SOUTH.

# of the 7-Year Plan

By Yuri Pokataev and Georgi Karkhin

As of the present the total volume of industrial output of the U.S. and the USSR compare in the proportion of 1.8 to 1; for farm produce the lag is only 20-25 per cent. In per capita figures—with population differences taken into account—the U.S. and USSR compare in the proportion of 2.1 to 1 in industrial output; the corresponding farm output lag is 40 per cent.

These figures become very meaningful when one compares them with Russia's industrial output before the Revolution. In 1913, prior to World War I, per capita output of the U.S. and the USSR was in the proportion of 13-14 to 1. By 1937, the proportion had been narrowed to 6.3 to 1. Looked at another way—in 1913 Russia contributed only 2.6 per cent of the world's industrial output; by 1937 the figure had jumped to 9.2 per cent and by 1958 to 20 per cent.

### USSR Beginning to Lead

As a result of this accelerated rate of economic development, within recent years the USSR has begun to lead the USA in absolute annual increase of a number of manufactured items. For the period 1953-1957 the USSR's absolute annual increase of cast iron production was 2.4 million tons as compared with 0.8 million tons for the U.S. The figures for other commodities shows a similar tendency. For steel, the USSR increase was 3.2 million tons; for the U.S. it was 0.3 million. For cement the comparable figures were 3.2 and 1.2 million tons; and for oil, 11.4 and 8.8 million tons. The USSR also leads the U.S. in rate of increase of aggregate industrial output.

These trends are reflected in the preliminary figures now available for 1959, the first year of the seven-year plan. Output figures are larger than those set up as goals a year ago. To judge by the data at hand, incomplete, but unquestionably predictive, Soviet industry will top the year's target figures by 4 to 5 per cent. Planned for was an increase of 7.7 per cent over the previous year; the actual production increase will be in the neighborhood of 11 to 12 per cent. This means 40 to 50 million more rubles worth of clothing, footwear, TV sets, furniture and foodstuffs than was originally planned.

Food output for the first nine months of 1959 shows an accelerated rise. The output of meat packing plants went up by 37 per cent, of whole milk products by 20 per cent and of sugar by 16 per cent.

While gross industrial output rose by 12 per cent, the manufacture of such consumer items as television sets rose by 30 per cent. refrigerators by 20 per cent and furniture by 26 per cent. These household items and a large list of other consumer goods will be put out in increasingly larger quantities this coming year and succeeding ones. The larger quotas to increase consumer goods production have already been assigned to the industries concerned.

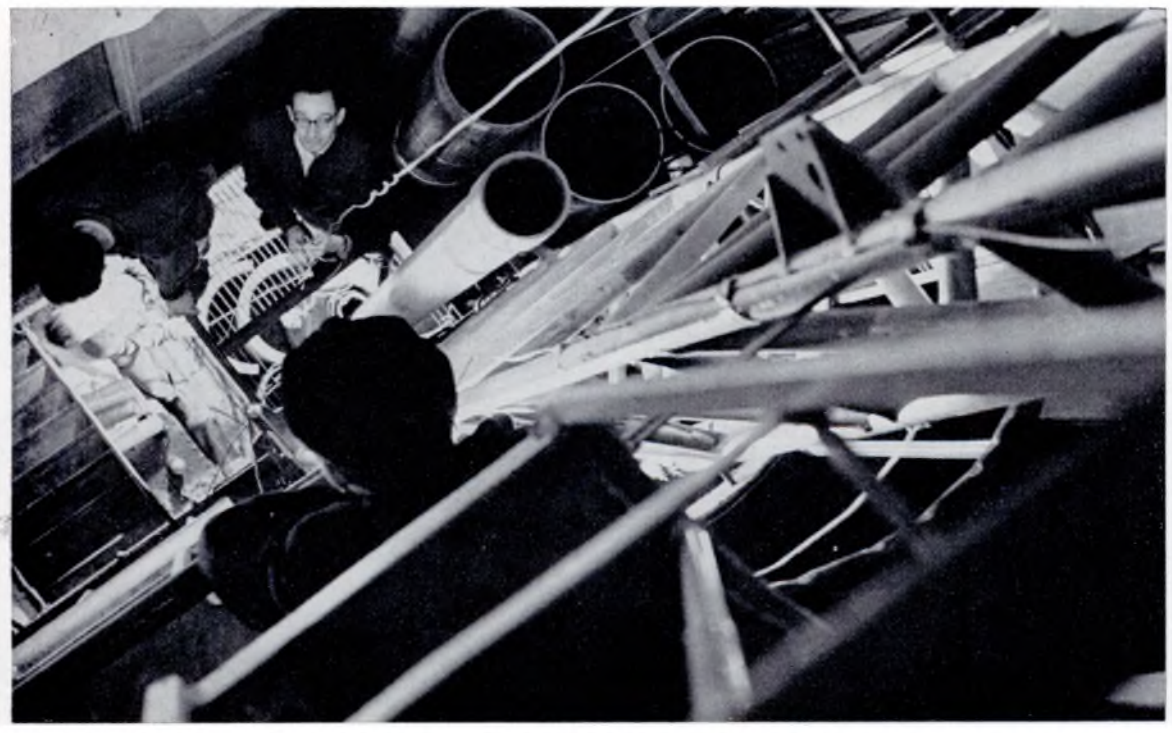
These returns for 1959, so much larger than were called for by the plan, prompted the Supreme Soviet at its budgetary session in November to raise the quota figures for the year ahead. This is a guarantee that the seven-year plan as a whole will be completed well ahead of schedule.

### The Program for 1960

Gross industrial output in 1960 will rise by 8 per cent as compared to this year's figures. The producer-goods increase will be 8.8 per cent and the consumer-goods increase 6.4 per cent. This is a thoroughly realistic forecast and is based on the larger potential provided by streamlining and automation of existing plants and the large scale industrial construction in progress.

Larger capital outlays are provided by the national budget for 1960, upwards of 255 billion rubles, some 5.7 times that for 1940 and 2.8 times that for 1950. If capital outlay for 1959 is figured at 100, the corresponding 1960 figure is 111. Four rubles of every ten will be channeled to Kazakhstan, Siberia, Central Asia and the Far East for economic development.

Capital outlay in 1960 to build up a larger chemicals industry will be 30 per cent greater than for 1959. Twenty per cent more will be spent for the iron and steel industry. 15 per



MECHANIZATION GREATLY INCREASES PRODUCTIVITY. THIS IS RADIOLOGICAL EQUIPMENT USED FOR OIL-WELL RESEARCH.



GAS PIPELINES ARE BEING LAID IN MANY REGIONS.



IN 1959 MORE CONSUMER GOODS WERE PRODUCED



. . . . . AND MORE VARIED FOOD PRODUCTS



MANY NEW YOUNG SPECIALISTS WERE TRAINED

# First Year of the 7-Year Plan

cent more for the gas and oil extraction industry. Housing and public construction will take a quarter of all capital outlay, more than 64 billion rubles.

Already diversified, Kazakhstan's industry, during the coming year, will be producing pig iron, coke, rubber, transformers and a variety of other goods.

Byelorussia, turned into a "scorched land" by the Nazis during the war, will continue building up its towns and villages and will be expanding its heavy and light industries.

The Latvian Republic will account for 20 per cent of the country's increase of production next year in such consumer items as refrigerators.

The Russian Federative Republic's food processing plants will be augmented by 9 new sugar refineries, 22 meat packing and 40 milk processing plants.

The Ukraine will expand its plastics and synthetic fibers industries.

Azerbaijan will be developing its chemical industries around oil gas.

To provide the republic with more electricity, work will begin on a 600,000-kilowatt station at Tbilisi, capital of Georgia.

Uzbekistan will be producing more silks, footwear and canned foods.

And so for each of the republics.

Along with an increase in the amounts allocated by the budget for peaceful construction comes a reduction in the proportion devoted to military expenditure. The Soviet armed forces have been reduced by more than 2 million in the past few years. Less money, consequently, has been allocated for defense in the 1960 budget. The figure is 12.9 per cent as opposed to 19.9 for 1955.

The Soviet citizen will be paying less in taxes in 1960 than he did the year before. His share in the 1959 budget was 7.8 per cent; it will be only 7.4 in 1960. One of the immediate aims of the seven-year plan, to reduce taxes, has been accomplished to the extent of an annual reduction of 12 billion rubles. The longer range aim is to eliminate taxes altogether in the relatively near future.

The end and purpose of all Soviet economic planning, whether for machine tools or toys, tractors or television sets, is to provide the worker with a fuller, easier, richer life. This is evident in the economic plan for 1960 as reflected in the annual budget.

By the end of 1960 the changeover to a 6-7 hour workday will have been made for all Soviet industrial and office workers. It was begun in the last quarter of 1959 for all personnel in engineering, metal working, gas and oil industries. In specified industries—mining and other underground trades, steelmaking, the nonferrous industries, chemicals, cement and others, the working day is already reduced to six hours.

This shorter workday is not accompanied by wage cuts. Wages, as a matter of fact, will be going up. The lowest paid workers are to get the largest wage increases. The budget puts aside 14 billion rubles for this purpose.

In spite of a shorter workday, the plan for 1960 foresees a 5.8 per cent increase in labor productivity, to be achieved largely through mechanization and new construction. Special measures are to be taken during 1960 to speed production in the light and food industries. Capital outlay for these industries will be 13.6 per cent greater than in 1959. As one example, an output of close to 8 billion yards is expected from the textile industry as a result of old mills being renovated and new ones completed during the year.

### More Consumer Goods Available

Food production is scheduled for large increases. Grain, meat and dairy output will be very measurably increased. By comparison with 1958, Soviet consumers will be eating 19 per cent more dairy products, 36 per cent more meat and 14 per cent more eggs this coming year.

There will be a large rise in the manufacture and sale of furniture and appliances. During 1960, there will be 48 per cent more furniture, 60 per cent more refrigerators, 95 per cent more washing machines and 70 per cent more TV sets sold as a result of special measures proposed by the government last fall to increase production, extend variety and improve the quality of consumer goods.

This year the government built a total of 925 million square feet of urban housing; in 1960 it will build more than a billion. During the coming year about ten million people will be moving into 2.4 million new apartments. The enormous scope of this new housing is more clearly visualized when one realizes that all the urban housing in prerevolutionary Russia amounted to no more than 2,066 million square feet—about the equivalent in space of 1959 and 1960 housing construction.

As the national income mounts, the real incomes of industrial and office workers and farmers go up accordingly. During the year the rise will be 5 per cent. This means a real income for industrial and office workers more than double the 1940 level, and for farmers almost two and a half times that year's figure.

Allocated in the 1960 budget are some 247 billion rubles for social and cultural needs, 15 billion more than were spent last year. About 102 billions of the total are budgeted for education, science and culture as compared



OUTPUT OF MEAT AND DAIRY PRODUCTS INCREASED CONSIDERABLY ON BOTH COLLECTIVE AND STATE FARMS.

with 94 billions spent for the same purposes in 1959. This increase will make for large numbers of better trained specialists in all fields of work. During the year Soviet colleges and specialized secondary schools will graduate 119,000 engineers.

About 4 billion rubles more will be spent for social insurance this coming year than the 98 billion of 1959. Physical culture and public health services are scheduled for an increase of 3 billion rubles.

This is a sampling of the Soviet Union's ambitious economic program for 1960, the second year of the seven-year plan, as pictured in the annual budget.

### Production in 1970

By 1965, with the seven-year plan completed, the Soviet Union expects to reach the present American production level in staple farm products, both absolutely and in per capita equivalents. As for the major manufactured commodities, Soviet output is expected to reach America's present level in some items and go beyond that level in others. In per capita terms, USSR industry will need an additional five years to overtake and surpass the U.S.

By 1970, perhaps earlier, the Soviet Union will be first on the list of world producers both in absolute and per capita terms. This development is inevitably determined by the comparative rates of growth of the United States and the Soviet Union.

The high Soviet rate of growth is the result of a number of forces—planning, socialist labor and the creative spirit of an educated people dedicated to a common task.

This last is the most crucial and determining force. In numbers of highly-trained experts in all fields of science and engineering, the USSR has run ahead of all other countries, the United States included.

The country's natural resources are abundant and are being exploited, both extensively and intensively. In explored reserves of iron ore the USSR now surpasses the USA, Great Britain, West Germany and France taken together. It stands first in explored reserves of manganese, copper, lead, zinc, bauxite, tungsten, mercury, sulphur, potassium salts, phosphates, oil, peat and other mineral wealth.

Fed by these resources are the newly built industrial enterprises and plants converted to increase their productive capacities. The largest enterprises of the country are being completely mechanized. Automatic production lines are operating in machine-building plants, in iron and steel mills, in oil refineries, chemical plants and a widely expanding complex of other basic industries. By 1965 the increased potential from automation will account for as much as 75 per cent of the rise in industrial output. All of these factors point to an increasingly accelerated rate of development.

The current plan is part of a longer-range design covering a 15-year period now being blocked out by Soviet economists. The 1975 picture shows the USSR running far ahead of the U.S. both in absolute and per capita output figures.

Tentative figures point to a total volume of production—both industrial and agricultural —one and a half times as great as the U.S. In per capita figures, the lead will be 33 per cent.

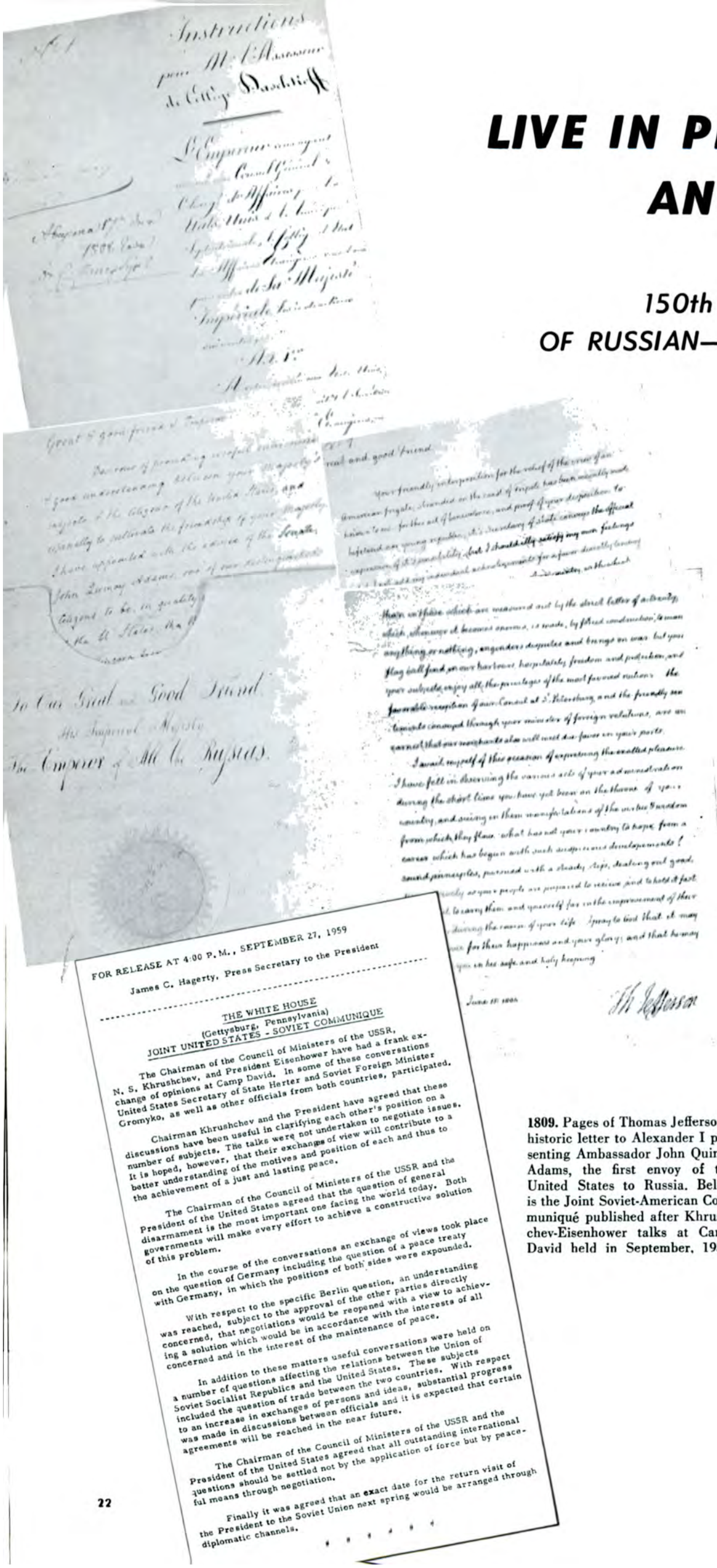
But this is the future. For the present—the immediate present—the Soviet people are harvesting the rewards of their labor in shorter working hours, in an abundance of food products, in increasing quantities of consumer goods, in more housing. In the offing—the very near offing—is an abundance of goods and services of all kinds, the complete abolition of all income taxes, enough new housing to end the shortage, a still shorter working day —in sum, a constantly rising standard of living. This is the immediate and ultimate aim of socialist planning—to build an economy of plenty.



PROCESSED FOODS HAVE BECOME MORE PLENTIFUL.

# LIVE IN PEACE AND FRIENDSHIP

## 150th ANNIVERSARY OF RUSSIAN—AMERICAN RELATIONS




**1809.** Pages of Thomas Jefferson's historic letter to Alexander I presenting Ambassador John Quincy Adams, the first envoy of the United States to Russia. Below is the Joint Soviet-American Communiqué published after Khrushchev-Eisenhower talks at Camp David held in September, 1959.

ON NOVEMBER 5, 1809, John Quincy Adams, the first American Ambassador to Russia, who later became U.S. Secretary of State and President of the United States, presented his credentials to Alexander I.

A century and a half is a sufficiently long period in which to test the vitality of the idea of friendship and cooperation between our two countries. These 150 years provide clear and distinct proof that friendship between the Soviet and American peoples rests on a sound foundation. The consolidation and development of this friendship is extremely important not only for our two countries but for the future of world peace.

The establishment of a good-neighbor relationship with our country was of prime importance for strengthening the position of the young American republic.

Russia was one of the first countries in the world to manifest sympathy—and in concrete terms—for the struggle of the American colonists for freedom. Even before diplomatic relations were established, the Russian government turned down the request of King George for an expeditionary force of 20,000 troops to suppress the American Revolution. It went further by declaring a policy of "armed neutrality" in 1780 whose practical effect was to break the foreign blockade of American ports.

### Documents of Friendship

Preserved in the archives in the Soviet capital are documents attesting to the long history of friendship between the two countries—an 1804 exchange of letters between President Thomas Jefferson and Emperor Alexander I which antedates diplomatic recognition, and correspondence between Nikolai Rumyantsev, Russian Minister of Foreign Affairs, and John L. Harris, American consul in St. Petersburg.

Following recognition, the good-neighbor relationship between the young republic and our country is documented by a letter from Ambassador Adams to Rumyantsev dated 1809 which conveys America's gratitude to Russia for urging the King of Denmark to free an American merchant vessel detained in a Holstein port.



1959. NIKITA S. KHRUSHCHEV'S VISIT DEMONSTRATED THAT ALL POSSIBILITIES EXIST FOR RESTORING THE TRADITIONAL FRIENDSHIP BETWEEN THE TWO COUNTRIES.

### Profitable Trade

In a letter to Alexander, Jefferson says. "I see with great pleasure the expansion of trade between our two countries." Russia then exported iron ore, flax, hemp, textiles and other goods to the United States. In the early 1800's the volume of U.S. imports from Russia exceeded 1.5 million dollars—a very brisk trade for the times. American ships carrying cotton, sugar and coffee unloaded at Russian ports.

An interesting old paper in the archives contains "Instructions of the Foreign Affairs Department to Andrei Dashkov on his Appointment as Russian Consul General in Philadelphia and Chargé d'Affaires to the United States of America." It instructs the appointee to encourage mutually profitable trade between the two countries.

Diplomatic correspondence of the period makes it clearly evident that Russia was then, to all intents and purposes, the only Great Power friendly to the young republic. This was also made manifest at other crucial periods.

### Sacred Alliance

During the American Civil War the Russian policy of favorable neutrality actively helped the Union cause. The good-will visit of two Russian naval squadrons to New York and San Francisco in the fall of 1863, undertaken at the request of American officials, assumed the character of a demonstration of solidarity for the North. Some historians describe this step taken by Russia as "the decisive chapter in the history of the Civil War." The *Herald Tribune* wrote that of all the powers "Russia was the one which displayed a truly friendly and cordial attitude toward the United States." And William Seward, Lincoln's Secretary of State, noted that Russia "had early become our friend."

During the same year two American envoys, Fox and Murray, were sent to St. Petersburg to convey the thanks of the American people. Following a hearty welcome they proposed "that a sacred alliance be concluded between the two great nations"—not to threaten war, but to promote the happiness and welfare of mankind.

