

GENERAL INFORMATION

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USSR

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THE SOVIET PEOPLE ARE OFF TO A GOOD START IN FULFILLING THE FIRST 6 MONTHS OF THE 7 YEAR PLAN.

USSR

ILLUSTRATED MONTHLY

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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.

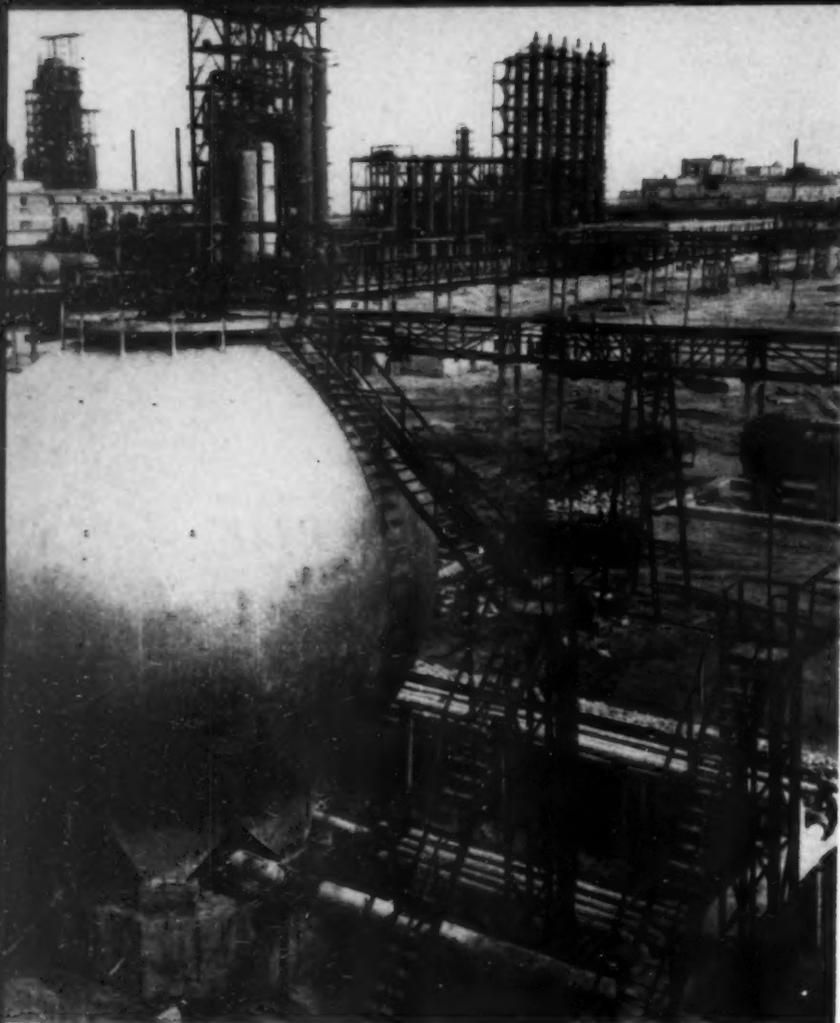
The Zaporozhye plant has been producing 17.3 per cent more steel than it did for the comparable period last year. This is a very considerable achievement and is reflected in the steel average for the Ukraine as a whole. While the nationwide average increase in steel production is nine per cent, that 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

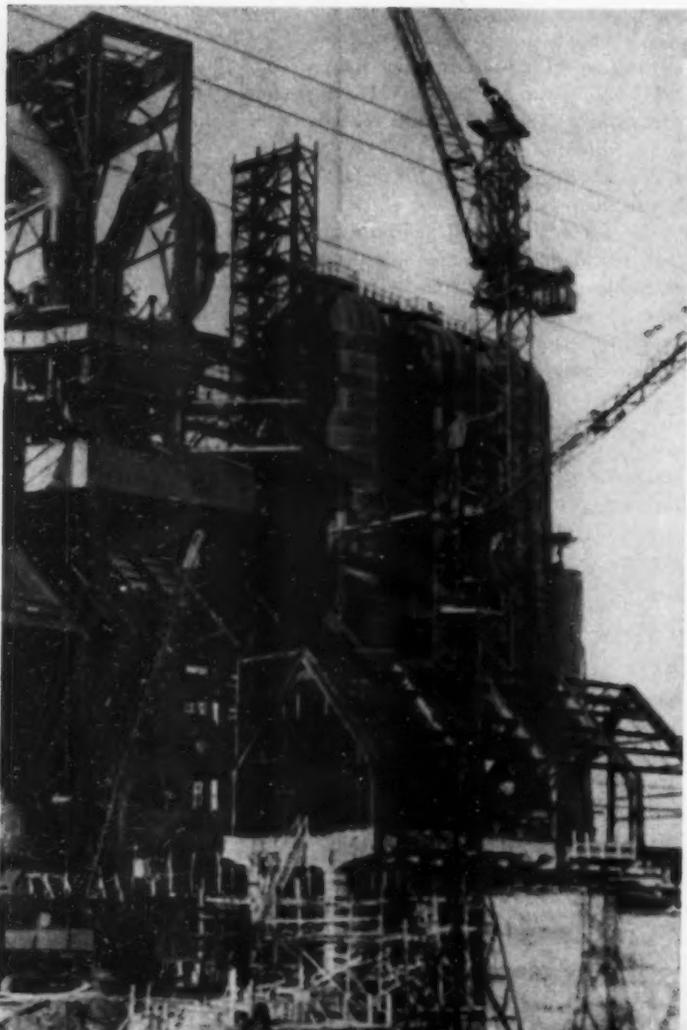
Larger steel output spells more machinery for industry and farming. Agriculture is already showing the effects in greater mechanization. Compared with the same period last year, there has been a sizable expansion in farm equipment manufacture since January.

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 food-stuffs and raw materials for light industry grown by the collective and state farms.



PLASTICS AND ARTIFICIAL FIBER PLANTS ARE GOING UP IN AZERBAIJAN.

ASSEMBLING ONE OF THE BLAST FURNACES OF A STEEL MILL IN KAZAKHSTAN.



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.

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, woolsens, 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.

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.



THIS BIG FREIGHTER, THE SOVIETSKAYA UKRAINA, WAS LAUNCHED THIS YEAR.

Cooperation between science and technology was the keynote of the recently held Eighth Mendeleev 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, renowned 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 pre-revolutionary times the total death rate diminished by 75 per cent while the rate of infant mortality dropped by nearly 86 per cent.

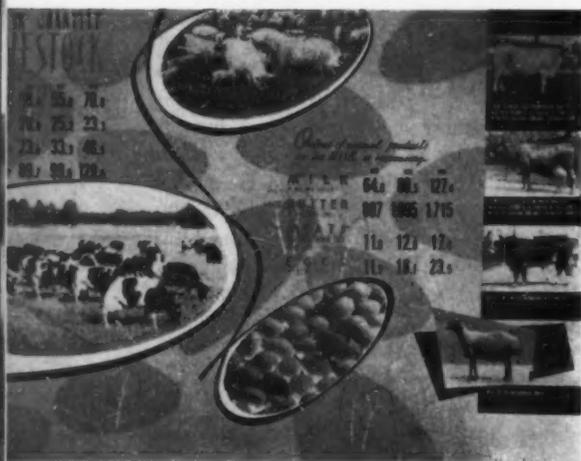
In the past few years the mean annual natural increase in population in the Soviet Union exceeded 3.5 million.



the Soviet Union

AT THE COLISEUM EXHIBITION

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.

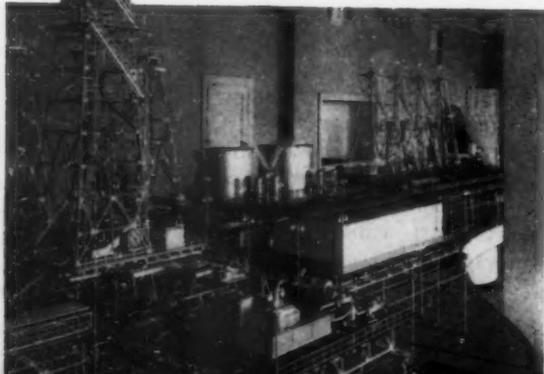
This is the first such exchange and the first real opportunity that large numbers of American and Soviet citizens have had to learn about each other. It is welcomed by people of good will in both countries.

