

USSR

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USSR

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SOVIET CITIZENS GREET SPRING AND THE WORKING PEOPLE OF THE WORLD ON A MAY DAY FESTIVAL.

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Front and back covers: Display of the mastheads of some of the 9,936 newspapers and 858 magazines published in the Soviet Union. *See story on page 24*

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MAY 1st IS A DAY FOR ALL KINDS OF CELEBRATIONS. FIRST COMES THE PARADE IN MOSCOW PAST THE REVIEWING STAND ATOP THE LENIN AND STALIN MAUSOLEUM.

MAY DAY

MAY DAY in the Soviet Union is a national holiday, a gay and happy festival observed with good cheer, with parades, songs, dances and fireworks.

Workers in old Russia celebrated May Day at gatherings and meetings which were illegal, with a watchful eye out for the czarist police. But those gloomy times are long past.

May Day is the international holiday of labor, commemorating the unity of working people the world over, and delegations from many countries come to the Soviet Union at this time to join in the celebrations.

The two-day holiday, May 1 and 2, is carnival time everywhere. The streets and avenues are in fancy dress with thousands of banners flying everywhere. The buildings are festooned with giant-sized portraits of people honored for the contributions they have made to the country's progress, and with brightly colored streamers painted with letters six feet tall that call for international peace and friendship. And as though to greet working people the world over on May Day, their traditional holiday, nature decks itself out in spring green.

The hustle and bustle starts long before May 1st. Gifts have to be bought and dinners planned for. Usually, on the eve

of the holiday, factories and offices have parties at which the best workers are commended. Then, after the traditional awards, comes music and dancing.

On the morning of May Day the main avenues of towns and cities everywhere are thronged with paraders. The most impressive of the many colorful parades is the one in the nation's capital where athletes, soldiers and just people by the millions march across Moscow's Red Square past the marble mausoleum at the foot of the Kremlin wall. Every few minutes the giant parade is slowed down while young men and women in brilliant national costumes move by in a graceful, frolicking step from a Ukrainian, a Georgian or a Kirghizian folk dance.

In the evening after the parade and a holiday dinner, the streets will fill again with merry-making crowds. There are open-air concerts by musicians and singers, performances by theater groups in the parks and big squares and, afterward, the May Day balls in clubs and concert halls that go on into the small hours of the morning.

With the new seven-year plan under way, this May Day is especially memorable. The Soviet people will be celebrating the achievements already made and the many soon to come.



IN DEMONSTRATIONS THROUGHOUT THE LENGTH AND BREADTH OF THE HUGE COUNTRY, WORKERS, FARMERS AND INTELLECTUALS RE-AFFIRM THE UNITY OF THEIR INTERESTS.

MAY DAY CELEBRATIONS

A GUEST FROM INDIA PRESENTS A YOUNG PARADER IN MOSCOW A GAY BALLOON.



GIRLS DRESSED IN THEIR NATIONAL COSTUMES ADD TO THE COLORFUL DISPLAY.





IN BYELORUSSIA A GROUP OF YOUNG PEOPLE HAVE A PICNIC IN THE COUNTRY.

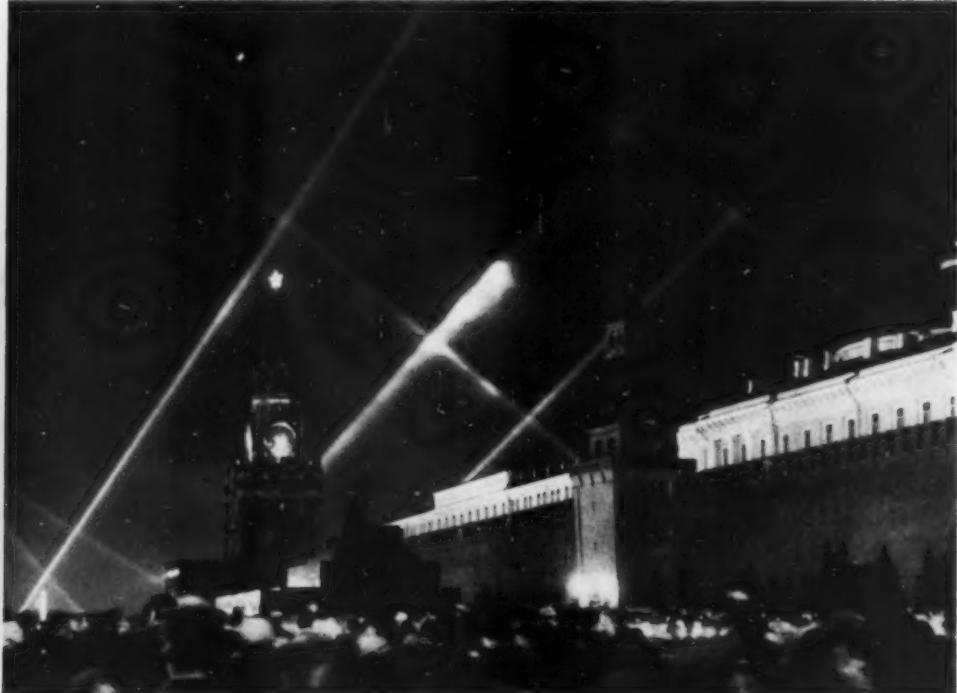


SIBERIA IS STILL COLD IN MAY AND WINTER CLOTHES ARE THE FASHION.

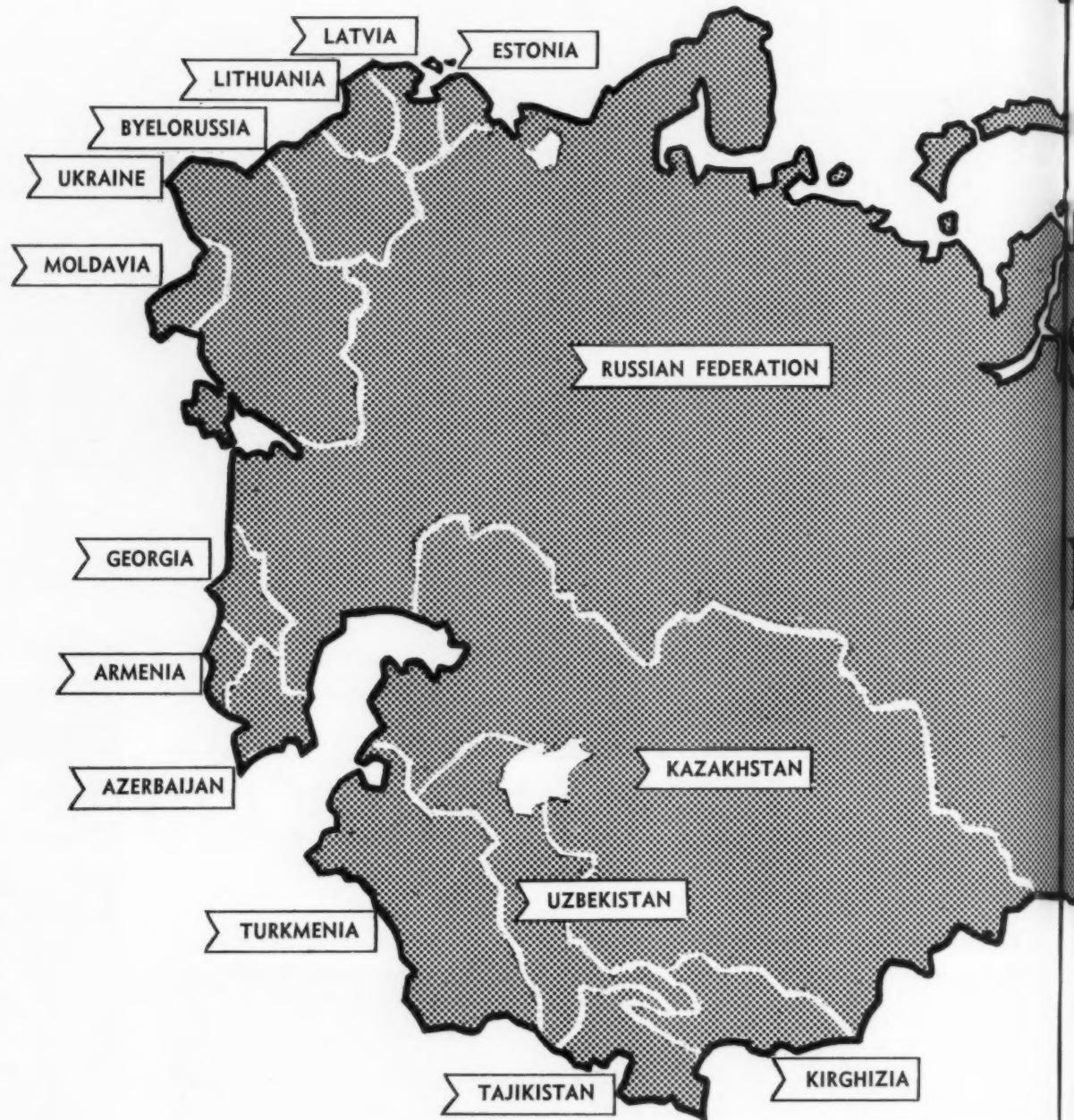
IN LITHUANIA THE PARADE STOPS FOR THE DANCES.



FIREWORKS LAST FAR INTO THE NIGHT FOR TOMORROW IS ANOTHER DAY OF CAREFREE HOLIDAY PLEASURES.



THE SEVEN-YEAR PLAN



PROGRAM OF ECONOMIC AND CULTURAL DEVELOPMENT

IN THE ONE-SIXTH of the world's land surface which constitutes the territory of the Soviet Union live more than a hundred nations and nationalities. The largest, the Russian nation, numbers 100 million, half the country's population. At the other extreme are the Khunzakhs, a small national group which inhabits a single mountain village in the Caucasus.

All these peoples are united in fifteen Union Republics. They speak different languages and have a different background of history and tradition. Some, like the Georgians, are nations with a proud humanist culture reaching back a millennium and a half. Others, like the Kirghizians, did not even have a written language of their own before the Socialist Revolution of 1917.

Each of the fifteen sovereign republics, whether large or small, has equal political, social and economic rights, granted them by the Soviet Constitution. They have all used these rights to carve out a richer and more rewarding life for their citizens.

Some republics, especially those in Central Asia, have made the gigantic leap from a patriarchal-feudal society to socialism in the past four decades. Their rate of development has been unbelievably rapid. Consider these production multiples: Industrial output in 1958, compared with the prerevolutionary period, was 17 times greater in Uzbekistan, 31 times in Tajikistan, 40 times in Turkmenia, 44 times in Kazakhstan and 50 times in Kirghizia. With each passing year the new industrial complexes represented by these figures have contributed more and more significantly to the economic life of the entire country.

Characteristic of the Soviet democratic structure is the fact that as each of the republics developed its human and natural resources—built its industries, mechanized its farming, trained its people, advanced its science and arts—it was granted increasingly larger rights in direction of its economic, political, legislative, cultural—in fact, of every sphere of its life. The extension of these rights has been an important contributing factor toward still further growth of individual republics and the

RPLAN OF



RAPROGRESS FOR ONE-SIXTH OF THE GLOBE

country as a whole. This is an ever continuing process built into Soviet society that makes for its constant growth.

Responsible for the rapid progress of once backward nations—and not only in industry and agriculture but also in education, science, development of national arts, public health and welfare—has been the fraternal assistance of more advanced republics.

Textile workers of the Russian industrial city of Ivanovo helped the Uzbeks, Armenians, Georgians and Tajiks to create textile industries of their own. Ukrainian coal miners worked with the Kazakhs, Kirghizians and Uzbeks to develop local coal fields. Metal workers from the Urals and the Ukraine built metallurgy plants in the Transcaucasus and Central Asia and trained young Georgians, Kazakhs and Uzbeks. Russian and Ukrainian machinists laid the groundwork for the machine-building industry of many of the other republics.

All republics have created a comprehensive and widespread system of free education from the nursery through the university and have

schooled whole populations that were illiterate a generation or two ago. The colleges and institutes of Moscow, Leningrad, Sverdlovsk, Kiev, Kharkov and other cities of the Russian Federation and the Ukraine helped the other republics found their own schools for higher education.

This mutual assistance is a built-in feature of the seven-year plan for the further growth of the Soviet Union. The plan for each of the fifteen Union Republics is designed to utilize its own natural resources, its own economic possibilities, its own backlog of talent and experience, as well as all-round cooperation with other republics. Each republic plans its future to further not only its own economic growth but also that of other republics and of the entire country.

The fifteen seven-year plans of the Union Republics are outlined on the following pages. They are not isolated economic programs. Together they make up the balanced, integrated plan by which the Soviet Union has begun to build. Its goal—to provide every family in the country with a standard of living second to none in the world.

RUSSIAN FEDERATION

Territory: 6,590,500 sq. miles
Population: 113,200,000
Capital: MOSCOW

THE SEVEN-YEAR PLAN OF**THE RUSSIAN FEDERATION—
FIRST AMONG EQUALS**

By Anatoli Sheherbakov, Journalist

An oil refinery worker from the Volga River area. Half the population of the Soviet Union, people of forty different nationalities, live in the Russian Federation.



THE RUSSIAN FEDERATION is the largest of the fifteen Union Republics. It covers an area twice that of the United States. On the north its icy shores are washed by the Arctic Ocean; its southern shores on the Black Sea grow palm trees and sub-tropical fruit.

The Federation is made up of 14 autonomous republics, 7 autonomous regions and 10 national areas. In its vast territory live people of 40 nationalities in a voluntary union, with equal opportunity for each of the nationalities to achieve its fullest potentialities.

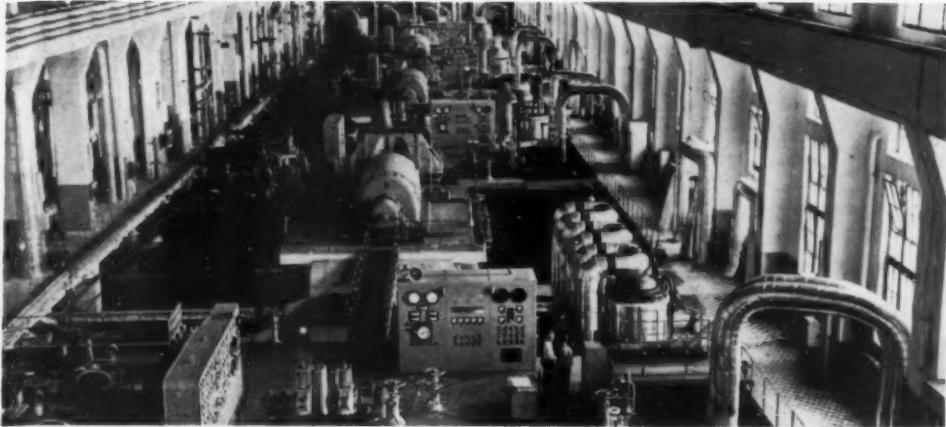
The Russian Federation accounts for two-thirds of the country's industrial production and for half of its farm produce. Its economic future is therefore a salient factor in the seven-year plan of the Soviet Union.

Almost a trillion rubles will be spent in developing the Federations' economy, a sum equal to 50 per cent of the capital allocated for the whole country between now and 1965.

Siberia will be one of the major concentration points. Much has already been done to tap the fabulous natural treasures of this great region and much more is planned. Two large metallurgy centers are to be built. They will be fed by old and newly uncovered deposits of iron ore and coal. Together with neighboring Kazakhstan, Siberia will become the Soviet Union's third metallurgy base—the present two are in the Ukraine and the Urals. The Kuznetsk Basin will continue to be the main source of coking coal for the iron and steel industry of Siberia and the Urals.

The Bratsk Hydroelectric Station on the Angara River, with a capacity of more than 3.5 million kilowatts, will be finished within the seven years of the planned period. It will be generating more power than the Lenin Station on the Volga, now the world's largest. On the Yenisei River the Krasnoyarsk Station, with a capacity of more than four million kilowatts, will be built.

Thermal power plants fueled by coal, oil and natural gas are either in design or under construction in various parts of the Russian Federation. These will be the major sources for power. Supplemented by the new hydro-power stations they will more than double the Federation's capacity for generating electricity by the end of the seven-year plan. Siberia alone will be producing more power than any of the West European countries.



Automation of whole industries to manufacture more high quality goods with less production cost is a major aim of the seven-year plan. This is a fully automated shop in a Moscow ball-bearing plant.



One of the power projects now under way. By 1956 the Russian Federation will be generating double the present electricity.

The Federation now produces half of the country's foodstuffs. More farm machines like this combine will be boosting crops.



The Urals, birthplace of Russian metallurgy, will continue to hold the leading position in iron, steel and nonferrous metal production. The production capacity of the giant Magnitogorsk, Nizhni Tagil and other iron and steel plants will be expanded. By 1965 the Chelyabinsk region alone will be producing more pig iron than France does today.

The iron and steel industry in the European part of the Russian Federation is also to be expanded. To meet the needs of these growing plants, large-scale extraction of iron ore will soon be beginning in the Kursk Magnetic Anomaly, the richest deposit in the world. In the relatively near future there will be no need to make costly deliveries from the Ukrainian deposits at Krivoi Rog.

The production volume of the numerous machine-building centers of the Russian Federation will be doubled during the seven-year period and hundreds of new items added to their catalogues.

Uralmash, the heavy engineering plant in Sverdlovsk, now makes walking excavators with enormous productivity—each does the work of 30,000 diggers. The plant is presently building a new model with twice the capacity. This is a sample of machinery the Urals will be turning out these next seven years.

The Federation will be doubling its oil output between now and 1965 and boosting its natural gas output six times over. In the post-war period the Volga River area and the North Caucasus deposits have become the country's major sources.

Oil from the rich fields of the Bashkirian Autonomous Republic between the Volga and the Urals is now carried by pipeline to Omsk in Siberia. The line is to be extended to carry Bashkirian oil to Novosibirsk and to Irkutsk for a total run of 2,315 miles. This transcontinental pipeline is only one of several under construction. New large refineries are also scheduled for various parts of the Federation.

Natural gas will be required in increasing quantities to produce synthetic materials, smelt ore, drive turbines, heat factories and homes. New pipelines will be built to bring gas to 129 cities of the Russian Federation. One line will be laid all the way across the republic from the North Caucasus to Leningrad.

The seven-year plan forecasts a much ac-

celerated rate of growth for industrial chemicals. Dozens of new plants are to be built and old ones modernized. The Volga area, using oil and natural gas as raw materials, will be supplying the country with synthetic rubber and fibers, plastics and mineral fertilizers. By the end of the seven-year plan the chemical plants of a single region on the Volga, the Saratov Economic Area, will be producing enough synthetic wool and silk to make annually 10 million men's suits and 45 million women's dresses.

Agriculture of the Russian Federation is keeping pace with growing industry. Nearly 37.5 million acres of virgin lands have been sown in its eastern regions in recent years. Last year the republic's collective and state farms sold the government a record 32.8 million tons of grain. This is nearly twice that of five years ago and much more than any other of the Union Republics sold in 1958.

But present advances are only a portend of greater achievements to come. By 1965 grain production in the Russian Federation will have risen to the 130-million-ton mark.

Grain farming will continue as the republic's principal concentration in agriculture, but the seven-year plan also envisages speedy development of animal husbandry, especially in production of meat. In many regions farmers are already working to meet the target goals in less than the scheduled time. Present rate of growth indicates that by 1965 the republic will have achieved an annual production figure of 12 million tons of meat instead of the 8.5 million planned originally.

There has been a threefold increase in the collective farms' cash incomes during the past five years. Farm incomes will certainly continue to grow during the seven-year period and will provide a surplus for capital construction nearly double the present. In addition to new farm buildings, social and cultural facilities, more than five million homes will be built in the republic's villages.

Large-scale construction is planned for urban communities. Much will be done to modernize and beautify the republic's cities, both old and new. Millions of apartments will be made available as well as more schools, theaters, community centers, stores and hospitals to provide for the growing material and cultural requirements of the people.