### Pupils Worthy of Teacher

From its inception the Soviet Government sought to restore the tradition of friendship between our two countries. Describing the general line of Soviet foreign policy, Lenin stressed that the Soviet Union was firmly in favor of economic agreements with all countries and particularly with the United States. The attitude of the Soviet Government was received with understanding by the American public.

"After the Revolution," said N. S. Khrushchev in his speech at the luncheon given in his honor by Twentieth Century Fox studios in Los Angeles, "the Soviet Union set itself the task of learning from Americans. We sent our engineers to study here. They studied in your colleges and universities, worked as ordinary workers at the Ford plants and at other factories.

"At the present time our motor industry is directed by engineer Strokin, a minister of the Soviet Government. He is one of the best engineers in our motor industry. He worked at Ford's and Ford, greatly appreciating him, suggested to Strokin that he should stay at his plant. If Grandfather Ford were alive he could tell you what this pupil of his is worth.

"The Order of the Red Banner of Labor was awarded to Colonel Cooper, an American engineer, a consultant in the construction of the Dnieper Hydroelectic Station. Hundreds of American engineers worked in our industry in the years of the First Five-Year Plan. We are grateful to you for this and we bow to you in appreciation of your assistance. Be proud of our achievements as a good teacher, as a professor, is rewarded for his efforts by his pupils becoming worthy of their teacher."

### Fought Shoulder to Shoulder

Among the great services Franklin D. Roosevelt rendered the people was his realization, with particular clarity, of the absurdity and danger of the absence of normal relations between our two countries in the years when fascism was beginning to cast its deadly shadow over the world. Roosevelt's policy with regard to the Soviet Union was a reflection of the understanding displayed by farsighted circles in the USA of the fact that the people of our two great states should stand together in the most crucial periods of history.

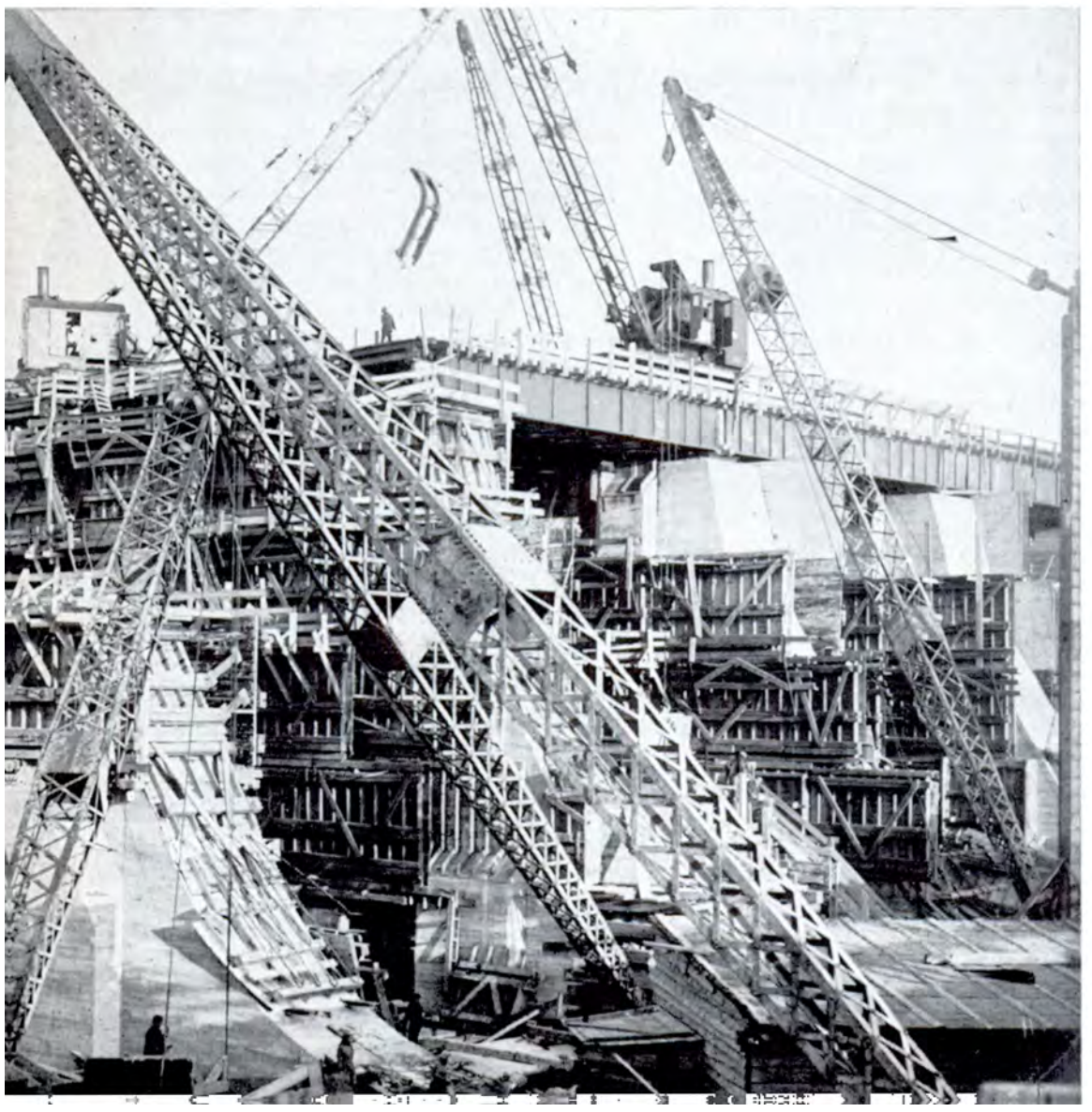
This found particularly striking confirmation in the years of World War II when American and Soviet people fought shoulder to shoulder. Cooperation between the USSR and



1920. SENATOR MAGNUS JOHNSON IS RECEIVED BY MIKHAIL KALININ, FIRST PRESIDENT OF THE SOVIET UNION.

# *LIVE IN PEACE AND FRIENDSHIP*

1929. AMERICAN ENGINEERS WORKED WITH THE SOVIET PEOPLE ON THE FIRST 5-YEAR PLAN.



the USA in the years of that war graphically showed that the interests of peace and progress of the peoples insistently demanded friendship between our nations.

The 150-year history of the relations between our great countries shows that the Soviet Union and the United States did not have in the past and do not have now any territorial questions to interfere with good, friendly relations between them.

### Restore Traditional Friendship.

The Soviet people sincerely want to strengthen and develop friendly relations with the American people. They want the century and a half experience of friendly cooperation between the peoples of our countries to be consolidated and extended still further in present day conditions in the interest of strengthening peace in the world.

"The Soviet Union," said the Chairman of the USSR Council of Ministers N. S. Khrushchev, "stands for the improvement of Soviet-American relations in the belief that this accords with the interests of both countries.

"The establishment of friendly relations between our countries would be a big step toward strengthening universal peace and good relations among all peoples. All mankind now pins great hopes on the Soviet Union and the United States making a big contribution toward settlement of the major problems

of our time, toward the strengthening of peace.

"If we succeed in improving relations between our countries, in arranging mutually profitable trade, in extending still further cultural, athletic and other contacts, we shall thereby be making a big contribution to the cause of easing international tension, to the cause of peaceful coexistence, of strengthening world peace. And this in turn will have a favorable effect on the life of all peoples, of all mankind.

A unified effort to maintain peace should be the starting point of cooperation between our nations. Everyone understands that the balance will be tipped more quickly in favor of peace if two such great and mighty powers as the USSR and the USA work together.

The historic visit of Nikita S. Khrushchev to the USA created real possibilities for the restoration and the further development of the traditional friendly relations between the Soviet Union and the United States. In the relations between our countries a warm wind—the wind of friendship and cooperation—is beginning to predominate.

N. S. Khrushchev's visit to the United States and the friendliness with which he was welcomed by peace-loving American people represents a crowning point in the traditional relations between the peoples of our countries over the past 150 years. The forthcoming visit of President Eisenhower to the Soviet Union will be another important step in improving Soviet-American relations.

History shows that the Soviet and the American peoples can live in peace and friendship. It is the demand of our time.



1933. USA-USSR DIPLOMATIC RELATIONS ARE ESTABLISHED. MAXIM LITVINOV AND CORDELL HULL

1945. THE TWO NATIONS FOUGHT SHOULDER TO SHOULDER AGAINST FASCIST GERMANY. THE HISTORIC MEETING OF SOVIET AND AMERICAN SOLDIERS AT THE ELBE RIVER.



Sixteen men with different backgrounds and temperaments united by a single aim—"We work not for ourselves alone but for the team and for everyone else in the country." They repair diesel locomotives at the Moscow-Sortirovochnaya Depot.

# COMMUNIST WORK TEAM AT A

The depot museum tells the story of the origin of Communist Work Teams.



THE repair depot for locomotives at the Moscow-Sortirovochnaya railroad station is much the same as anywhere else, and its workers have about the same problems as in any other depot. The repair jobs are often complicated and are always closely interdependent. The parts in each engine do not wear out evenly, so that the job on hand is always different from the one that came before. It's not work a man can do by rote. Besides the basic skill and experience, what is required is a high degree of collective responsibility.
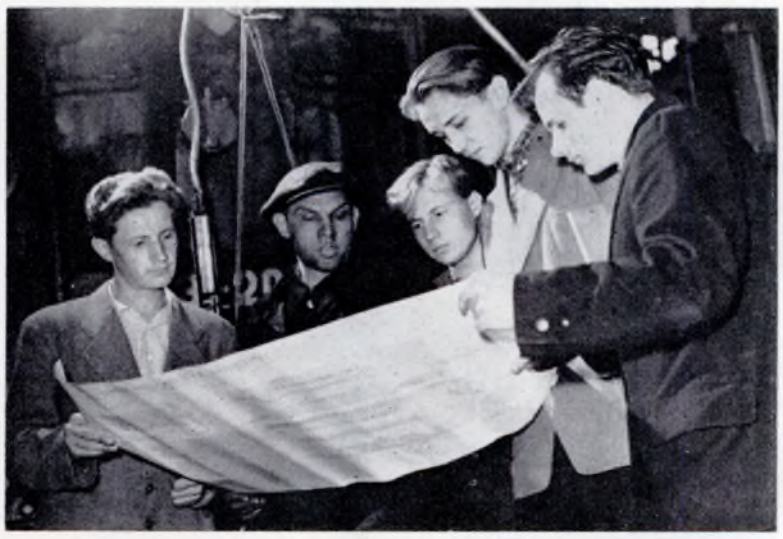
That is not at all an uncommon attribute of Soviet workers. The feeling of *our* job rather than *mine*, or *our* factory, *our* plans, *our* problems, is deeply rooted in their consciousness. This attitude was aptly expressed by Nikita Khrushchev when he said in one of the talks during his American tour: "I am a man of the socialist system, of a new world outlook and of new conceptions. And in our country the conception of *mine* is withering away and a new conception of *ours* is striking root."

What has been emerging is a new quality that develops out of that consciousness—a heightened sense of responsibility that a Soviet worker has toward himself, his work, the people he works with, and toward his country as a whole.

The first year of the seven-year plan is drawing to a close—the first step along the road of accelerated progress in all areas of economic and cultural life. Workers everywhere are trying to do their best to contribute to the building of communism.

It is this pattern of thought and living for which a sixteen-man team at the Sortirovochnaya depot headed by Gennadi Malkov has earned itself the honored title "Communist Work Team." The team has won a national reputation and has set the example for working groups elsewhere in the country.

Through coordination and mutual study and assistance, the sixteen have worked out numbers of technical improvements to make work easier and more productive. In process they have helped each other—and many people besides—to grow and develop. In process also, they have helped the country to meet the high goals set by the seven-year plan.



An exchange of ideas between depot workers and students of nearby colleges is a mutually rewarding experience.



Sergei Grevtsov tells a workers' meeting how the Communist Work Teams operate.

A study group organized at Sortirovochnaya and led by top engineers helps the workers qualify for college entrance.



There's time for work, study and community activity and enough left over for recreation.



# RAILROAD DEPOT

**By Lev Petrov**
**Photos by Dmitri Chernov**

This idea of collective effort has a tradition that goes back forty years or more. The level to which it has developed, however, is new to judge by the demands upon the individual implied by the title "Communist Work Team" member. It betokens the emergence of a new type of man—the citizen of the communist society which the Soviet people are building.

This is a man of high moral standards both in his social and personal life. He is in the front ranks on the job and is always ready to help his shopmates. He is continually growing, striving to broaden both his technical skill and his general knowledge. It is not the success of the individual but that of the whole collective that governs him.

### A Tradition of Service

In 1919, during the crucial days of civil war, the workers at Sortirovochnaya depot were the first to come out for a Communist Subbotnik—overtime labor freely given on days off. In those days the team's predecessors worked for their country on their off Saturday afternoon and all through the night to Sunday to repair locomotives sorely needed for the front.

They were inspired by these words of Lenin: "Communism begins where selflessness is shown in coping with difficult work, where rank-and-file workers are anxious to boost labor productivity and to preserve every pood of grain, coal, iron and other products destined neither for themselves nor those who are near and dear to them, but for those who are far away, that is, for society as a whole, for the scores and hundreds of millions of people."

It was this same open-hearted sentiment that actuated the depot repair team when they coined the phrase Communist Work Team, the first shop group in the country to do so when the target figures for the seven-year plan were still being discussed.

Before any production task is tackled it is carefully examined by the entire team with an eye to cutting labor costs and improving quality. This is now general practice at the depot. A laboratory has been set up—the workers call it the creative lab—with this guiding motto: "First think about it, then put it down on paper, then make it, and then try it in practice."

When news got around that this laboratory was being organized, Nikolai Kitayev, a retired diesel specialist, got in touch with the team, invited them to his home and presented them with his *Technical Encyclopedia*, a work in many volumes.

### The Team Members

Who are the team members? They are men with quite different and very individual backgrounds and temperaments. Together they form a cohesive and most amicable working unit.

The team leader, Gennadi Malkov, comes from a family of railroaders. His father and grandfather both drove locomotives. He, too, began his railroad work with locomotives, first as apprentice, then as helper, and finally as driver. He did not stop there, however, but went on to college to take his degree in engineering. When he came back to the depot he was chosen to head the team.

Vladimir Minakov is one of the best repairmen at the depot. When five years ago vast



A characteristic of the team is the way they are always ready to help each other, older workers eagerly passing their experience on to the younger ones.

expanses of virgin lands in the East were put to the plow, he volunteered to go there with thousands of other young people from all parts of the country. He felt it his duty to help develop new areas and worked on a state farm for two years. Then he took his tour of army duty as an artilleryman and after that returned to his job at the depot. In a very short time he won back his old skill and facility with tools and engines.

The career of Boris Polyakov, fitter and diesel specialist, is somewhat more checkered. To please his father, a high school principal, he went to a teachers' training college. Shortly after graduation he was called to the army and there decided he didn't care enough for teaching to make a career of it. But fearful of hurting his father, who thought teaching was the finest and noblest of professions, he took a job as teacher in a children's home. The children liked him, the administration was eager to have him stay, but Boris didn't have his heart in it. So he took the decisive step. One day he threw up his teaching job and hired on as apprentice at the depot. He says he hasn't been sorry for even a minute since.

Fitter Ivan Filyuyev is a recent newlywed. His wife Raisa is a student at Moscow University majoring in history. For a time the couple lived in the suburbs and commuting took care of any free time they might have had. Ivan took the traveling philosophically, and now that they have a new apartment near the depot—a product of the big housing program scheduled under the seven-year plan—he jokingly complains that it has cut down on all the reading he used to do on the train.

Anatoli Pavlyutkin was only seventeen when he came to the depot after barely scraping through seven grades of school. He hadn't gotten along at home with his mother—his father was dead—and had been impossible with his teachers. At the depot the workers put up with him for the sake of his father, who had been one of Sortirovochnaya's best mechanics. His son, they thought, was everything but that—a sloppy worker, short-tempered and quarrelsome when he was criticized. Somehow or other he was chosen for the team and the change, although slow, was so com-

## COMMUNIST WORK TEAM AT A RAILROAD DEPOT



The fame of the depot's Communist Work Team has spread all over the country and the boys often get letters from workers who want to organize similar teams.

plete that it's hard to remember the old Anatoli. He's one of the team members who have pledged to get through evening technical school so that they can qualify for the railroad institute, a school on the college level.

Says Anatoli: "To stay on the team I've got to know more. That's why I've gone back to school. I spend three evenings a week at class and three . . ." just so nobody will think he's gone soft, ". . . training. I've taken up boxing and the coach thinks I have possibilities."

### "Reach for a Book"

Vladimir Stanelevich is one of the original team members. He came to work at the depot as a fitter in 1952. Since then he has gone through evening college and won his engineering degree. Stanelevich is constantly pushing the young team people to keep educating themselves. "To study," he insists, "means more than just improving one's skills and getting ahead on the job. It means growing in all sorts of ways."

He is the one who got the whole team to subscribe to this rule of behavior: "Reach for a book whenever you have a minute free. Technical school and college is waiting for you to pass the entrance exams. To be as useful as you possibly can to your people, you must educate yourself."

The depot has organized a study group for those who wish to prepare for college entrance. The team is well represented in this group. As a matter of fact, this learning process is a perpetual one for the team workers. They learn from the lectures they like to attend on subjects ranging from world affairs to space rockets, from visits to film studios, from concerts and plays.

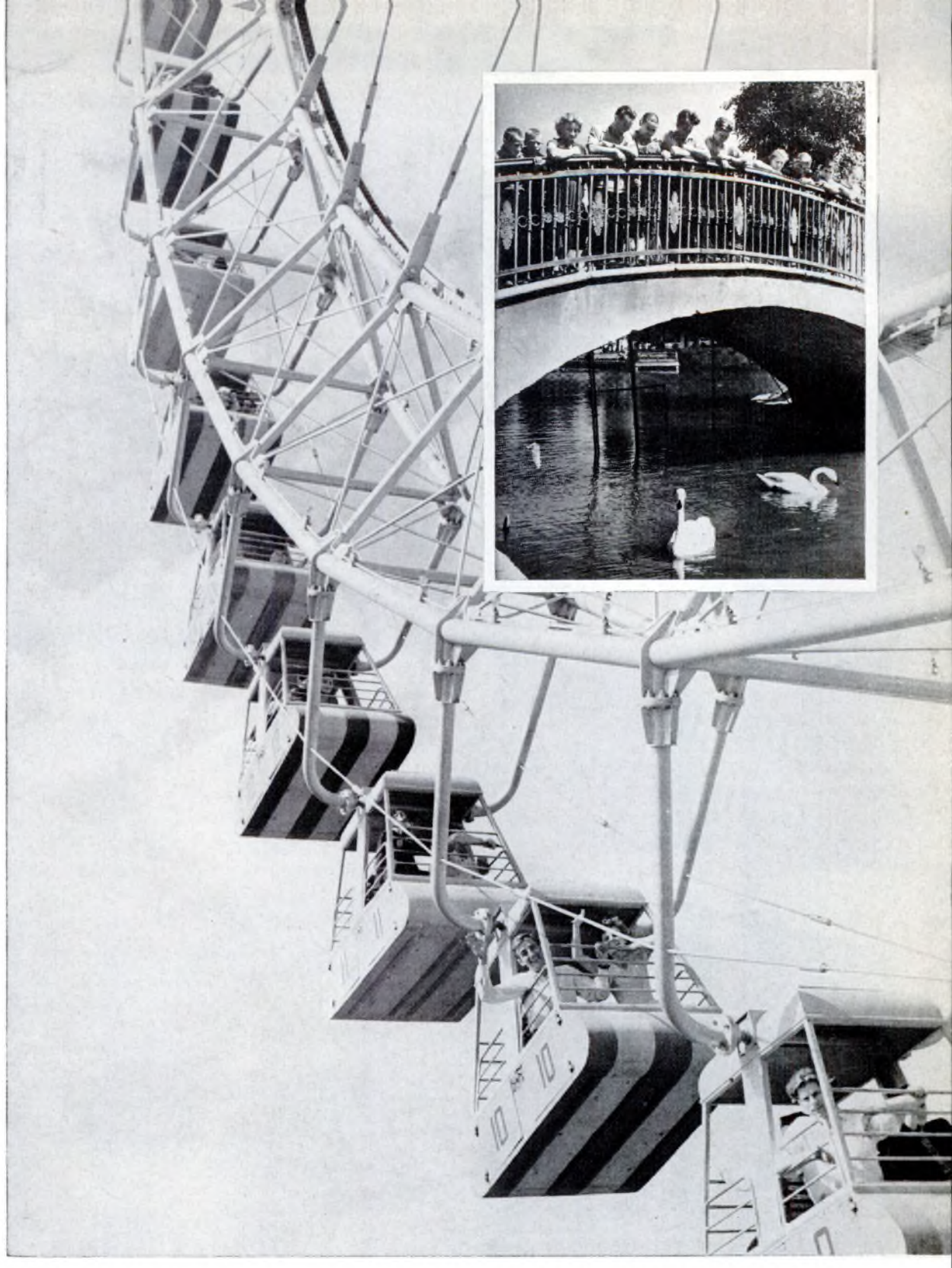
### For Everyone Else

In addition to their work and study, the team members are pledged to do volunteer community work. They have each undertaken to spend at least eight hours a month helping depot workers build their own homes. Some of the men have arranged to keep the machines of the collective farms on the city's neighboring outskirts in good running condition.