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.

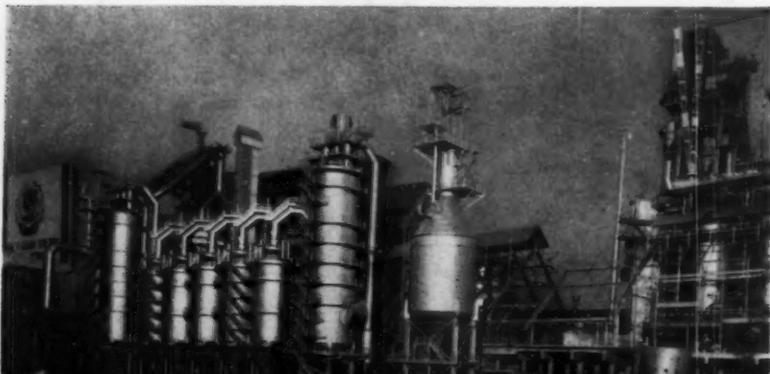
Ten Thousand Exhibits

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.





EXHIBITION

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.



PHOTOGRAPH

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.

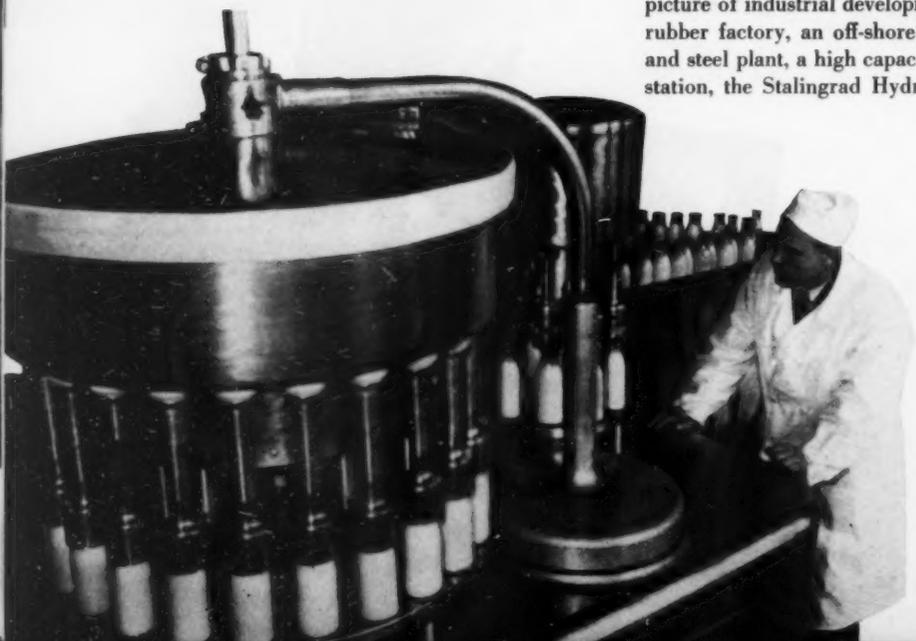
The displays were planned by outstanding Soviet graphic artists and use a variety of materials—copper, brass, iron and fabrics—in brilliant decorative effects.

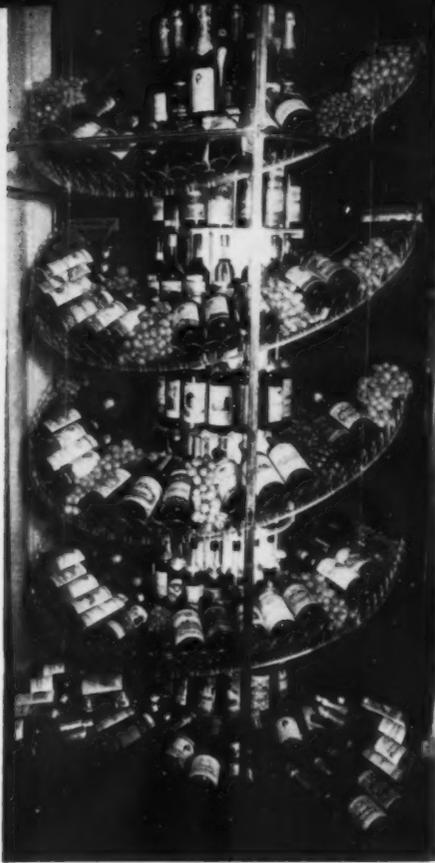
Working models serve to fill in the visual picture of industrial development—a synthetic rubber factory, an off-shore oil field, an iron and steel plant, a high capacity thermal power station, the Stalingrad Hydropower Plant, as

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.

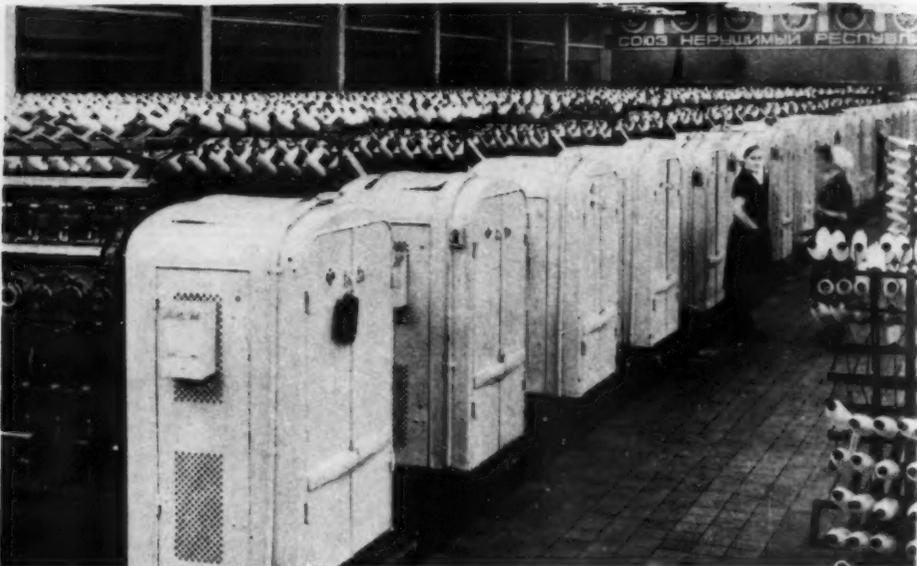


FOR MORE



Among the scores of Soviet fabrics on display are these lovely silk shawls.

Producing the many kinds of winter and summer footwear shown at the exhibit.



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.

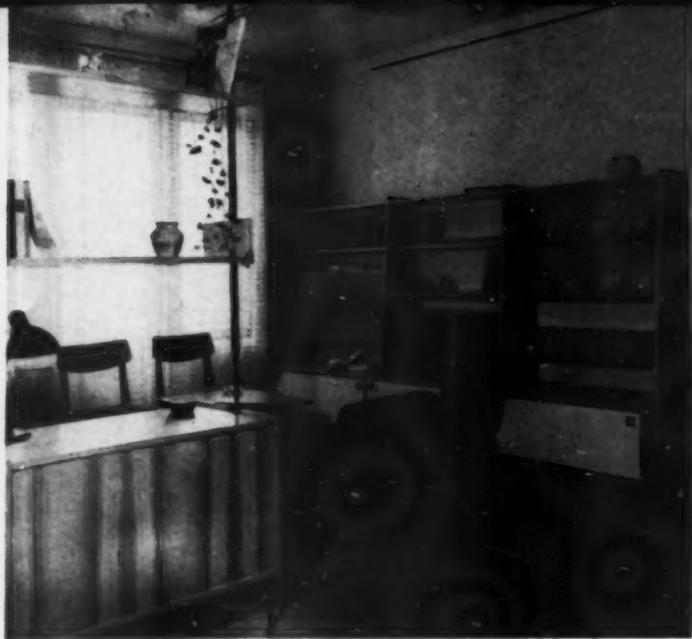


Apartments Built on a Belt Line

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.

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 SP

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.