UKRAINE

Territory: 232,000 sq. miles
Population: 40,600,000
Capital: KIEV

THE SEVEN-YEAR PLAN OF

THE
SOVIET
REPUBLICS



By Lyubomir Dmiterko, Writer

THE UKRAINE BUILDS FOR THE GOOD OF MAN

WHAT a great tribute to the energy of man our present-day Ukraine is. Here is a territory which was almost completely devastated by the fascist armies, our factories reduced to ruins, our farms ravaged, our coal mines flooded. Ukrainians who came back from the front to Kiev saw only rubble where buildings had stood.

Of all this immense destruction there is hardly a sign today. Kiev is a beautiful city again, its bridges restored, its parks replanted and its renovated avenues lined with modern apartment houses.

Before the mines in the Donbas coal fields could be used after the war, 650 million cubic yards of water had to be pumped out and more than 1,500 miles of clogged pits had to be cleared. Restored and newly built mines in the Donbas now give far more coal than before the war.

The Dnieper Hydroelectric Station at Zaporozhye, the largest in Europe before the war, was blown up by the Nazis. It was rebuilt in record time and is now one of a cascade of new power plants spanning the Dnieper-Zaporozhye, Kakhovka, Kremenchug. More hydroelectric stations and thermal power plants will be built in the Ukraine during the period of the seven-year plan to meet the growing needs of our economy and population.

A network of new canals carries the water of the Dnieper from Zaporozhye and Kakhovka deeper and deeper into the fertile but arid steppeland. Last January work was finished on a 70-mile canal connecting the Northern Donets River with the industrial centers of Gorlovka and Makeyevka in the Donbas.

The Ukraine now holds second place in grain production after the Russian Federation. Of the 180 million tons of grain the Soviet Union plans to obtain by 1965, about a fifth will come from Ukrainian farms. The republic will produce half the country's sugar beets and a quarter of its milk and meat.

Ukrainian farmers have pledged themselves

to meet the target goals in five years instead of the seven scheduled by the plan. They propose to double their present production of meat and milk by 1965.

The Ukraine is one of the major industrial regions in the Soviet Union. It now produces a third of the country's coal, 40 per cent of its steel and almost two-thirds of its iron ore. Every fourth machine carries the trade-mark of the Ukrainian Republic.

Envisage the Ukraine seven years from now. Added to the resources of the older Donbas coal fields will be coal from the new Lvov-Volyn deposits now being tapped.

Natural gas has been found in large amounts in the Carpathian foothills and elsewhere in the republic. It will be used for the develop-

ment of chemical industries—for synthetic rubber plants, for viscose and kapron fiber factories and for sulphur and potassium works.

An even more important discovery is oil which was found in new places. Before the seven-year plan is completed, oil derricks will be dotting the valleys around Poltava. This will be a new oil center in addition to the old Drogobych fields in the Western Ukraine.

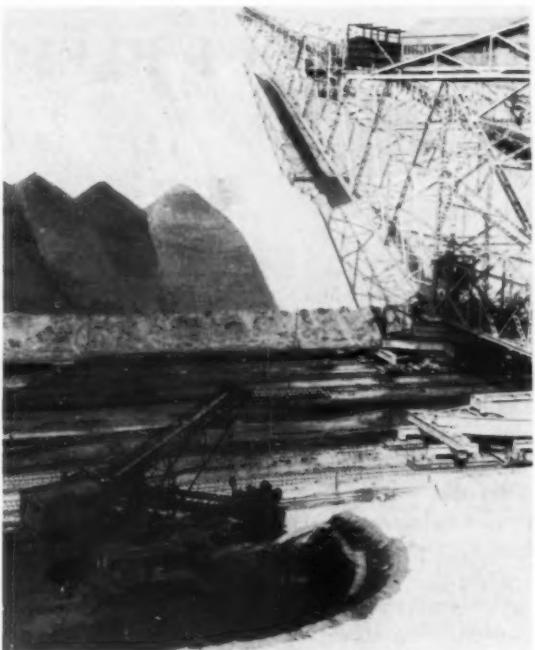
The immense sum of 219 billion rubles is to be spent for capital construction in the Ukraine between now and 1965. New fuel and power sources, new heavy industry, new consumer goods plants—all this is the material base to provide both the necessities and the luxuries for the country's working people.

The Ukrainians are notable farmers. By 1965, and very likely before then, they plan to produce a fifth of the country's grain, half its sugar beets, and a quarter of its milk and meat.

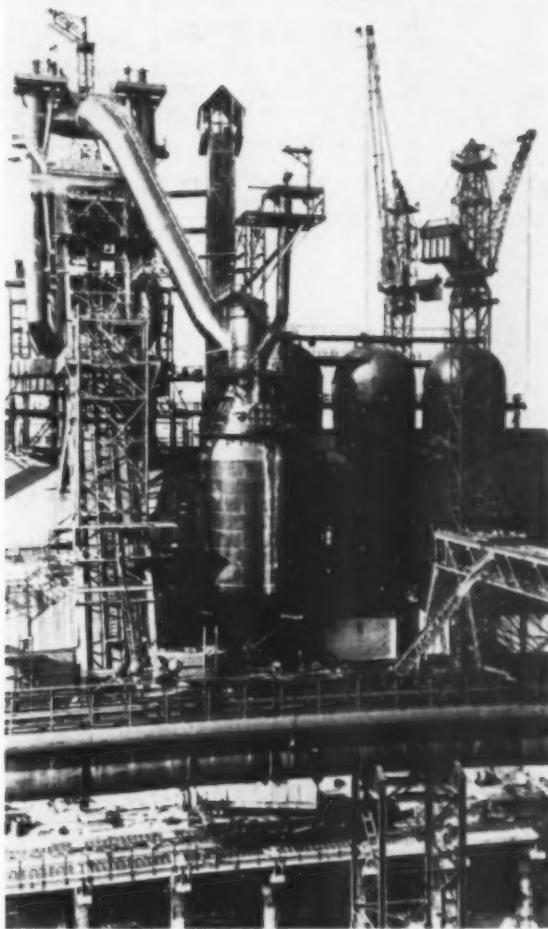




These children from a Ukrainian collective farm are cared for at the village kindergarten. The seven-year plan gives high priority to preschool education.



Working the new Lvov-Volyn coal fields. Besides coal, new oil and natural gas deposits have been found in large quantities in the Ukrainian Republic.



The Ukraine's iron and steel mills will be forging more metal for both heavy machinery and household appliances.

The Ukraine's fertile livestock will be helping Soviet farmers achieve their goal of catching up with America in per capita production of milk and meat.



Many more of these Ukrainian-built merchant vessels and fishing boats will be launched in the next seven years.



BYELORUSSIA

Territory: 80,300 sq. miles
Population: 8,000,000
Capital: MINSK

THE SEVEN-YEAR PLAN OF**THE
SOVIET
REPUBLICS**

By Kondrat Krapiva, Writer

CONSTRUCTION PROJECTS THROUGHOUT BYELORUSSIA

I SHOULD like to take you on an imaginary seven-year trip through Byelorussia. Let us begin with Polessye in the south of our republic, which used to be a land of impassable marshes and thick forests.

Great tracts of this swamp area are being reclaimed. When the drainage project is completed, about 7,250,000 acres will have been added to the republic's farmland. A diversified agriculture has developed in regions which in prerevolutionary times grew nothing but potatoes, and even those were of the poorest quality. Big crops are expected in Polessye now.

In the part of Byelorussia we are traveling through new power stations are planned. They will use inexhaustible reserves of local peat as

fuel. When completed, these stations will more than double the republic's present power output.

Going northward to Minsk, let us stop for a moment to look at the construction site of Europe's largest potassium plant at Starobin. Another stop is at Mozyr where a big oil refinery is to be built. It will be linked to the rich oil fields of the Volga area by pipeline.

Nor must we forget to see the site of the large-scale chemical industry that will be developing in the next few years to increase the republic's output of artificial fiber, plastics and paints.

We come to Minsk, completely restored from the rubble left by the retreating Nazi armies. The main thoroughfare—more than 160 feet

wide—has been built anew, a gracious avenue of modern apartment houses for the city's workers.

Minsk is Byelorussia's machine-building center. It turns out the famous "Byelarus" tractors, big dump trucks, motorcycles, radio and TV sets, watches. Its machine tools are used everywhere in the Soviet Union.

At Polotsk, an old city lying north of Minsk, we stop to see another huge construction site for an oil refinery. In the eastern part of the republic we look on at the second section of the Orsha flax mill going up. When the mill is built, Byelorussia will be processing 15 percent of the country's flax.

The republic's biggest heat and power plant is under construction near Beryoza-Kartuss-

Byelorussia, once a blank spot on the world's industrial map, now manufactures high-grade textiles and other goods formerly delivered from afar.

Young workers all over the republic are studying at evening schools and by correspondence to learn new skills for new industries.





A
Large-scale swamp draining in Polessye, southern Byelorussia, will be adding many millions of acres of good farmland.

kaya, close to the Polish border. This was a badly underdeveloped region and cheap power will bring in machine building, chemical and light industries.

But it is clearly impossible for us to visit more than a token few of the vast numbers of new projects planned for the seven years. They include an automobile plant, a flax mill, an artificial leather factory and one for artificial furs, sugar refineries, a cotton mill, dairies, canneries.

All this construction is going on in a territory which in my youth—I am some twenty years older than our republic and the republic celebrated its fortieth birthday last January—was just a blank spot on the industrial map of the world.

A new residential district in Minsk which was built around a tractor plant. As industry grows under the impetus of the seven-year plan, housing grows with it.

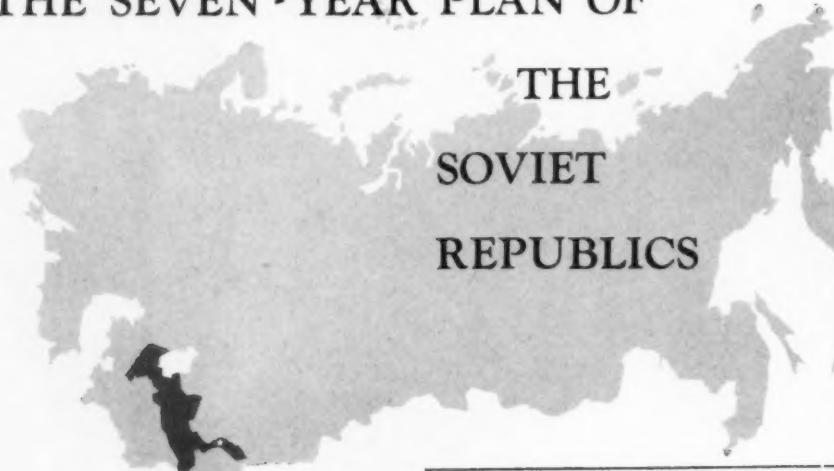


As the seven-year plan moves along, Minsk, the republic's major machine-building center, will be turning out more and more items like these 40-ton dump trucks.

Byelorussian farmers have been setting bumper crop records for rye. Now they are working hard to top these high marks.



THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



UZBEKISTAN

Territory: 154,000 sq. miles
Population: 7,300,000
Capital: TASHKENT



Uzbekistan has all the resources, natural and human, to build an economy of abundance.

UZBEKISTAN—THE OLD AND NEW

THREE was a time, still well within the recollection of older people, when an Uzbek woman could not leave her house unless she wore a black horsehair veil covering her face. That veil has long since gone and with it the poverty, illiteracy and superstition which once scarred this land.

There is little left to remind one of that old Uzbekistan aside from the traditional embroidered skullcap and the monuments of ancient Samarkand. This is a new land with a developed industry, mechanized agriculture and a well-educated people.

Before the 1917 Revolution there were only a few small factories, mostly for ginning cotton. Today's Uzbekistan has modern textile mills and more than 70 other branches of industrial production, including steel, coal, machine building, chemicals, radio, and electronics. There are 1,300 large industrial enterprises in the republic.

Uzbekistan has just begun another push forward with the seven-year plan. Electrification, over-all mechanization and automation of

production processes will speed every branch of the national economy. Capital invested will be 2.4 times that for the preceding seven years.

Exploitation of the great deposits of natural gas found recently near the old city of Bukhara will do much for the republic's industrial growth. Geologists estimate the reserves in one region alone, the Gazlin fields, at an astronomical figure. Gas will be available in practically unlimited quantities for home and industrial use and will be replacing coal more and more as time goes on.

Last year gas accounted for only three per cent of the republic's fuel consumption. By 1965 it will account for sixty per cent. There will be no need to bring in coal from other parts of the country, because its consumption, it is expected, will have considerably decreased by the close of the seven-year period.

This natural gas find is of much more than local significance. Gas will be piped to the neighboring republics and to regions thousands of miles distant, such as the Urals.

Uzbekistan grows most of the country's cot-

ton. The seven-year plan target figures call for the annual procurement of more than 23 million tons of raw cotton. To reach that level of production the present elaborate irrigation system will be expanded, plantations will receive more machines, and new lands will be opened for cultivation. Also due for large expansion are natural silk, wine and karakul sheep and horse breeding.

The republic has all the resources, natural and human, required for the big projects called for by the plan. In the number of specialists with college education, Uzbekistan is not only far ahead of the Asian countries but of many of the western countries also. For every 10,000 of population it has twice as many as France, for example. The republic has its own Academy of Sciences, an Academy of Agricultural Sciences and more than 100 research institutes and colleges.

In the seven years ahead the number of trained specialists in Uzbekistan will be multiplied to provide a larger reservoir of the talents and skills for this rejuvenated land.

Natural gas found near the ancient city of Bukhara in Uzbekistan will be piped to neighboring republics when this pipeline is finished.

With more machinery, better irrigation and new land opened for cultivation, Uzbekistan will be growing more cotton — the main crop in the republic.



THE SEVEN - YEAR PLAN OF

THE SOVIET REPUBLICS



KAZAKHSTAN

Territory: 1,067,600 sq. miles
Population: 8,500,000
Capital: ALMA-ATA



Kazakhstan has been training thousands of women for work in industry, sciences and humanities.

A CHANGED KAZAKHSTAN

By Kanysh Satpayev, President, Kazakh Academy of Sciences

KAZAKHSTAN is one of the most productive of the Asian countries. With a population only one-third that of Turkey, it smelts 50 per cent more steel, generates four times as much electricity and mines five times as much coal. Pakistan's population is ten times as large but it produces 23 times less steel, 20 times less electricity and 54 times less coal.

In spite of a generally arid climate, Kazakhstan has in the past four years put in cultivation some 50 million acres of virgin lands and is now one of the biggest grain producers among the Soviet republics. Kazakh collective and state farms harvest six times as much grain as they did before these unused lands were plowed.

By the end of this year, under the impetus of the seven-year plan, Kazakhstan livestock breeders expect that their production of meat for sale will more than double over 1958—from 380,000 tons to more than 800,000.

Previous to the Revolution little had been done to explore Kazakhstan's mineral resources. The consensus of opinion was that

Kazakhstan had nothing in the way of minerals but salt, an altogether erroneous conclusion. The republic is rich in minerals and has therefore a good base for large-scale industrial development.

By 1965, when the seven-year plan is completed, Kazakhstan will have built a large metallurgy industry on its enormous reserves of iron ore that run into the billions of tons. The Sokolovo-Sarbai ore concentration plant, already operating, will be supplying an annual 26 million tons of iron ore all by itself.

Among the largest of the new construction projects are the Karaganda iron and steel mill and the Yermakov ferro-alloy plant. The Karaganda mill, by 1965, will be producing almost as much steel every year as did all the mills in Russia in 1913.

A new aluminum plant is now being built in Pavlodar. The big Dzhezkazgan copper smelting plant will be adding to that industry's productive capacity. Lead, zinc, tungsten, molybdenum, nickel and manganese are now being mined intensively.

During the period covered by the seven-year plan close to 120 billion rubles will be spent to develop Kazakhstan's economy. This is 20 billion more than has been spent for capital construction since the birth of the republic four decades ago.

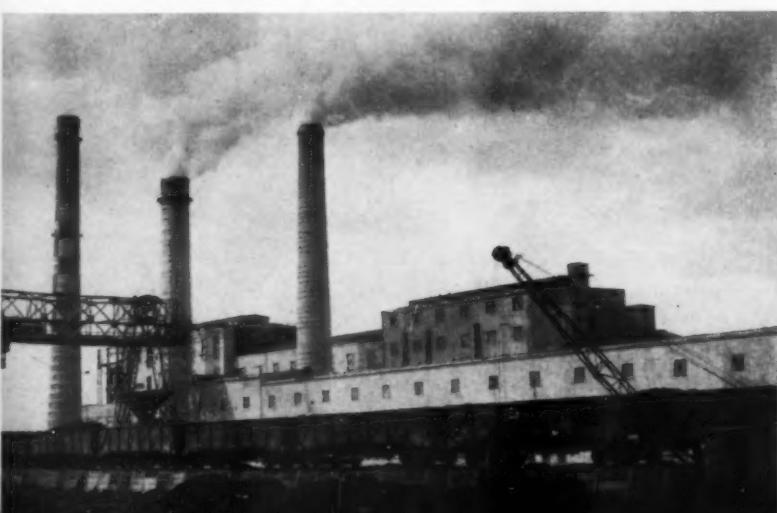
In old Kazakhstan the literate person was the rare exception. Now the republic has 26 colleges and institutes attended by 40,000 students. Another 27,000 study after working hours in correspondence and evening schools.

These schools of higher education have trained the thousands of research scholars now working in the Kazakh Academy of Sciences, the Academy of Agricultural Sciences, the Nuclear Physics Institute, and the institutes of law, philosophy, languages, literature and other Kazakh research centers.

The projects outlined for the next seven years will need more trained people in every field. The institutes have geared themselves to this perspective and propose between now and 1965 to train 56,100 specialists as compared with the 31,000 in the preceding seven years.

Power plants and steel mills in this Central Asian republic are fueled with local coal. Kazakhstan is building a large industry on its rich iron and coal reserves.

Collective and state farms like the one shown here are working 50 million acres of virgin lands turned to the plow.



THE SEVEN-YEAR PLAN OF

THE SOVIET REPUBLICS



GEORGIA

Territory: 27,800 sq. miles
Population: 4,000,000
Capital: TBILISI

GEORGIA MULTIPLIES NATURE'S BOUNTY

By Miron Chubinidze, President of the Presidium,
Supreme Soviet of the Georgian Republic

GEORGIA is a country of astonishing contrasts. The region on the Black Sea coast is humid, sub-tropical. Further inland are valleys with a drier, more temperate climate. And still further the country becomes slopes of snow-capped mountains. There are places in Georgia where one looks through the leaves of palm trees at summer snow on the mountain peaks.

Not all the contrasts are nature-made, however. The visitor sees a modern electric power

station neighboring a time-worn feudal castle, rides on an electric train that crosses old mule paths, visits a mechanized collective farm in a region so poor forty years ago that three farm families shared one wooden plow.

But perhaps the most remarkable contrast is an advanced industry in this region that Lenin characterized as "even a more predominantly peasant country than Russia." Georgia now has 1,800 large industrial enterprises and some 14,000 smaller plants.

Projected for this small republic by the seven-year plan are new factories for the production of chemicals, electrical equipment, metal-cutting lathes, machinery for mountain and sub-tropical farming and other industrial and consumer goods.

The output of the electrical engineering industry in 1965 will be eight times that of 1958. This industry, which is still in its initial stage of development, will be replenished by 22 new plants. Production of chemicals will show a sixfold gain, while the output of metal-cutting lathes will increase 2.6 times and of trucks 2.5

times. Powerful trunk-line eight-axle electric locomotives have recently begun to be manufactured in Georgia.

Some years ago Georgian farmers began large-scale cultivation of sub-tropical plants. Now the plantations growing tea, oranges, lemons, grapefruit and tangerines extend over valleys and hillsides as far as the eye can reach.

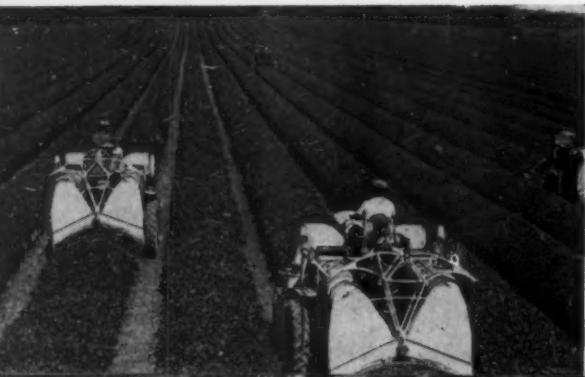
The terraced tea plantations look as though they were pleated, and the farm people in their broad-brimmed straw hats make a pattern against the silvery green balls of the pruned tea plants. By 1965 Georgian tea planters expect to harvest 200,000 tons of green leaves annually, sufficient to fill the entire demand of Soviet consumers.