Others work with the local high schools and teach the youngsters the skills they have. This volunteer teaching works out fine. The men learn a great deal themselves by the systematic lesson plans they have to prepare before each session. The children, proud to be working with this famous Communist Work Team, do their very best. The worker-teachers have grown very much attached to their students and follow their progress as closely as the parents do.

The team members have gotten so used to working and studying together that they spend much of their leisure time together. Among the sixteen there are ardent fishermen, weekend painters, amateur photographers, and what-not else. They've become more than teammates; they are friends and like doing things together.

They put it simply: "We find living and working and even playing more interesting that way. We like the feeling that we're working not for ourselves alone but for the team and for everyone else in the country."



Many team members prefer to spend their leisure time together—whether it's an afternoon jaunt to a nearby amusement park or a week-end fishing or camping trip.

Moscow Operetta Theater artists frequently visit Sortirovochnaya and put on shows for the workers.



The wives and girl friends of team members join the party.



# DEGTYARSK
# COPPER CITY IN THE URALS



ONE OF THE NEW STREETS OF SINGLE-FAMILY HOUSES



MINER ANATOLI KALYAGIN IS IN THE CENTER.

By Yakov Mikhailov

WHENEVER Anatoli Kalyagin describes Degtyarsk, the copper mining city in the Urals where he lives and works, he always makes it a point to say that he lives on two continents—Europe and Asia. And this is quite true. On the highway that runs across the Ural Mountains, there is an obelisk near Degtyarsk that marks the invisible continental borderline.

The people of Degtyarsk, which has not yet celebrated its tenth birthday, can still remember the first wooden houses built for the miners who settled near the rich copper ore deposits. They remember, too, the city's first brick building, the mine's offices. The forest near the ancient neighboring town of Revda has been beating a fast retreat these ten years to make room for the spreading settlement which is becoming an industrial center known throughout the country.

### City of Automation

A tribute to its progress was the national conference on the mechanization and automation of the ore mining industry held there last year. The hundreds of delegates from industrial plants, research institutes and design offices who attended found that there was quite a lot they could learn in this new little city where a good number of the ore extraction processes have already been automated. All-round automation of production processes will be completed by 1962 in the Degtyarsk mine.

Automation is one of the projects Degtyarsk miners included in their seven-year plan to increase output of copper ore. It will be completed much earlier than originally scheduled. The plan as a whole has gotten off to such a good start and the production figures for this first year are so far ahead of schedule that Degtyarsk confidently expects to chop a year off the seven-year plan.

### Seven-Year Plan in Six Years

The first year of the seven-year plan introduced many new things into the life and work of the miners of this small city in the Urals. Starting on the fulfillment of the seven-year plan at their mine at the beginning of 1959, they clearly understood the tasks confronting them, especially with the growth of the mine in the next seven years.

The workers themselves drew up the seven-year plan for the development of their mine. It was the subject of long discussions at meetings, and many a page in the local press carried letters from readers and articles discussing the merits of the proposals and making suggestions for improving them.

From the very beginning of 1959 the miners began to overfulfill the plan. Every worker and engineer tried to figure out new ways to increase the output of copper ore. And the ideas came fast and furiously.

That they were successful is evident from Anatoli Kalyagin's experience. "There hasn't been a single day this year that I haven't overfulfilled the shift plan," Kalyagin told us. And he wasn't boasting. He said that all the other miners of Degtyarsk had done as well and there were many who had done even better. As a result there are copper mining teams in Degtyarsk today which have achieved the highest productivity in the world.

The thing that's interesting about these expert copper miners, and by and large this is true of Soviet workers in general, is the way they accept a self-imposed obligation to teach fellow-workers the tricks and short cuts they devise in extracting ore. By helping their comrades to improve their professional skill and by the example they set through their own work, they inspired all the Degtyarsk miners to fulfill the seven-year plan ahead of schedule—in six years.

In 1959 copper miners in this small city in the Urals won first place for high productivity in a national competition among the Soviet copper ore enterprises. And they're determined to break their own record, because more copper mined means better living conditions not only for Degtyarsk miners but for workers throughout the country.



A NEW SCHOOL FOR THIS FAST-GROWING CITY.



CLOSE TO THE CITY IS A MINERS' HOLIDAY RESORT.



VICE-PRESIDENT NIXON ON A TOUR OF THE MINE.

### Rising Standard of Living

Anatoli Kalyagin, his wife and three children live in a new two-bedroom apartment on Kalinin Avenue, Degtyarsk's main street. Anatoli calls it a "moving street" because it has been spreading steadily in two directions and is a mile and a half long now.

This busy little street carved out of the forest ten years ago is now lined with houses of two, three and four stories. The city's secondary school and two big stores—one selling clothing and one shoes— are located here. In 1959 more than 200 of the people who work at the mine moved into new apartments on Kalinin Avenue. They are built with every modern convenience and rent comes to a fraction of the family income. Kalyagin, for example, who earns about 40,000 rubles a year. pays 187 rubles a month for rent and all utilities, including telephone.

Before 1965 comes to an end Degtyarsk will have 1,700 more apartments, two new schools. two kindergartens, four nurseries, a movie and a new stadium large enough to accommodate half the adult population of the town.

### Time for Study

Since the Degtyarsk miners work only six hours a day, standard for underground workers in the Soviet Union, they have plenty of time for rest, recreation and study. This last is a very popular activity with 150 towns-people enrolled at the local branch of the Sverdlovsk Mining and Metallurgy School. The course runs for four years and the students are able to combine work in the mine with attendance at school. All of them passed their examinations last year and fifty of them earned diplomas upon graduation that qualified them for better jobs at higher pay.

### American Guests

Last summer U.S. Vice-President Nixon and his party visited the Urals. They went to Degtyarsk where the people warmly welcomed the Americans and showed them around their city and mine.

Mrs. Nixon and Mrs. Thompson, the wife of the U.S. Ambassador to the Soviet Union. visited the Kalyagins in their home. Anatoli and his wife Yevdokia chatted with their guests for almost two hours. Mrs. Thompson speaks Russian so conversation was easy. When she spotted an accordion in the apartment, she wanted to know who played it.

"I do," said Anatoli.

Whereupon the guests asked Anatoli to play "Moscow Suburb Nights," a song which they had often heard in the Soviet Union. Hosts and visitors sang a number of other popular Russian songs together.

When it was time for Mrs. Nixon and Mrs. Thompson to go, they wished the Kalyagins health and happiness and hoped that the new member of the family, to be born before very long, would fulfill their wish for another son.

On the day when N. S. Khrushchev returned from his historic visit to the United States, Anatoli, Yevdokia and their eldest son, **Felix,** listened to the report made by the head of their government to the people of the country on his meetings with the American people and his talks with President Eisenhower. They eagerly listened to every word of the speech, so full of humanism and love of man.

Yevdokia held in her arms a rosy-cheeked, month-old son. And looking at their baby, the parents thought with special emotion of the happy time when war would no longer threaten the world.

THE DEGTYARSK POPULATION IS GROWING FAST. A GROUP OF YOUNGER CITIZENS—KINDERGARTNERS.






More than 3,000 young people from all over Stalingrad meet after work and arrive in groups at the Palace of Labor where "university" classes are held.



Frequent visits to the studios of the top-notch painters and sculptors who instruct the classes in the fine arts give substance to their classroom lectures.

# PEOPLE'S

By Adolf Antonov
and Pavel Pavlovsky

FEW nations or people are today more passionately committed to education than the Soviet Union and the Soviet people are—this was the conclusion reached by a panel of American educators headed by Commissioner of Education Lawrence G. Derthick in a report published by the United States Office of Education early in September.

This "passionate commitment"—a well-chosen phrase—is perhaps most dramatically evidenced in a new type of school which has recently sprung up all over the country. The oldest has just celebrated its first birthday but there are better than a million worker-students attending the two thousand schools already functioning all over the country.

They arose more or less spontaneously, founded by workers in factories and offices, in response to desire and need. They go by various names but most of them are called "People's University of Culture," which aptly explains their purpose. These universities differ as to their course offerings but the students are all spurred by the same wish—to learn more about art, literature and music, to make themselves cultured citizens, worthy of the communist society they are building.

Recently a national conference of these universities of culture was called to sum up and generalize the first year of experience. Nikolai Mikhailov, USSR Minister of Culture, told the large audience of the work done by the government to foster this burgeoning adult education movement. The ministry has published large numbers of popular books on art, whole series of recordings of classical music, color reproductions of works of art and other such study aids.

Besides government aid, material support has come from such public organizations as the Communist Party and the trade unions. Scientists, writers, actors and musicians of national note volunteered their services as teachers.

## Variety of Courses

The People's University of Culture in Stalingrad was founded about a year ago and is quite representative—as to courses of study, students and their very enthusiastic interest.

There are some 3,000 young people enrolled in classes in ethics, music, fine arts, literature, international relations and astronomy. They come from all parts of this city, which stretches for some 45 miles along the right bank of the Volga. Neither distance nor weather keeps these young people from flocking night after night to the Palace of Labor where the classes are held.

In the fine arts classes, students learn how to appraise paintings and sculpture, both classic and modern, and acquire an understanding of the relation of art to social development. Through slides and museum visits they become acquainted with the world's art treasures. From time to time they visit the studios of Stalingrad painters and sculptors to watch work in progress and learn how and why a working artist selects his theme and plans his composition.

As a result of these visits and talks with artists, some of the students have been moved to try their hands at painting or sculpture. Ivan Golovcheko, a worker at the Petrov Plant, is one of a number who have become dedicated Sunday painters.

Many of the literature students, taught by present day writers like novelist Victor Chekhov, author of *On the Right Flank*, are working on poems, essays and short stories of their own. By trade Nastya Subacheva is a crane operator on a big housing project going up in Stalingrad; by avocation she's blossoming into a poet.

"Can you give definitions of the words rhapsody, sonata, musical image, melody, timbre? If you don't know them, you miss a lot listen-

# UNIVERSITIES

ing to music." This is a student at one of the music classes persuading a friend to enroll.

Stanislav Vagramyan, a young mechanic, is in the drama class studying the work of Stanislavsky. He hopes eventually to enter a theater institute, and, if fate is kind, become a producer. His friend and classmate, Svetlana Stepanenko, a sales clerk in a retail store, has acting ambitions.

Wander into one of the many well-filled classrooms of the Stalingrad Palace of Labor. In this class in ethics interested young men and women are discussing character and will power, love and friendship. Participating are steelworker Yevgeni Gorbunov, mechanic Nikolai Kondrashov, seamstress Alla Nemichenko, college student Nadya Vereshchak and others of the most diverse occupations.

In an adjoining room there is a lecture demonstration on "How to Set an Attractive Table." The course is one of a number in homemaking. Across the hall there is an excited round-table discussion. The topic is "The Creative Imagination." Music, literature and science quizzes are held frequently in the spacious auditorium.

Students in the astronomy classes make frequent visits to the planetarium where they observe the movement of the planets and the artificial satellites, learn to handle astronomical instruments and see relevant popular science films.

### How to Found a University

Socrat Shanturov, a 19-year-old woodworker, was one of the founders of the People's University at the Ship Repair Plant in Baku, the capital of Azerbaijan. Shanturov is a Lak by nationality: his people live in



The astronomy class of Stalingrad's university of culture takes a trip to the city planetarium where the instructor visually demonstrates a point.



The lecturers, who are all specialists in their field, know that a bit of humor livens the class, holds its interest and helps the learning process.



A LIVELY ROUND-TABLE DISCUSSION ON ETHICS TAKES UP THE TOPIC OF LOVE AND FRIENDSHIP AND THE RESPONSIBILITIES OF THE INDIVIDUAL IN HUMAN RELATIONSHIPS.

# PEOPLE'S UNIVERSITIES

The Baku public libraries are always filled with worker-students who go there to prepare a class assignment or find original supplementary material.



the Caucasus Mountains. No longer than twenty-five years ago, the Laks had no written language. But that is all ancient history. Shanturov, like every Lak boy and girl, went through high school.

Many of his friends went on to college. He fell behind somewhat and now is eager to catch up. He has a passion for ships and the sea and wants to qualify for study at a shipbuilding institute. He spends his evenings preparing himself for the entrance exams, studying about things his sheepherding ancestors had never even heard of.

Socrat and his friends at the plant—they include mechanics Kasym Abdullayev, Pyotr Subbotin and Mekhti Mailov, smith Stanislav Gopanyuk, grinder Alek Kengorli, laboratory assistant Nellie Kasimova, and Boris Khasmetdinov, secretary of the plant's branch of the Young Communist League—are all intellectually curious young people, interested in music, theater and books. They decided they ought to know more, so they betook themselves to the task of organizing a people's university at the plant for more systematic study.

Their first job was to get some of Baku's leading figures in the field of culture interested in the project. They had no difficulty on that score. Composer Totik Kuliyev, Library Director Tatyana Rudneyeva, opera star Amina Del-bazy, educator Tovgi Agayev, music critic Ramazan Khalilov and a number of others promised to help draw up the program of studies and volunteered to teach.

These were some of the courses announced: "How to Read a Book," "Good Speech," "Love, Marriage and the Family," "Modern Azerbaijan Music," "How to Dress Well." It turned out that the most popular course was "How to Read a Book," not too surprising since Soviet people generally are avid readers.

Most of the courses were given as lecture series, supplemented by slides, records and films. The USSR Ministry of Culture now circulates about 100 films on painting, drawing and sculpture and 134 films on the theater and literature. But the most interesting part of the class is always the give and take of discussion. A discussion that begins with Renaissance painting, for example, will not infrequently range the whole spectrum of aesthetics before it is over.

The course of study in the People's University at the plant runs about ten months and is figured for 82 study hours, divided more or less as follows:

Soviet culture—8 hours. Lectures are given here to explain the main tasks in the field of culture under the current seven-year plan.

Aesthetics—14 hours. Students are taught the fundamentals of art,



AFTER AN INTERESTING SESSION ON THE HISTORY OF ART, THE CLASS GOES TO THE MUSEUM WHERE THE LECTURE MATERIAL CAN BE RELATED TO THE ORIGINAL PAINTINGS

the relation between art and reality, the beautiful in art and life, the laws of art development, the social role of art.

Literature—16 hours. This is mainly a survey of modern fiction, both Soviet and foreign.

Music—10 hours. Studied are such themes as music and society, the folk song in composition, music and individual expression.

The theater—16 hours.

The motion picture—10 hours. Here students receive an outline history of world cinema. They also see the best of the Soviet and foreign films and visit the Baku Cinema Studio to see how a film is made.

Fine arts and architecture—8 hours.

This program was worked out by the board of the plant's "university of culture." The course of study, to judge by the response, seems to be what the people at the plant want. It is not frozen, of course, and is altogether subject to change.

The schools in Stalingrad and Baku are typical of the other people's universities in the country. Young people predominate in the sixty Moscow schools, but they by no means account for the entire enrollment.

Television, which has long been used as an educational medium in the Soviet Union, on October 31 started to present lectures for a new mass People's University. By the time the People's University at Moscow's Polytechnical Museum was ready to open in October, it already had 5,000 students signed up for its four departments and 130 scientists who had volunteered to teach the courses without pay. The slogan of this school is "Knowledge for the People," and it can aptly be applied to all the other people's universities as well.

If the first year of the people's universities is an indication of their future, it is safe to predict that they will continue to broaden in scope and content to keep pace with the growing interests of a most exacting and demanding student body. Their students are eagerly awaiting new lectures, discussions and excursions. There are no tuition charges for any of the courses, no examinations, no diplomas. The only entrance requirement is interest, and there is plenty of that.

The students' interests determine the curriculum of the universities, and the subjects range from "how to read a book" to "how to dress well."





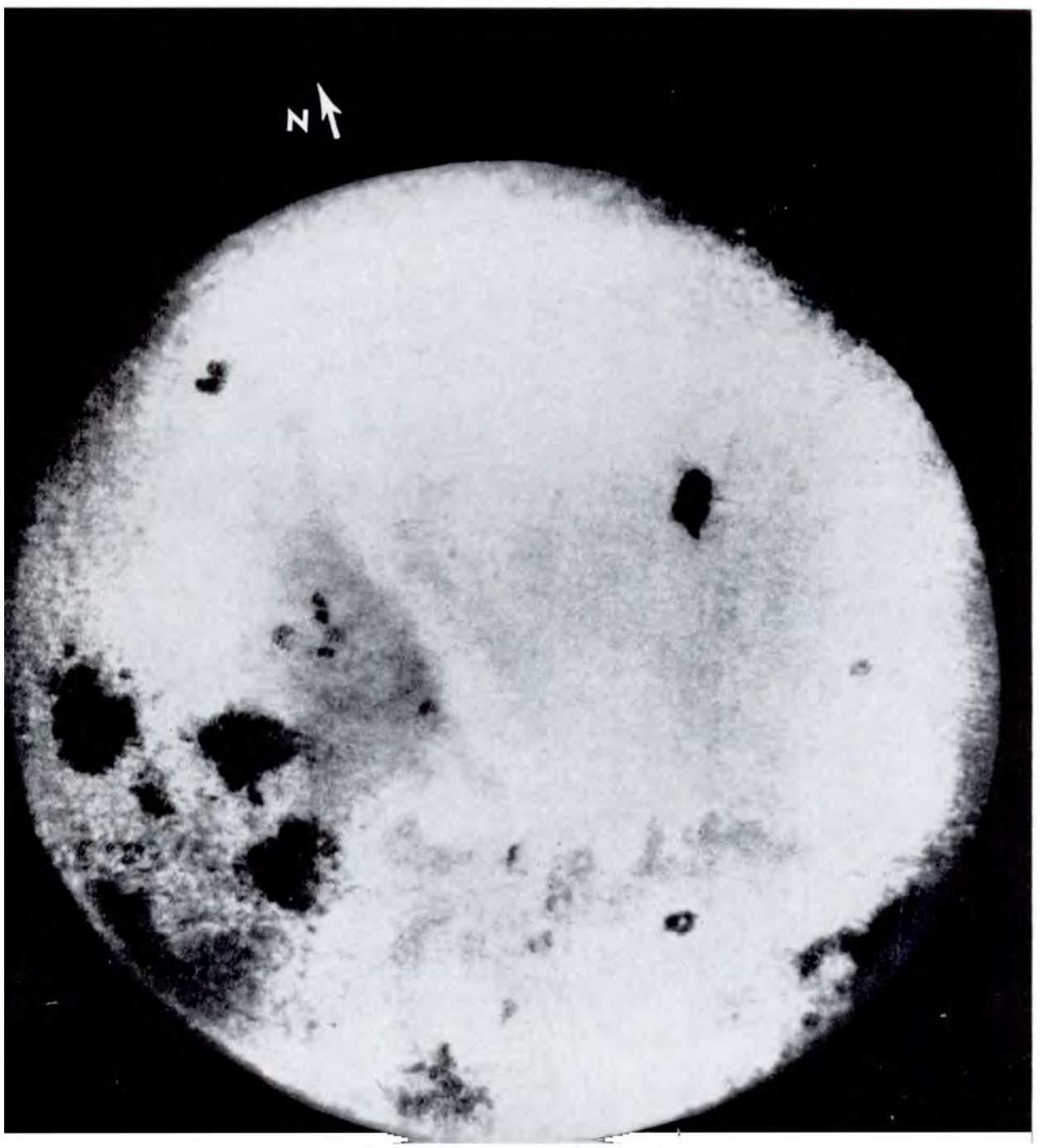

# THE MOON'S HIDDEN

## *photographed by Soviet space*

WHEN THE CAMERA EYE of Lunik III —the automatic interplanetary station placed in orbit by the third Soviet cosmic rocket—peered at the far side of the moon and transmitted its photo pictures to the earth, it was the first time man had ever viewed the hidden side of our satellite.

Like our planet the moon has its days and nights. The moon-day is approximately 27 times longer than an earth-day. The time between sunrise and sunset on the moon is about two earth weeks. It also takes about the same time for the moon to complete its circle around the earth. This time correspondence means that the moon always shows the same face to the earth. The photographs transmitted by Lunik III revealed to us the perpetually concealed side.

THIS IS AN UNRETOUCHED PHOTOGRAPH OF THE HIDDEN SIDE OF THE MOON SHOT BY THE SPACE CAMERA.




### New Maps of the Moon

From time immemorial man has tried to explain the moon. Ancient philosophers arrived at the conclusion that it was an independent celestial body much like our earth. Serious study of the moon, in our modern sense of the term, began in 1609 when Galileo aimed his primitive telescope at the lunar surface and detected plains and mountains.