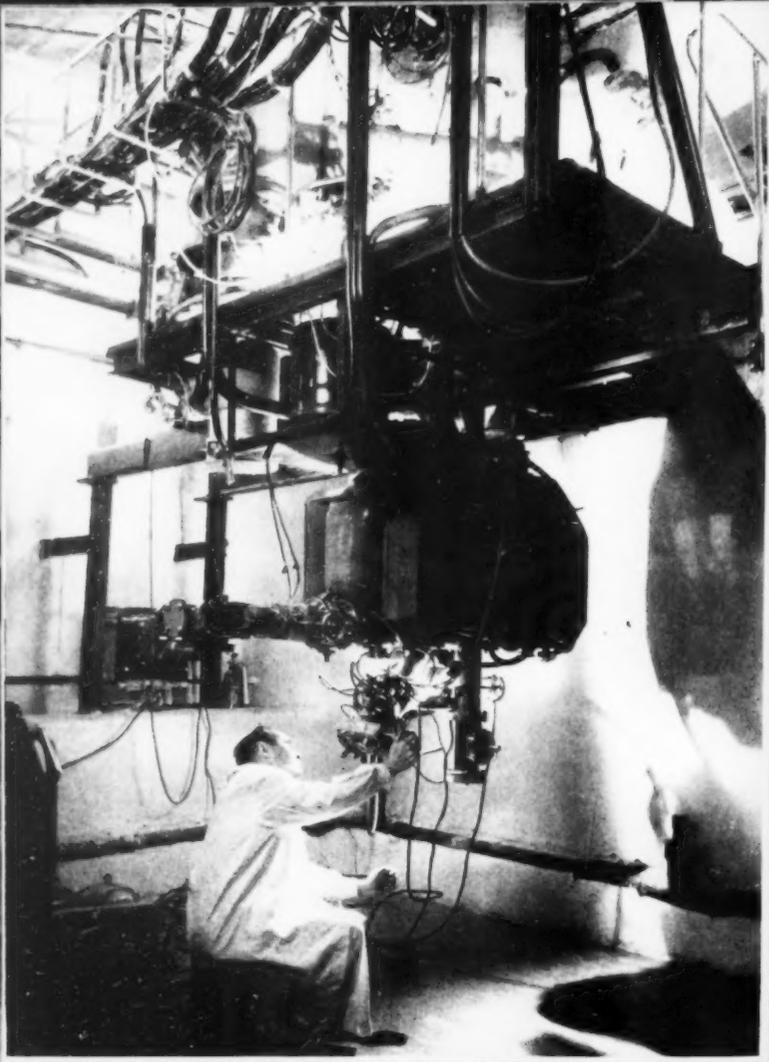
One of the displays illustrates development in the very young science of radiation chemistry. Under radiation, chemical substances go through unusual transformations to change their properties. Experimentation in the field ranges from such down-to-earth matters as the processing of longer lasting automobile 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.

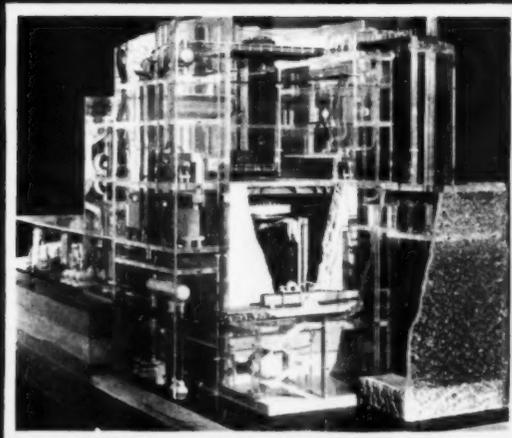
The progress of nuclear physics and radio-geochemistry also makes it possible to prospect for oil and gas with the aid of radiometry and radio-chemical apparatus directly from the surface of the ground and even from the air.

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.

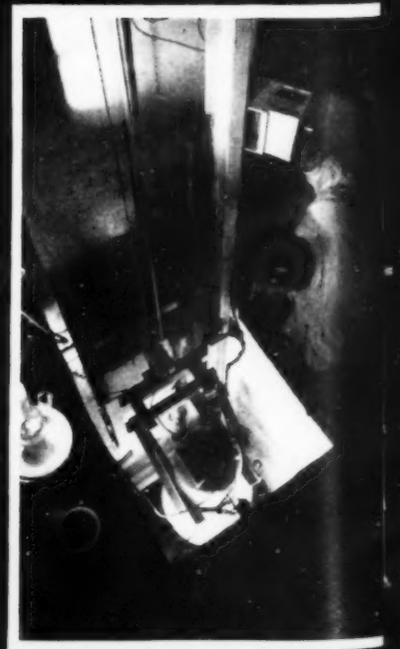


Changing the structure of organic materials by nuclear radiation.

Experiment on direct conversion of atomic energy into electricity.



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 by-products are used in synthesizing other chemicals.

and SPUTNIKS

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.

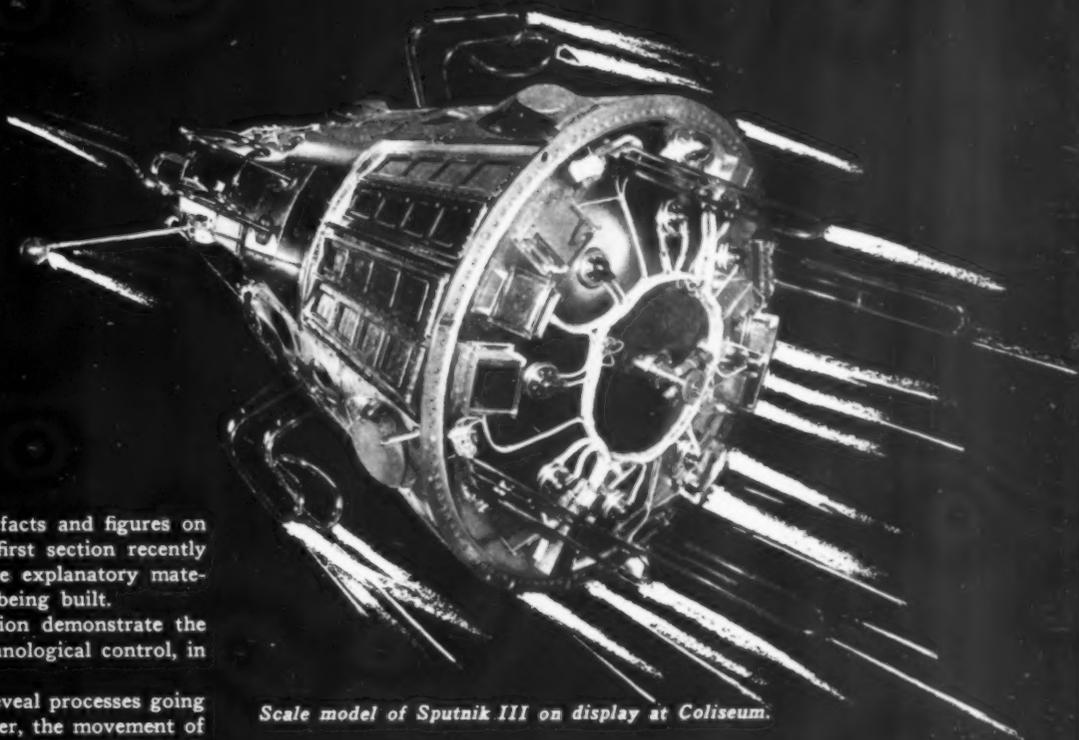
Superphosphate tracers used as top dressing enable scientists to observe the penetration of fertilizer into the plant through the leaves and its distribution in the tissues.

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, condensers, resistors and semi-conductor devices.