It would seem at first glance that this bounteous land grows crops without too much assistance from man. It is true that nature here is very generous but that generosity must be directed into channels that are not wasteful. This Georgian farmers have been doing and in the process they have multiplied nature's gifts many times over.



Georgia will be expanding its famed Black Sea resorts to accommodate more Soviet vacationers.

A few decades ago Georgia had no industry to speak of. It now has several thousand industrial plants. New factories are being built to produce chemicals, farm machines and consumer goods.



Tea planters of Georgia will be filling all the domestic demand by 1965, with surplus for export.



THE SEVEN - YEAR PLAN OF

THE SOVIET REPUBLICS

AZERBAIJAN

Territory: 33,600 sq. miles
Population: 3,400,000
Capital: BAKU

AZERBAIJAN— LAND OF BLACK GOLD

By Gasan Seidov,
Minister of the Azerbaijan Government

AT ONE time Baku, the city of black gold, was Azerbaijan; and Azerbaijan was Baku. The city, surrounded by thousands of derricks pumping oil from deep inland and offshore deposits, was once the only industrial center in the republic. Now Baku must share its industrial honors with a half dozen or more new cities.

Once Azerbaijan had to get everything from matches to machines elsewhere. Now it manufactures more than 120 kinds of goods for export. In the years between 1959 and 1965 the republic will be building 250 new large industrial plants for machine tools, instruments, electrical equipment, chemicals, cotton and wool fabrics.

A concentration area will be industrial chemicals, with numbers of new plants scheduled that will be producing synthetic rubber, artificial fibers, plastics and a score of related items for industrial and consumer use.

But oil remains Azerbaijan's major industry. For more than 70 years oil has been extracted in Baku and its environs. Within the

Soviet period large new deposits were found which supply more than four-fifths of the present output. The derricks on the Apsheron Peninsula near the city are so thick they seem to be continuous.

Complete towns have been built on steel trestles that stretch far out from shore to tap the rich oil under the sea bottom. By 1965, the seven-year plan envisages, oil extraction from the offshore deposits will be almost double the present figure.

Baku drilling has been highly mechanized. You walk through an oil field and hear the drills boring through the ground—some go down three miles and more. You listen to the hum of the giant pumps and compressors. But there are hardly any workers in sight, except for an occasional supervising mechanic moving from one derrick to the next.

Much of Azerbaijan, which borders on Iran, is sub-tropical with cotton the staple crop. Cotton growing is to be much expanded under the seven-year plan, with a goal of 600,000 tons by 1965 as against 270,000 last year.

Horticulture and viticulture are to be developed on a large scale by extending the area of orchards, plantations and vineyards under cultivation, especially in the Lenkoran lowlands where a warm and humid climate and fertile soil combine to favor the growing of tea, pomegranates, figs, persimmons, oranges and lemons. This reclaimed land was impassable jungle not too many years ago.

By 1965 Azerbaijan's orchard crop is scheduled to grow to 130,000 tons from the present 53,000; its vineyards will be producing 400,000 tons of grapes as compared with the present 70,000.

Greater numbers of cows, buffalo, sheep and goats will be grazing in the republic's rich alpine and sub-alpine pasture lands. The output of meat, milk, eggs and wool is expected to have grown by 100 to 120 per cent between now and 1965.

The seven-year plan for Azerbaijan means a better life for its people—larger income, better housing, more leisure, greater cultural opportunities. All this is in the making.

This plant in Azerbaijan is part of the Soviet Union's rapidly growing synthetics industry.

Steel trestles reaching far out from shore to tap the republic's rich sea bottom deposits.



15

Better medical care, housing, education—that is the goal of Azerbaijan's seven-year plan.



LITHUANIA

Territory: 25,100 sq. miles
Population: 2,700,000
Capital: VILNIUS

THE SEVEN-YEAR PLAN OF

THE SOVIET REPUBLICS

WORKERS NEEDED, SAYS LITHUANIA

By Alexander Drobis, Chairman, State Planning Committee of the Lithuanian Republic

FEW of the Soviet Republics have compassed so much into so little time as Lithuania. It is only since 1940 that it has been a member of the Soviet family of nations. Before that Lithuania was a neglected backwash of Europe with no industry worth the name, a primitive agriculture, and even the

fisheries, one of its major sources of income, giving only the barest kind of living. Need forced people to migrate to distant lands.

Unemployment is only a historical memory in Lithuania today, as it is in every other Soviet Republic. There are not enough workers, farmers, fishermen to keep pace with growth. This is even more evident now as the seven-year plan gathers momentum.

There is hardly a spot in Lithuania where new factories and plants are not going up and where skilled and unskilled workers of any one of a hundred trades are not in urgent demand. That holds true not only for such old industrial centers as Vilnius, Klaipeda and Kaunas but also for regions which were most backward industrially only a dozen years ago—Siauliai, Panevezys, Aliitus and Ukmurge. In 1958 Lithuania's industrial output was eight times that of 1940. By 1965 it will surpass the prewar level by fifteen times.

The republic's toolmaking industries are growing fast. A chemical industry is being built from scratch. Both presently existing and new plants in the light industries will be turning out larger volumes of textiles, furniture and footwear. Production of various types of building materials is to increase several times over.

The republic's power base will be broadened with new electric stations like the one at Kaunas which will begin generating power this year. Natural gas will be piped in from the Ukraine through a new line now being built. Vilnius is building a factory for reinforced concrete sections and a meat packing plant among other projects.

All these and hundreds of other new and old factories already have help-wanted signs posted. But Lithuania is not depending on these signs altogether. Its vocational schools are training people for a long list of skills.

Lithuania's agriculture has been moving forward with equal speed. Electrification and mechanization of the republic's collective farms and drainage of swamp areas is well advanced now. More will be done along these lines between now and 1965 to increase farm yields. By 1965 the quantity of milk produced will be double that of Lithuania before it became a Soviet Republic.

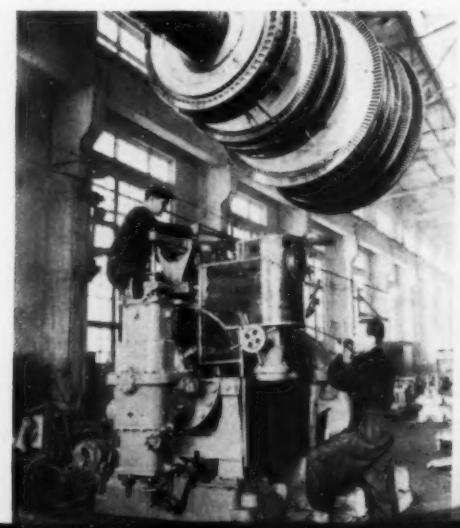
The catch of Lithuania's fishing industry is 35 times as great as it was in 1938. Today well-equipped boats scour not only the Baltic shores but the North Atlantic and Pacific waters as well. And in farm villages and fishing ports you see the same familiar signs and newspaper notices: "Help Wanted."



Training specialists for the new industrial plants being built everywhere in the republic.



Workers in a hundred trades are needed as Lithuania's seven-year plan gathers momentum.



MOLDAVIA

Territory: 13,100 sq. miles
Population: 2,700,000
Capital: KISHINEV

THE SEVEN-YEAR PLAN OF**THE
SOVIET
REPUBLICS****ONLY THE BEGINNING
FOR MOLDAVIA**

By Pavel Rozhansky, Vice Chairman, Economic Council of the Moldavian Republic

ALTHOUGH Moldavia is the youngest republic in the Soviet Union—it was formed in 1940—it has a particularly important contribution to make toward the seven-year plan.

Moldavia is a region famous for its fertile soil and moderate climate, with hill slopes protected from cold winds, exceptionally suited to grape cultivation and fruit growing. Although great tracts of land are planted to cereals, Moldavia's major growing areas are given over to vineyards and orchards.

The Dniester valley is covered with fertile mud washed down from the Carpathian Mountains. The whole of this region not too long ago was almost solid swampland. Thick grass, brushwood and tangles of wild vine and hops made the banks of the river impassable. Earthen dams were built to protect the land from the spring floods, the soil was drained, and gardens, orchards and vineyards were laid out. The result was bumper crops.

Progress was interrupted by the war when the Moldavian Republic was occupied and ravaged by the fascist armies. In a remarkably short time after liberation, Moldavia, with the help of other Soviet Republics, built up its industry and agriculture to a point far beyond prewar levels.

Moldavia's seven-year plan calls for the con-

struction of more than a hundred new wineries, five sugar refineries and three meat-packing plants. By 1965 the republic will be processing a million tons of grapes annually and the output of sugar will be trebled over the present level. It will be supplying the country with fresh and canned fruits and vegetables. Six new canneries will be built and the old ones modernized.

Moldavia now has a growing machine-building industry. Among the new projects are a food industry machine factory to be built in Kishinev which will be making equipment for wineries, sugar refineries, creameries and meat packing plants.

Nor is construction to be confined to industry. In Kishinev, Beltsy, Tiraspol and Bender large-scale building is already under way for housing, schools, theaters and hospitals. In the villages the old whitewashed clay huts are being replaced by modern houses. Modest estimates indicate that in the past five years one farm family out of every eight has moved into a new house.

Considering that Moldavia began its economic planning only after the war, all this is by no means a negligible record of accomplishment. But this, the Moldavians say, is no more than a beginning.



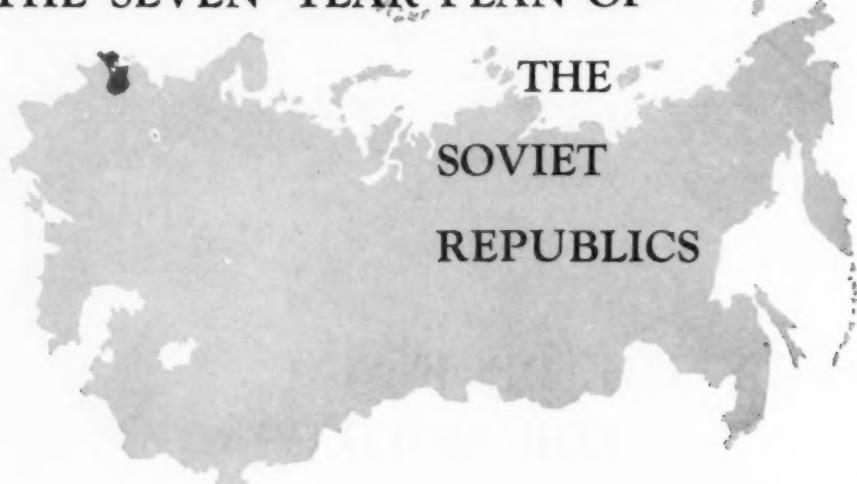
Young citizen of Moldavia—the youngest of the Soviet Republics.



Moldavia's gardens, orchards and vineyards are growing bumper crops.

LATVIA

Territory: 24,700 sq. miles
Population: 2,000,000
Capital: RIGA

THE SEVEN-YEAR PLAN OF**THE****SOVIET****REPUBLICS**

LATVIA'S LIMITLESS HORIZON

By Georgi Gaile, Chairman, Economic Council of the Latvian Republic

A COMPARATIVELY short time ago Latvia exported bacon and butter and imported industrial machinery. Today Latvia sells complex machines and precision instruments to China and Burma, India and Poland, Britain and Czechoslovakia.

As for bacon, butter and other foodstuffs, they are being produced in increasing quantities for home consumption—and with surplus for export.

Latvia today produces nearly twice as much milk per farm hand as she did before joining the Soviet Union in 1940. The organization of collective farms and the use of machinery in Latvia's traditional farm branches, dairy-ing and pig breeding, made for this marked rise in productivity.

The picture of industrial growth is no less favorable. Compared with the prewar level, industrial output has increased nearly nine-fold, with a more than 100-fold growth in engineering industries. Latvia's new factories manufacture electric trains, diesel engines, radio and telephone equipment, textiles and clothing, canned fish and a multitude of other products.

This farm and industrial growth has had its very telling effect on the well-being of the Latvian people. In the next seven years 70,000 new apartments will be available in cities alone. More than a thousand new retail

One of the numerous new retail shops that Latvia builds as part of the seven-year plan.



shops and restaurants will be opened. Forecast for 1965 is an increase of 60 per cent in retail trade to come from higher purchasing power.

Some of the Soviet Union's most beautiful seacoast resorts are situated on the Baltic shores near Riga. They are favorite holiday places for Latvian workers and farmers and draw vacationers from all Soviet Republics. Here and elsewhere in the republic new vaca-

tion and health resorts for adults and children's summer camps are being built under the seven-year plan.

New schools, libraries and theaters by the scores are planned for the next seven years. The Latvian Academy of Sciences is beginning to build new laboratories for research in the peaceful uses of atomic energy.

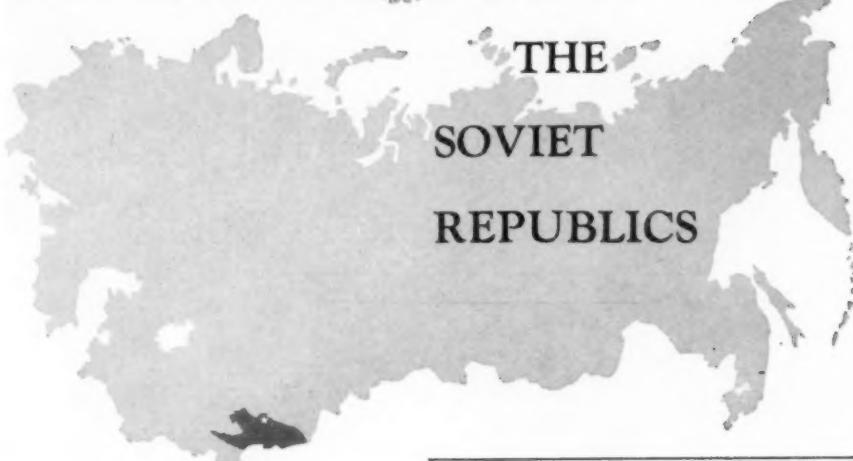
Reduced working hours envisaged by the seven-year plan will give people more leisure to develop their talents in the adult schools now being set up for the study of art, literature, music and dramatics. In addition to legitimate theaters Latvia has seven people's theaters with workers and farmers staging productions which have won the praise of both critics and audiences.

Shorter hours without reduction in pay will be coming as a result of increased mechanization and automation. Latvian workers are anxious to make their contribution toward this, because higher productivity means more social wealth and more social wealth means a higher standard of living for everyone.

The new horizon that the Latvian people opened for themselves in 1940 when they decided to build socialism in their republic has been much broadened by the seven-year plan.



THE SEVEN - YEAR PLAN OF



THE SOVIET REPUBLICS

KIRGHIZIA

Territory: 76,400 sq. miles
Population: 1,900,000
Capital: FRUNZE

KIRGHIZIA DEVELOPS ITS NATURAL RESOURCES

By Turabai Kulatov, President of the Presidium, Supreme Soviet of the Kirghizian Republic

KIRGHIZIA is highland country. Rising gradually from west to east, the Tien Shan mountains reach a height of more than four miles above sea level on the border of China. Fine alpine pastures stretch along the slopes below the snow line. In the summer, when there is an abundance of sunshine and moisture, the pastures are green with thick rich grasses. The northern slopes are overgrown with forests and the hillsides secrete a rich store of mineral resources.

Our fathers and grandfathers made little use of this great natural wealth to better their lives. How could they? For the most part they were illiterate nomads with no written language. They set up their felt tents wherever their herds of horses and flocks of sheep grazed. Most of them lived their lives on horseback.

Now from our midst come talented engineers, scientists, musicians, actors. We have begun to develop mining, nonferrous metallurgy, oil extraction and a power industry which will be greatly augmented by the seven-year plan.

New plants are to be built around deposits of highly calorific natural gas recently found in the southern part of Kirghizia. They will be supplying fuel for household use and raw material for the manufacture of mineral fertilizers and synthetic fibers.

Before 1965 we shall have completed electrifying all our rural districts. High tension lines will cross the mountains and valleys to carry our surplus electricity to neighboring republics—Uzbekistan and Kazakhstan.

Our consumer goods industries are to be expanded. A cotton mill is to be built in the old city of Osh and a worsted mill in the Chu valley. Meat packing plants, dairies and canning factories are going up in all parts of the republic.

Livestock farming remains the most important branch of our agriculture. By the end of 1965 we shall have increased our meat production threefold and our wool clip will have more than doubled. We expect to be marketing a million tons of dairy products annually by that time.

Our livestock farmers no longer have the perennial problem of water. Today it is not man who follows water; water follows man. Our fields and plantations are irrigated by numerous canals. In the next seven years new reservoirs, each holding millions of gallons of water, will be built in the mountain regions of Kirghizia.

Chronologically we are only decades removed from the primitive way of life of our fathers; in accomplishments we are many centuries distant.



Kirghizian schoolgirls. Only a few decades ago their nomad forebears had no written language.



Kirghizia is building mountain reservoirs as part of an extensive farm irrigation project.

Rich alpine pastures make livestock farming one of Kirghizia's main occupations. By 1965 the republic will have more than doubled its wool clip and tripled its meat production.

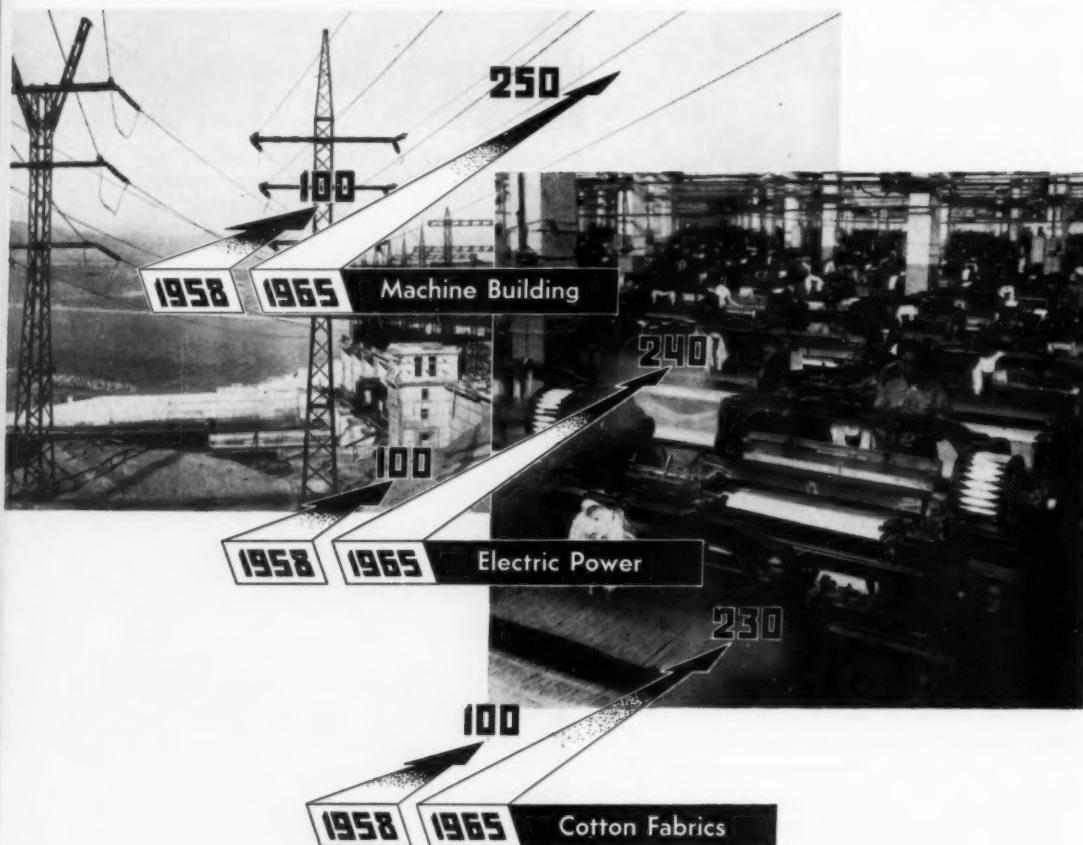


THE SEVEN - YEAR PLAN OF

THE SOVIET REPUBLICS

TAJIKISTAN— THE HUB OF ASIA

By Sultan Umarov, President, Tajik Academy of Sciences



Young research student. People of Tajikistan have a rich and ancient culture.