In these three and a half centuries astronomers of many countries have filled in the picture of the moon seen from the earth, and we now have fairly accurate maps. But until now only the side visible from the earth could be mapped. These maps show circular mountains and mountain ranges, dark areas that early observers named seas, and other relief formations.

Photographs obtained by Lunik III show that the hidden side of the moon has much the same face in its essential characteristic features as the already known side. The moon was photographed at that moment when the automatic interplanetary station was on a direct line connecting the sun and the moon. that is, when the moon was a completely illumined disk with reference to the station. The station's camera took pictures continuously for a period of 40 minutes. Different exposures were used so as not to make any mistakes.

The photographs show the part of the moon's surface concealed from the earth plus a small section with formations already identified. By relating the previously invisible features of the lunar surface to those already known, it became possible to determine their coordinates.

Viewed from the earth the seas located at the very edge of the lunar disk appear long and narrow because of perspective distortions. and their actual form had hitherto been speculative. Seen from the interplanetary station these seas stretch a good way from the visible edge and their shape is only minimally distorted by perspective. As a consequence, for the first time we know the actual shape of a number of lunar formations.

The photographs show mountain regions predominating on the hidden side of the moon and very few seas similar to those that dot the visible side. The crater seas in the southern and near equatorial regions stand out prominently. Seas situated near the edge of the visible side are shown to continue on the hidden side.

The new formations were named by a commission of the USSR Academy of Sciences &

# SIDE

## mera

large crater was named Sea of Moscow, in honor of the Soviet capital. The Gulf of Astronauts was named for those first men from the earth who will visit the moon. Craters Tsiolkovsky, Lomonosov and Joliot-Curie perpetuate great names in science. The name Soviet Mountains records the monumental achievements of the Soviet Union and its people; the Sea of Mechta—or the Sea of Dreams, in English translation—is named after the first cosmic rocket launched last January, and it marks mankind's age-old dreams, now becoming reality, to master the cosmos.

### The Rocket's Orbit

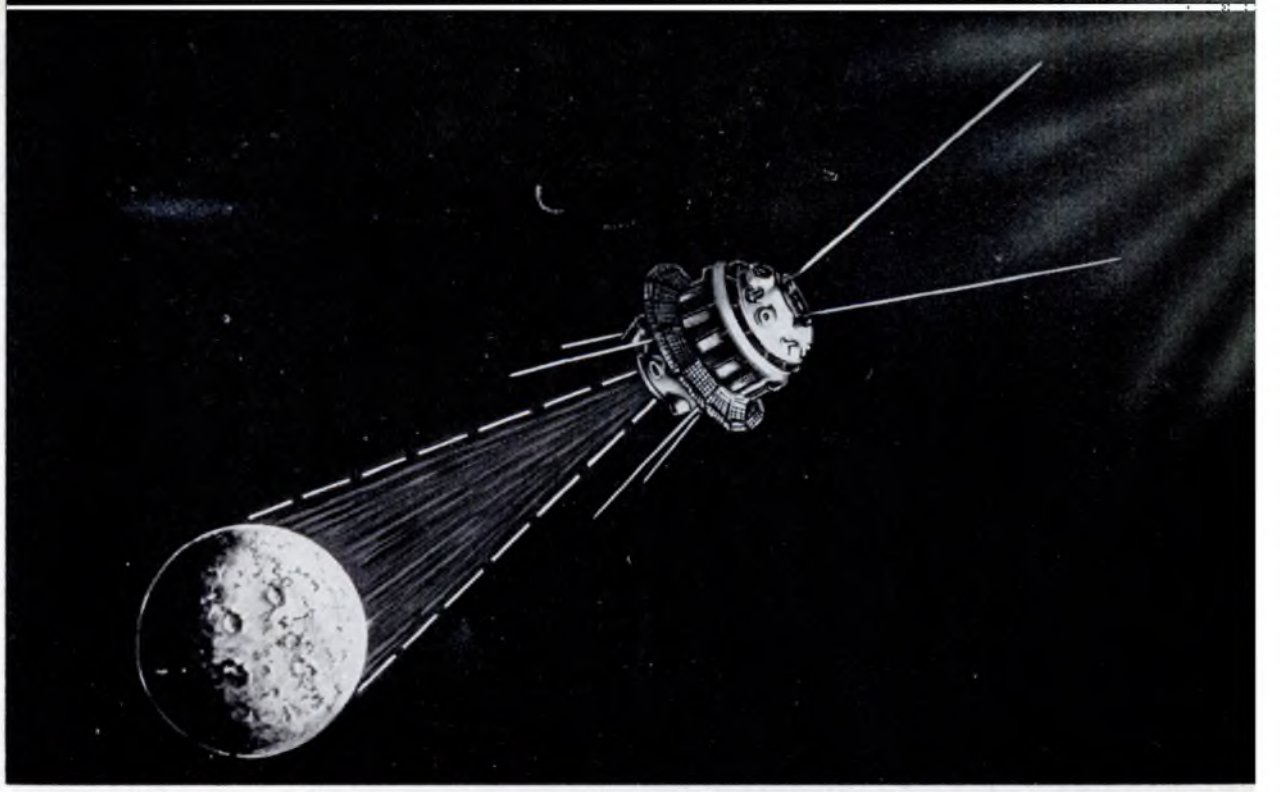
The orbit of the automatic interplanetary station was preselected for the particular studies to be undertaken and ensured the receipt of the greatest amount of information during the first loop, especially at short distances from the earth. With this in view, the best possible conditions for radio communications with the interplanetary station from points situated on the Soviet Union's territory had to be provided.

The station passed at a distance of 7,900 kilometers (some 4,900 miles) from the center of the moon. The trajectory was chosen so that at the moment of maximum closeness the station would be south of the moon and then, as a result of its attraction, would deviate to the north. This deviation was so significant that the return to the earth was made from the side of the northern hemisphere.

On the way from the moon the maximum height of the station above the horizon increased from day to day for the observation posts in the Soviet Union and other parts of the northern hemisphere. Accordingly, the intervals during which direct communication was possible also increased in length. When the station had approached the earth sufficiently closely, it could be seen in the northern hemisphere as a permanent celestial body.

During its return to the earth in the first revolution, the station did not enter the atmosphere and did not burn up. It passed at a distance of 47,500 kilometers (some 29,500 miles) from the center of the earth, moving on an elongated orbit of extremely large dimensions, close to elliptic in form. Its greatest distance from the earth was 480,000 kilometers (some 298,000 miles).

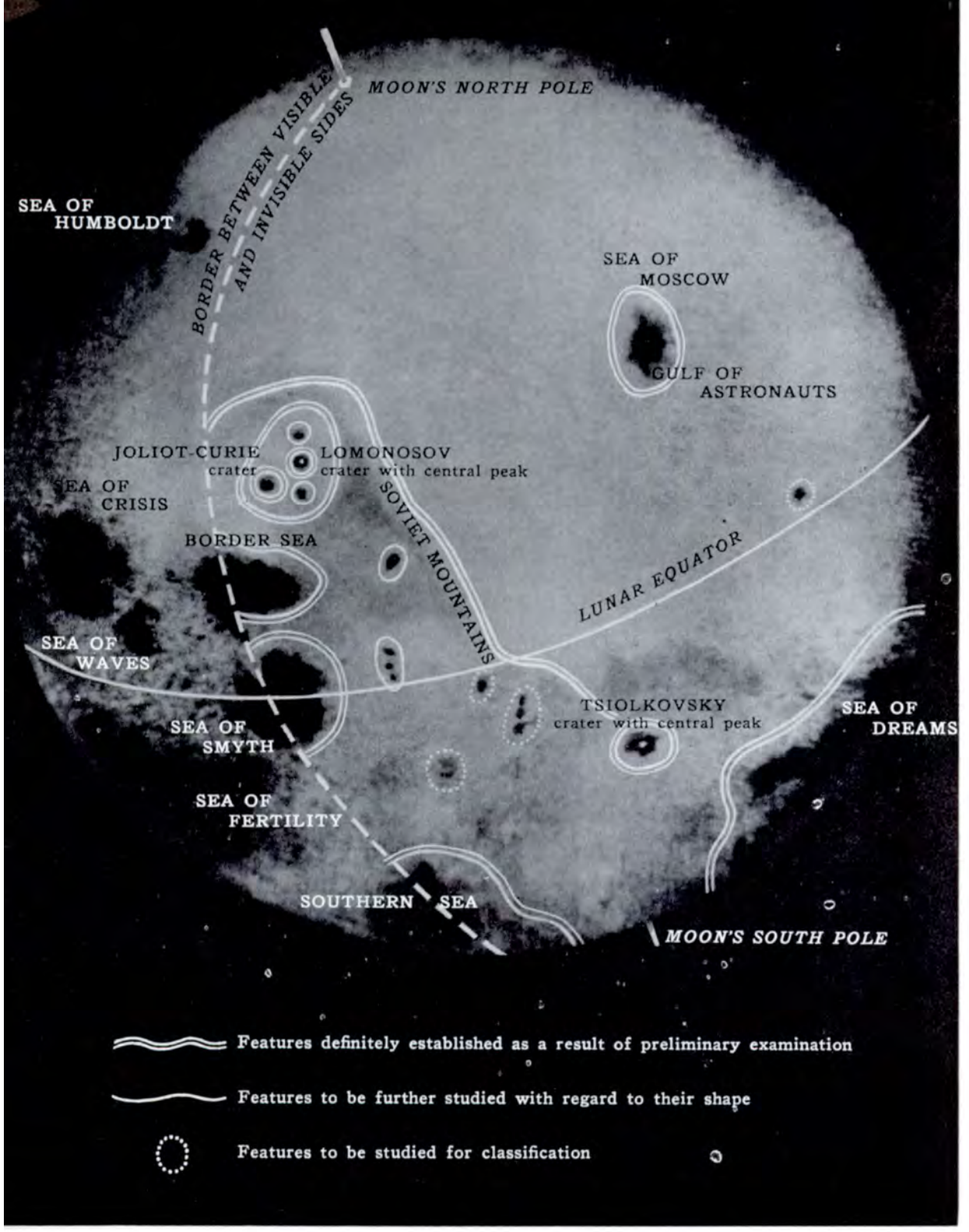
The flight of the interplanetary station in the vicinity of the earth is taking place at such great distances from its surface that there is no slowing down as a result of the resistance of the atmosphere. Therefore, if it were mov-



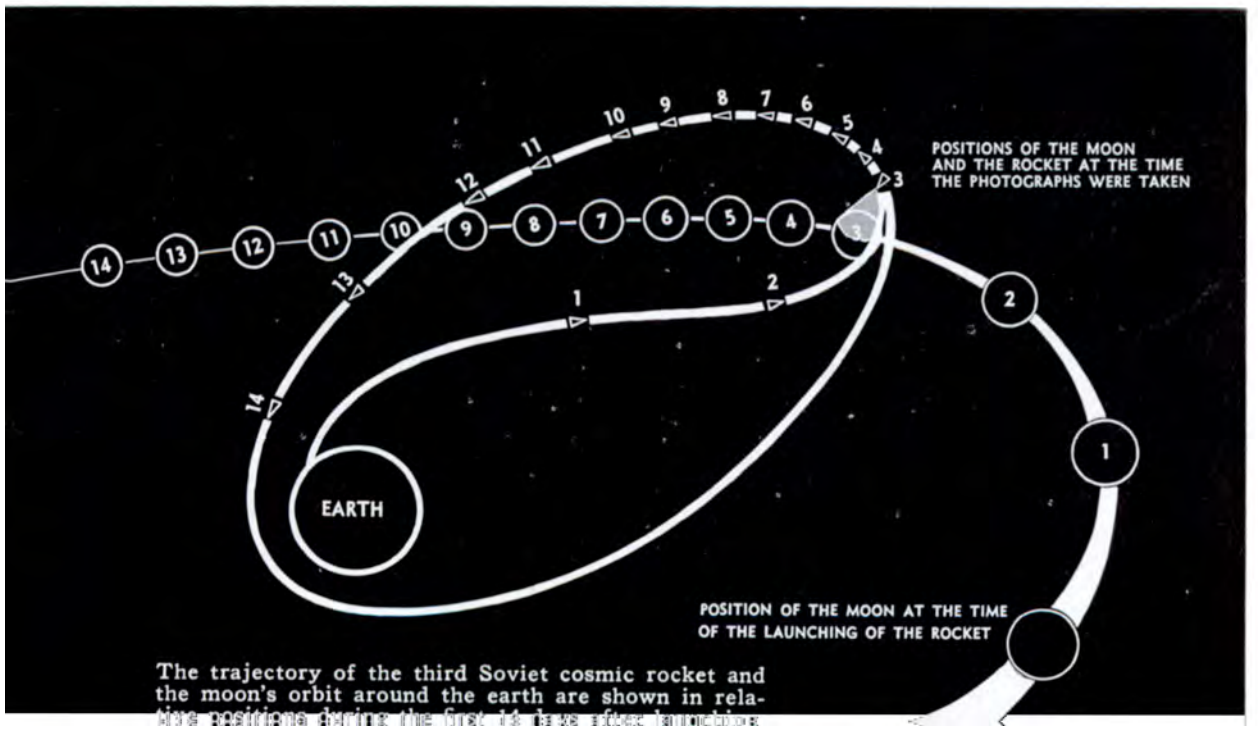
POSITION OF THE AUTOMATIC INTERPLANETARY STATION WHEN ITS CAMERA WAS SHOOTING THE MOON

A LARGE SCALE PHOTOGRAPH OF THE HIDDEN SIDE OF THE MOON. THIS ONE IS ALSO UNRETOUCHED.






# THE MOON'S HIDDEN SIDE




The trajectory of the third Soviet cosmic rocket and the moon's orbit around the earth are shown in rela-

ing only due to the force of the earth's attraction, the station would be a satellite of the earth with no limit to its period of existence.

In reality, however, the station has a limited period of movement. Due to the perturbation of the sun's attraction, the orbit's closest distance from the earth—the height of the orbit's perigee—is constantly dropping. Therefore, after having completed a certain number of revolutions, the station will in one of its returns to the earth enter the dense layers of the atmosphere and burn up.

The extent to which the perigee diminishes in one revolution depends on the size of the orbit and particularly on the height of the apogee—the greatest distance of the orbit from the earth. As this height increases, the orbit shrinks more and more rapidly. Therefore a trajectory had to be chosen where the apogee should be possibly smaller and should not be much greater than the distance from the earth to the moon, while the perigee should be possibly greater on the first circuit. Upon these two requirements depend the number of the station's revolutions around the earth and the length of the station's existence.

The picture of the movement of the automatic interplanetary station under the simultaneous influence of the gravitational forces of the earth, moon and sun is very involved. The influence of the moon is not limited to the effect it produces during the period of initial close approximation. Disturbances in the orbit of the station as a result of lunar gravitation do not have the same regular character as disturbances resulting from solar gravitation, and depend to a marked degree on the period of the station's rotation round the earth.

In the event of a repeated close approximation, the movement of the station may change substantially. If it passes the moon from the southern side, as in the first approximation, the number of rotations will increase greatly and so will the time the station continues to exist with the basic property of its trajectory intact—that is, to approach the earth from the side of the northern hemisphere. In case it passes the moon from the north, the height of the orbit's perigee will decrease, and if the disturbances are strong enough, the station may strike the earth during its next period of return.

The moon exercises some influence on the movement of the station even in those loops where close approximation does not ensue. Although the force of lunar gravitation in that case is very small, still by acting on a considerable number of loops it may have a noticeable effect on the movement of the station. The perigee will diminish and so will the time the station remains in its orbit.

The preliminary processing of the trajectory measurements now shows that the automatic interplanetary station will travel along its orbit until April 1960, making 11 to 12 revolutions around the earth.

### Guidance System

Since no corrections are made in the movement of the station and its whole trajectory is determined in the last analysis by the parameters of its movement at the end of the

launching phase (basically by the extent and direction of the speed), it is clear that the guidance system of the carrier-rocket must be highly perfected.

Imagine an inclined plane which passes through the center of the moon perpendicularly to the line earth—moon. Calculations show that with a deviation of 1,000 kilometers (621 miles) from the set point of the station's passage through the inclined plane, the minimum distance between the earth and the station during return will change by 5,000 to 10,000 kilometers (3,107 to 6,214 miles) and the time of its greatest approximation to the earth by 10 to 14 hours.

If the utmost deviation of the minimum distance between the earth and the station should not exceed 20,000 kilometers (12,427 miles), the precision of guidance in the period when the rocket is brought into orbit must ensure a deviation of no more than 3,000 kilometers (1,864 miles) at the point where it intersects the inclined plane. At first glance this demand on the system of guidance seems an easier one to satisfy than the task of hitting the moon, since to hit it, the utmost deviation of the rocket from the point at which it is aimed, or the calculated point at which it is to intersect the inclined plane, must not exceed the radius of the moon, in other words must be about half of 3,000 kilometers. However, in a circumlunar trajectory mistakes in getting the rocket into orbit influence the deviation in the points of its intersection of the inclined plane much more than in the lunar-landing trajectory realized by the second Soviet cosmic rocket.

Indeed, deviation of only one meter (3 feet 3 inches) per second in the velocity of launching the rocket to the free flight phase in the hitting-the-moon version results in a deviation of the intersection point by 250 kilometers (155 miles). In the round-the-moon version this deviation will be 750 kilometers (465 miles), or three times as great. Only a comparison of these figures shows that the round-the-moon version requires not less but even greater accuracy of the rocket guidance system than in the hitting-the-moon version.

### Automatic Interplanetary Station

Photographing the concealed part of the moon was the most important but not the only function of the third cosmic rocket. To carry on a comprehensive program of research the rocket carried a veritable laboratory of instruments in a thin-walled hermetically-sealed cylindrical vehicle with spherical end plates. Its length, without the aerials, is 1,300 millimeters—4 feet 3 inches—and its maximum diameter is 1,200 millimeters—3 feet 11 inches.

The laboratory is an automatic interplanetary station equipped with an intricate complex of radio, photo-television and related apparatus; a system for orientation control; an installation for program guidance of the apparatus on board; a system for automatic heat regulation; and power supply sources. The research equipment is designed to continue the studies in space begun with the two previous Soviet cosmic rockets launched in January and September.

The apparatus is guided both by radio from the earth and by autonomous program installations on board. This type of combined system guarantees the most effective control and communication with any sector of the orbit within radio-visibility range of terrestrial tracking stations.

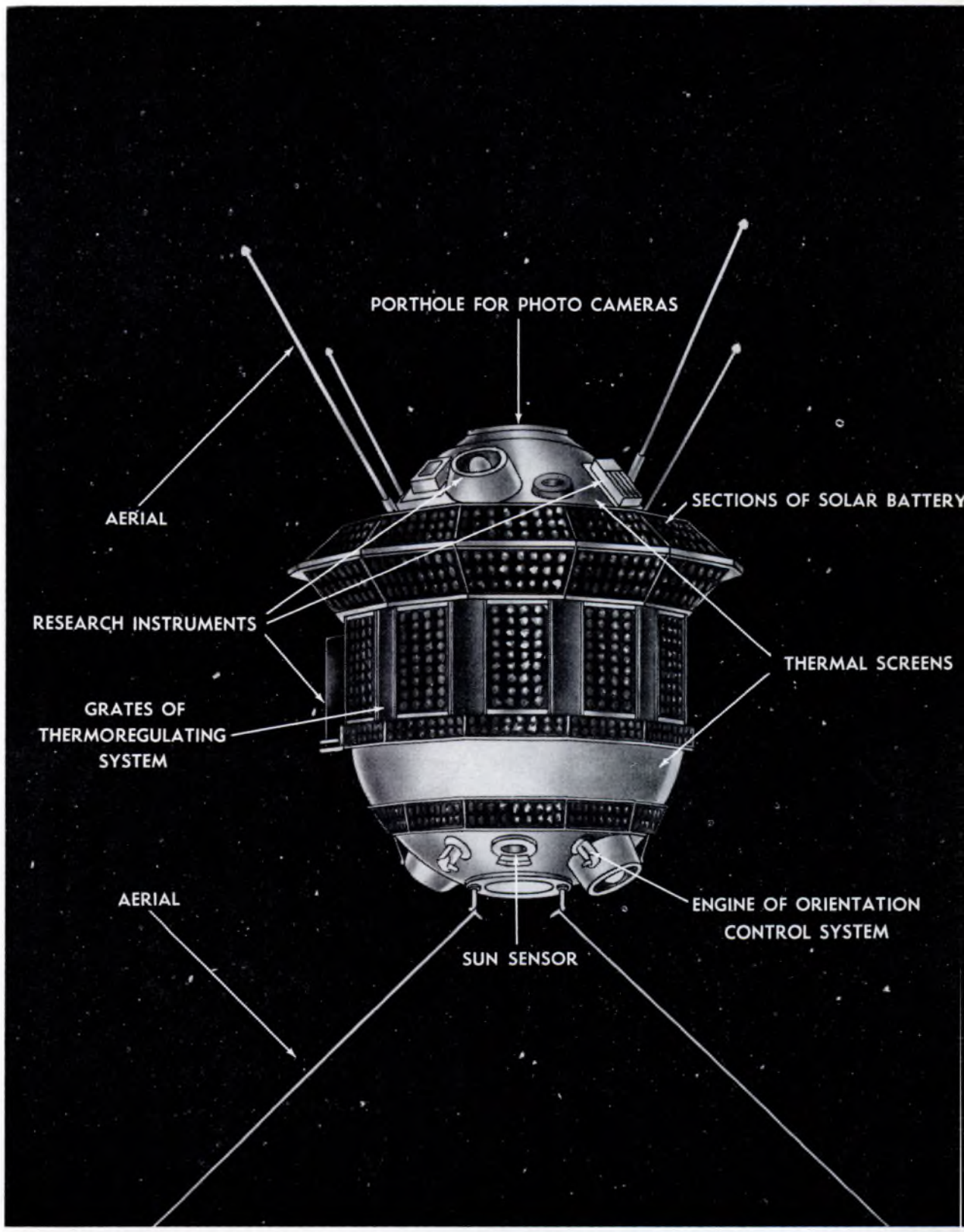
An automatic thermoregulator maintains the required temperature regime. Heat generated by the operating instruments is vented to surrounding outer space through a special radiation surface. To regulate heat irradiation there are shutters on the outer skin of the vehicle which open the radiation surface when the temperature inside reaches 25° Centigrade (77° Fahrenheit).