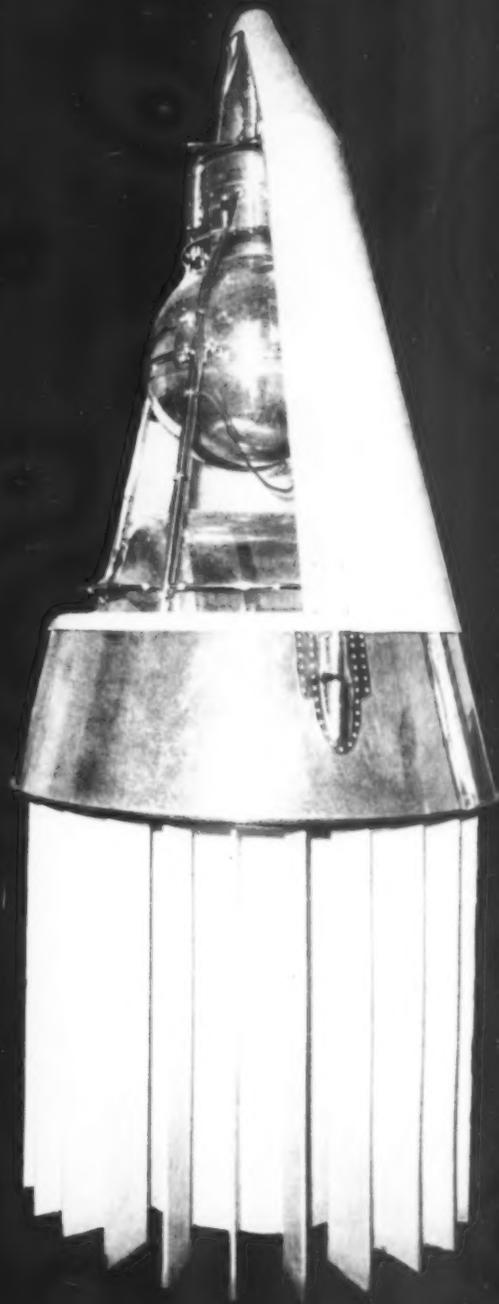
Dominating this display is an airy floating metal structure as tall as a five-story building in the shape of a celestial arc against which are outlined the orbits of the three Soviet sputniks. Alongside are full-scale models of the space satellites and exhibits summarizing the scientific data which their 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.



Scale model of Sputnik III on display at Coliseum.

Model of first earth satellite successfully launched.

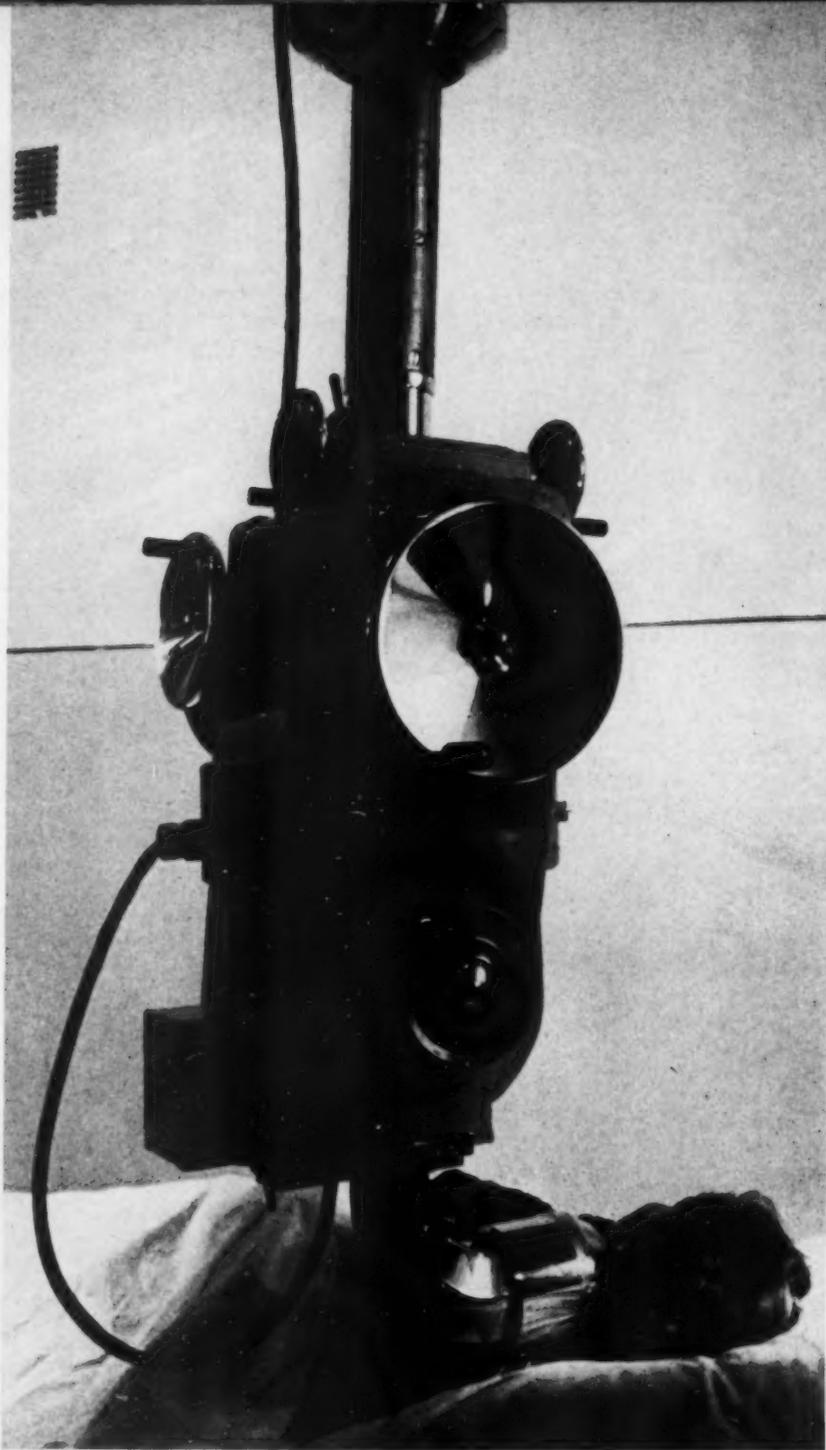


Radioactive cobalt charge of this industrial research unit is equal to 16,000 grams of radium.



An instrument for tracing the movement of tagged water in a column of soil.

New INSTRUMENTS for Healing



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.



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 unflinching 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.

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.

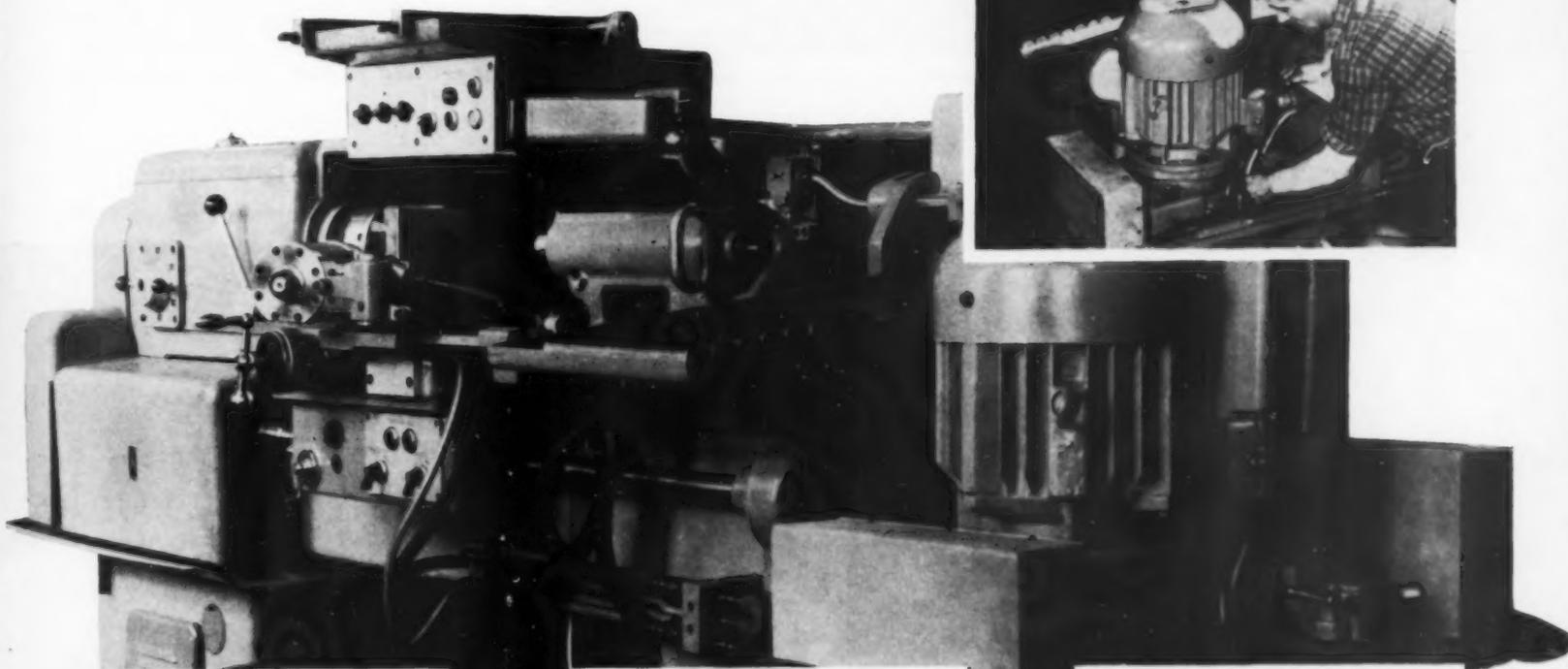
But Levshunov's original was a number of inventions removed from the model he demonstrates at the Coliseum. Practically every shop

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.