TAJIKISTAN lies in one of the world's most remote corners—if one can use this term in our age of jet planes and space rockets. It borders on China and Afghanistan where great mountain systems meet to form the hub of a continent.

For centuries Tajikistan was Asia's cross-road, meeting place of Persians, Arabs, Greeks and Mongols. It is a country with an ancient culture which gave to the world famous poets and philosophers—Avicenna and Saadi, Firdousi and Rudaki, Omar Khayyam and Balhi.

But this was the glory of a remote past. Before the 1917 Revolution the region was the domain of the Emir of Bokhara. The writer Aini, who was one of the founders of Soviet Tajik literature and president of our Academy of Sciences, carried scars of a lashing on his back until he died. He was beaten by order of the Emir.

For a long time Tajikistan was a poverty-stricken land where peasants could hardly

make ends meet. All of its industry then employed only 200 people.

Flourishing fields now stretch where there was little but barren, sun-baked earth before. The more developed of the collective farms have incomes running into the millions.

Thousands of workers are now employed in factories built by the republic. There is a large-scale industry for food processing. Textiles are woven at the big mills in Stalinabad and silk in Leninabad.

Tajikistan has its own body of specialists trained in the republic's own schools. There are 43 scientific research institutes.

This is a land of eternal snow-capped mountains out of which are now extracted coal and ores, of fruitful valleys which grow cotton crops with the highest yields per acre in the world.

Mine tunnels are now digging deeper into the mountain sides, and the energy of the mountain streams is being converted into electricity. In the valley plantations machines are increasingly taking over farm chores.

Industrial and agricultural development will be greatly accelerated by the seven-year plan. By 1965 Tajikistan will generate 2.4 times more electric power than at present. The biggest hydropower station in Central Asia is now being built on the Vakhsh River.

Cotton, the republic's prime crop, is scheduled for a 50 per cent increase by 1965. Under the plan, new industries will be created—chemical, cement and machine-building. A new pipeline will be laid from Uzbekistan to supply natural gas to the two biggest cities in the republic, Stalinabad and Leninabad. Aside from the economic benefits that this joint project will bring, it epitomizes the cooperative way in which the Soviet Republics work.

While there will be an 80 per cent increase in capital investment for the Soviet Union as a whole during the next seven years, the scheduled increase for Tajikistan is to be twice that—a sum equal to the total of all capital investment in the republic since it has been part of the Soviet Union.

Tajikistan of today is in the process of growing into an industrial center—the new hub of Central Asia.

TAJIKISTAN

Territory: 54,800 sq. miles
Population: 1,800,000
Capital: STALINABAD

THE SEVEN-YEAR PLAN OF

THE SOVIET REPUBLICS

ARMENIA

Territory: 11,600 sq. miles
Population: 1,600,000
Capital: YEREVAN

ARMENIA— RICH IN PEOPLE

By Shmavon Arushanyan, President of the Presidium, Supreme Soviet of the Armenian Republic

HALFWAY between the Black Sea and the Caspian, high up in the mountains, as if lifted toward the sun, lies Armenia. Although this a country with rich soil and talented people, it was for centuries one of the world's most impoverished and unhappy lands.

In ancient days Armenia's cities and villages were time and again leveled by successive invaders—the Assyrians, Romans, Arabs, Mongols, Persians and Turks. And each time the people rebuilt their country and revived their age-old culture. But Armenians were never certain that they were not building for the next invader.

The Socialist Revolution of 1917 brought freedom, and these past four decades Armenians have been building for themselves and for generations to come. Dozens of new cities have sprung up. Yerevan, the capital, has grown more than 20-fold in the Soviet period. It will be growing even faster under the impetus of the seven-year plan.

Old Yerevan was an unsightly town of narrow streets, flat roofs and clay huts. It was called the "clay pot." Present-day Yerevan is a city of wide avenues shaded by luxuriant greenery.

Its blocks of houses, with new ones being constantly added, are built in rose, yellow, blue, orange, black and silvery stone. The new opera and ballet theater in Yerevan is

one of the most beautiful in the Soviet Union. The new building for the Matenadaran, the famous manuscript archives which house documents fifteen centuries old, is a veritable palace for size and design.

Yerevan has grown into a university city, a scientific and industrial center. Cars equipped with tires carrying the Yerevan Tire Plant trade-mark travel the roads of the Urals, Siberia, the Ukraine and all the Central Asian Republics.

Nor is Yerevan the only city which is growing by leaps and bounds. Kirovakan, Leninakan, Kafan, Alaverdy and others are slated as important industrial centers under the seven-year plan. By 1965 Armenia will be one of the country's most productive machine-building and precision instrument centers.

Most important of the newly-developing regions is Akhta, where an industrial city is growing up. Another is Zangezur in a mountain region which has been source for a whole folklore. Its mountains will soon be giving up their treasures of copper, molybdenum and other metals.

But Armenia's greatest treasure is her people. The cities Armenians are building are for themselves and for their children. They will be living in these modern houses, using these schools, nurseries and stores.

By 1965 the republic's population will be able to buy 73 per cent more goods than to-



The fast mountain rivers in Armenia are being harnessed to light homes and run machines.

day. Cash income will have risen by 47 per cent and pensions and other social benefits by more than 70 per cent.

The plan for the development of their republic was one the Armenian people worked out. They have begun to build by that grandly conceived program for an abundant future.

Armenia has a rapidly growing system of higher education—a university and several technical, agricultural, medical and veterinary institutes.

A test laboratory in one of Armenia's electrical engineering plants. Many of the republic's cities will be growing into industrial centers by 1965.



THE SEVEN-YEAR PLAN OF THE SOVIET REPUBLICS



TURKMENIA

Territory: 188,400 sq. miles
Population: 1,400,000
Capital: ASHKHABAD

By Berdy Kerbabayev, Writer

TURKMENIA TRANSFORMS A DESERT

IN ONE of the January issues of a Turkmenian newspaper (incidentally, four decades ago Turkmenia had no newspapers) I came across the following: "The Cheleken and Kum-Dag wells have already produced their first gallons of oil and the cotton gins of Ashkhabad have already turned out the first fibers of the new seven-year plan."

Oil derricks in Turkmenia; a 250-mile canal across the Kara-Kum Desert; Nebit-Dag, a shaded city built amid the sands! All this would have been unbelievable a short twenty years ago.

What is happening in this republic of mine today is magnificent, and tomorrow offers a promise of even greater things to come. Turkmenia is desert country, a land of hot sun and little water. The Kara-Kum, one of the biggest sand deserts on the globe, makes up three-quarters of its territory.

But the desert is not lifeless. It is covered by sparse grass. Try to pluck this dry grass and you will pull up a long root which feeds the plant with the moisture present under even the hottest sand. The grass gives fodder for the sheep and for the camel.

Before the 1917 Revolution the Turkmenians followed their herds through the desert from well to well. Now the nomads are settled and the herds are driven to seasonal pastures over routes spotted with dug wells, some of them more than 600 feet deep. On the collective farms wind engines are used to pump subsoil water to the surface.

Oases scattered through the southern and eastern parts of the republic have been irrigated and are growing superior cotton with a long silky fiber, fragrant honeydew melons and seedless grapes. The Kara-Kum Canal, the first section of which was finished recent-



These Turkmen schoolgirls will be working on a par with men at whatever vocation they choose.

ly, will soon be bringing the waters of the Amu-Darya River to oases hundreds of miles to the west.

Geologists are finding liquid treasures of another kind in the Kara-Kum Desert. Not far from Kushka, the southernmost point of the Soviet Union, oil is spouting from a forest of derricks. Western Turkmenia is destined to become an important oil center by 1965.

Oil, however, is not the only industry which is to be developed. The production of all kinds of consumer goods is to be increased many times over. Such items as footwear, furniture, knit wear and foodstuffs will be manufactured and processed not only for the growing consumer demand within the republic itself, but for sale to other parts of the country. Mills for weaving silk and cotton goods are already in process of construction. A fish cannery will soon be getting under way on the shores of the Caspian.

Turkmenia is a busy republic these days. The old towns are changing almost while you look on. Hundreds of new homes, new schools and libraries keep going up.

Only yesterday the word "theater" was foreign to the Turkmenian peasant. Today he sits in a spacious concert hall in Ashkhabad listening to his daughter, an opera star, singing a song composed by his neighbor's son.

The hot Turkmenian soil absorbs moisture not as avidly as its people absorb knowledge. Yesterday's camel herder no longer seeks through the desert for the track of a strayed animal; with his geologist's kit he prospects for new sources of water, oil, mineral wealth.

These self-propelled machines made in Uzbekistan are picking Turkmenian cotton to be woven into textiles by mills in various parts of the country.



Turkmenia is desert country. The oases in many parts of the republic are irrigated and grow quality cotton, honeydew melon and luscious grapes.

ESTONIA

Territory: 17,400 sq. miles
 Population: 1,100,000
 Capital: TALLINN

THE SEVEN-YEAR PLAN OF**THE****SOVIET****REPUBLICS****By Ivan Kebin,**

*First Secretary of the Central Committee,
 Communist Party of Estonia*

ESTONIA BUILDS AROUND ITS SHALE DEPOSITS

ESTONIA is rich in shale, a mineral of wide and varied uses. It can be used, for example, as fuel for power stations and as raw material for production of gas, oil, medicine, plastics, artificial ice and building materials. It abounds in a big section of the republic along the coast of the Gulf of Finland.

Estonia's economic development during the next seven years will be centered around its shale deposits. Before 1940, when Estonia joined the Soviet Union, most of the shale extraction was done by hand. During the postwar years the industry was completely modernized.

The center of the industry is Kohtla-Jarve, once a small town which in the past ten years has grown into a city of considerable size. Its shale processing plant, built during the Soviet period, pipes gas to Tallinn and Leningrad.

During the planned seven-year period Estonia will double its present rate of shale extraction. By 1965 it will be mining 16 million tons, quite sufficient to supply a growing industry and new thermal power stations with cheap fuel.

Not only will the republic be completely electrified but there will be enough cheaply-generated power to supply Latvia and the Leningrad region. High-tension transmission lines are being built which will subsequently

be joined up with the single power system of the European part of the Soviet Union.

Our scientists and engineers are devising new methods for shale extraction and processing which will lighten the job of the miner and at the same time make his work more productive. The Tallinn engineering plants have started producing shale combines to replace laborious manual processes.

The republic's chemical industry, based on shale, will almost double its output of raw materials for the consumer goods industries by 1965. Research institutes are experimenting with new uses for shale and have been training specialists for the industry.

Concentration on this major industry does not preclude development in other areas of Estonia's economy. As a matter of fact, the republic is already deservedly famous for its electrical engineering and instrument-making industries.

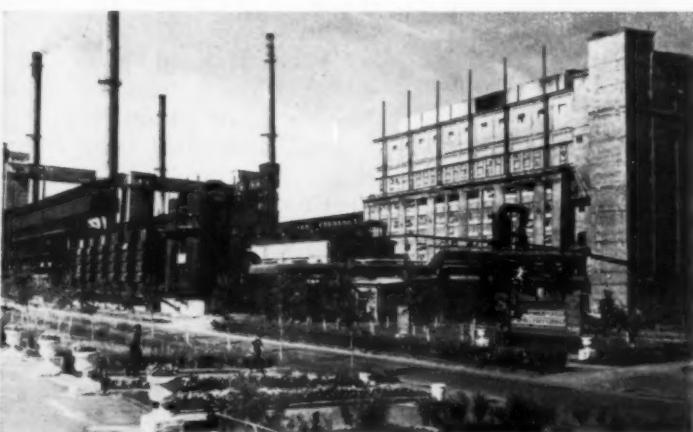
As the seven-year plan progresses, new plants will be built for the manufacture of X-ray equipment, mercury arc rectifiers for electric locomotives and various instruments using transistors and radioactive isotopes. As for the republic's agriculture, it will be producing more meat, milk, vegetables and other produce.

Even during the first year of this plan

aimed to give Soviet workers a higher standard of living, its impact is already felt in such very concrete terms as better housing, more social services and shorter working hours. Many of the republic's industrial and office workers have already shifted over to a seven-and six-hour workday with no reduction in pay, with another cut in work time to a 30-35 hour workweek scheduled for 1964.



Estonia's seven-year plan schedules many more housing projects like this one in Kohtla-Jarve.



This new plant in Estonia and others to be built in the coming years transform the republic's abundant shale into gas, oil and medicines.

Estonia will be allocating increasing funds budgeted under its seven-year plan for scientific research. This is a study of nerve reactions.



By Mark Arkadyev

Journalist

MORE than 62 million copies of newspapers come rolling off the presses in the Soviet Union. They are read by a great many more people than that, however, for besides newsstand and subscription sales, copies are posted on bulletin boards in towns and villages and are freely available at clubs, libraries, theaters, railway stations and other places where people gather.

The biggest of the Soviet dailies is *Pravda* (*Truth*), the official organ of the Central Committee of the Communist Party, with a circulation of 5,650,000.

At the end of the last century, when a Marxist workers' party was just beginning to emerge in Russia, Lenin proposed that a national political newspaper be founded. It was to replace the local leaflets which had been used to spread word of the party's program. The paper founded then was *Iskra* (*The Spark*). It was superseded in 1912 by *Pravda*.

From its very first issue *Pravda* has spoken for Russia's working millions. In czarist days it was printed by hand in a changing succession of cellars and hiding places, in ever-present danger of suppression. Traced by the police to one spot, its type confiscated and staff imprisoned, the paper popped up in another, sometimes under a changed masthead but always unalterably dedicated to the struggle for a better way of life.

Although the *Pravda* of those days before the Revolution left much to be desired for quality of paper and ease of reading—it was supported entirely out of the hard-earned pennies contributed by factory workers and poor peasants—and although its circulation was small, it spoke with an infinitely more powerful voice than the heavily-financed press of the czar. To be caught reading an illegal paper meant a prison term, but every copy passed through hundreds of eager hands until the paper was so worn through that the type was no longer legible.

A reflection of *Pravda*'s prestige is the fact that May 5, the date of the appearance of its first issue, is commemorated throughout the country as Soviet Press Day.

Almost 10,000 Newspapers Published

Today *Pravda* is one of the world's biggest newspapers. Its editorial offices are in Moscow but it is printed simultaneously in many cities from matrices flown in from the capital. *Pravda* newsmen cover every part of the Soviet Union and are stationed in many foreign countries.

Izvestia (*News*), the official government organ, is another of the big dailies with a large national circulation. So is *Trud* (*Labor*), published by the USSR Central Council of Trade Unions. *Komsomolskaya Pravda*, published by the Central Committee of the Young Communist League, has a circulation of 2,500,000 which sells out as soon as it hits the stands.

These and many others of the nationally-circulated papers are published in Moscow.

Each republic and every town of any size has its own newspapers in addition. Besides those published in the Russian language, there are 2,500 papers printed in sixty of the languages spoken in the country. All told, the Soviet Union has 9,936 newspapers. In addition, there are 858 magazines published with a total circulation of 26 million copies.

Papers for Special Audiences

Aside from those which appeal to the general reader, there are numerous papers oriented to a particular audience. *Literaturnaya Gazeta* (*Literary Gazette*), published by the Union of Soviet Writers, has many hundreds of thousands of readers. As the name indicates, it is primarily concerned with problems of literature, but it devotes considerable space to a much wider range of topics and takes vigorous positions on all of them. It covers the more important domestic and international affairs from the viewpoint of the Soviet writer.

There are 16 newspapers devoted to economics, industrial construction and related fields. These have a reading public much larger than their special character would seem to indicate. A paper such as *Promyshlennno-Ekonomscheskaya Gazeta* (*Industrial and Economic Gazette*) is required reading for plant directors, engineers and other people at the managerial levels, but it is not at all uncommon to find the paper in the home of a worker in one of the skilled trades.

Soviet railroad men, with the professional loyalty that workers in that field seem to have the world over, will go through their railroad paper first thing at the breakfast table. There are 90 railroad newspapers, from *Gudok* (*The Whistle*), the big nationally-circulated daily, to those put out by local lines.

Selskoye Khozyaistvo (*Agriculture*) is the farmer's paper, but it has many readers in the towns. So does the teachers' gazette, *Uchitel'skaya Gazeta*, among parents and *Meditinsky Rabotnik* (*Medical Worker*), among non-medical people.

There are papers published for army readers, for university students and for many other groups with common interests. Many of the local papers for young people are patterned on the bright, topical *Komsomolskaya Pravda*. Sports newspapers like *Sovietsky Sport* are immensely popular with old and young readers.

Both the nationally-circulated dailies like *Pravda*, *Izvestia* and *Trud* and those published regionally by local governmental divisions or public organizations give major space to national and international affairs. The problems they deal with are likely in many cases to be the same but the slant will be quite different, depending upon the special interests of the locality as reflected in the letters sent in by readers and the individual emphasis of the editors and staff writers.

Newspapers are on the stands early, five or six in the morning. The evening papers, mostly regional, carry more local news, less of the very thorough-going analyses than the morning papers and more lighter material generally—stories, poems, humor, cartoons and feature articles.

The bigger papers have their own publishing setups. The smaller ones have joint facilities for editing, printing and distribution.

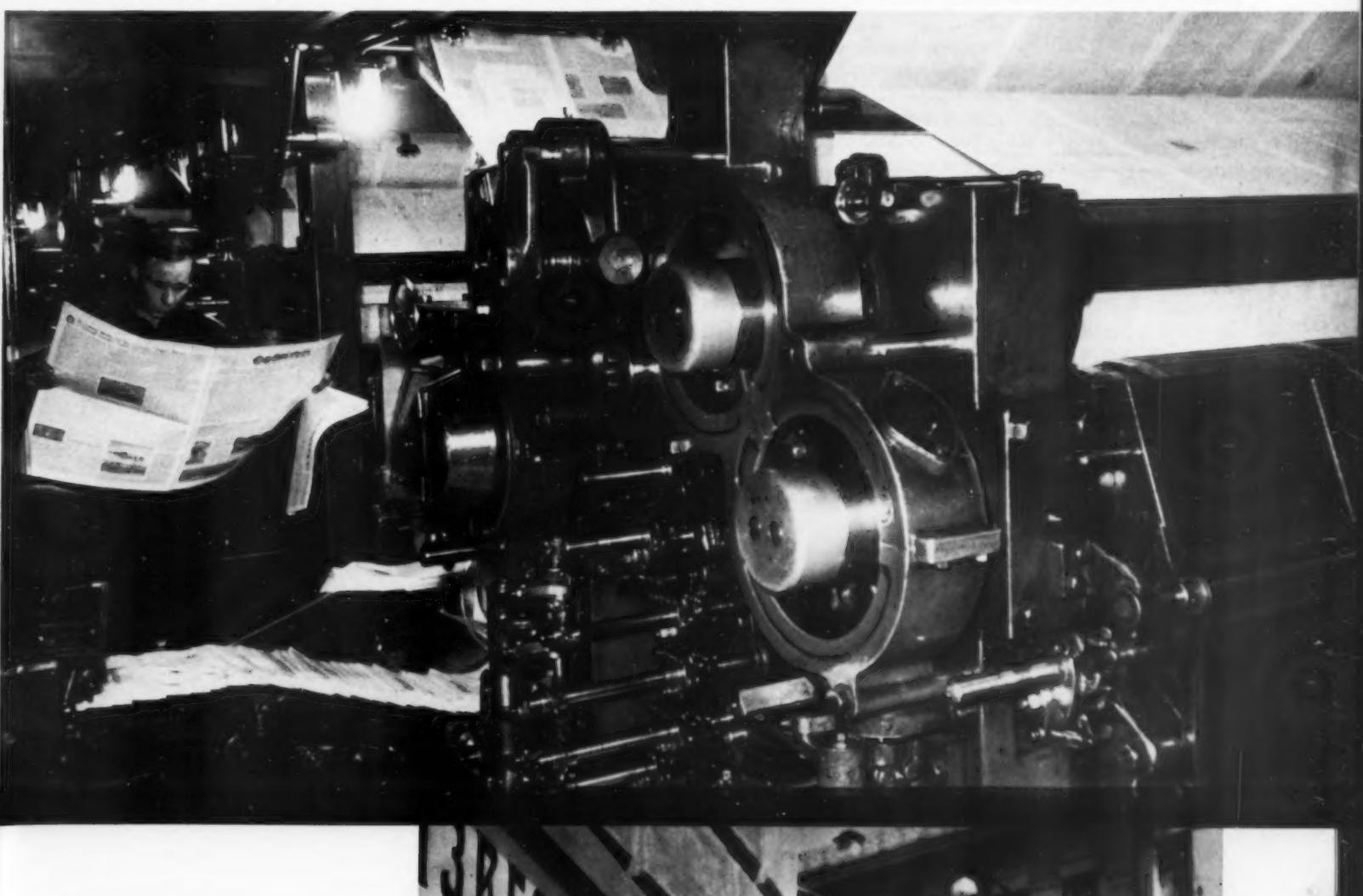
Forums for Public Opinion

Newspapers are not commercial enterprises in the Soviet Union. It is not their function to publicize the point of view of the individual publisher or to serve as a medium for profit-



Izvestia editorial offices in Moscow. The paper, which is published daily and has a large national circulation, is the official government organ.