Instruments that function for short periods are powered by independent blocks of chemical batteries. There is also a central buffer chemical battery whose expended power is replenished by solar batteries.

The apparatus and chemical power sources are mounted on a frame inside the vehicle. Some of the instruments, the aerials and sections of the solar battery are mounted on the outer surface. A porthole, set in the upper end plate, has a cover which opens automatically for photography. In the upper and lower end plates are small portholes for the sun sensors of the orientation control system. The guiding engines for this system are mounted on the lower end plate.

### Orientation Control System

The interplanetary station is illuminated by three bright celestial bodies—the sun, the moon and the earth. To photograph the lunar



# THE MOON'S HIDDEN SIDE

body, its trajectory was chosen so that the station would be on a direct line connecting the sun and the moon.

An arrangement whereby the station's camera is trained on the moon by turning the entire vehicle was found best. The orientation control system was switched on when the distance to the moon was 60 to 70 thousand kilometers (some 37 to 43 thousand miles). as predetermined.

Immediately the arbitrary rotation of the vehicle around its center of gravity stopped. Then its lower end plate was trained on the sun with the aid of solar sensors and this trained the camera in the opposite direction, on the moon. Another optical device, which now could not "see" the earth and the sun, switched off the orientation on the sun and ensured accurate orientation on the moon.

### Lunar Photography

A signal from the optical device, showing that the moon was in focus, started the automatic picture-taking. During the entire photographing time the orientation control system kept the station steadily trained on the moon. After all shots had been exposed, the orientation control system was switched off.

The basic unit of the photo-television equipment in the interplanetary station was a camera with two lenses. Their focal distances were 200 to 500 millimeters and they shot pictures simultaneously in two different scales. The 200-millimeter lens produced an image of the lunar disk which fit into the picture fully. The large-scale image produced by the 500-millimeter lens exceeded the bounds of the still and gave a more detailed picture.

The photographs were made with automatic changes in the exposure to obtain negatives with the most advantageous densities. The entire process of photographing and processing the film was done automatically according to a set program.

Special 35-millimeter film was used which can be processed at high temperature. To prevent the film from being veiled because of cosmic radiation, special protection was provided chosen on the basis of investigations conducted with the help of the sputniks and cosmic rockets.

After the film was shot, it entered a small automatic developing and fixing device. After the film was treated, it was dried to ensure its preservation. Then it was passed into a special case and was prepared for transmission of the pictures.

To transform the image on the negative, a small scanning tube with a high resolving capacity and stable photoelectronic multiplier was used. Provision was made for the pictures to be transmitted in two regimes—slow transmission over large distances and fast transmission for shorter distances as the station approached the earth. The television system made it possible, in accordance with the conditions of transmission, to change the number of lines into which the picture was broken up. The maximum number of lines reached 1,000 per still.

Transmission of the pictures to the earth was effected in the same way motion picture films are transmitted from TV studios. Lunar photographs had to be transmitted over super-great distances by a very low-capacity radio transmitter. That is why the speed by which images were transmitted was tens of thousands of times lower than the speed by which images are transmitted from ordinary TV centers.

To ensure high-quality transmission of low-contrast pictures, the television apparatus was provided with automatic means for adjusting the scanner tube's brightness. Self-adjusting devices were also used to ensure reliable and faultless operation of the setup in changing regimes. The coordination of the work of all units of the photo-television equipment was effected through a special system of automatics and programming.

The pictures of the moon were transmitted









from the interplanetary station along the radio communication line which served at the time for measurements of the parameters of the movement of the station itself (distance, velocity, and angle coordinates) and also for the telemetric transmission of the results of the scientific experiments. The various devices on board the station were switched on and off and their regimes changed by special orders transmitted from the earth over the same radio line.

To transmit all the data, continuous emission of radiowaves was employed as distinct from the impulse radiation used previously in certain cases. This is the first time such a combination of functions in one radio-communication line working under continuous transmission has been attempted. It ensured reliable radio communications even at maximum distances, with the least possible expenditure of energy on the station itself.

The total volume of scientific information transmitted by radio, including the photographs of the moon, far exceeds the volume of information that was transmitted from the first and second Soviet cosmic rockets.

The entire equipment of radio-communication lines both on board the station and on the earth was duplicated in order to increase the reliability of communication. In the event that one of the radio instruments on board was out of order, or the resources needed for its work were exhausted, it could be replaced by the reserve instrument through a corresponding order given from a guidance post on the earth.

To economize electric power, the capacity of the radio transmitters on board was only a few watts. Transistors and other modern parts and materials were used in the receiving and transmitting radio apparatus. Particular attention was paid to reducing the volume and weight of instruments to a minimum.

To ensure that communication with the station is not suspended as it revolves, the station's aerials emit radio signals evenly in all directions so that the power of emission for a unit of surface is the same for all the points of the imagined sphere in whose center is the station.

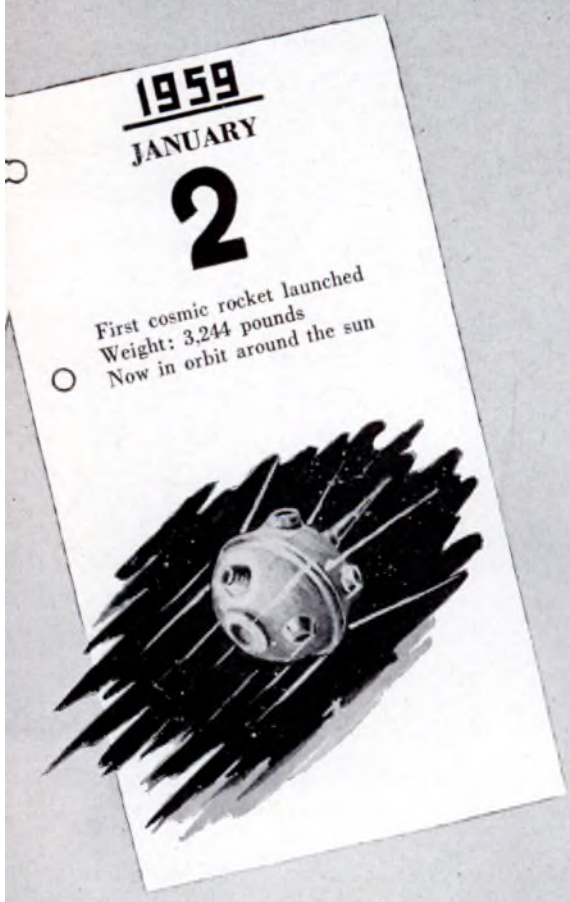
Only part of the power transmitted to the ground is picked up by receiving aerials. That is why large receiving aerials are used to intercept the signals from the station. But even with this, the part of the power emitted by the transmitter on board that is actually intercepted, when the station is at a maximum distance from the earth, is 100 million times weaker than the average power intercepted by an ordinary TV set. Extremely sensitive receiving devices, with low static, are used to intercept such weak signals.

Economical consumption of the power aboard the station; employment of radio-communication lines with continuous radiation and combined functions; application on the earth of special receiving aerials and highly sensitive reception devices; the use of special methods of processing and transmitting signals—all this has made it possible to ensure reliable radio communication with the interplanetary station, faultless operation of the command radio line, and systematic reception of photographic and telemetered scientific information regarding the moon.

The television signals received by the ground stations have been recorded by various instruments, which ensured the necessary preservation and made it possible to control the course of transmission and exclude specific distortions caused by the peculiarities of the communication line and recording devices.

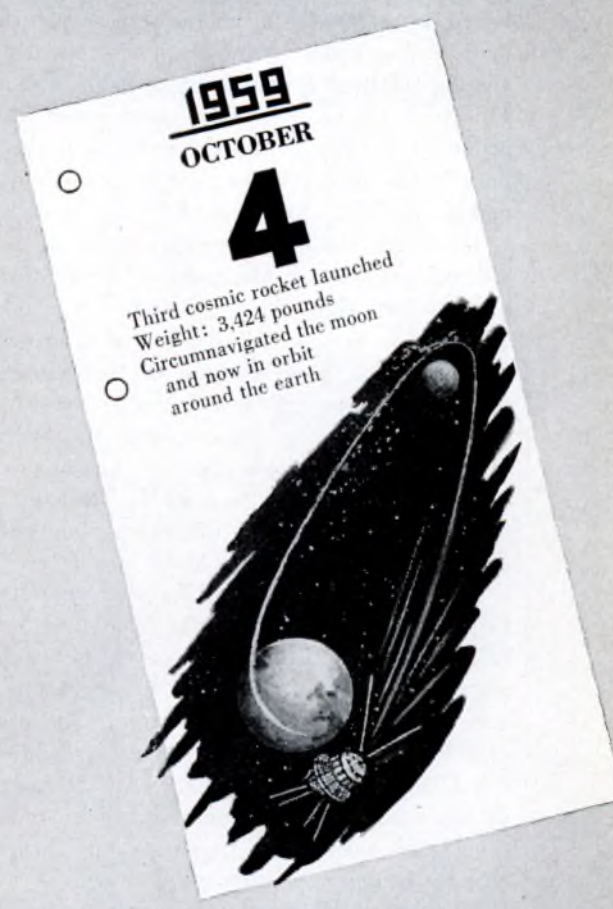
The television system on the interplanetary station has transmitted pictures over a distance of up to 300,000 miles. Thereby the possibility of transmitting half-tone images of high accuracy without any essential specific distortions in the process of radiowave propagation has for the first time been confirmed experimentally. This opens up wide prospects of studying the planets of our solar system.

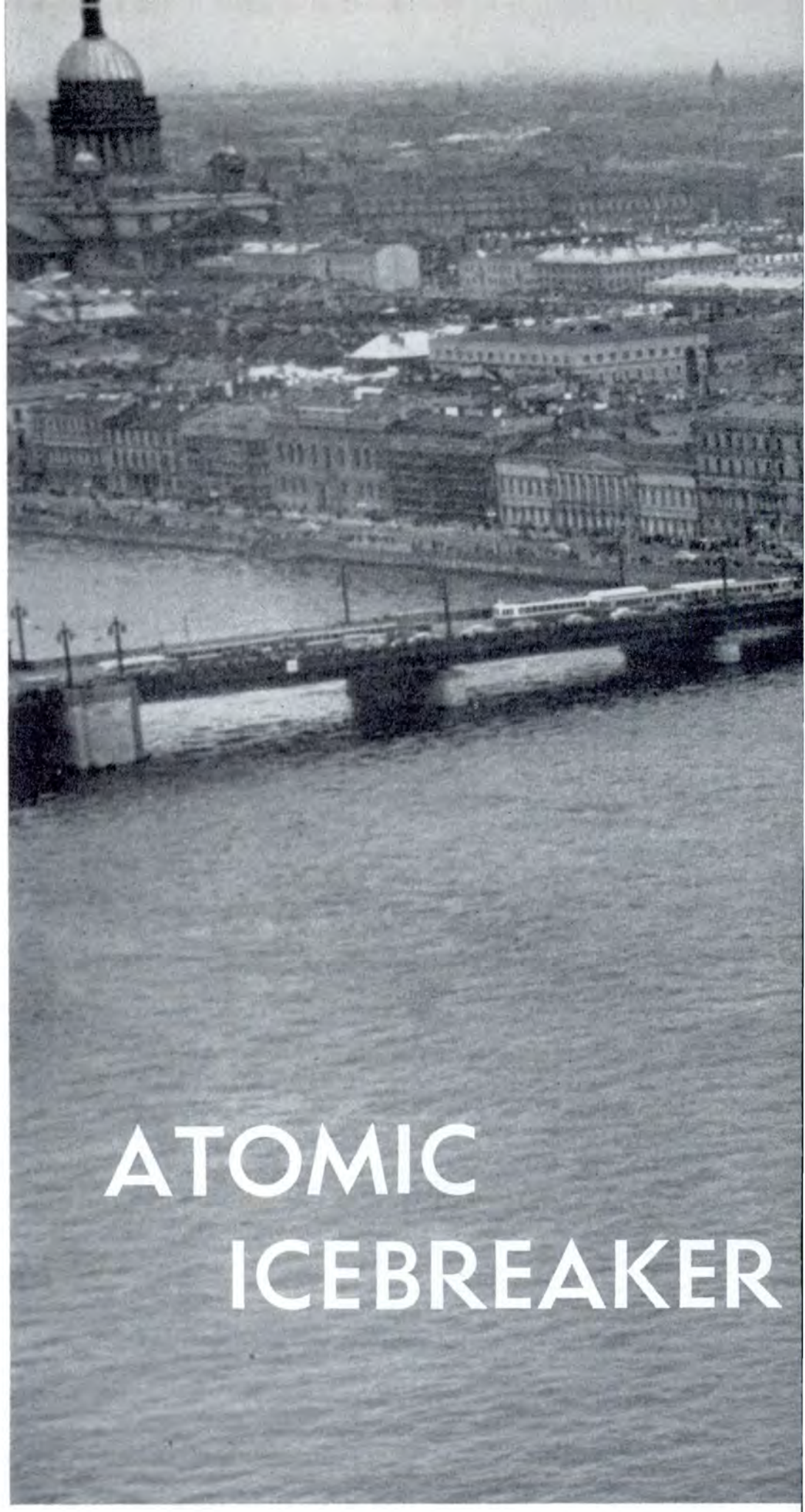
The flight of Lunik III has opened a new chapter in the history of world science. Penetrating into outer space, Soviet rockets will now be able to transmit to the earth not only data of the physical characteristics of the cosmos, but also photographs. With the automatic interplanetary station, astronomy has moved its instruments infinitely closer to the celestial bodies.











# ATOMIC ICEBREAKER

THE atom-powered icebreaker *Lenin*, the flagship of the Soviet Arctic fleet, has recently left the Admiralty Shipyard in Leningrad. Commenting on its launching, Nikita Khrushchev said in his speech upon arrival in the United States, "We are happy about this concrete expression of the striving of all peoples to have nuclear energy used for peaceful purposes only."

Atomic seagoing ships of various types are now being designed or built in many countries. The icebreaker *Lenin* is the world's first above-water vessel powered by the energy of the atom to go into service. The Soviet Union began with an icebreaker because it is in ships of this kind that the use of atomic power is especially advantageous.

An icebreaker of the conventional type has to refuel quite often which results in certain limitations on its operation. A ship the size of the *Lenin* would need some 200 tons of oil a day. Now this will be replaced by only a few dozen grams of atomic fuel. The icebreaker *Lenin* is expected to refuel only once every second year. This means that it will be able to sail an almost unlimited range without calling at ports.

The use of atomic energy made it possible to attain a high level of driving power per unit of the ship's weight. The *Lenin* is far and away the most powerful of icebreakers presently in use anywhere. Its three-shaft, 44,000-horsepower installation has a push of 330 tons. The ship can cruise easily through six-foot-thick ice. It will double the present shipping season on Arctic Ocean runs, and new routes farther to the north can be opened.

The icebreaker *Lenin*, equipped with a special ballast system, cuts through ice in somewhat the same way a woodsman chops through close-grained wood. When his ax catches in the wood, he pushes down on the handle to release it. When the ship gets stuck in thick ice, water is quickly and automatically forced back from the prow to the stern. This frees the prow and the vessel can climb up on the ice floe. Then the water is pushed back in the opposite direction just as quickly and the weight of the vessel breaks the ice.

These are the basic specifications of the icebreaker *Lenin:* displacement—16,000 tons; length—440 feet; width—92 feet; maximum draught—30 feet; cruising speed in open water—18 knots. Even without the superstructures, it stands as high as a five-story building.

Three atomic reactors constitute the heart of the vessel. Its power installations can provide enough electricity to meet the needs of a city with a population of several hundred thousand.

Since the icebreaker will be operating for long stretches in seas remote from ports of call, the power installations must be completely reliable. Of the ship's three reactors, one is kept in permanent reserve. The use of electric screw propellers makes for added reliability since the ship can work at more or less constant power even when ice conditions may necessitate frequent and abrupt changes in the navigation regime.

The design of the atomic power unit had to meet many complex and, in some cases, contradictory requirements. It had to be compact, relatively light in weight and thoroughly foolproof. There had to be certainty that even under the most extreme emergency conditions radiation safety on the ship was completely ensured——that the spread of radioactive substances would be so limited or slowed down as to preclude any dangerous concentrations of these substances in the surrounding area. At the same time the reactors had to be self-regulating, with their active zones designed so that there would be no significant discharge of radioactive substances even should an accidental breach occur in the cooling system.

With complete confidence the designers and builders subjected the ship's reactors to the most exhaustive tests in the Admiralty Shipyard which is located in the very heart of metropolitan Leningrad.

To further ensure the biological safety of



the crew, the service personnel of the ship's atomic installations enter and leave the service premises only through a special control room. At this sanitary post their bodies and clothing are carefully checked for radiation. Sensitive dosimeters everywhere on the ship will register even a slightest concentration of radioactivity.

The safety control system on the icebreaker is so carefully regulated that under normal operating conditions the crew is exposed to no more radiation than would be given off by a wrist watch with luminous dials, and that presents no hazards whatsoever. To reduce even that very minimal possibility, however, the builders did not follow the usual practice of equipping instruments with luminous dials, since the radiation of such instruments exceeds the very rigid safety requirements that had been set for the *Lenin*.

The control system of the icebreaker is entirely automatic. Even the course is automatically charted. Ship-to-shore and ship-to-aircraft communication is maintained round the clock no matter where the icebreaker goes. The ship carries a helicopter equipped with a telecamera for ice reconnaisance. The ship's

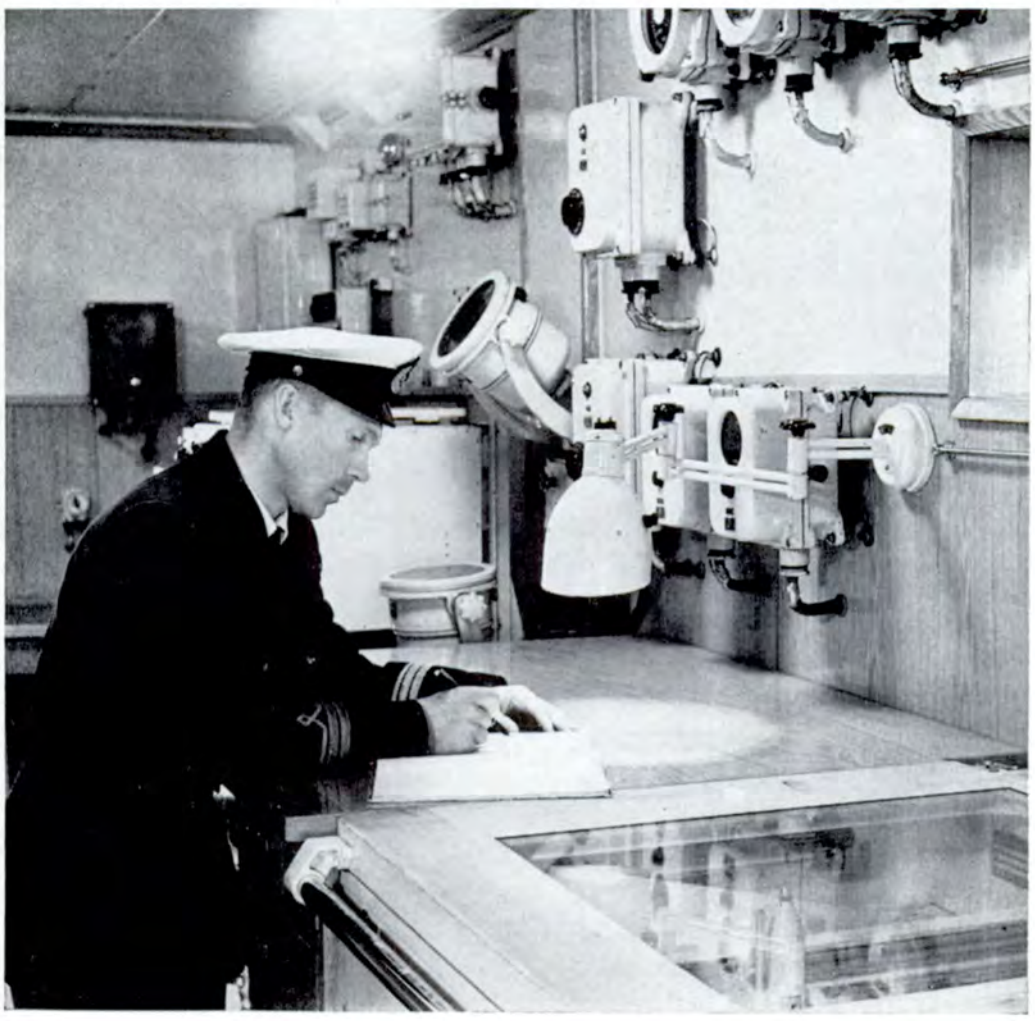


Pavel Ponomarev is the captain of the atom-powered icebreaker which is able to sail an almost unlimited range without refueling.