An AUTOMATION Story

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 15



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.

A MALE GROUP PERFORMS THE TEMPESTUOUS DANCE OF THE OLD GEORGIAN WARRIORS, CALLED KHORUMI.



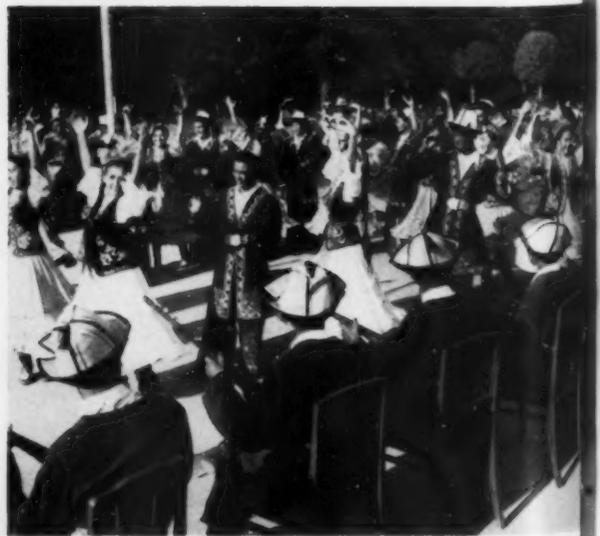
forerunner of many successful performances.

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.





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.

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,

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.

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 so-

cialist 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 ex-

change 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 specific 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 post-war 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 UNIONS



DEUNION 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 attention.

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 Sloshekin; 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.



FORBIDDEN



Waiting For the Signal by Vladimir Serov

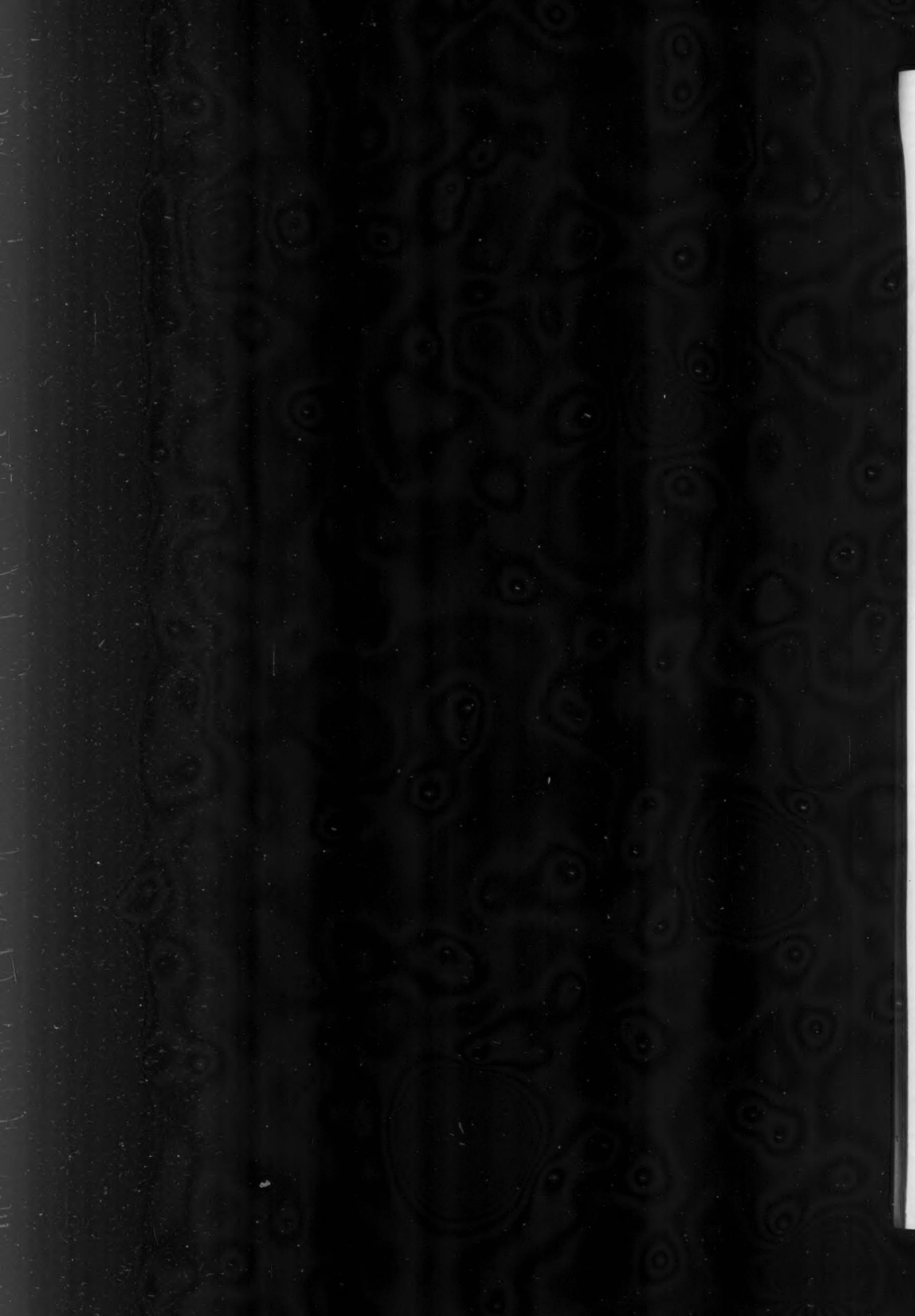


Letter From the Front by Alexander Laktionov

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

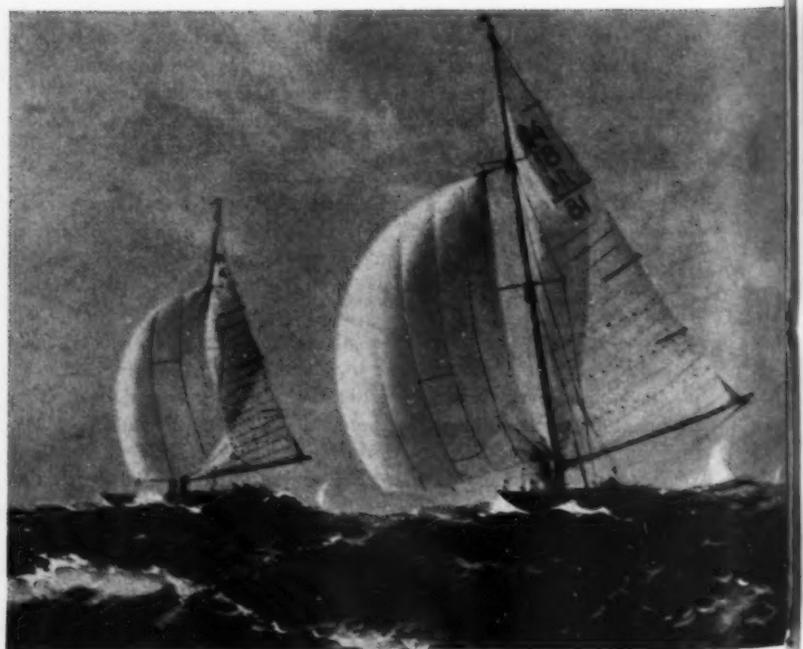


Byurokan by Martiros Saryan

Soviet Art on Display



Lights of Talgar by Nurbek Tanchikbayev



Baltic Regatta by Eduard Kalnin



Tractor Drivers at Supper by Arkadi Plastov

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.