5,650,000 COPIES OF PRAVDA COME OFF THE PRESSES DAILY. ITS CORRESPONDENTS ARE STATIONED THROUGHOUT THE SOVIET UNION AND IN MOST FOREIGN COUNTRIES.



The ink is hardly dry when the newspapers are loaded on planes to reach subscribers the same day.



Soviet citizens are avid newspaper readers, and sorting mail at the post office is no small job.



Soviet Newspapers

able advertising. Nor is their primary obligation to entertain. The job of the newspaper is purely and simply to inform and educate and to serve as forum for the freest expression of public opinion.

Just as there are no privately-owned industrial plants in the Soviet Union, there are no individually-owned publishing houses, whether for newspapers, magazines or books. A Soviet newspaper, regardless of its size, does not reflect the viewpoint of any single person. It is the community viewpoint and the community interest which is always represented. Its publisher will be one of several public organizations—a republic's or a city's Soviet, a local division of the Communist Party, a trade union, a particular factory, a student organization, or an administrative body.

This is in keeping with the socialist concept of public ownership and cooperative living. The constitutional guarantee of freedom of the press is not merely a paper proviso, but one which provides the people of the socialist society with the printing presses, the stocks of paper and the distribution facilities through which this freedom may be exercised.

The publishing house does the purely technical work of getting the paper out. All editorial work is in the hands of the editorial board headed by the editor-in-chief. The board is made up of writers, specialists in various fields and esteemed community people.

The editorial board is chosen by and is responsible to the organization that publishes the paper, but the final authority is always the reader. Editorial boards are very sensitive to public sentiment and Soviet newspaper readers

are great letter-writers. Readers' conferences are held frequently and are by no means cut-and-dried affairs. Comment at these conferences is inclined to be very direct and, on occasions, vitriolic.

The editorial board plans the paper collectively. The latitude on controversial questions is unlimited in the planning and discussion stage but the article when it appears will most usually represent the composite judgment of the board as a whole.

Guardians of the Public Welfare

The popular soil which nourishes the Soviet press makes for journalism which is forward-looking and creative. It mirrors the optimism of a country which has continued growing in these past four decades and a people certain of its direction of movement.

The Soviet press reports the news, it does not have to sell it. It does not go in for sensationalism to attract readers. Nor does it give space to gossip, scandal or the more intimate details of people's lives. The personal lives of Soviet citizens are private, except as they affect the public welfare.

A Soviet newspaper is for serious informative reading—the important national and international news of the day; current developments in industry, farming, science and the arts; contributions made by individuals in one or another field of endeavor.

In addition to current news, the paper will carry articles on aspects of economics, art, politics, science and education that are of more than immediate interest. Some of these, written

by eminent scholars in the field, are of long-lasting significance and are clipped by many readers for future reference.

The Soviet daily is not a bulky newspaper. It averages four closely-printed pages and carries little or no advertising.

Criticism is a very basic function of the Soviet press, as it is of such other guardians of socialist standards and ethics as the party, the unions and all other public organizations. No one is exempt from objective criticism in the Soviet Union, whether in high position or low, whether a government minister, high party official, a novelist or a plain ordinary worker.

The press has the very responsible duty not only of informing and molding opinion but of promoting further progress of Soviet society. Its first and abiding criterion is the social welfare and it spares no effort in bringing to light unserviceable practices and in pushing for correction of errors that impede progress. Its tone is often sharp, its criticism does not mince words. If changes are necessary, it pounds away until they are made.

Letters to the Editor

At least half of the items that are printed in Soviet newspapers each day are written not by professional newspapermen but by contributing readers of all trades and callings—industrial and farm workers, specialists in a variety of fields, artists, educators and so on. This is traditional in Soviet journalism and has a history which stems back to the earliest days of the illegal *Pravda*. The editorial backbone of any Soviet paper has been material from worker-correspondents.

Every morning mail bags crammed full with letters from readers are delivered to the editorial offices of the larger newspapers. This is the basic material out of which subsequent issues are worked.

It is from these readers' letters—the concentrated thoughts, feelings, critical remarks and suggestions of the community—that the paper makes up a considerable part of its issue. They supply the subjects for many articles, editorials and, of course, for the ever-present "Letters to the Editor" column.

These letters from readers are not literary masterpieces, but that is a minor consideration. By virtue of their individual slant, their spontaneity and their fresh outlook on a problem, they very often strike a note that elicits a public reaction very much wider than the better phrased staff-written articles.

The letters are most diverse. Some will merely comment favorably or unfavorably on some current matter, whether local or national. Others will be vociferous complaints about errors or negligence on the part of a plant management or administrative agency. Many will suggest improvements.

Newspapers, magazines and books are delivered right to the door along with the morning mail.



Papers are read by many more people than newsstand sales and subscription lists reveal. They are posted on street bulletin boards and are available free in libraries and many other public places.

Those that have more than purely individual importance will be printed in the paper's column, allowing for space limitations. But all letters that cite abuses, that make reasonable complaints and that offer sensible suggestions result immediately in proper investigation and swift action. This is standard procedure, very conscientiously adhered to. It becomes the responsibility of the newspaper to follow up and see that the appropriate agency moves on the matter with energy and dispatch.

These letters to editors have more than once initiated national movements of large scope. A comment by Yevgenia Andreyeva, chairman of a collective farm in Tambov Region, that appeared in *Selskoye Khozyaistvo* was instrumental in sparking off the campaign by Soviet farmers to overtake the United States in per capita production of milk, butter and meat within the next few years.

To show the mass of these press contributions by readers: During the nationwide discussion of the seven-year plan which went on for some months before the Twenty-First Party Congress met in January, newspapers, magazines, radio and TV received over 650,000 communications from readers, listeners and viewers. About 300,000 of the letters and comments with the suggestions and amendments they offered were published by the press.

Professional Standards

Standards of Soviet journalism are high and the ethics of the profession demanding. Soviet newspapermen are respected by the public, and the profession is well represented

among the deputies elected to city, republic and national legislatures.

Most Soviet newsmen are graduates of schools of journalism. There are many, however, who turned to newspaper work from other trades and professions.

The Union of Journalists is the national professional organization. There are, besides, press clubs in many cities where newspaper people meet to relax and to talk over professional matters. These press clubs often play host to outstanding Soviet personalities and to visitors from abroad.

More Papers Each Year

In the past few years there has been a large increase in the number of factory, student and farm papers published. The local farm papers are a relatively recent development. There are about 200 of them now being published by the bigger collective farms.

More regional newspapers are constantly being published. Sverdlovsk, Novosibirsk, Gorky, Riga and other cities are now issuing evening papers besides morning dailies.

Some picture of the growth of newspaper publishing in the Soviet Union may be gathered from this fact: While before the 1917 Revolution only one newspaper was published in what is now Chelyabinsk Region in the Urals, today there are about 100.

With its millions of contributing writers, both professional and lay, the Soviet press plays an important part in the country's life, serving as an effective tribune of public opinion.



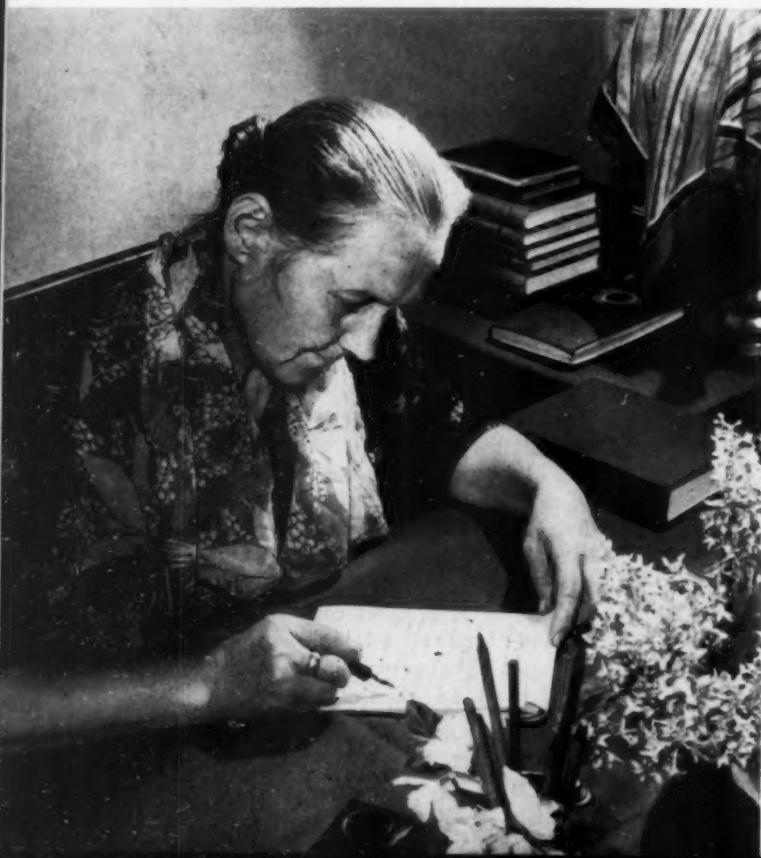


Reporters of *Moskovskaya Pravda*, one of the country's 9,936 papers, have just gotten the day's assignments.



A CITY DAILY PAPER

Thousands of letters a month are received from readers. They furnish the theme for many of the paper's articles and editorials.



Each day the current issue of the paper is planned collectively at a staff conference, and when the issue appears it represents the thinking of all the editors.



An auto worker watches while his article is being prepared for publication. Besides staffs of professional journalists, all Soviet newspapers print items from contributing readers.

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nts.



The reporter has just come in with a big scoop and he dictates it directly to the linotypist. His story will be included in the next edition.



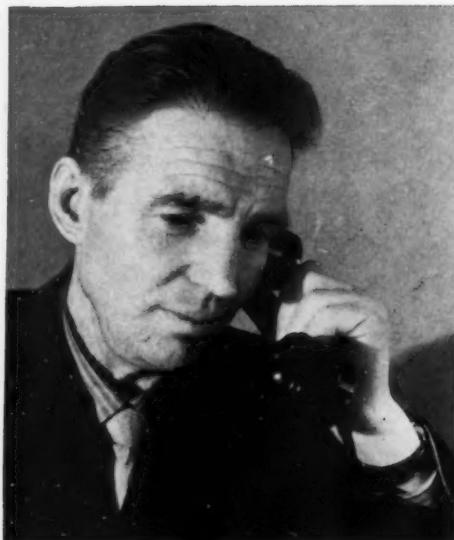
The stenographers spend part of the day on the phone, taking on-the-spot news from worker-correspondents who report events of interest at their jobs.



One of the paper's senior editors, who used to be a machinist. Many newsmen have come to journalism from various other professions.

After the PARTY CONGRESS

A staff writer of USSR Illustrated Monthly interviewed several of the delegates who had returned home after attending the Twenty-First Communist Party Congress. The following are their comments on the plan for the country's development during the next seven years adopted by the Congress.



DMITRI
NOSKOV

Steelworker from the Urals

I AM a steel worker and at the Congress I met people in my industry from the Ukraine, West Siberia and other metallurgy centers. Since so much of the seven-year plan is based upon development of heavy industry, iron and steel production came in for much discussion at the Congress.

Delegates from Nizhni Tagil in the Urals reported that they were now getting a record output of steel per square meter of hearth—more than 11 tons. I told the Congress that at our Chusovoi plant in Perm Region, we had brought the volumetric efficiency of our blast-furnaces up to 0.63. The figure took on meaning when I explained that a general increase of only 0.01 per cent above the planned figure in the volumetric efficiency of the industry's blast furnaces would add a million tons to the country's output of pig iron.

We weren't the only people from steel who cited higher efficiency figures. Some of the delegates said their plants hadn't waited for the seven-year plan to be approved to begin expansion and modernization and the results could be seen already.

Our plant goes back to the last century and we are getting ready for a big renovation job. We plan to do it without interrupting production. Our antiquated blast furnaces are going to be rebuilt. We expect to get double the output as a result. Our steel-melting, rolling and ferro-alloy shops are all going to be brought up-to-date. We're now putting the finishing touches on a new blooming mill. Doubling the pig-iron output at Chusovoi is part of our contribution to the big increase in metal production slated by the seven-year plan.

What will the figures of the plan mean to the man on the street? For one thing, an increase in income by at least 40 per cent over 1958. For another, a shorter work week. For a third, better housing.

Quite a large sum is allocated by the state for improving our city. Before the Revolution Chusovoi was a gloomy place indeed. Housing was inadequate, living conditions crowded and behind the times. Now our city has new houses, schools, clubs and hospitals, and many more are under construction. The stores, sports facilities and theaters in Chusovoi compare favorably with those in any well-populated locality. These things, and much more, are written into the target figures of the plan we discussed at the Congress.



EMMA
KORNEVA

Doctor from Turkmenia

THERE were three other doctors who were delegates to the Party Congress, and although it was something of a problem for us to find each other among more than 1,300 delegates, we managed, like birds of a feather, to get together. There was Professor Vishnevsky from Moscow, Dr. Anna Shindarenko from Pyatigorsk, Dr. Maria Novikova from Rzhev and myself from Ashkhabad, capital of Turkmenia.

We exchanged impressions and the conclusion we all came to was that the most striking thing about the Party Congress and the seven-year plan which came out of it was its concern with the people's well-being.

I work in the Republic of Turkmenia where before the Revolution people suffered from many terrible diseases, trachoma, typhus and malaria among them. There were then only sixteen doctors and 300 beds for patients in the whole of Turkmenia. Public health had to start from scratch, there was so little to build on.

In the years since, malaria, mosquito fever and parasitic typhus have been entirely wiped out, and the fight against trachoma is making great headway. This disease, which used to take years to treat, is now cured in four months thanks to new medication and methods. The average life span in our republic is now 67 years.

My specialty is pediatrics, so that a few words are in order about medical facilities for our younger Turkmenian citizens. Just before the Twenty-First Party Congress a new children's hospital with clinic was opened in Ashkhabad. My own clinic in the same city recently moved into a newly-equipped building. This has been going on everywhere in our Republic.

The summers in Turkmenia are very hot and we move the children out of the many city nurseries and kindergartens to country cottages in more temperate parts of the republic.

Perhaps the simplest way to estimate the character of the public health work done these past forty years is to say that the Soviet Union now has the lowest mortality rate in the world, while its population growth is higher than in most countries.

The seven-year plan proposes a large appropriation increase for public health services. Between 1959 and 1965, the sum of 360 billion rubles will be spent to keep Soviet citizens fit.

NIKOLAI



BUKHANKO

Collective Farmer from Siberia

OUR Altai is a fertile Siberian region, but you wouldn't have thought so before the Revolution when my father tried to scratch a bare living out of the soil. At that time it was a "God-forsaken outpost of Russia," the old-timers used to call it.

While I was listening to delegates from my part of the country at the Party Congress, I kept thinking of the changes that have taken place in my own lifetime. I doubt whether my father, if he were alive to see it, would have believed his own eyes.

The collective farm of which I have been chairman these past two years is located on a great steppe 185 miles south of Barnaul, the principal city of the Altai. The farm covers 34,000 acres. Only recently we began to cultivate 5,000 acres of land which had never been touched by a plow. We have a 75-acre fruit orchard.

We grow a number of different crops—wheat, corn, sugar beets and others. Our grain crops have been giving bigger yields each year, particularly spring wheat. Scientific growing methods plus the use of high-quality seed and large amounts of fertilizer are responsible for our big crops. The farm is well-equipped with machinery and many of the chores have been mechanized. Last year we bought 24 tractors, 24 harvester combines, 42 drills, a number of cultivators and other kinds of farm machinery.

Our herds have grown substantially, especially in the past five years, and we have been getting larger yields from our milch cows, pigs and fine-fleeced sheep. We are also raising poultry and have our own fish pond.

The income of the collective farm has been growing steadily—5.3 million rubles in 1955, 7.5 in 1956, 10.6 in 1957 and 13.5 million in 1958. This reflects itself in the individual income of the collective farmers. Milkmaid Ulyana Balyuk earned more than 18,000 rubles last year, cattleman Pyotr Grishkovets made 11,000 and young tractor driver Mikhail Kulshin close to 18,000.

We've been doing a considerable amount of building, both for farm use and for dwellings. More than 200 of the cottages in our four villages are brand-new. We have a first-class hospital, a secondary school for 240 students, libraries and clubs. We publish our own newspaper.

We built everything we have with cooperative hands. Each one of our 440 families worked to make the collective farm the prosperous enterprise it is today.

Our progress is typical of collective farms everywhere in the country. Other farm delegates at the Congress gave the same picture when they spoke. Sergei Boyko and Yelizaveta Dolinyuk, both collective farm chairmen from the Ukraine; Praskovia Kovaleva from Byelorussia; Yevgenia Andreyeva from Tambov Region all had no doubt that their farms would reach the target goals much ahead of schedule.

Our farm has large plans for the next seven years. By 1965 we expect to double the number of cows, sheep and pigs and their meat output. We expect to raise the wool clip per sheep to 17.5 pounds and the annual milk yield per cow to 770 gallons. We intend to build a new village with 700 dwellings and public buildings. All this is past the planning stage, it has already gotten off to a very good start.

BORIS



PETUKHOV

Legislator from the Kuban Region

AS CHAIRMAN of the Executive Committee of the Krasnodar Territorial Soviet I make it a point to keep in close touch with all the farms in the area, which we call the Kuban. The proceedings of the Congress and the seven-year plan it approved were being discussed everywhere, at crowded village meetings, on wheat and livestock farms, everywhere you went.

It was not just general talk. Most of the discussion was with pencil in hand, figuring farm costs, new barns and equipment, available hands and the rest. Each of the collective farms was working out a seven-year plan for itself that would tie in with the national plan.

There was a good deal of talk going on, too, about Ryazan. That is a rich farm region near Moscow and the people there had figured out possibilities and decided that they could chop four years off the seven, that they could meet the target figures set for meat and milk production in less than half the time scheduled.

Said many of the Kuban farmers, if Ryazan can do it, why not we? The Kuban is good growing country not far from the Black Sea, with a mild climate and rich soil for bumper yields of wheat, corn, sunflower seeds and sugar beets. The Kuban, although it produces cement, roofing slate, machines, textiles, shoes and other kinds of manufactured goods, is one of the country's very important farm regions.

It was two years ago that Soviet farmers advanced the proposal, backed by the Communist Party, to catch up with and surpass American per capita production of meat and milk. This has grown into a nationwide movement with results already evident. Last year Soviet farmers got a milk yield more than the United States. There has been a substantial increase in meat production, too, but here we are still a considerable way behind.