# ATOMIC ICEBREAKER

Control of the icebreaker is entirely automatic, even to charting the course. The operator pushes a button to start the machines, and a light on the panel signals the job's completion.



captain is kept informed of the condition of the ice not only via radio from the cruising helicopter but also by TV pictures it transmits. These are flashed on a screen on the bridge.

An important feature of the atomic icebreaker is the amount of space allotted to the crew's quarters. In an ordinary ship about a third of all space is taken by fuel bunkers. On the *Lenin* the designers utilized this space for the comfort of the crew. The seamen are provided with the maximum of conceivable conveniences to make their life easier during long Arctic voyages.

The single and double berth cabins are very commodious. Each one is equipped with armchairs, desk, wardrobe and wash basin. All cabins are air-conditioned. The *Lenin* has a music room, large clubroom for movies, a 3,500-volume library. Its hospital is equipped for X-ray, dental work and major surgery. The ship's offices, laundry, dining room, electric kitchen, bakery, refrigeration rooms and all other premises are unusually spacious.

The atomic icebreaker *Lenin* is in a real sense the creation of the entire country. Hundreds of industrial plants and scientific institutions contributed their resources, both material and mental, to build the ship. It has successfully passed a final series of shipyard tests and soon will be forging its way through northern seas, clearing the way for ships carrying the most peaceful cargoes for peaceful people.



The space usually taken by bunkers on conventional icebreakers is used for comfortable cabins, big clubrooms, a library and a hospital for the crew.



The 440-foot long, 92-foot wide, five-story high *Lenin* has a 16,000-ton displacement and a cruising speed of 18 knots.

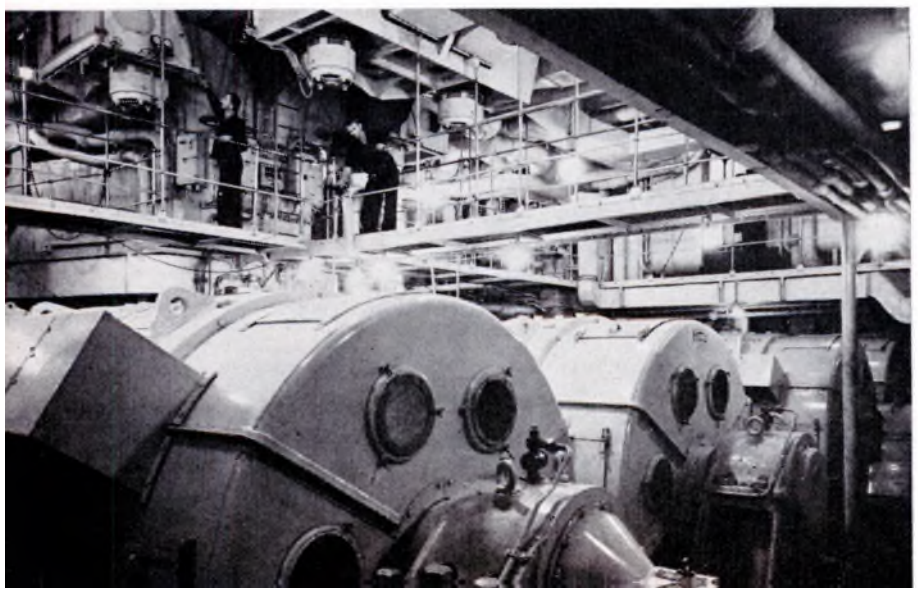


The atomic reactor installations, sealed and operated by remote control, are designed to protect the crew from exposure to dangerous radiation.

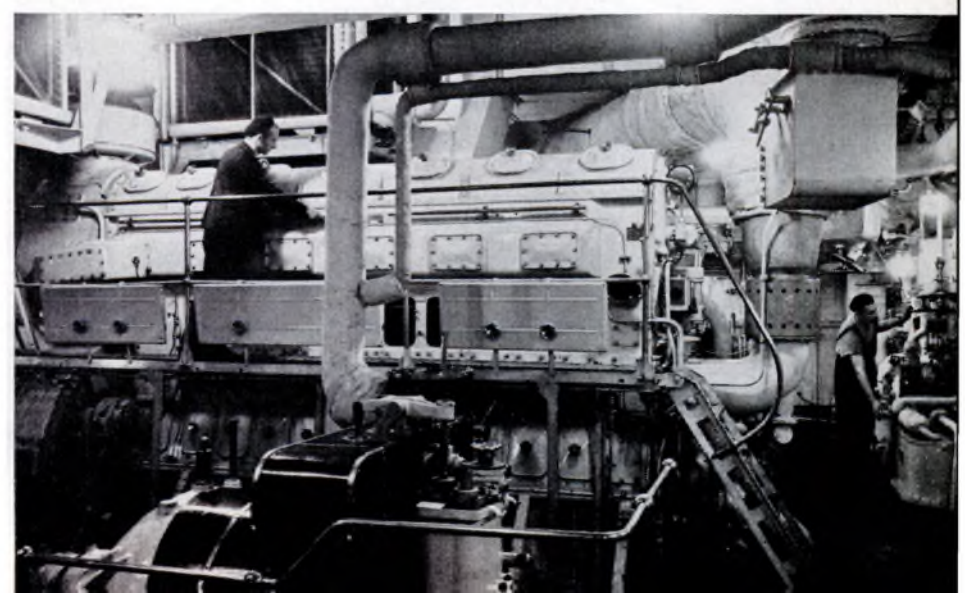


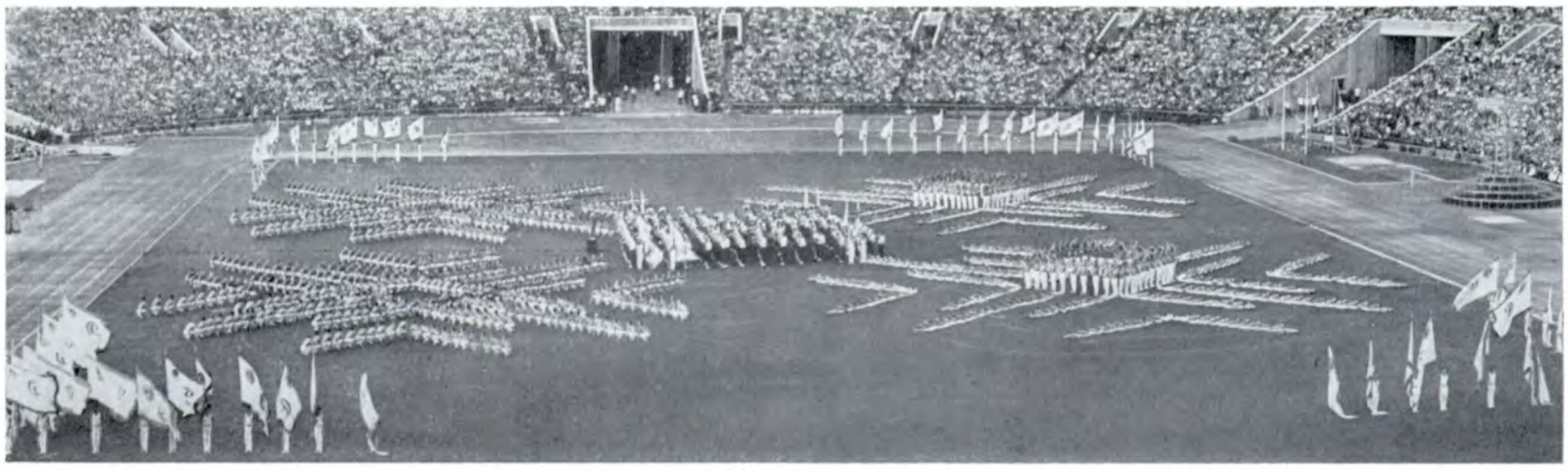
Radio receivers and transmitters keep the icebreaker in touch with shore, planes and other ships, and its own helicopter is used for reconnaisance.

These turbogenerators run motors with a capacity of 44,000 horsepower, creating a push of 330 tons for getting through ice six feet thick with ease.



A few grams of atomic fuel enables the power plant to produce enough electricity to service a city with a population of several hundred thousand.





DYNAMO SPORTS SOCIETY OPENED THE NATIONAL GAMES WITH A GYMNASTIC DISPLAY. SEVENTEEN TEAMS COMPETED FOR TOP HONORS IN THE EXCITING AUGUST CONTESTS



TRACK AND FIELD EVENTS LISTED A HOST OF NEW NAMES ALONG WITH THE OLD



TWELVE NEW RECORDS WERE SET FOR THE SOVIET UNION AND 154 FOR THE REPUBLICS

# USSR

By Victor Kuprianov

MORE THAN 8,000 ATHLETES OF 43 NATIONALITIES COMPETED IN 21 SPORTS



IN SPORTS what happened in August is usually stale by December. The Spartakiada—the USSR National Sports Games—is an exception. It was not an ordinary event—it was a landmark.

Take the Olympic Games, double their scope, and you have an idea of the Spartakiada. Over 8,000 athletes from all over the country converged on Moscow in August to compete for top honors in 21 sports and chess. These were the lucky ones who had survived the one-year qualifying preliminaries that began with an over-all entry list of 40 million.

Spartakiada days were hectic ones for Muscovites. First of all no one stadium was large enough, so the contests were scattered all over the city and outside it. Spectator facilities were planned for about a quarter million onlookers a day. But arenas proved sadly undersized at times, especially during the basketball and volleyball tournaments.

The Moscow finals were something more than a mere spectacle. They were a review of sports mastery and physical fitness, not only of the individual contestants and teams, but of the entire country. They were a review of how much had been accomplished and a reminder of how much was still to be done. From this standpoint both the athletes and the fans looked at the Moscow Spartakiada with one eye on the Rome Olympics.

The Spartakiada had much to offer to the winners: a USSR crown and a place on the Olympic team. The games were conducted on a team and individual basis. There were 17 teams competing—one each from the 15 constituent republics of the Soviet Union plus teams from Moscow and Leningrad.





WORLD DECATHLON CHAMP VASILI KUZNETSOV AND 100-METER FINAL WINNER GALINA POPOVA



COLORFUL BANNERS OF THE COUNTRY'S SPORTS SOCIETIES IN THE OPENING-DAY PARADE



# National Sports Games

After the officials and computing machines were through with the complicated business of point counting, it appeared that Moscow had placed first, with the Russian Federation and Leningrad close runners-up. Competition was keen all the way through and surprises were the order of the day.

During the Spartakiada a total of 154 new records were set for the republics of the Soviet Union, Moscow and Leningrad. USSR records were shattered 12 times. Three of the performances were better than corresponding world highs.

Anatoli Vedyakov of Moscow walked 50 kilometers in 4 hours 3 minutes 52.2 seconds—that is the fastest a human being has ever walked since the beginning of time. In weight lifting Rudolf Pluckfleder, a Siberian miner, surpassed Jim George's world record only to have the result bettered by a Moscow strongman, Vasili Pegov, exactly two minutes later. Although their lifting highs are not credited as world records—because world records are recognized only if they are set at an international match with at least three countries taking part—the feeling is that if the boys could lift these weights at the Spartakiada they would be able to repeat their performance at the Rome Olympics without too great difficulty.

One of the innovations at the Spartakiada was the tournament for factory, mine, farm and other local sport clubs, with more than 70 competitors in five events. The Leningrad Optical Plant placed first. This enterprise has long been famed for its athletes and sports activities in general. Galina Zybina, former world record holder in the shotput, comes from there, as do some other top-notch athletes.

### Galaxy of New Stars

The age span of the contestants was unbelievably broad. The youngest was a schoolgirl from Lithuania not yet 12 who aspired to table-tennis honors; the oldest, a sharpshooter from Latvia, who insisted that 77 is not old.

What is perhaps even more heartening is the galaxy of new stars that came to the fore in all events. The youngest champion was a girl from Leningrad, 16-year-old Larisa Victorova. She is a backstroker who may be up front at the Rome Olympics.

In boxing all the USSR champions were deposed. Five of them did not even get as far as the semi-finals. And of the ten current crown-holders nine had never been prize winners at championship tournaments before. Nineteen-year-old Alexander Izosimov is a case in point. He is the new heavyweight champion and he placed first in a list that included Andrei Abramov, a boxer who won the European laurels twice. He looks like world champion material.

In track and field the newcomers also made a very strong bid in all of the events.

After the USA-USSR match in Philadelphia last July, many American sports scribes said that the Soviet Union had made no progress because the team that appeared against the United States included so many old-timers. The conclusion they drew was that the United States would stay at the top in the sprints, the middle distance races, broad jumping, pole vaulting and the shot-put. To the Soviet Union they conceded the remaining field events and the distance running.



ONE OF THE COUNTRY'S MOST POPULAR SPORTS.







SOME OF THE BEST SWIMMERS, CANOEISTS AND OARSMEN CAME FROM REGIONS WHERE WATER IS SCARCE.



500 ENTRANTS TOOK PART IN THE FENCING MATCHES.



AN AESTHETIC QUALITY HAS BEEN ADDED BY SOVIET SPORTSMEN TO THE WORLD'S OLDEST ATHLETIC EVENT.

# USSR National Sports Games

The Spartakiada changes the picture. Although results were not world shattering, they did indicate that the Soviet Union has many gifted youngsters who will be growing up into stars any day now. New names figured in all the finals. In the girls' broad jumps, for instance, there were four new names among the six finalists. In the discus throw Tamara Tugushi, a Caucasian girl, outdistanced everyone in the preliminary round, and in the finals placed second to the world star Nina Ponomareva. And this is her first appearance in a major tournament!

The same trend, although on a lesser scale, was shown by the men—the younger generation coming up to take the place of the veterans. Observers in Europe were very much impressed by the showing made by Pyotr Bolotnikov who won both the 5,000- and 10,000-meter races. In the 5,000-meter run he showed the best time of the season in a close dramatic finish and came to within 7.8 seconds of the world record held by Vladimir Kutz. Bolotnikov believes he can do better and the general feeling is that he can and will.

Coach Gavriil Korobkov believes that in about four to five years there will no longer be any division into "American" and "Soviet" events in track and field. "We will be able to fight for first place in all events," he says.

After the Spartakiada the selectors got into a huddle and named a new national track and field team to face West Germany, one of the strongest teams in Europe. More than 20 new names appeared in the line-up that went into action in Philadelphia. Is this scrapping the old-timers? No, it is giving the newcomers the international experience they need. Later, when the British athletes came to Moscow, more new names were added to the line-up.

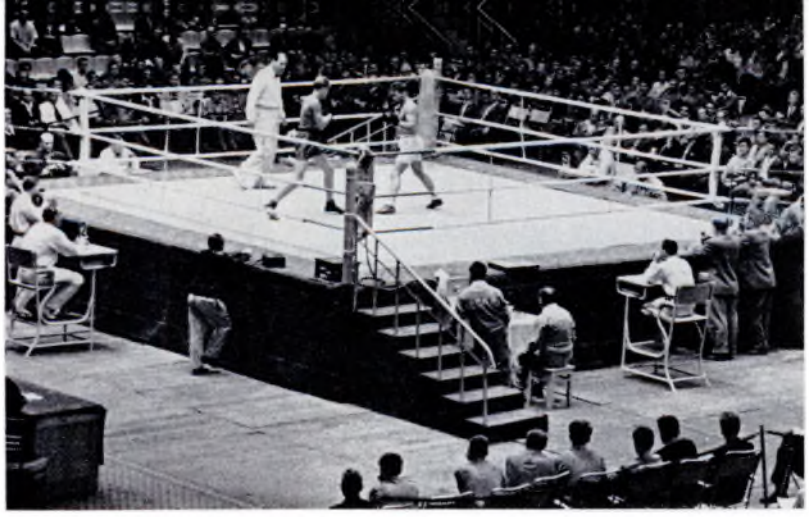
The selectors planned their campaigns with one eye on the Rome Olympics. Emphasis was on youth with a sprinkling of veterans for seasoning. The selectors will be kept busy spotting the new hopefuls. But old-timers have not faded out of the picture.

Vasili Kuznetsov topped the 8,000-point mark again in the decathlon for the fifth time—he has done it more often than any other athlete in the world, including Rafer Johnson. Among the women Galina Popova at the age of 27 is the country's best sprinter and she will undoubtedly see action at the Rome Olympics. Nina Ponomareva at 30 is still heaving the discus most energetically and successfully—and she has appeared at two Olympics already. Our male discus luminary, Otto Grigalka, is still in the running at the age of 34. He is the oldest athlete in the national team.

But our main stake is on the youngsters, and this is true in other sports as well, including basketball. What is notable is that the Spartakiada indicated a definite improvement in technique and tactics and showed there was a sizable reserve of manpower—and womanpower—to draw from. That is heartening and promises a bid for first place at the Rome Olympics.

One of the most exciting games of the year was the basketball game played at the Spartakiada between Latvia, former USSR champion, and Georgia. At the final whistle the score was even and an extra period was played. The score stayed even. Another supplementary period was played, and still another, but both sides continued running neck and neck. Then Georgia broke ahead. But the personal foul rule had decimated the team—only four men remained on the court, then three.

Three men on the court holding a slim lead with only 12 seconds to play. The stands roared the count-down as the skyscraper Latvian team came out in force on a steam roller attack. Many a heart skipped a beat but the Georgian trio held tight. This is a story that will be handed down from basketball generation to generation.



IN BOXING ALL THE OLD USSR CHAMPIONS WERE DEPOSED BY NEWCOMERS.



THERE WAS GOOD MATERIAL FOR THE ROME OLYMPICS AMONG THE STRONGMEN.

## Where Do New Names Come From?

The Spartakiada contestants came to Moscow from all the geographical zones of the country. While there is nothing surprising about an athlete coming from afar, it does seem rather unusual to learn that champion canoeist Ibrahim Hasanov comes from Tajikistan where a drop of water is worth its weight in gold. It was also startling to learn that there are crack women athletes in Central Asia, where not so long ago women wore thick horsehair veils and were not permitted by custom to appear in public.

This breaks down old notions of geography in sports. If crack Alpine skiers can come from Moscow, which has nothing remotely resembling a mountain, why can't oarsmen come from desert regions? Indeed, why not?

Sports in the Soviet Union is a grass roots movement based on physical fitness. That is the basis of all training. More than 2,000 stadiums, a quarter of a million sports grounds, 600 swimming pools and 9,000 gyms have been placed at the disposal of the country's physical fitness scheme.

Our goal is to get 50 million people into sports activities by 1965. That means virtually every family. It also explains the giant dimensions of our tournaments. In the USSR school sports tournament that preceded the Spartakiada 12,200,000 boys and girls took part.

The formula for our modern sports-minded generation is "1+2=3". What this means is that every athlete gets two of his friends into sports. For the family of the writer it means that his daughter gets up bright and early to do her morning exercises. That is the "1". The "2" in this formula is that mommy and daddy are shooed out of bed to do likewise.

We are sure that this business of getting every family into the physical fitness scheme will work wonders. It will help us raise a healthy generation and keep the grown generation healthy. And it will ensure us a bumper crop of notable performances at the next and subsequent Spartakiadas.



THE GAMES SHOWED THAT BOTH TECHNIQUES AND TACTICS ARE IMPROVING.



Still from *Fate of a Man* (Soviet Union)



Still from *Wir Wunderkinder* (West Germany)

# *PEACE AND FRIENDSHIP*

# theme of 44-nation cinema review in Moscow

FORTY-FOUR COUNTRIES sent movies and delegations of cinema people to the International Film Festival held in Moscow last August. Among them were several countries of Europe, Asia, Africa and Latin America that never before had participated in any world film contest. To judge by the results, the Moscow Festival was the most representative and complete review of the world's finest motion pictures that has yet been held.