Daughter of Soviet Kirghizia by Semyon Chuikov



In the Mountains by Sabur Mambeyev

CONVERSATION WITH AMERICA



PREPARING A JULY 4 BOOK EXHIBIT OF TRANSLATIONS OF AMERICAN WRITERS.

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.



Writer Nikolai Mikhailov made many American friends on a recent visit.

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 chemotherapy 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.

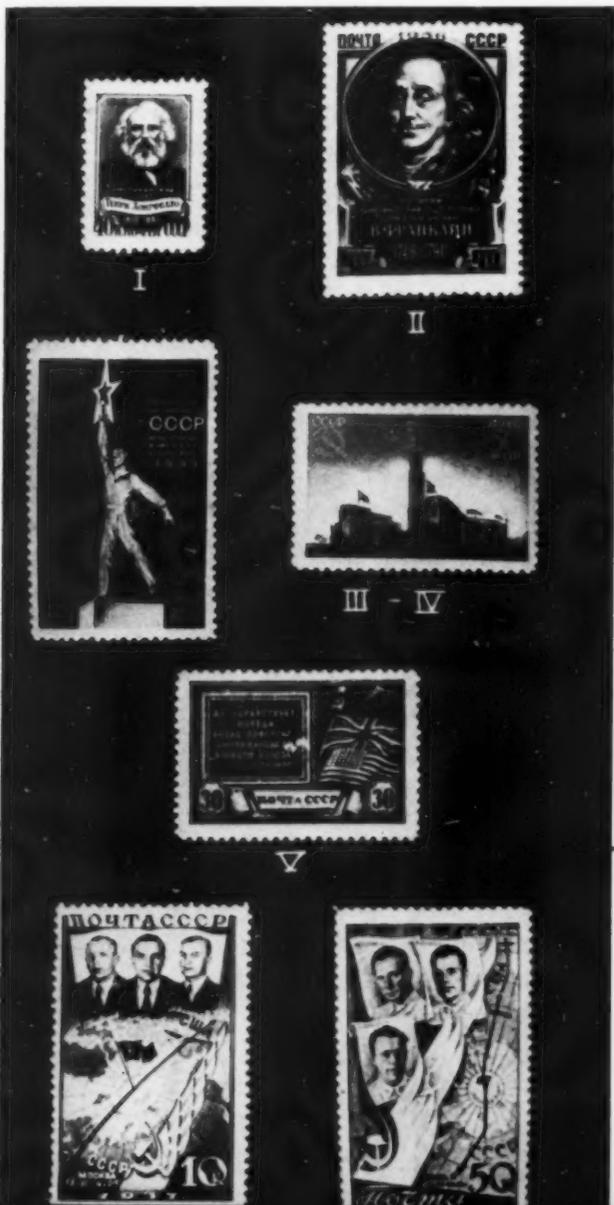
"When Robert Richards, your pole-vault champion, visited us last summer, he remarked that our public was 'fantastically well wishing.' I wish you could have heard how 15,000 Muscovites applauded your *Holiday on Ice* ballet at the Sports Palace, especially when our skaters joined yours in a friendly, 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 democratic world outlook is provided not only by teaching our own democratic traditions but those of other countries as well.



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.



CONVERSATION WITH AMERICA



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

By Yuri Graftsky

YURI PANOV TOOK A JOB AS ASSEMBLER AND IS CONTINUING HIS EDUCATION AT EVENING SCHOOL.

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 Kom-somolskaya 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 Peresyphkina 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.

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 radiogeodesy.

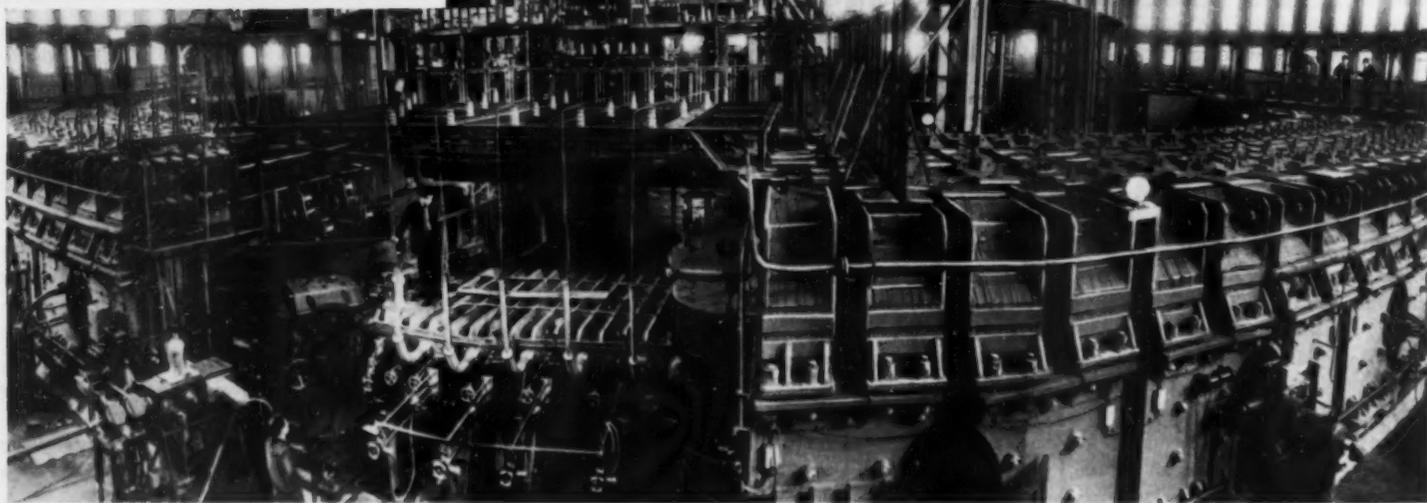
Vladimir Veksler and a group of scientists who worked with him won prizes for designing the world's most powerful unit for the study of elementary particles, the 10 Bev proton synchrotron.

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 Balukhovskiy, 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, Dnepropetrovsk and other cities in the Ukraine.

Improved Machine Tool

A group of designers of the Ordzhonikidze Machine-Tool Plant in Moscow—Yakov Mezi-vetsky, 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 unequalled 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.

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 Pustovoi, whose work in breeding varieties of sunflower seeds with a high oil content was described in an earlier issue of this magazine. Pustovoi 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.



PRIZE WINNING STATUE OF POET MAYAKOVSKY.

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 Luzhniki 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.

The Novel and Play

In literature, awards were presented to novelist Mukhtar Aueзов and to playwright Nikolai Pogodin. Aueзов'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 Pathetic*. 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 Pathetic*.

MUKHTAR AUEZOV, LEADING KAZAKH NOVELIST.



VASILI SOLOVYEV-SEDOI, POPULAR SONG WRITER.

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.