Our farmers in the Kuban chose Iowa production figures as their goal—this for two reasons. First, Iowa farmers are big producers and second, Charles Hearst, Ralph Olsen, Marion Staddom and other Iowans visited us a couple of years ago and we took them on a tour of our collective and state farms. We remember them with fondness and we hope they do us. We'd like to be able to take them around now and show them what's happened since. The Kuban farms have pushed ahead fast in the past few years.

With the seven-year plan, Kuban stockbreeders expect to surpass Iowa's meat output by 1961. As for milk, they expect to be producing twice as much as Iowa by that time and be going on from there. The Kuban is also stepping up production of vegetables, fruit, grapes and sugar.

When Dmitri Matyushkin, one of the delegates from the Kuban, spoke at the Party Congress, he carried not only greetings from the farmers of the region but their assurance that the target figures would be reached much before the time scheduled. And he wasn't the only one to make that pledge. It came from the farm delegate from Ryazan and from others all over the country.

Back home after the Congress I wasn't a bit surprised to find that news of our decisions had preceded me and the farmers already at work to make them a reality.



IN THE FILM VERSION OF THE SILENT DON PRODUCER SERGEI GERASIMOV HAS BROUGHT TO LIFE MIKHAIL SHOLOKHOV'S POWERFUL NOVEL ABOUT DON COSSACK LIFE.

DEFTLY INTERWOVEN IS THE TRAGIC STORY OF GRIGORI'S LOVE FOR AKSINIA.



SOVIET FILMS

AMERICAN movie-goers will soon be viewing seven of the current Soviet films. More or less simultaneously, Soviet motion picture theaters will be showing ten recent American films.

This is the first fruit of an agreement signed last fall in Moscow between film representatives of the two countries. The agreement provides for the purchase, sale and exchange of feature pictures and documentaries, for film festival weeks, for exchange visits by film people, and, most interesting, for joint productions by American and Soviet movie-makers.

The seven Soviet films to be shown in the United States are: *The Silent Don*, *Othello*, *Don Quixote*, *The Idiot*, *Swan Lake*, *Circus Artists* and *The Cranes are Flying*.

The Silent Don

The Silent Don transfers to the color screen all the epic quality of Sholokhov's famous novel of Don Cossack life. The novel has frequently been compared with Tolstoy's *War and Peace* for its sweeping panorama of history and its profound insight into the character of a people.

Sholokhov paid tribute to the film group headed by producer-director Sergei Gerasimov for having done in two and a half years in film what



TO PREVENT THE OTTOMANS FROM ATTACKING CYPRUS, OTHELLO HAD TO LEAVE DESDEMONA AT THE VERY MOMENT HER ENRAGED FATHER HAD DISCOVERED THEIR MARRIAGE.

ISFOR AMERICAN MOVIE-GOERS

OTHELLO HAS STRANGLED HIS BELOVED DESDEMONA, AND HIS GRIEF AND DESOLATION ARE MIRRORED IN PRODUCER SERGEI YUTKEVICH'S ARTISTIC SETTING.



SOVIET FILMS for AMERICAN MOVIE-GOERS



GRIGORI KOZINTSEV PRESENTS DON QUIXOTE, CERVANTES' NOVEL OF 16TH CENTURY SPANISH LIFE, IN A NEW LIGHT.

it had taken him fifteen years to do in his novel. The 1800-page trilogy spanning the periods of the First World War, the Socialist Revolution of 1917 and the Civil War of the twenties had, says Gerasimov, to be squeezed into an 180-page scenario. But the film does not diminish the novel. They both rank high in their respective fields.

The Cossacks were a caste with special privileges under the czars. The Revolution threatened to end their privileged status, as it did that of all favored groups and classes. The wealthier Cossacks fought the Revolution, the poorer joined the people's struggle for a new life.

Grigori Melekhov, the protagonist in the film, is a true son of his people. He is torn by the conflicting demands of conscience and his traditional prejudices. The picture follows his tortured and wavering course between revolution and counter-revolution in a search for the truth. Interwoven is the moving and tragic story of his love for Aksinia who has been forced into a loveless marriage.

Grigori is played by Pyotr Glebov, an actor at the Moscow Stanislavsky Theater. This was his first film role. Young Elina Bistritskaya,

who plays the part of Aksinia, was selected for the part in a competitive audition with twenty leading actresses.

Many of the Don Cossack villagers, including some of the older people who lived through the events portrayed, appear in the film.

Othello

The screen version of *Othello* that American viewers will see was directed by Sergei Yutkevich, who was awarded a prize at the 1956 Cannes Festival for his work in the film. His is a contemporary interpretation that brings to the tragedy Shakespeare wrote more than four centuries ago the insight of historical scholarship and the penetration of modern psychology.

It is not alone the personal tragedy of the Moor that is portrayed—the man of great soul struggling against falsehood and treachery—but the mood and temper of his own time which Shakespeare wrote into the play.

Sergei Bondarchuk in the title role does full and artistic justice to the brilliant interpretation of the director.

Don Quixote

The screen version of *Don Quixote*, directed by Grigori Kozintsev, also presents a new interpretation of an old book. Kozintsev was not interested in the novel as a Spanish classic satirizing a by-gone world of chivalry. It is not Cervantes writing tongue in cheek, saying that the world is not to be altered, that we are shown. Nor *Don Quixote* as a madman possessed with an amusing folly. This is a passionate indictment of the evil forces in society. It is Cervantes taking up cudgels for the humanists, saying that the people themselves, through reason and will and courage, will alter their world.

Don Quixote and Sancho Panza are played by Nikolai Cherkasov and Yuri Tolubeyev. Both their interpretations are remarkable for originality and conviction.

The Idiot

The Idiot, a penetrating psychological study of people humiliated and crushed by the power of money, is taken from Dostoyevsky's novel of that name. Prince Myshkin is the leading figure. He is the naive, innocent, moral man in a world of greed, envy and falsehood, where the guiding virtue is ambition and the measure of value is wealth.

Yuri Yakovlev plays the difficult part of Myshkin with great understanding and simplicity. Nastasia Filippovna, who tried to find her way through the deceit and ugliness of the world around her, is played by Yulia Borisova with striking sincerity. The excellent supporting cast helps to give this portrait of a decadent society an unforgettable graphic reality. The film is a tribute to the genius of the great novelist.

THE FILM SHOWS THE HERO AS A FIGHTER AGAINST ALL THAT DEGRADES MAN.





YULIA BORISOVA IN THE ROLE OF NASTASIA FILIPPOVNA IN THE IDIOT.



PYRYEV'S SKILLFUL DIRECTION REVEALS DOSTOEVSKY'S FAITH IN HUMANITY.

Swan Lake

Swan Lake is, of course, Tchaikovsky's exquisite ballet, as performed by the unparalleled Bolshoi troupe. The film shows the major portion of the ballet and gives something of the history of Russian choreography and the famous ballerinas who danced the role of Odette-Odilia. Asaf Messerer, one of the most distinguished of Soviet choreographers, helped work out the script. The film was produced by Zoya Tulubyeva.

Circus Actors

Circus Actors is a wide-screen production made by the Moscow Documentary Films Studios. American film-goers will see leading performers of the Soviet circus in action—acrobats, magicians, Alexander Filatov's famous "bear circus," and the inimitable clowning of Oleg Popov. For children especially, but for grown-ups too, this is something altogether special in movies.

THE EYES OF PRINCE MYSKIN—SAD, SEARCHING FOR TRUTH AND A WAY TO DESTROY EVIL—ARE A SYMBOL OF MAN'S CONSCIENCE AND DOMINATE THE ENTIRE FILM.





SOVIET FILMS

for AMERICAN MOVIE-GOERS

THE FILM SWAN LAKE INCLUDES A HISTORY OF RUSSIAN CHOREOGRAPHY.



CIRCUS ACTORS PRESENTS TOP PERFORMERS IN THEIR BEST-LOVED ROLES.

THE BOXING BOUT IS ONE OF THE MOST POPULAR PARTS OF ALEXANDER FILATOV'S "BEAR CIRCUS."



The Cranes are Flying

The Cranes are Flying was far and away the most talked-of motion picture of the year. It won the top award of the Golden Palm Leaf at the 1958 Cannes International Film Festival. It is a war film, but one without battle scenes, a moving and beautifully told story of the Second World War as it touched the people behind the lines.

There is only one short scene at the front. Boris Borozdin, a soldier, the major character, is killed by a chance bullet. Otherwise the picture moves far from the battle lines to capture, with extraordinary depth of characterization, the fluctuating hope and despair of people back home.

As the picture opens Veronica watches a flight of cranes across the city roofs. She is happy, in love, her thoughts soaring with the birds into the blue sky. But the war comes and her marriage must wait. Boris leaves to join the volunteers gathered in a school courtyard. She searches for him vainly through the crowd to say good-by; he searches for her. They miss each other.

Boris is killed and Veronica marries his cousin, Mark, out of weakness, perhaps, out of a need for consolation, perhaps—the viewer is left to draw his own conclusions. Does she epitomize the people who are broken by war's horror or those who are just not strong enough to stand up and give battle? She feels that she has betrayed both herself and the man she loves, and she leaves her husband.

There has been no official confirmation of Boris' death, and Veronica holds desperately to the hope that he may yet return. As the picture ends the first troop trains are returning from the war. And once again Veronica hunts for her beloved vainly through the milling crowd. The camera searches for Boris and records the happiness of those whose loved ones have returned and the terrible sorrow of those, like Veronica, whose men will never come home again.

The story line is simple, but the direction and the acting give the personal tragedy a universal significance. The film was directed by

CIRCUS CLOWN OLEG POPOV IS AN EXCELLENT JUGGLER.





THE CRANES ARE FLYING IS A FILM ABOUT THE SECOND WORLD WAR, BUT THE BATTLEFIELD DEALT WITH IS THE HOME FRONT AND THE EFFECTS OF WAR ON CIVILIANS.

Mikhail Kalatozov, the script writer was Victor Rozov, and it stars Tatyana Samoilova, a new young actress who gives a brilliant performance as Veronica. Alexei Batalov plays the role of Boris.

The film is shot from bold unexpected angles and a variety of levels to achieve an extraordinary emotional unity with the acting. Sergei Urusevsky's camera work won him the Cannes technical award.

Joint Film Productions

It is the hope of Soviet motion picture studios that this film exchange will be the first of many to come and that it will serve to inaugurate other common efforts, particularly the joint production of feature and documentary films by American and Soviet writers, directors, actors and scenic artists.

Soviet motion picture industry has made many such joint films with studios in many other countries—India is a recent example. Besides the mutual contribution they make to film techniques, they serve most significantly to foster understanding between peoples of different countries. There is perhaps no other mass medium today that can contribute so much toward that end.

TATYANA SAMOILOVA WON WORLD ACCLAIM FOR HER PORTRAYAL OF VERONICA.



Education for So

THE NEW SCHOOL LAW

A PROLONGED DISCUSSION on the problems facing the educational system took place throughout the country during recent months. Discussed were the proposals advanced by the Central Committee of the Communist Party and the USSR Council of Ministers on strengthening the ties of school with life and the further progress of public education in modern conditions of the development of Soviet society.

Millions of Soviet people made their suggestions on these questions: 800,000 in the Russian Federation, 500,000 in the Ukraine, 100,000

in Kazakhstan—to cite figures from only three of the fifteen Union Republics. After summarizing the results of this truly nationwide discussion and considering the remarks and suggestions made by the people, on December 24, 1958, the USSR Supreme Soviet adopted a law on further developing the school system in the country.

The major intent of the new law is to combine education with socially productive labor, to help hasten the process of eliminating the separation between mental and manual labor which was so characteristic of the old society.

SCHOOLING FOR A VOCATION

By Maxim Ushkalo

Photos by Alexander Mokletsov



MAXIM USHKALO, PRINCIPAL OF A KIEV SCHOOL.

SECONDARY SCHOOL No. 70 in Kiev, of which I am principal, was one of the first of the pilot schools to experiment with the vocational training program now being introduced into the curriculum of every school in the country.

Our school and five others in the Ukraine began this experimental program in 1954. The following year it was tried out in 640 schools and the next year in more than 3,000. At the beginning of the current academic year 5,660 schools in the Ukraine were giving 600,000 students the elements of more than 100 trades and professions.

This vocational emphasis had been discussed and debated by parents and teachers, by local boards of education, by the Ministry of Education and in the pages of *Sovetskaya Shkola* (*Soviet School*), our leading Ukrainian journal of pedagogy, for a long time before the experimental program was attempted.

There was general agreement among parents and educators that schooling should be tied in much more closely with practical and socially useful labor, that we needed to break down the distinction between physical and mental work which is foreign to socialist thinking and living. Only then, it was argued, could we give children a real sense that they were learning to become socially productive people, citizens of a cooperatively working society.

Teachers and educational administrators

had noticed time and again that when our secondary school graduates got into college, they felt as though they had found their particular working niche. But the college entrance examinations are competitive, and it is quite natural that many of our graduates could not make their way through. Then they had a difficult time adjusting to a job.



MANUAL TRAINING BEGINS IN THE LOWER GRADES.

Socially Productive Labor

With the new seven-year plan designed to make the Soviet Union the world's number one producer, education assumes an even more significant and central role. It was Lenin, the founder of the Soviet state, who pointed out that education and labor must be inseparably related if we are to produce the communist man, one with a truly scientific cognition of the world, with his talents most fully developed to serve himself and society.

The character of labor in the Soviet Union is being fundamentally altered by modern technology and the increasing development of the country's productive forces.

Progress in mechanization, automation, the application of chemical methods in production, the use of electronics and computing mechanisms, these and other technological developments have been bridging manual and mental labor. The job of the factory and the farm worker comes increasingly closer in character and substance to that of the engineer and the agronomist.

The worker in socialist production must know how to handle modern machine tools and highly precise measuring and control instruments.

He must be able to read complicated blueprints and make involved technical calculations. As the Soviet economy expands, more and more knowledge is required of all its workers, and knowledge of an increasingly versatile kind.

The Secondary School

The new educational law lays out the pattern for schooling implied by this concept. From the very first grade children are to be prepared psychologically to make their future contribution as socially productive workers. They will be taught to do work commensurate with their age level. They will have work lessons at school workshops and on school experimental plots. As they grow older, these lessons will be increasingly supplemented with practical work in factory shops or collective farms.

The present universal compulsory seven-year school is to be extended another year, as the first rung in the system of education. Its guiding principle is to prepare the boy or girl for future productive

We drew the obvious implication—that a rounded secondary education today requires more than a general background, it requires a knowledge of the elements of science and the basic skills to qualify for some vocational area. This was our general thinking when we introduced the experimental program in School No. 70 four years ago.

An Enriched Course of Study

Ours is a ten-year school, roughly equivalent to the American combined elementary and high school. We have a fixed program of general studies in the humanities and the sciences that we did not wish to alter. Nor did we want to cut the number of school hours

for any of our basic courses—literature, history, physics, chemistry, biology, geography, mathematics, foreign languages and physical culture.

Where then did we find the time for vocational training? Largely through a better arrangement of the existing curriculum, although in the 8th, 9th and 10th grades we did have to add two extra hours to the weekly schedule.

Without lowering the level of teaching or skimping on general studies we found, in practice, that we were able to give our students the fundamentals of one or another trade. Upon graduating, the student was awarded his secondary school diploma and a certificate which attested to his category of skill in a trade. If he wanted he went on to college, otherwise he was qualified for a job.

Manual Training for All Grades

We carried the vocational emphasis through from the earliest grades, consistent, of course, with the changing age levels.

In grades one through four Soviet school children learn reading and elementary arithmetic and in a very general way are introduced to natural science. In the fourth grade they begin their study of history, geography and natural science. A total of 23 to 25 hours a week is allotted to all these subjects.

An hour a week in these elementary grades is now given over to manual training. The children learn how to handle scissors, needle, hammer and screwdriver. They cut figures out of paper and cardboard, model with clay and work with tin and wire. In process, our pupils begin to apply the concepts they learn in their arithmetic and natural science classes.

In grades five through seven they study algebra and geometry, physics and chemistry,

botany and zoology, and ancient and medieval history. The number of class hours is 32-33 a week.

Manual training gets two hours a week in these grades. The children are taught to work with wood and metal. The girls are given domestic science. Our school carpentry and metal shops are equipped with such machine tools as turret lathes and milling machines and with the usual hand tools. This school shopwork is a preparation for the concluding stage of industrial training—work in factory shops done in the 8th, 9th and 10th grades.

Actual Experience on the Job

In these three senior grades students are given advanced work in physics, chemistry, literature, history, foreign languages and drawing. Vocational instruction is, of course, also more advanced.

Pupils in our school do their practical work at the nearby motorcycle factory. When we originally planned the course we conferred with the factory manager and experienced foremen and worked out training programs to teach our students the trades of fitter, lathe operator and milling-machine operator.

We allotted 858 hours for vocational training. This is about 25 per cent of the total number of instructional hours given in these grades. Courses in the theory of machines and materials related to the trade are given in class, school workshop and the factory shops for 166 hours. An added theory course—elements of electrical engineering—is given in the 10th grade for 60 hours.

The remaining time is devoted to actual practice. Students spend a day a week at the plant working at the jobs of lathe operator, milling-machine operator, or assembler. The quantity and kind of work is defined by the



PUTTING HIS SCHOOL KNOWLEDGE TO THE TEST.

EDUCATION FOR SOCIALLY PRODUCTIVE LABOR

work. It will combine a general and polytechnical education, give the science fundamentals, the basic humanities and inculcate a respect and readiness for work.

The second rung in the educational ladder for the graduate of the eight-year school will be one of these three, depending upon the desire and inclination of the student. He may take a job and continue his study after work at an evening or correspondence secondary general-educational school; he may continue his study to complete the full program of secondary schooling at what is called a general-educational labor polytechnical school; or he may enter a specialized secondary educational establishment called a *tehnikum*.

The evening and correspondence schools for those who go to work will give the background in general education required for admission to specialized secondary schools and institutions of higher learning. The necessary vocational training will be supplied directly at the place of employment.

Since most young people who graduate from eight-year schools will

be taking these evening or correspondence courses, the law stresses the care that must be taken in assuring that the schools function at the very highest possible level. The course of study will be three years. The time arrangements will vary depending upon the working hours of students. There will be a maximum of 18 hours of class study per week with sufficient time provided for home study and consultation. Young people who combine work with study will have a reduced workday or week.

The second type of school is for those who do not go to work immediately after compulsory eight-year education. The aim of this school is to supply vocational training in one of the trades or professions in addition to a secondary general education. The course will be three years with a third of the time devoted to the theory and practice of the trade and to productive work, and the remainder to studies of a general educational character. The graduate will be entitled to a diploma attesting to a secondary education and a certificate of proficiency in the trade chosen. He will be eligible to enter any institution of higher education—day, evening or correspondence.

The third type of school, the *tehnikum*, will provide the theoretical and practical background required for a job as junior specialist in the chosen field—technologist or foreman, for example.

For all of these schools the law cautions against any reduction in time or emphasis presently given to the humanities and calls for improved teacher training methods and retraining teachers if necessary.

BOTH BOYS AND GIRLS LEARN TO WORK WITH WOOD.



SCHOOLING FOR A VOCATION

school program. The shop foreman does the teaching and is paid for it by the school.

Here, for example, is Valentin Lobanov, an 8th-grade pupil beginning his practical work at the factory. First he is taught the safety rules. Then he is familiarized with the make-up of a screw-cutting lathe. With the foreman explaining things to him, he watches experienced workers machine various items. He is then acquainted with drilling and milling machines. He learns to handle cutting tools and measuring instruments and to read blueprints. Only after this considerable preliminary instruction does Valentin receive the foreman-teacher's go-ahead signal to operate the machines independently.

Reaction of Parents and Students

The industrial training program I have described worked well the very first year we tried it. I remember one meeting we held in 1954 with the parents of our senior grade students—many of them workers at the motorcycle factory—to acquaint them with the experimental program. We discussed it in some detail. Most parents thought it very much worth trying, others were hesitant. We agreed then to have only one of the 8th grade classes do practical work at the factory to begin with.