All countries were invited, with no distinctions made between kinds of producing groups. Entry conditions were alike for all. The guiding motto—"For Humanism in Cinema Art, for Peace and Friendship Between the Peoples"—gave the contest a sense of profound social significance.

Participants were agreed that this was the most creative of film festivals. Note the tenor of their comments reprinted on the following pages. On view were some 200 full-length films and shorts—a comprehensive survey of present-day motion picture production with its new and varied approaches in camera technique.

A novel feature of the Moscow Festival which set it off from those held in previous years at Venice, Cannes and Karlovy Vary was the emphasis on discussion of the social role and significance of the film, script-writing, the critical review, and many other creative problems. The participation was general and the interest high.

During the festival period the competing films were viewed by large Moscow audiences at motion picture theaters and workers' clubs.

The jury, made up of world-famous film people from different countries, awarded first prize, the Grand Prix D'Or, to the Soviet film *Fate of a Man*, based on a story by Mikhail Sholokhov, a passionate cry and protest against war's horrors. The Soviet picture was praised for its impressive direction, acting and photography, but noted particularly was the penetrating universality of its characterization and its most powerful humanistic impact.

The West German film *Wir Wunderkinder* won a Gold Medal for its theme—the terrible destruction of body and spirit by fascism—developed with great motion picture artistry.

The Pakistan entry, *The Dawn Must Come*, a film built around the lives of fishing folk, was the surprise winner at this year's festival. It shared a gold medal with the Czechoslovak *Break Away from Shadows*, a study of the relationships and conflicts between members of a single family.

Some countries with a rich tradition of film-making, Italy and France in particular, in the opinion of the judges submitted films notably below their best standards. Unfortunately the United States did not participate in the festival, although one film, *The Diary of Anne Frank*, was sent for showing outside the contest.

A great number of entries in the Moscow Film Festival were marked by a concern, expressed through gifted direction, acting and camera work, with humanistic themes, with mankind's striving for a better and richer and more peaceful life.



Still from *The Dawn Must Come* (Pakistan)



Still from *Break Away from Shadows* (Czechoslovakia)



Festival Jury members (left to right): Christian Jacques of France, Henri Storck of Belgium, Sergei Yutkevich and Sergei Gerasimov of the USSR.



Sergei Bondarchuk (left), director and lead in *Fate of a Man*, Zinaida Kirienko, who co-starred in the film, and French film director Abel Hans.

20th Century-Fox showed *The Diary of Anne Frank* but did not compete. The company's President S. Skouros and his wife at the Festival.



The International Film Festival brought to Moscow many of the world's leading film people—producers, directors, actors, screen writers from forty-four countries.



# Interviews with Participants

## Wonderful Success

**Arthur Watkins,** *President*
*British Film Producers' Association*

In our view the Festival has been a brilliant success, and we would like to pay tribute to the good organization.

We are very proud that the British film, *Room at the Top,* was selected to open the Festival and that our British films have been so well received. My colleagues and I find that almost all the films shown at the Festival are of high quality and great interest.

## Ideas of Humanism

**Chang Chun-hsiang,** *Script Writer and Director*
*(People's Republic of China)*

The Festival's noble motto—"For Humanism in Cinema Art, For Peace and Friendship between the Peoples"—gave apt expression to the spirit of creative encounters among the members of the world's film industries. All the participants won in this Moscow contest, since the Festival indubitably served the cause of rapprochement among the peoples.

## Film of Great Merits

**Gerald Severen,** *Vice President of MJP Enterprises Inc.*
*(United States)*

I am in complete agreement with the decision of the Festival's jury to award the Grand Prix to the Soviet film *The Fate of a Man.* It is an outstanding work from the point of view of both directing and acting, and there can be no two opinions as to its great merits.

## Forum of Cinema Workers

**Kieshiko Ushihara,** *Director (Japan)*

I have taken part in many international film festivals of Europe and Asia. But this one was perhaps the most interesting and significant of all. It was a real forum of cinema workers the world over. The creative discussions on the cinema's place in life, its ways of development, and its importance for peace and progress, were an important part of the Festival.

## Discussed by Movie-Goers

**Sergei Bondarchuk,** *Actor and Director (Soviet Union)*

The most remarkable and happy feature of the Moscow Festival was its popular character, its unusually broad scale. I have had occasion to attend many international film reviews, and I believe that none of them compare with the Moscow Festival in the number of ordinary moviegoers who viewed, discussed and appraised the contesting films.

## To Depict Our Contemporaries

**Professor Anton Brousil,** *Jury Member (Czechoslovakia)*

Our main duty in cinema art has always been to depict our contemporaries, ordinary people striving for a better life on earth. We saw them everywhere in Moscow. We encounter them in our countries as well. We are indebted to these people.

## Candid Cartoons

by Georgy Pirtskhalava

of some of the world's famous film personalities whom he met at the International Film Festival in Moscow.



British star
Carole Lesley



French star
Marina Vlady



French director
Abel Hans



French director
Christian Jacques



Dutch director
Joris Ivens



Polish star
Maria Czeselska



Czechoslovak director
Jiry Sekvens



British star
Dana Wilson



Japanese director
Kieshiko Ushihara

For the Film Festival the Moscow Sports Palace was turned into a giant motion picture theater that seated 12,000 people. On view were as many as 200 full-length films and shorts, a comprehensive survey of the best in world cinema. The competing films were also shown at the city's movie houses.



The Festival delegates managed time for sightseeing and fun in spite of a crowded program that included round-table discussions of creative problems in film making.



USSR Minister of Culture Nikolai Mikhailov (second from right) talks to foreign film people about the possibility of joint productions.

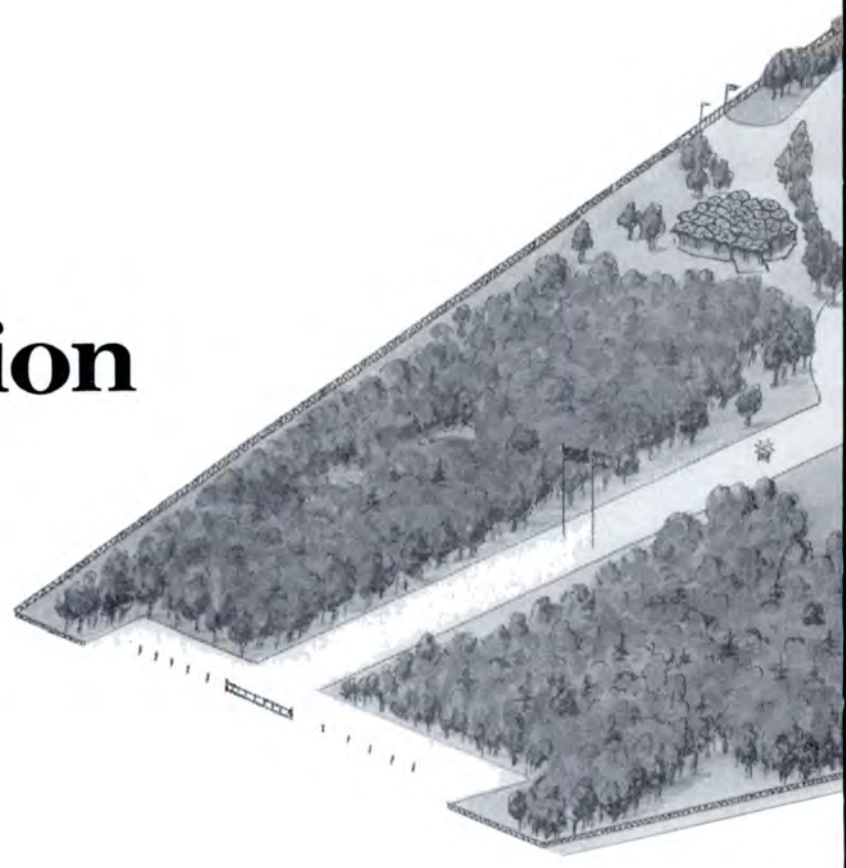
Sergei Yutkevich (center), Soviet film director, plays host to his French cinema friends whom he met at festivals at Cannes and Venice.



The delegates were invited to view film techniques developed by Soviet producers. This group is watching a scene for a new film being shot at the Mosfilm studios.



# American National Exhibition in Moscow



ENTRANCE TO THE EXHIBITION WAS AT THE PAVILION WITH THE GEODESIC DOME.






FORD, GM AND OTHER CAR MANUFACTURERS SHOWED THEIR LATEST MODELS.

THE most important display, one not listed in the guide books, is friendship—this was a Soviet visitor's comment on the American National Exhibition in Moscow's Sokolniki Park. That remark, made in passing, is very likely a more fundamental evaluation of the purpose and value of the exchange of exhibitions between the United States and the Soviet Union than the reams of newspaper copy that must have been written about it.

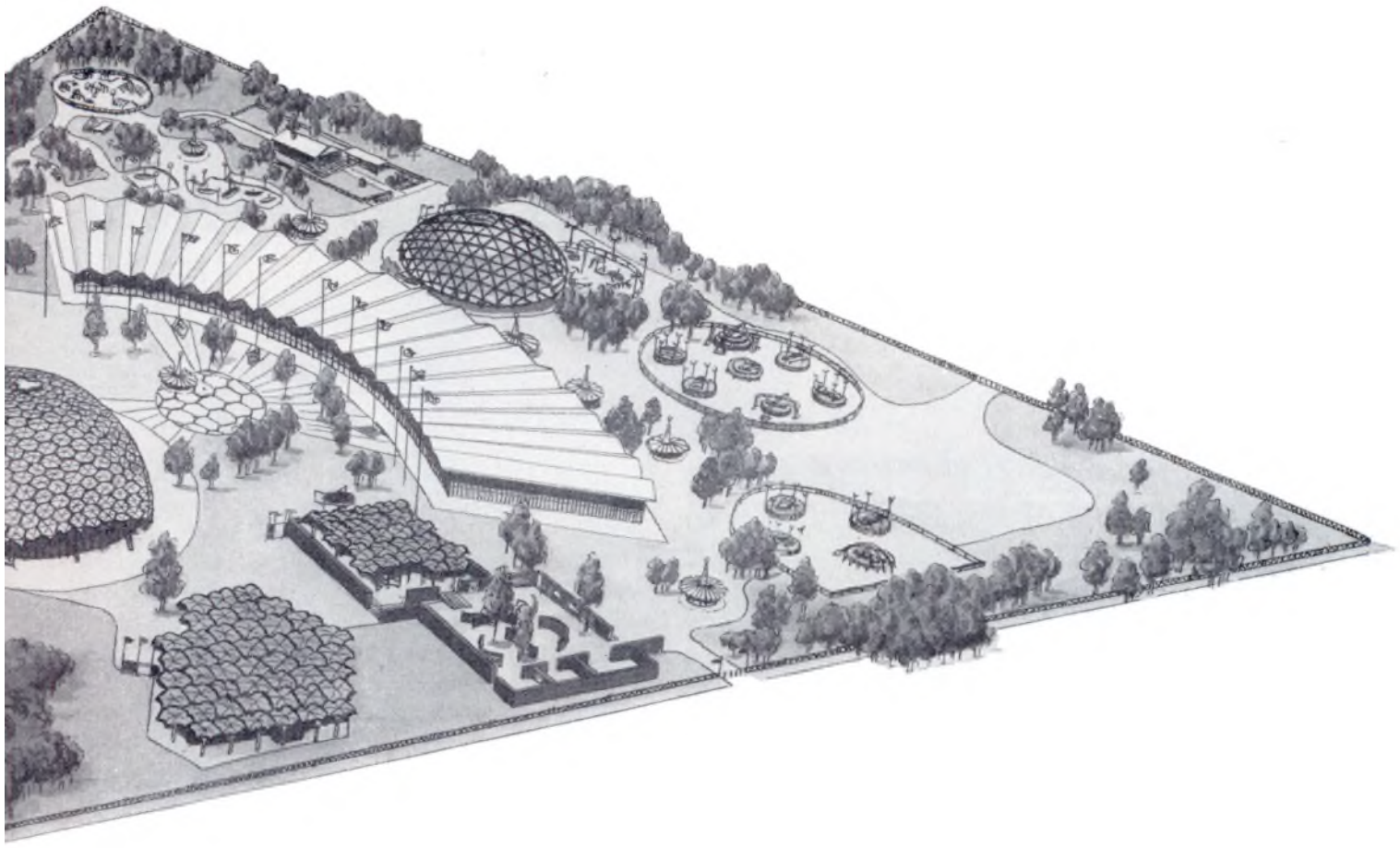
Certainly, whatever reservations the American visitor to the Coliseum or the Soviet visitor to Sokolniki may have had with regard to one or another display, there is the important fact that both were learning more about each other's way of life. And in our time when understanding can well be equated with world peace, that is a very valuable consideration indeed.

Soviet people who visited the American National Exhibition in Moscow—and they ranged from government officials to housewives—wanted to know how America lived and worked and spent its leisure. They wanted to get a better knowledge of the achievements of American science, technology and culture. Much of what they saw they liked, some of what they saw they questioned. Comparisons were inevitable. Some were favorable, others were not. But the American guides and interpreters will give evidence that here were intensely interested visitors and most friendly critics.

What was the average Soviet citizen's reaction? He would have liked to see more of the way Americans lived, more of the fine photographs in Steichen's "Family of Man" exhibit, more on American life specifically. He would have liked more facts about the American educational system, the country's medical and social services. He would have liked more details concerning America's industrial prowess.

The visitors were interested in American cars and plastics and household appliances. But they would have been more interested in seeing how all these goods are manufactured, assembly lines of Detroit's automobile plants, for example, or new techniques of producing artificial fibers.

After a tour of the exhibition any visitor, no matter what his personal interest was, would say he welcomed this opportunity to get a closer insight into the American way life. To be friends, he would say, means to know more about each other. This idea was well expressed by Nikita Khrushchev when he said that both the Soviet Exhibition in New York and the American Exhibition in Moscow were "events of considerable importance which, it is hoped, will play a positive role in improving relations between our countries."



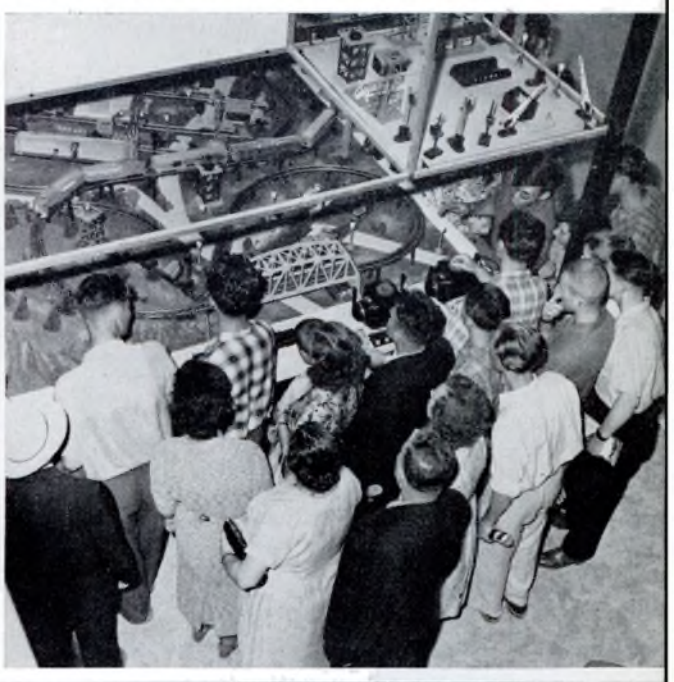
NOT NEARLY ENOUGH EQUIPMENT HERE TO SUIT FARMERS.




MOST POPULAR: *FAMILY OF MAN* PHOTO EXHIBIT.




FOR CHILDREN: MODEL TOY TRAIN DISPLAY.





A FUTURE FIRE-FIGHTER CHECKS EQUIPMENT.



THERE WAS AN INTEREST IN LABOR-SAVING DEVICES.



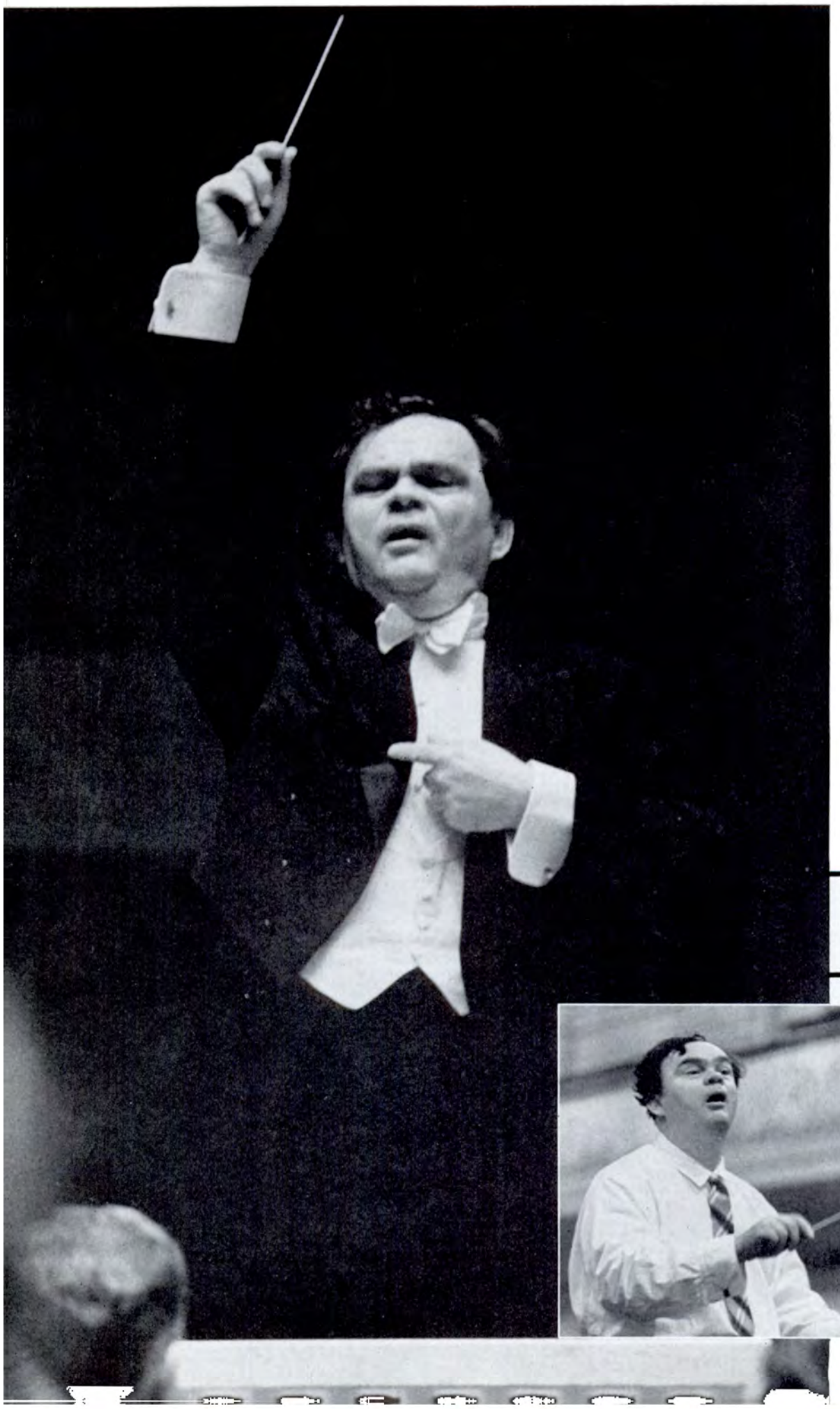

IBM'S RAMAC ANSWERS QUESTIONS ABOUT THE U.S.