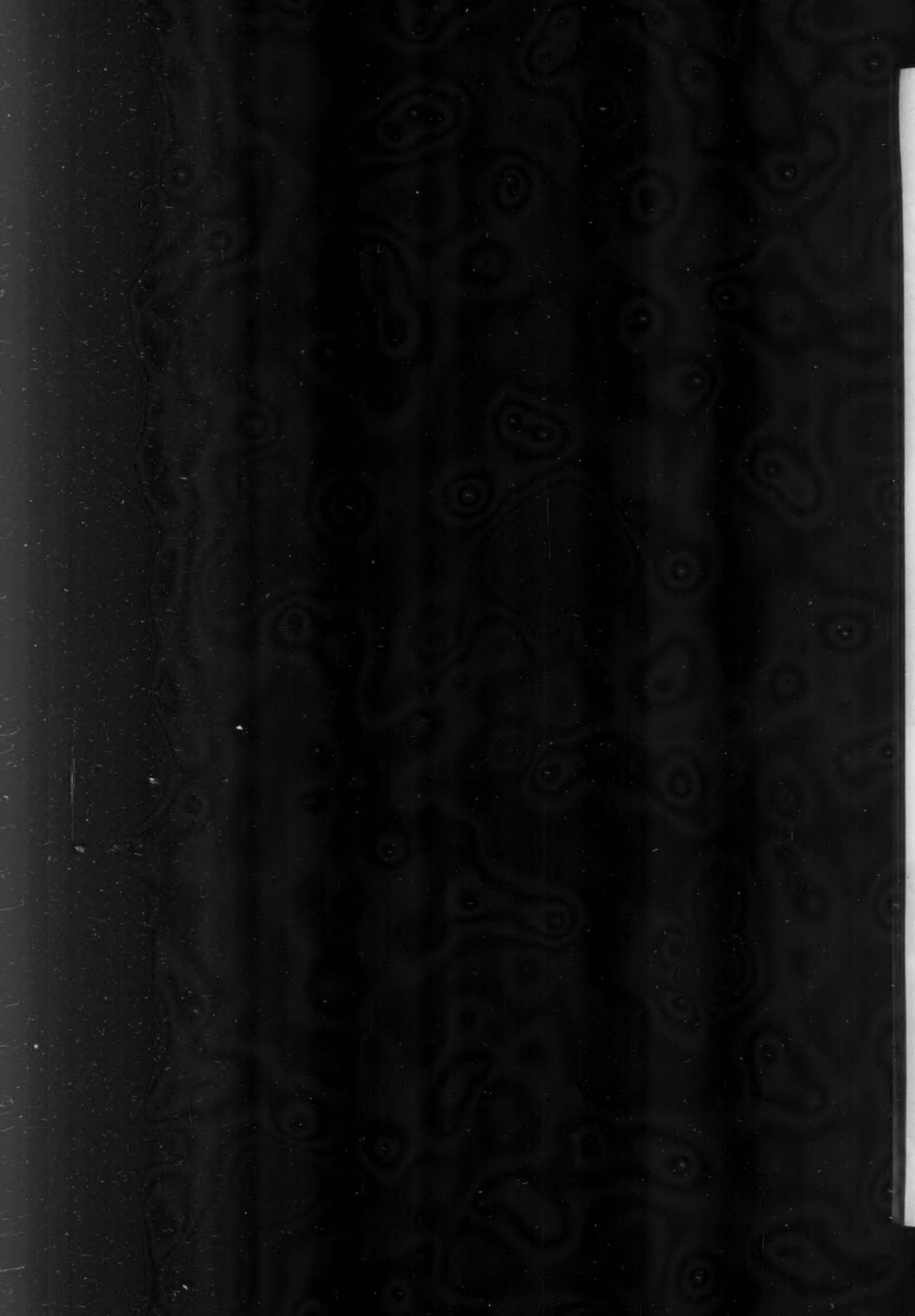


VASILI KOCHETOV PERSONIFIES THE NEW KIND OF WORKER WHO IS ALWAYS ON THE LOOKOUT FOR QUICKER, CHEAPER AND MORE EFFICIENT WAYS TO GET THE JOB DONE.

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

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



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.

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 months 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 Vasili Kochetov



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.



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.

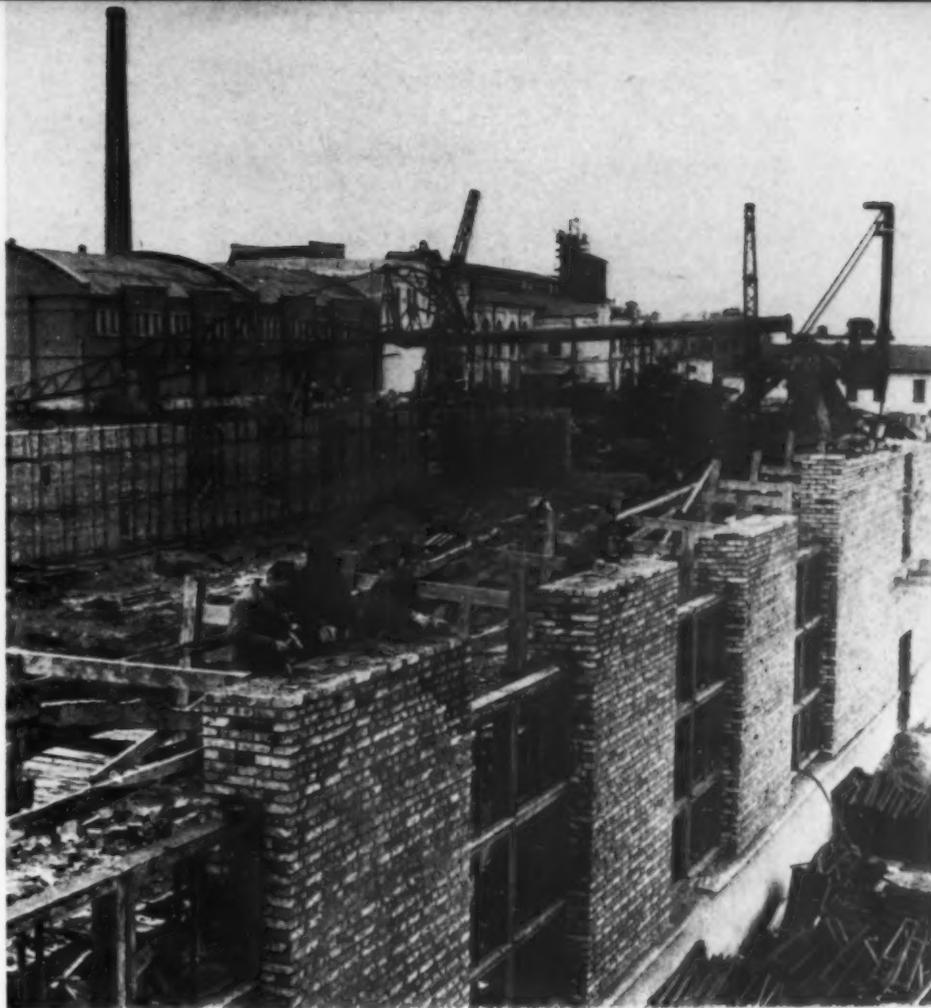
A Bright Future

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 Lapschins 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.



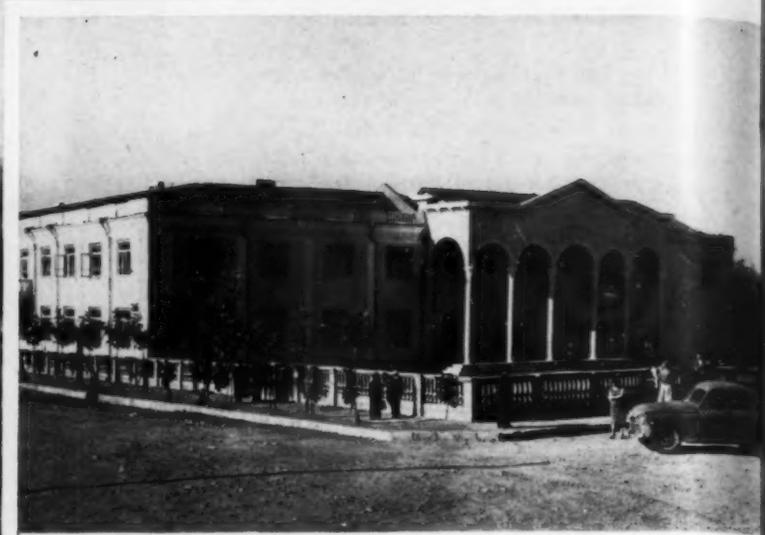
The Tula coal fields are gradually being worked out. Some of the men are moving on to the mines in other parts of the country but many prefer to retrain for jobs at one of the local construction projects.

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.





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.



This is the community center for the members of the Makvaneti collective farm.

CONSTRUCTION BO

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.

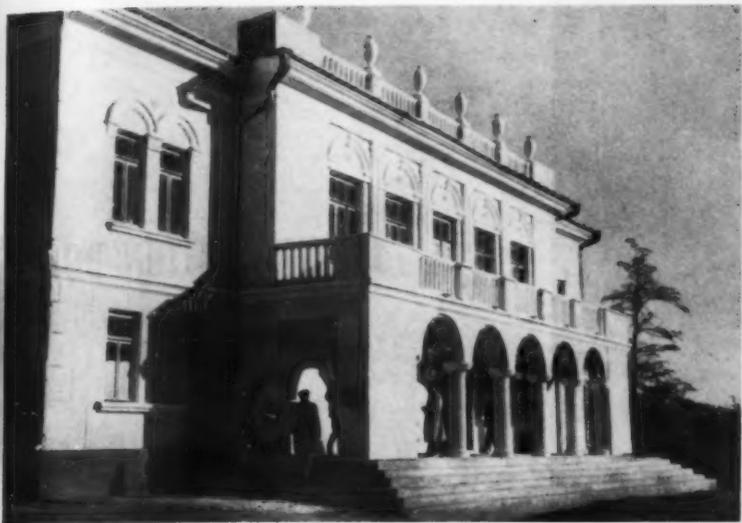
Higher Incomes—More Building

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.