A month or so later one of the parents, Isaac Borets, came to see me with an interesting kind of complaint. Borets Senior turned out to be a worker at the motorcycle factory. He had seen some of our 8th grade students

getting their job training at the factory and he wanted to know how it was that his son wasn't one of them. We explained, of course, that we were experimenting with only one class, but he was quite insistent that his boy get the benefit of the training. We began to get so many of these complaints that we very shortly switched our other two 8th grade

GIRLS ARE ALSO TAUGHT HOUSEKEEPING SKILLS.



The changeover is to begin with the 1959-60 school year and is to be completed within three to five years. In no case is the change to be made at the expense of adequate school services and in all cases it is to take into account local needs. For example, in the eastern republics special emphasis is to be placed on further increasing enrollment of girls in the secondary schools.

More boarding schools are to be established. By 1965 it is expected that they will have as many as 2.5 million children as students, 14 times the number currently enrolled. These will be organized both as eight-year schools and as secondary general-vocational schools.

Vocational Training

In the eighteen years since the national system of vocational schools was founded they have trained 10,250,000 young workers. Through these schools the country has been able to meet in a planned way the personnel requirements of key industries and important construction projects.

But the current forms of vocational training have not kept pace with the demands of the rapidly growing economy. The curriculums have tended to fall behind changing technical standards and the quality of training has not always measured up to the increased requirements of industry.

The large-scale mechanization and automation predicted for the next

seven years by the national economic plan will be replacing many hand trades and will demand new skills. In the engineering industries alone at least 1,300 new automatic lines are to be put in operation. Similar changes will be taking place in the chemical, oil, gas and other industries as well as in construction and in farming.

To meet these changing conditions more quickly and more effectively the law provides for a uniform system of vocational training. Urban and rural vocational schools will be opened to provide training for young people who will take up employment in production upon the completion of the eight-year school. The urban schools are to give one- to three-year courses; the rural schools one- to two-year courses.

The new schools will be training skilled workers for more than 800 trades. There will be schools training workers for the metal industries, others for mining, power, chemicals, textile, construction, railroads, motor transport, and so on.

This type of specialization around a particular branch of industry will facilitate the ever-present problem of teachers. The law calls upon factories and farms to assist the vocational schools by providing the teachers and facilities for practical study of new techniques and asks the vocational schools to reciprocate by providing the factories and farms with which they are to be in close daily contact with well-trained workers.

Especially stressed is the need to equip these vocational schools with the most modern workshops and laboratories, to provide the actual

classes to production practice at the factory.

The students took to it. They responded quickly to the discipline of actual work and liked the feeling that they were entrusted with the responsibilities and duties of grown-ups. Our teachers found that students were much more interested in their physics, chemistry and mathematics. Study had a real purpose,

they saw for themselves how usefully they could apply the theory they learned in class to actual and concrete work at the plant. Here was a real tie-in of mental and manual work.

Vasili Petrenko had been one of our problems—a restless lad who found classwork boring and useless. I had had to call him in for a dressing down a number of times. Once

he got to his factory practical work and learned to operate a turret lathe by himself, he was a changed youngster, alive and bright and interested. It wasn't long before he found out that he wouldn't get very far at the machines without a knowledge of trigonometry, physics and drafting. Vasili blossomed out as one of our better students.

IN GRADES 8-10 ONE-FOURTH OF THE TIME IS SPENT ON VOCATIONAL TRAINING, WHICH INCLUDES WORK IN THE MACHINE SHOP OF THE LOCAL MOTORCYCLE FACTORY.



EDUCATION FOR SOCIALLY PRODUCTIVE LABOR

Higher Education

feel of current technological practice. Textbooks and teaching aids are to be thoroughly overhauled and rewritten, if necessary, to ensure a better theoretical grounding than they give at present. Wider use is to be made of such visual aids as motion pictures and television.

Instead of the present free meals and clothing, vocational students are to be paid stipends or wages at the regular rates to provide greater incentive for mastery of the trade. Students who are orphans, who live in children's homes or come from large families are to receive their full support from the government, as they have hitherto.

Besides the full-time day schools, evening vocational schools are to be founded where young people who have already mastered the fundamentals of their trade will be able to continue study to raise their job qualifications.

Job placement for vocational school graduates is to be planned by the appropriate educational and economic authorities not alone to meet immediate personnel needs but in long range terms.

The principle embodied in the law—the meshing of schooling with productive labor—is carried through to the college level. The country's schools of higher education have been training 260,000 to 290,000 specialists annually and will before long be training 300,000 to 350,000.

Heretofore these graduates have had little training in practical work. The very predominant emphasis on book learning to the virtual exclusion of productive labor has been reflected in the curriculum.

Of the three present types of colleges—day, correspondence and evening—it is the last two which most immediately lend themselves to education-work training.

Today nearly half of all Soviet college students study at evening and correspondence schools. These schools will be widely extended, staffed with the most qualified lecturers and professors and their class and laboratory facilities greatly enlarged to permit training of very large numbers of students employed during the day in some branch of productive work.

The proportion and sequence of work to study and the transfer to full-time day colleges will vary with the specialty, the type of student and a number of other determining factors. At the technical colleges the student will, as a rule, work during the first two years and study at evening or correspondence school. After that he will study full time. In his senior year, to apply his theoretical study, he may once again

THEORY IS RELATED TO PRACTICAL WORK BY DEMONSTRATING INTERNAL COMBUSTION IN A MOTORCYCLE ENGINE.



SCHOOLING FOR A VOCATION

Graduates Continue Studies

Since we instituted our vocational program, 86 of our students have graduated with certificates qualifying them for jobs in addition to their regular secondary school diplomas. Some of them have gone on to the colleges or the universities. Leonid Silchenko is studying construction engineering at a Kiev institute; Nellie Gradoboyeva is at a textile institute; Valeri Nikitin, Inna Braginskaya and Zinovi Rokhlin are in medical schools; Alexander Frolov, Leonid Tsaregradsky and Yuri Moskalenko are studying at the Kiev Polytechnical Institute.

All the other members of this same graduating class found work they liked. Igor Dudnik, Yevgeni Shchuko and Leonid Mikhobuy, for instance, decided to take jobs at the motorcycle plant. Valentin Verotsky is an electrician at one of the electrical engineering plants in Kiev. Lyudmila Khayetova is working at a ceramics factory.

An increasing number of young people who decide to take jobs right after graduating from high school are being encouraged to continue their studies while working or to work for a few years and then return to full-time study.

Many graduates of our school are now taking correspondence courses or are enrolled

work as a junior technician for either a semester or a full year and continue his study after work.

In several of the engineering professions which require an early grounding in basic theory and considerable laboratory work, students will take the first two or three years of instruction at full-time day colleges. The work requirement will be completed later in the course.

By 1965 it is expected that nearly two million college students will be carrying a work-study program.

To make for greater coordination between work and theory, schools of higher education are to be merged with kindred research institutes, and agricultural colleges with the large state farms and experimental stations. Technical schools are to be set up as integral divisions of large industrial plants. At present half of all the country's scientists, more than 130,000, are teaching in schools of higher education. This number is to be increased to relate the schools more closely to industrial and farm research.

Requirements for college entrance have been revised to give preference to applicants with work experience. This has been the practice for some time now. Seven of every ten freshman students this year have had work experience. This proportion will increase after the secondary school completes its reorganization.

The universities will follow a work orientation insofar as it is consistent with the specialization. Their research role on current theoretical and practical problems in both the sciences and the humanities is

to be greatly enhanced. Students of the mathematical, biological, physical and chemical sciences and of the humanities (economics, philosophy, history, literature, etc.) are to be given the opportunity for using their specialties in socially productive ways while they study.

To enable larger numbers of people to train as specialists in music, drama and the graphic arts, the system of spare-time study in these fields is to be greatly expanded.

Creative Approach

The function of the Soviet school as expressed in the new law is to ensure a creative approach to learning, a love for labor and the ability to work independently. These fundamental aims, carried through from the earliest days of schooling through the college level, will make for the roundly educated worker, equipped to handle the many and diversified problems of building a communist society.

The need for the school reorganization has been dictated by life itself. Even before the new law was passed some of the Soviet high schools experimented in combining academic work with socially productive work.

The accompanying article "Schooling for a Vocation" describes one of these experiments carried out by a general education school in Kiev and taken into account in drafting the new law, along with other examples of initiative in revising the educational program.

at evening colleges. Igor Dudnik, for instance, is taking a correspondence course at the machine-building *tehnikum*; Valentin Verotsky is studying at the evening department of the Electrical Engineering Institute; Yevgeni Shchuko is taking foreign language courses and Lyudmila Khayetova is a student of philology at Kiev University.

Planning the Next Step

The experience we gathered with this vocational training program gives us a basis for further planning. Our school will soon be adding another year of study to the present

ten. We propose to offer an 11-year course which will combine two stages of secondary education.

The first stage will be eight years of compulsory schooling instead of the present seven. The added year will allow for a better grounding in all subjects. Literature will get 200 hours more of class time and foreign language another hundred. There will be an expanded class program for history, geography, natural science, physics and mathematics. In addition, the fundamentals of a trade or profession will be taught more thoroughly.

Students who complete the eight-year school and continue through the eleventh year will be

graduating with a complete general secondary education and vocational training which will qualify them for a specific trade or profession.

Henceforth this will be the curriculum to be followed in ours and in all other Soviet secondary schools. Industry and agriculture will now be getting skilled workers with both a theoretical and practical background. The colleges and universities will be getting students who have had practical work training related to the specialty of their choice.

To judge from our experience at Kiev School No. 70, this new approach in educating our young people has proved itself beyond any shadow of doubt.

THIS NINTH-GRADER HAS MASTERED THE USE OF A LATHE DURING HER DAY-A-WEEK TRAINING AT THE FACTORY.



ALL THE STUDENTS LEARN A FOREIGN LANGUAGE.



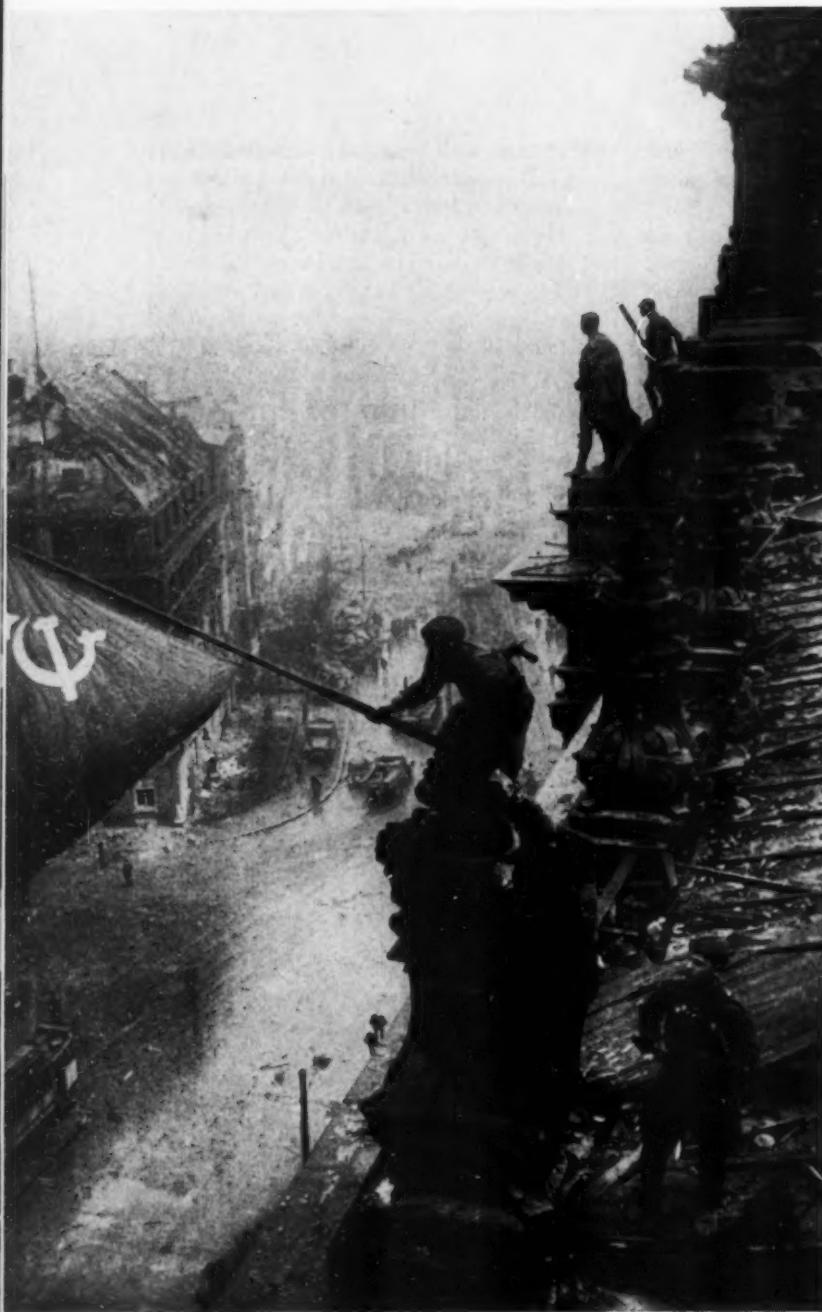
THE GREAT PATRIOTIC WAR AGAINST FASCISM

1941-1945

By Leonid Papin, Historian

This is the fourth in a series of five articles on the history of the Soviet Union. The first, issue No. 11 (26), described the events of 1917 leading to the establishment of the Soviet state. In issue No. 2 (29) the period of civil war, foreign intervention and reconstruction was covered. The next article, issue No. 4 (31), dealt with the first three five-year plans by which the Soviet Union built its modern economy. This article tells about the Second World War, and the series will be concluded in the June issue with an account of the postwar period to 1959 and the adoption of the current seven-year plan.

May 1945—the end of four years of war against the fascist invaders. Soviet troops raise the flag of victory over the German Reichstag in Berlin.



AT DAWN of June 22, 1941, Nazi Germany launched a holocaust of fire against the whole of the western border of the Soviet Union. A total of 153 German divisions and 37 divisions of Germany's allies invaded Soviet territory. Simultaneously mass flights of Stukas bombed Soviet cities. Only an hour and a half after the treacherous attack did the German ambassador in Moscow officially inform the Soviet Government that his country had started war. It was a war that was to last four long years.

In a radio broadcast the Soviet Government summoned the people and the armed forces to the nation's defense. Confident of final victory, the country echoed with these ringing words, "Ours is a righteous cause. The enemy will be defeated. Victory will be ours."

Fascist Germany unleashed her war against the Soviet Union under most advantageous circumstances. She had a powerful army with almost two years of experience in plundering Europe. It had taken this army only 19 days to overrun Holland and Belgium and only a little more than 40 active fighting days to force the surrender of France.

The fascists had enslaved almost all of Europe. Germany's military and economic potential had vastly increased, for now she had working for her the industries of the occupied countries. And by using the forced labor of ten million foreign workers she had been able to free her own large reserves of man power for military service.

Hitler's generals had carefully calculated their timetable. Within eight to ten weeks they figured to rout the Soviet army and enslave the country. The Soviet army units along the border were to be wiped out and the major industrial regions in the European part of the Soviet Union occupied. The territory up to the Archangel-Volga-Astrakhan line was to be seized and the industrial cities of the Urals and Siberia crippled from the air. This was Nazi *blitzkrieg*, Hitler's lightning war, and his warriors were supremely confident.

The Blitz Fails

The Soviet Union had been engaged on peacetime construction. Although its defense preparations were picking up momentum, at the outbreak of the war the army had not yet been completely modernized. New planes and tanks superior to the German models, new rocket and automatic weapons were only beginning to reach army units.

To convert to a wartime economy and to carry out a general mobilization demanded time. The enemy had this enormous initial advantage in the first period of the war and the Soviet troops were forced to retreat.

The fascists seemed to have weighed all the factors and provided for every contingency in their planned *blitzkrieg* against the Soviet Union. But they had made one fatal error. They had not taken into account the courage of the Soviet people, their devotion to the country. The Nazi armies advanced into Soviet territory at a cost which left them dismayed.

As the Soviet forces withdrew, they abandoned important regions to the enemy. But from these regions the workers had dismantled whole



June 22, 1941—the Soviet Union broadcasts to the world that German planes have bombed its cities and 190 army divisions have invaded its territory.



Muscovites took shelter in the subway during enemy air raids. To terrorize the people, the Nazis bombed the cities without mercy or respite.

factories, the farmers their tools, grain and livestock and moved with them far to the rear. Everything portable was evacuated. Everywhere the invaders met with grim and stubborn resistance.

To the North the Nazis tried to break through the defenses to Leningrad and surrounded the city. For 900 incredible days starved and suffering Leningraders fought off the invaders. One hundred and sixty thousand joined the city's volunteer corps. The rest worked under an incessant rain of enemy shell and bomb to make the munitions that kept the defending army supplied. The city was not taken.

In the vicinity of Smolensk, where a battle raged for almost three months, the Nazi generals lost more than 100,000 of their picked troops. Both Kiev, capital of the Ukraine, and Odessa, the southern port, were defended for two months. In the battle for Odessa the enemy lost over 100,000 men and officers.

The closely calculated plan of the Nazi high command to overrun the Soviet Union in eight to ten weeks failed. In the fierce battles fascist losses were so great that the enemy was forced to narrow the offensive and, in some sectors, to go over to defensive tactics.

Everything for the Front!

Under the direction of the State Defense Committee that was set up immediately on the outbreak of war and was charged with full powers, the country's economy was shifted to war production. In regions close to the front, under enemy shelling, workers did the impossible job of dismantling and evacuating more than 1,300 big factories. A million and a half freight cars were needed to carry the machinery and equipment to new locations. In two or three months the relocated factories were again in operation. At the same time new plants were being built.

Despite the occupation of many of the big industrial and farm centers, the Soviet Union's military and economic potential kept growing. Men of all the diverse nationalities living in the country fought side by side in the patriotic war against the invaders. They were moved by a common hatred of fascist barbarism that threatened to deprive them of their freedom and independence, to destroy their way of life.

During those years people in the rear did two jobs—their own and a second to replace some comrade who was doing the front line fighting. Women and youngsters quickly learned the trades of their husbands, fathers and brothers. People worked with no thought of self, at times without leaving their factories for days in succession. "If the army needs it, we'll get it done," that was the precept by which the home front lived.

With every passing day more tanks, planes, guns and ammunition were ready for the Soviet army. People gave their savings to the Defense Fund, money to build whole squadrons of planes and whole tank columns. One collective farmer, Ferapont Golovaty, contributed enough himself over the period of the war to build two planes which he personally and proudly presented to the air force.



Mass flights of Stukas bombed Leningrad night after night. The city fought back with shattering losses to fascist planes and flyers.

"Everything for the Front" was the slogan. Women, young people and old, replaced their soldier husbands, fathers and sons at the factory benches.



THE GREAT PATRIOTIC WAR AGAINST FASCISM



Fighting on the southern front. Early in the war the invaders moved forward deep into Soviet territory but it was at massive cost of men and materiel.



Under heavy enemy shelling underground workshops in besieged Sevastopol worked day and night to turn out ammunition for the city's heroic defenders.

Nothing was left for the occupying armies, everything portable was evacuated. Collective farmers moved with their cattle and tools far to the rear.



The Defense of Moscow

By the fall of 1941 Japan had its troops concentrated on the Soviet Union's Far Eastern borders. Hitler planned that the capture of Moscow by the Nazis would be the cue for Japan to enter the war.

A force of 80 picked fascist divisions—almost half of the Nazi land forces operating on the Soviet-German front—plus three-fourths of the tank units and a great fleet of 1,000 planes were massed for the offensive against Moscow. Hitler promised his weary troops a long furlough in the Soviet capital. He boasted that on November 7, the Soviet national holiday which was to commemorate the 24th anniversary of the Socialist Revolution, Nazi troops would parade in Red Square.

The pincer offensive to take Moscow was mounted that fall. Half a million Muscovites mustered to build defense lines, tens of thousands joined the volunteer divisions and the air-defense corps.