# USSR SYMPHONY

## *to play at Carnegie Hall*

By Ivan Martynov

THE NOTED CONDUCTOR KONSTANTIN IVANOV HAS LED THE USSR STATE SYMPHONY SINCE 1946.
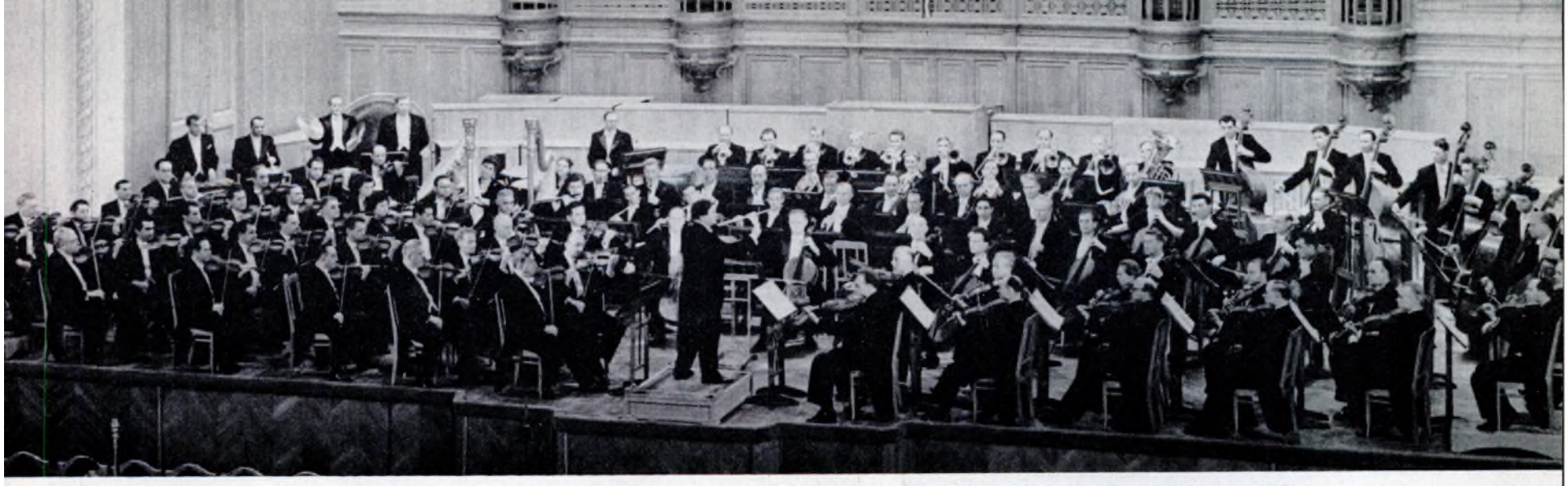


THE USSR State Symphony Orchestra, scheduled for a series of concerts in Carnegie Hall in January, is the first Soviet symphony group to play in the United States. There is every reason to believe that the Soviet Union's leading orchestra will be as resoundingly applauded by American audiences as the New York Philharmonic and its conductor Leonard Bernstein were by Soviet music lovers. Its musical tradition is as rich and its virtuosity as brilliant.

The State Symphony Orchestra was founded in 1936 in Moscow when the Soviet capital had two other orchestras— the USSR Radio and the Moscow Philharmonic. In the 23 years since its founding it has given nearly 3,000 concerts. Like other music ensembles of top rank, the State Symphony Orchestra plays as frequently at workers' Palaces of Culture in towns and cities as it does in formal concert halls. It has toured in all parts of the country and visited Poland, Rumania and China. Last year it performed at the Brussels World's Fair and in Ostende, Belgium.

The orchestra's repertory is broad and includes the classic and modern composers— Beethoven, Brahms, Wagner, Mahler, Richard Strauss, Debussy, Stravinsky, Aaron Copeland. Elie Siegmeister, Ernst Bloch, Roy Harris. Samuel Barber, George Gershwin and others. A prominent place is given to Russian composers, both classic and modern. Close contact with Prokofiev, Miaskovsky, Shostakovich. Khachaturyan and Kabalevsky has helped the orchestra interpret contemporary scores.







IN THE 23 YEARS SINCE THE USSR STATE SYMPHONY ORCHESTRA WAS FOUNDED IT HAS GIVEN NEARLY 3,000 CONCERTS. IT HAS A BROAD CLASSIC AND MODERN REPERTORY.

The orchestra has been directed by all the Soviet leading conductors. Among its guest conductors have been Otto Klemperer, Erich Kleiber, Hermann Abendroth, Carlo Zecchi, Georges Georgescu, Andre Cluytens, Josef Krips and Malcolm Sargent.

The Carnegie programs of the USSR State Symphony Orchestra will include works by Beethoven, Rachmaninov, Prokofiev, Shostakovich, Khachaturyan and a good deal of Tchaikovsky—the First, Fourth, Fifth and Sixth Symphonies, the Suite No. 3, Romeo and Juliet, Francesca da Rimini, the First and Second Piano Concertos, the Violin Concerto, Variations on a Rococo Theme, the Letter Scene from *Eugene Onegin* and the Canal Scene from the *Queen of Spades*.

### Konstantin Ivanov

Konstantin Ivanov has been the orchestra's chief conductor since 1946. His keen temperament and bold, yet emotional, interpretation coupled with the fire of his rendition have completely captivated his audiences. He is noted particularly for his readings of the Beethoven and Tchaikovsky symphonies and contemporary Soviet works.

Evan Senior, publisher of the British periodical *Music and Musicians*, considers Ivanov one of the most outstanding of the many brilliant guest conductors London has heard in the recent past. Ivanov has also conducted in Belgium, China, Mexico, France, Czechoslovakia and other countries. Comments everywhere have been most laudatory.

Ivanov did not arrive at the leadership of the country's leading symphony orchestra by any short cuts. He was born in a poor family and his parents died while he was young. He therefore gave up his plan of studying music for which he had a real passion. Fortunately, his talents were discovered and he was enrolled in an army music school, after which he was accepted for study at the Moscow Conservatory. He graduated with high honors and his name is carved in gold letters on the marble Board of Honor, alongside those of other celebrated graduates of the Conservatory.

In 1938 Ivanov won the title of laureate at a nationwide contest of conductors. He holds the honorary title of People's Artist of the USSR, the highest national award conferred on artists.

### Kirill Kondrashin

Kirill Kondrashin, whom American concertgoers heard when he visited New York and other cities with Van Cliburn and then was guest conductor at the Chicago Opera, will also lead the USSR State Symphony Orchestra at

GUEST CONDUCTOR KIRILL KONDRASHIN.











EMIL GILELS, WHO RANKS WITH THE GREATEST LIVING PIANISTS, HAS PLAYED TO LARGE AMERICAN AUDIENCES. HE WILL BE THE SOLOIST WITH THE VISITING ORCHESTRA.

# USSR SYMPHONY

its Carnegie Hall concerts in New York City.

Kondrashin, the son of a violinist in the Bolshoi Theater orchestra, graduated from the Moscow Conservatory in 1936 and conducted at the Leningrad Maly Opera Theater for a number of years. His experience there developed a deep feeling of coordination for which he is highly appreciated by the soloists who appear with him. But he not only supports the soloists with excellent conducting, but is also known as a musician of vivid artistic individuality.

Kondrashin is a conductor widely commended for his readings of Rimsky-Korsakov, Tchaikovsky, Debussy and Cesar Franck among the older composers, and Prokofiev and Shostakovich among the modern. Having conducted at the Bolshoi Theater for some time, he is now devoting himself entirely to concert work.



Violinist Valeri Klimov and singer Galina Vishnevskaya will be new to US audiences.



### The Soloists

Four soloists—pianist Emil Gilels, violinist Valeri Klimov, cellist Daniil Shafran and singer Galina Vishnevskaya—will appear with the USSR State Symphony Orchestra.

Emil Gilels hardly needs an introduction to American music lovers. He has played in New York and elsewhere and his recordings are sold in large numbers. He won first prize in a national contest in Moscow when he was 17. In 1938, when he was 23, he won the Grand Prix at the Brussels Competition. He ranks with the greatest of living pianists and has played for deeply appreciative audiences in many countries.

Valeri Klimov is a pupil of the famous David Oistrakh. He first came to public attention after his performance at the Prague Music Festival of 1956, when he won first prize. Two years later, at the Tchaikovsky International Contest in Moscow, he took another first. Though still young, he is considered an outstanding violinist.

Daniil Shafran is one of the best Soviet cellists. He has won a large following and music critics have eulogized his beautifully subtle tones. He was recently awarded an honorary title by the St. Cecilia Academy of Music in Rome.

Galina Vishnevskaya made her debut at the Bolshoi Opera in 1952. Critics use words like "pure" and "beautifully mellow" in describing her voice. She has won wide commendation for her performances as Leonora in *Fidelio*, Tatyana in *Eugene Onegin*, also as Catherine in *Taming of the Shrew* by Soviet composer Vissarion Shebalin.

# HAPPY NEW YEAR

# 1960



JOLLY GRANDFATHER FROST AND LOVELY SNOW MAIDEN BRING NEW YEAR'S CHEER.

HELPING DAD CARRY THE FIR TREE?



IN THE HALF HUNDRED languages spoken by the people of the Soviet Union we convey New Year's greetings to our American readers. In Russian it's *S novym godom* and in Ukrainian it's *Z novym rokom* and in Georgian it's *Moguilotsaft ahal tsels.* In Armenia they say *Tsankanoum enk bakhtavor nor tari,* and in Estonia, *Eome teye terviseks sovine edu teole.* But in whatever language New Year's greetings are expressed the sentiment is the same—best wishes, friend, for a happy, peaceful and prosperous year.

The signs for such a year are promising, more so than in a good many years preceding 1960. This new year begins with brighter prospects for peace. People the world over share a new confidence, and the word peace will recur in celebrations held everywhere. In the Soviet Union it will be the subject for countless toasts at innumerable parties.



## COME AND SEE US AGAIN

**Stepanida Georgiyevskaya**
*Collective Farmer*

IT WAS 14 years ago, in the fall of 1945, that this photo of Dwight Eisenhower and myself was taken on a visit he made to our collective farm Pamyat Ilyicha with his son. He walked round the farm and orchard and looked at things in a way that made it clear that he knew farming. If I remember rightly, he liked the gooseberries I asked him to taste.

The guest from across the sea asked about my background and that of the other collective farmers. I told him that although both my parents died of typhus during the First World War and I was raised in an orphanage, I had been given an education and learned a trade as gardener.

We were not in particularly good shape at the time. The war had done very serious damage to our collective farm and had affected the life of every one of our families. Things are greatly changed now. When you visit our country in the spring, Mr. President, come and be our guest once more and you will see how abundantly our farmers have been rewarded for their labors during these years of peace.

Our annual income, which was less than a million rubles then, has reached the 8-million mark. The young orchard you saw now spreads over 300 acres.

I am a grandparent now, just as you are, and my grandchildren hope to greet yours this spring and have a picture taken with them that they can place in the family album alongside this fourteen-year-old one.

Collective farmer Stepanida Georgiyevskaya keeps this treasured snapshot in her family album. It was taken in 1945.





WHAT'S YOUR CHOICE—CONCERT, PLAY, BALLET? ALL BY THE COUNTRY'S BEST ARTISTS.



DID GRANDFATHER FROST LEAVE THESE NEW YEAR GIFTS OR WAS IT DAD AND MOM?

# HAPPY NEW YEAR

The New Year holiday is a gay and happy time. Adorning Moscow's spacious boulevards are booths painted in a fantasy of colors. Near the Kremlin, in the very center of the city, a brightly decorated giant fir tree stands so high that it seems to reach to the tops of the ancient towers close by. In all major squares and in every park fir trees glitter with innumerable colored lights and ornaments.

On the eve of the holiday the stores are jammed with people doing their last minute gift shopping. The telegraph offices and the telephone exchanges do a land office business in Happy New Year messages. Everyone seems to be talking about the same thing—how best to celebrate, and where.

There are as many ways of celebrating as there are people. Some prefer



NO CHILDREN'S PARTY IS COMPLETE WITHOUT A DECORATED TREE TO DANCE AROUND.

the quiet family dinner at home, others like a festive party with friends at a restaurant or a factory club. There are people, especially the youth, who celebrate the New Year under a growing fir-tree right in the forest.

The New Year's holiday is an especially happy one for children. School is out for two weeks and the time for long-to-be-remembered fun-making finally comes. Moscow school children, their guests from schools elsewhere in the Soviet Union and visitors from abroad make merry in the Kremlin Palace, the Palace of Sports in Luzhniki, the House of Trade Unions and at concert halls and theaters.

The smaller children wait expectantly for Dyed Moroz—Grandfather Frost—to come. They are inclined to think that he will be arriving this year in a

## OUR BEST WISHES



**Ivan Kazin**
*Chairman, Kuntsevo District Soviet of Working People's Deputies*

RECENTLY Mayor Charles Graubner of Webster Groves, Missouri, sent a thank-you letter to the citizens of Kuntsevo for the cordial way they had welcomed him when he visited our city and district.

We were happy to show our American guest something of the way we live and the peaceful progress our citizens have been making. We were pleased to be able to take him through our factories and mills, collective farms and public buildings, to show him how we live and work.

As Chairman of the Kuntsevo District Soviet, an official post somewhat similar to Mayor Graubner's, and on behalf of our citizens, I say: "You are very welcome, indeed. We were glad to be able to make a contribution toward better understanding between your country and ours. Our best wishes for much more of the same during the New Year now beginning."

## TOAST TO ART



**Viktor Komissarzhevsky**
*Director, Drama Theater, Moscow*

AS THE OLD YEAR runs out, I should like to get together, even if only in thought, with all those Americans I met when I visited the United States last August.

I should like to greet this incoming hopeful year with young actress Susan Strasberg, the charming and talented daughter of my host; with director David Ross, that ardent advocate of Chekhov's plays; with playwright Arthur Miller, who is so popular in our country; with his wife Marilyn Monroe; with those fine artists Paul Newman, Geraldine Page, Jennifer Jones and Christopher Plummer. I should like to see the New Year in with Harry Belafonte, with a wishful toast that he realize his cherished dream of portraying our great Russian poet, Alexander Pushkin, on the screen; and with James Morris, whom I saw in a memorable performance in a play about Stephen Foster, the American folk composer.

I should like to drink a New Year toast with all those American friends who agreed with me that it is far better to send symphony orchestras and ballet companies across the ocean than lethal missiles.



## TO THOSE WHO ASKED ME QUESTIONS

**Olga Bayar**
*Architect*

LAST SUMMER, I worked as a guide at the Soviet Exhibition in New York. During those several weeks at the Coliseum I met and talked to dozens of people every day, people of every vocation—from bricklayers to big businessmen. I was very glad to see for myself that Americans were so interested in our country. The questions people asked me ranged far beyond the particular displays that I was supposed to be covering—housing.

Practically everybody was interested in the full-scale model of a three-room apartment we displayed. I was bombarded with questions like these: Who gets the new apartments? What part of his wages does a Soviet worker pay for rent? How about somebody who wants to build his own one-family house?

Most visitors were very much surprised to learn that rent is no more than 4 to 5 per cent of a family's budget; that some 20 to 25 million families will have moved into new apartments by 1965, the end of the seven-year plan; and that it is no problem to get a long-term government loan if you want to build your house in a suburb or in the country.

The one impression that remains with me most strongly is the very real desire of Americans to find out what is happening in the Soviet Union, to know more about how we live and what we are doing. For most of the people we talked to, it was obviously the first time they had ever met and talked to a Soviet person. I am certain that these exchanges we had helped them to understand our aims and hopes.

On this New Year's eve I would like to use the opportunity to convey my cordial greetings and best wishes through the magazine *USSR* to all the Americans I met at the Soviet Exhibition in New York, and especially to Mr. Frank Y. Schneller Jr. of *Civil Engineering* Magazine and to Mrs. Ester Palmer of *Furniture Review* Magazine. I would like also to convey my New Year's greetings to Mr. Warren Wallace of CBS Television Network, who helped me a great deal during a TV show, and to Mr. Carrol V. Newsom of New York University.

To the thousands of Americans who visited the Soviet Exhibition and to those very many who asked me questions, I am happy to be able to send my best wishes for a Happy New Year through the pages of this magazine.



A FANCY COSTUME IS VERY MUCH THE THING FOR NEW YEAR'S BALLS

# HAPPY NEW YEAR

space ship rather than in his old conveyance. Space ships are no longer in the realm of fantasy. They are real enough for a child to think that when he grows up he may—if he studies hard—become the pilot or navigator of some future cosmic fleet.

There are parties and balls everywhere in big cities and tiny hamlets to ring in the New Year. It is a night that is celebrated in the drifting camps around the North Pole and in the Mirny community at the South Pole, in the Chukotka tundra and in the Turkmenian desert, in the farthest reaches of this great country that spreads onto two continents.

Radio reports come in early from Vladivostok. That part of the country seems to be celebrating rather early. Check the global clock and you'll see





PARTY HATS AND FAVORS FOR EVERY MERRYMAKER.



A NEVER-FAILING LAUGH-INDUCER IS THIS ONE-MAN ORCHESTRA AND PUPPET SHOW.

why. Vladivostok begins celebrating seven hours before Moscow because of time changes. Should you feel so inclined, you can book passage on one of the big jet airliners running from Vladivostok to Moscow and you can see the old year out seven times over.

By 11:30 or thereabouts almost everybody will be at a party somewhere or other. An occasional hurrying guest will be rushing along to arrive where he is going before the stroke of midnight. He drives past a red light and is hailed by the shrill whistle of a traffic officer and the greeting: "A Happy New Year to you. Ten rubles fine, please."

As the New Year is rung in, the guests around the gaily-bedecked tables will probably give a passing thought and thanks to those who must work on

# GREETINGS TO U.S. AUTO WORKERS



**Pyotr Kireyev, Moskvich Plant**
*Auto Worker*

THIS IS the traditional time of year to check off the good things against the bad and to see what the 1959 balance sheet looks like. Mine looks pretty good.

I should like to extend my warmest congratulations and good wishes to all Americans, especially to my counterparts in the automobile industry.

My acquaintance with Americans goes a long way back to the Second World War, when the Soviet and American soldiers were comrades-in-arms. At that time, I, a Soviet sailor, happened to visit Alaska with my outfit where I met Americans. Unfortunately, time has erased from my memory the names of US Navy boys I met there. But I shall never forget their friendly handshakes and their wishes for our common victory.

For the last fifteen years I have been working as an electrician in the plating shops of the Moskvich Automobile Plant in Moscow. We put out the small car of the same name. Many of you saw it on display at the Soviet Exhibition in New York last summer. It is running on the highways of 24 countries.

As far as the plant is concerned, we reached the year's production target figures with time to spare. For me personally, this was not just a matter of national statistics. It meant some very concrete benefits. My monthly wage this year averaged 1,500 rubles as compared with last year's 1,100 or 1,200. I turned out more work with less effort because of the new and more efficient machinery we installed.

This year the plant built new blocks of apartment houses for workers and I helped many of my shopmates celebrate at housewarming parties. For my vacation, I stayed at a holiday resort in Germany, my trade union paying the bill. My two children spent their summer at a camp run by the plant. All told I had to pay only 200 rubles for both of them, a small part of the cost, the larger part being paid by my union.

There are many other items on the year's credit side, too many to list. One very large item I should mention, however. All this was possible because 1959 was a peaceful year and a year of promise for peace in the future.

With my neighbors and shopmates I have every expectation that next year will be an even better one than this. I wish the same to you, my American friends.



## CLIMATE OF PEACE FOR ALL

**Matvei Manizer**
*Sculptor*

SOME MONTHS before Nikita Khrushchev's historic visit to the United States I had the chance to see your country with a group of Soviet artists and sculptors. When Khrushchev made his report to the nation the day he returned, the impressions he gave of his trip across America were especially meaningful to those of us who had been there.

We found our own trip and the chance to rub shoulders with American graphic artists, and people of the film and theater most stimulating. It is this kind of first hand contact and exchange of ideas that is so helpful and necessary in creative work of any kind.

My very best wishes for a productive New Year not only to the many artists we met but to all those in the United States who are working, as we are, to create a climate of peace in which art can flourish.



## JOINT SCIENTIFIC WORK

**Dmitri Shcherbakov**
*Academician*

SINCE scientific research is directed to benefit the whole of mankind, rather than any one corner of the world, it should be simpler for us scientists to reach understanding than for people in other, less universal areas of endeavor.

It is gratifying that Soviet and American scientists have been meeting each other more often. Last spring I was pleased to shake hands with Professor Joseph Harris of Chicago at the 100th Anniversary celebration held in Berlin for the great 19th century explorer Alexander von Humboldt.

At the First Oceanic Congress in New York I was able once again to exchange ideas with American scientists whom I had met at the 20th International Geological Congress in Mexico and at the Pacific Congress in Thailand. At the New York congress we worked together not only as colleagues but as friends, and laid the basis for joint research by oceanographers of the entire world.

To my esteemed American colleagues, I convey the hope from Soviet scientists that 1960 will further cement the ties between us and lead to broader joint efforts.



In these days of Sputniks and Luniks, Grandfather Frost likes to keep right up-to-date. No troika for him. He comes in a jet plane.





Not all the fun on New Year's is indoors when there's all this inviting snow around.

# HAPPY NEW YEAR

this holiday so that others may be able to celebrate—to workers on duty at power plants and other essential services, to locomotive engineers, to pilots on ships and planes, to those who must keep the wheels of industry rolling.

Standing with glass in hand and an arm around the shoulder of a friend or loved one, it is natural to look back on the happenings of the year going out. The old year was a good year. The work the Soviet people hoped to get done was done, and in fact they did even more than had been planned. It was a year which contributed its share—and in many ways more than its expected share—to a better life for everyone in the country.

There is every reason to look forward with confidence to the future, to the new year and to greater accomplishments.



THE GRAND PALACE OF THE KREMLIN IS THE SCENE FOR "HAPPY NEW YEAR" FESTIVITIES. STUDENTS AND YOUNG WORKERS DANCE UNTIL THE SMALL HOURS OF THE MORNING.