CONSTRUCTION BOOM 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.

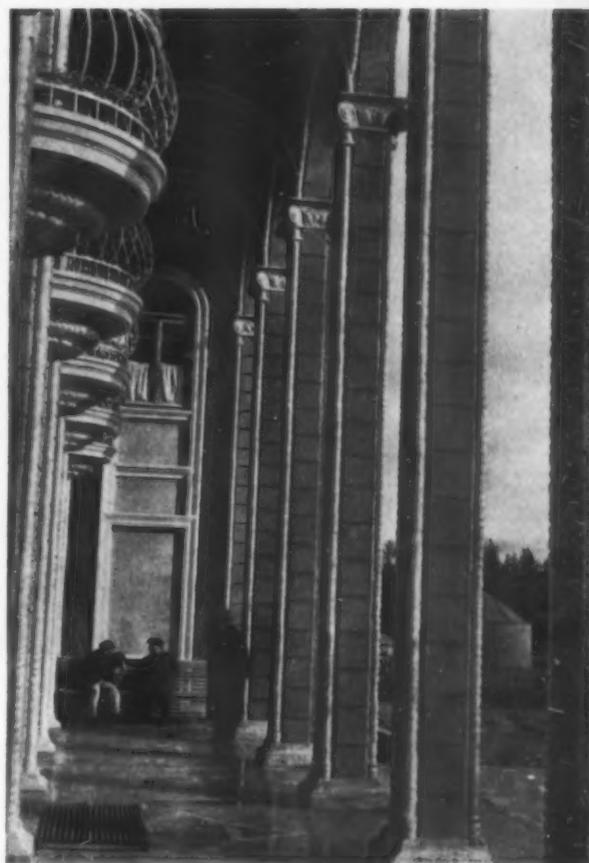
If the farm makes more money, more can be spent for capital expenditures—farm buildings, additional machinery, livestock—and for improving community facilities. Construction projects now under way in Makharadze are paid for out of this fund for capital expenditure that is owned by the collective in common. 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 480 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 Kogotshvili 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 Kogotshvili 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 Kogotshvili 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

OM THE 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.



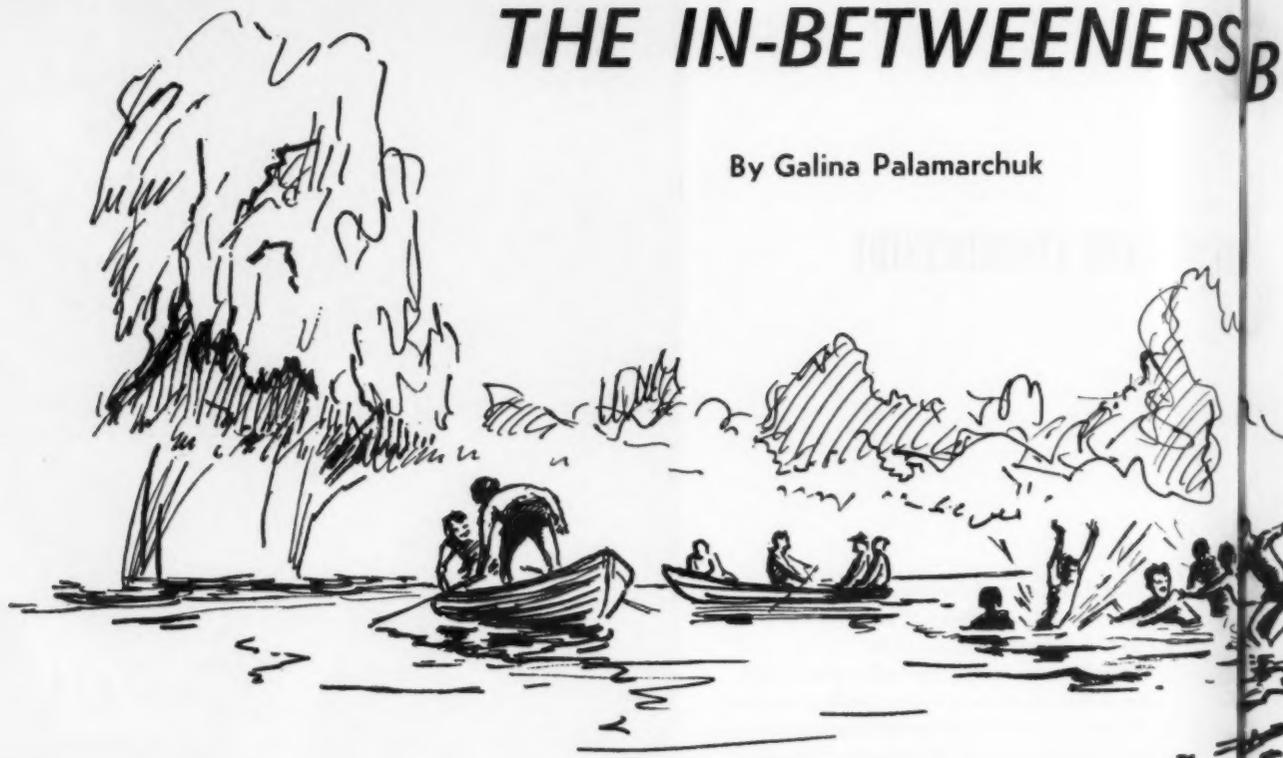
THERE ARE 70 SCHOOLS IN MAKHARADZE DISTRICT. MANY OF THEIR GRADUATES GO ON TO COLLEGE.

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.

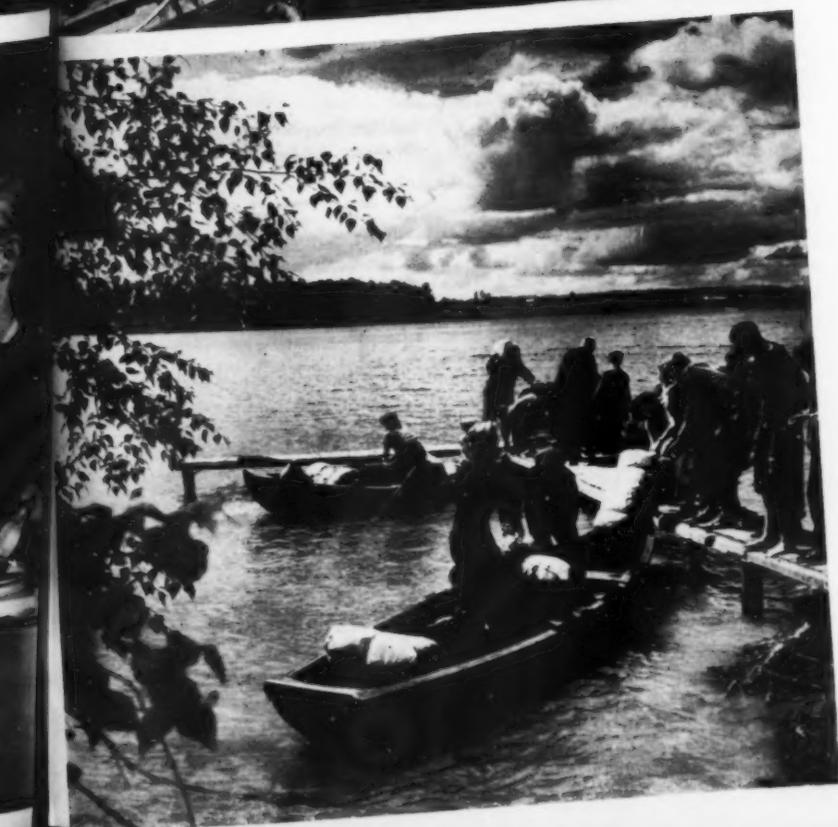
A conference is called of teachers, members of the Parents' Committee and representatives of the Radio Research Institute—the Institute is patron for the school. Everybody present thinks it's a fine idea, for more reasons than one.

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



RS 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 meteorological 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, pecked 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 children 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 Aki-mova 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 old-timers 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