The army fought for every foot of ground against odds which seemed overwhelming. At a railroad siding outside of Moscow a group of 28 men—Russians, Ukrainians, Kazakhs and Kirghizians fighting together—gave battle to fifty German tanks and a large infantry detachment. The commander told his men, "Back of us lies Moscow. There is no place to retreat to." The guardsmen answered by knocking out fourteen enemy tanks.

Moscow held. The enemy threw in more and more divisions. But they smashed themselves against an impregnable barrier of courage. On November 7 the Soviet army units paraded across Red Square as usual and then left for the front.

For every mile the fascists advanced, they paid with thousands of their dead. In their attempt to bomb Moscow out of existence, they lost more than 1,000 planes and 4,000 of their best flyers. The Hitlerite command ordered the offensive to continue at whatever cost, but by early December the German troops were exhausted. Bitter frost had set in but it was not the weather that was the crucial factor.

Early in December 1941, in a surprise move, the Soviet army went on the offensive. In one month the Germans lost some 300,000 men and officers. By the end of February the enemy had been pushed back 250 miles westward in a disorderly retreat, abandoning equipment on the way. Moscow had indeed held firm.

The shattering defeat at Moscow was the first the Nazis had suffered since the beginning of the Second World War. The myth of invincibility that fascist propaganda had created was shattered. The people of the whole civilized world now knew that fascism, the common enemy of mankind, could be defeated. The battle of Moscow was the decisive engagement of the first year of the war.

The Anti-Fascist Coalition

On June 19, 1941, just before the attack against the Soviet Union, Hitler, in a letter to the German General Staff, had outlined his plan for world domination. Once the Russian campaign was over and the Soviet Union defeated, his armies would move on to the Near and Middle East, take the Suez Canal and the Mediterranean basin and then invade Britain. Later the Nazis would join up with the Japanese against the United States.

It was altogether evident that the interests of all freedom-loving peoples required that they fight off fascist aggression together. When Hitler attacked the Soviet Union the governments of the United States and Great Britain declared their readiness to join forces with the Soviet people valiantly fighting the aggressor. At a conference in Moscow of representatives of the three countries from September 29 to October 1, 1941, a plan was adopted for convoy of British and American supplies to the Soviet Union. The Soviet Union, in exchange, was to supply the strategic raw materials that the United States and Britain needed.

Assisted by Soviet ships and aircraft, American and British convoys fought off enemy attacks as they made their dangerous way to Murmansk and Archangel in the north carrying food and arms.

The defeat of the Nazi armies at Moscow had forced a reexamination of foreign attitudes on the military strength of the Soviet Union. On May 26, 1942, an Anglo-Soviet treaty of alliance during the war and

cooperation and mutual assistance after the war was signed in London. On June 11, 1942, a Soviet-American "Agreement of Principles Applying to Mutual Aid and Conduct of the War Against Aggression" was signed in Washington. In the negotiations with Britain and the United States "complete agreement was reached concerning the urgent task of establishing a second front in Europe in 1942."

However, the Soviet army continued to fight alone against the Nazi armies in the European theater. Although a concerted offensive in that theater was vital, the opening of a second front was put off for reasons that did not rest with the Soviet Union.

The fascists were in occupation of extensive and important productive territories of the Soviet Union, regions that before the war accounted for 63 per cent of the national coal output, 58 per cent of steel production and 40 per cent of the country's population. Despite this, the total mobilization of the nation's resources and the selfless labor of the people behind the lines turned out tanks in 1942, for example, at a speed three times greater than in 1941. Ten thousand new industrial establishments were being constructed in the eastern regions.

Everything for the front meant that there was little for the rear. There was a shortage of food, of housing, of consumer goods of every kind. This was austerity, indeed, and without abatement. Life was hard and bitter, but it was to be endured, and gladly, to beat off the fascist enemy.

The Battle of Stalingrad

The delay in opening a second European front permitted Hitler to throw all his reserves against the Soviet Union. By the summer of 1942 about 240 of the 256 divisions which Nazi Germany had concentrated against the Soviet army.

In July the German command launched a powerful offensive on the southern front. The objective was to capture the Caucasus, take the Baku oil region, push on to the Volga River and then northeast to encircle Moscow from the rear.

By September enemy troops had reached the Volga and were at the approaches of Stalingrad. Soviet fighting men vowed to hold the city, and that unbelievable battle for Stalingrad began. Every inch of ground, every street and building was fought for with murderous ferocity. A handful of guardsmen led by Sergeant Yakov Pavlov entrenched themselves in the ruins of a four-story building and for two months repulsed attack after attack. In their repeated attempts to take that one Stalingrad house the Nazis lost several times more men and officers than they did to take Paris. They never did take the building.

Guns and mortars pounded away at the city day and night, aircraft bombed the Soviet positions without let-up. The defenders fought off more than 200 attacks. They kept their vow to hold the city. The world will long remember Stalingrad as a symbol of indomitable courage. In many countries streets and squares have been renamed Stalingrad.

After intensive artillery preparation, Soviet units in mid-November 1942 broke through the front in a number of sectors north and south of Stalingrad. Heavy tank and mechanized units poured through the gaps in a pincer movement and encircled 22 German divisions with masses of military materiel concentrated near Stalingrad.

To avoid useless bloodshed, the Soviet command proposed to the German units that they lay down arms. But Field Marshal Von Paulus, following the orders of Hitler, refused to surrender. The Soviet forces thereupon proceeded to wipe out the fascist divisions. By the time fighting ceased on February 2, 1943, the enemy dead totaled 147,000. The remainder, including 24 generals headed by Von Paulus, were taken prisoner.

The Soviet Army Advances

The defeat at Stalingrad was the beginning of the end for Hitler's army. The Soviet victory had consequences that went far beyond the immediate effects of the battle. The prestige of the Soviet Union rose immeasurably. People the world over knew that Stalingrad was a defense not only of the Soviet Union, but of civilization and freedom. It marked a critical turning point in the Second World War—the fascist military machine had begun to fracture.

The victorious offensive continued through the winter of 1942-43 to liberate the North Caucasus, push back the enemy on the central front, and break the blockade of Leningrad. The drive was begun to push the fascists out of the Ukraine. During the winter campaign 110 fascist divisions were routed.



This is Kiev after the invaders had been driven out. They destroyed cities and villages by the thousands and left 25 million Soviet people homeless.



A sample of fascist butchery. Railroadman Tikhon Kulichenko grieves over the bodies of his family. They were shot in cold blood at Gartmashevka.

Partisan groups in the occupied regions attacked enemy garrisons, blew up bridges and railroads, fired military depots and disrupted communications.





IN THE BATTLE FOR THE CITY OF STALINGRAD SOVIET SOLDIERS FOUGHT WITH INCREDIBLE FEROCITY FOR EVERY INCH OF GROUND, EVERY STREET AND EVERY BUILDING.

THE GREAT PATRIOTIC WAR AGAINST FASCISM

In the summer of 1943 the enemy's forces were augmented by some two million men. It was Germany's total mobilization, the bottom of the barrel being scraped. With new types of weapons—the Tiger heavy tanks and the self-propelled Panther guns—the German command launched an offensive on the central sector of the front against the large Soviet forces concentrated in the vicinity of the city of Kursk.

With the rear mobilized for full defense production great volumes of munitions rolled on to the battlefronts. These are famous "Katyusha" missiles.

48

Fifty fascist divisions moved on Kursk from the north and south. The Soviet command had foreseen the offensive and had built a number of defense lines in the area.

With production in full swing on the home front the Soviet army now had everything it needed in the way of equipment. The Russian Urals was outstripping the German Ruhr. In July a battle of unprecedented ferocity was fought at the approaches to Kursk and the Nazi generals were defeated. At Stalingrad the fascist bastion had cracked; at Kursk it began to crumble.

In catastrophic retreat the invaders tried to dig in along the Dnieper, but the Soviet army pushed forward along a 400-mile sector of the river. On November 6, 1943, Kiev, capital of the Ukraine, was liberated and by the end of the year the greater part of enemy-occupied territory in the Soviet Union had been freed. The year 1943 marked the turning point in the Great Patriotic War of the Soviet people against fascism.

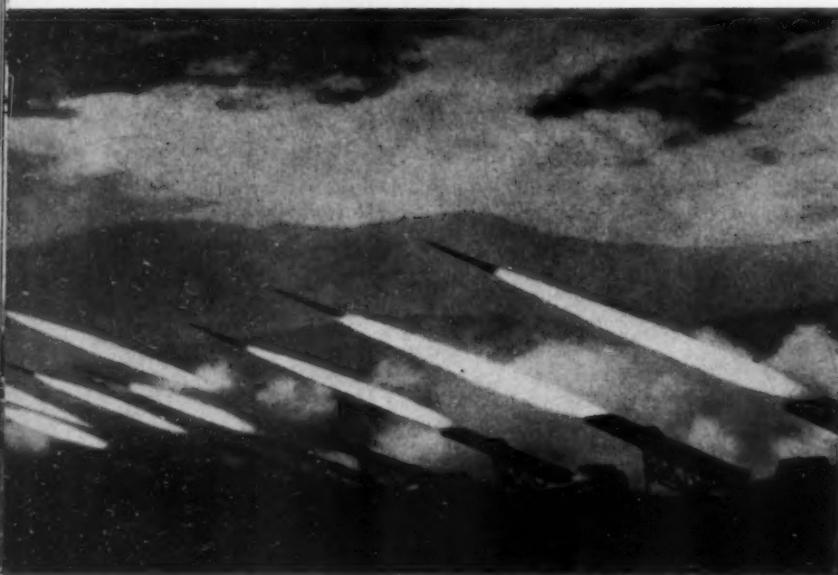
War Damage

The regions from which the enemy had been driven out were gutted and burned—one great scene of frightful and barbarous destruction. The fascists, on orders from their high command, had killed mercilessly, driven the able-bodied Soviet citizens off to Germany, destroyed homes and factories, blown up bridges and railways. This was scorched earth they left in retreat. They destroyed, either completely or in large part, 1,710 towns, 70,000 villages, 31,850 industrial plants and 98,000 collective farms. Twenty-five million people were left homeless. Seven million men, women, children and old people were killed during the war.

Through the years of the Nazi offensive, the Soviet people were subjected to sufferings unparalleled in history. The enemy was not satisfied to restrict violence to prisoners of war, their barbarism extended to the civilian population as well. Children were slaughtered before the eyes of their parents. Women were abused and sent by the trainload into slavery. Whole villages were forced to dig their own graves and await execution.

But even in the worst days the Soviet people did not associate the atrocities of the Gestapo and SS-men with the German people. They knew that the savagery unleashed against them also fed on the German nation and would destroy it if fascism were not destroyed. The Soviet troops that finally entered Germany came not as conquerors but as liberators. Not for a moment did they forget that it was the Nazi plague that had to be exterminated, not the German people.

The Nazi invasion, if one calculates the war damage, the loss in in-





IN THE STALINGRAD OFFENSIVE SOVIET FORCES KILLED AND CAPTURED 22 NAZI DIVISIONS AND MASSES OF MATERIEL. IT WAS THE TURNING POINT OF THE WAR.

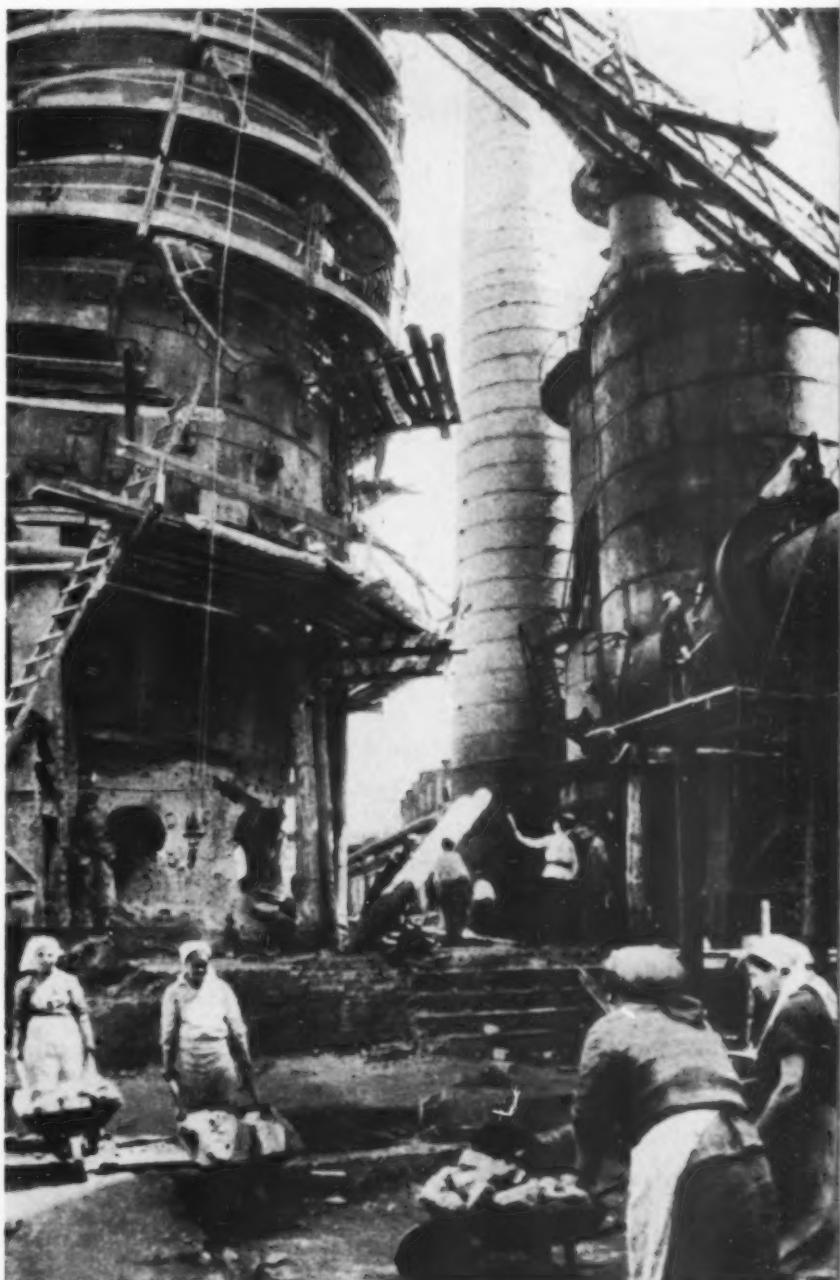
come from enemy-occupied territories, and the amount spent to prosecute the war in money terms, cost the Soviet Union an astronomical 2,569,000,000,000 rubles. If this vast sum could have been spent on peacetime construction, the Soviet economy today would be at the approximate level it will be reaching in 1970.

Immediately after the fascists were thrown back, work got under way to rebuild the industry and agriculture of the liberated regions. As the front moved westward, the fields which had been battlegrounds only yesterday were planted to crops. Factories, mines and power stations rose from the ruins. Volunteers came from all parts of the country to reconstruct Stalingrad and other devastated cities.

While the Soviet people were still fighting the war, they were rebuilding. Their land had been occupied by the fascists but they had never been conquered. The Nazis had not been able to run the factories they captured, the people had refused to work for them. The farmers had hidden their grain and smuggled it out to the partisans.

It had been an uneasy occupation for the fascists. Not for a day had they felt safe on Soviet soil. In the early months of the war a partisan movement had sprung up behind their lines. Guerrilla detachments attacked Nazi garrisons, blew up bridges and railroads, set fire to military warehouses, disrupted communication lines.

In a Byelorussian village just liberated from the enemy occupation. As the fascists were pushed back they barbarously slaughtered whole villages.



While the Soviet people were still fighting the war they were rebuilding. Factories, power stations, homes, hospitals, schools rose from the ruins.



The working people of Smolensk rebuilding their ravaged city. They are laying a streetcar line.



The Soviet armies not only drove the Nazis from native land but liberated Rumania, Bulgaria, Czechoslovakia and Hungary, and helped free Poland, Yugoslavia, Austria, Finland and Norway.

THE GREAT PATRIOTIC WAR AGAINST FASCISM

The partisans were of incalculable help to the Soviet army. Their bullets searched out hundreds of thousands of the enemy. During the heavy fighting at Kursk, partisan groups from the Ukraine, Byelorussia and other regions waged a simultaneous "railroad war." They wrecked all the main lines along which supplies were carried to the Nazi armies. In three months Byelorussian partisans derailed 1,014 enemy trains.

Approaching the Victory

The Soviet army soon surpassed the fascist forces in armaments. Between 1943 and 1945 it received from the country's civilian front an annual average of 40,000 planes far superior to those produced by the enemy; 30,000 tanks; 120,000 pieces of artillery; half a million machine guns and five million rifles and automatics. Nor did it suffer from any shortage of food supplies.

Victory was close now, brought closer daily by the Soviet army's offensive. In the summer of 1943 American and English troops landed in Sicily and other parts of Italy to open a successful offensive.

In October 1943 a conference held in Moscow adopted a declaration to continue the war until the unconditional surrender of the enemy. The allies pledged every effort to ensure peace and universal security after the war. A special declaration was adopted on the responsibility of the Hitlerites for crimes they had committed.

At the Teheran Conference in November 1943 Joseph Stalin, Franklin Delano Roosevelt and Winston Churchill met to make decisions of far-reaching importance. The United States and Britain agreed to land troops in France not later than May 1, 1944, thereby opening the long-awaited second front against Germany.

The main force of Hitler's army, 236 divisions and 18 brigades, was still concentrated on the Soviet front in 1944. Nevertheless, the Soviet forces continued to push ahead. In January and February the Nazis were forced back from Leningrad and the liberation of Estonia began. In the Ukraine, on the southern sector of the front, an enemy force of ten divisions was surrounded and smashed near the town of Korsun-Shevchenkovsky.

By the spring of the year the Soviet army had reached the USSR southern border along the Prut River and by mid-April the strong

enemy force in the Ukraine west of the Dnieper had been completely routed. The liberation of Rumania was begun.

On June 6, 1944, the allied armies under General Eisenhower landed in Normandy and by autumn had liberated France, Luxembourg, Belgium and part of Holland. A total of 90 fascist divisions were in action against the British and Americans. The enemy's main power was still pinned down on the Soviet front.

During the summer, Soviet forces carried through one of the biggest operations of the war when they surrounded and cut to pieces 30 Nazi divisions in Byelorussia. In these engagements the enemy suffered casualties of 540,000 men and officers.

Collapse of the Fascist Empire

By the end of 1944 the Soviet army had not only driven the Nazis off Soviet territory but had helped free many of the European nations. Finland broke with Germany and got out of the war. The Nazis were driven out of Rumania and Bulgaria. The liberation of Czechoslovakia and Hungary was under way. Soviet troops helped to free Norway and Yugoslavia.

With every blow the strength of Hitler's armies waned, but they continued to resist with frenzied desperation. In December the Nazis suddenly launched an offensive in the Ardennes and breached the allied front. The British and American forces found themselves in a difficult position.

Winston Churchill, in a message to Joseph Stalin on January 6, 1945, asked that the Soviet army speed up its offensive. True to its obligations as an ally, the Soviet Government ordered the army to open a simultaneous offensive along the entire Soviet-German front. Together with Polish units, Soviet troops freed Warsaw on January 17. By the spring Soviet troops had captured East Prussia, freed Poland and Hungary and had entered Austria.

At the Yalta Conference in February 1945 the leaders of the three allied powers pledged to eradicate German militarism and Nazism, to disarm and disband all Germany's armed forces and to break up its war industry so that peace would be guaranteed in Europe. Germany was to be charged with reparations for the enormous destruction she had caused.

Decisions were also made on the frontiers of Poland, on cooperation among the allied powers on the democratic reorganization of Europe and on setting up the United Nations organization. To end the fighting as soon as possible, the Soviet Union agreed to declare war against Japan within two or three months after Germany's surrender.

Even as late as January 1945, some 200 of the German divisions were still being deployed against the Soviet army as compared with half that



A scene which repeated itself in many cities. Rumanians greet Soviet troops passing through Bucharest streets the day the city was liberated.



April, 1945 — the historic link-up in defeated Nazi Germany. American and Soviet soldiers meet at the Elbe River near Torgau.

number of divisions fighting on the western front against the combined Anglo-American forces.

The Soviet army began its final offensive in April 1945. By that time the allied forces were advancing into Germany from the west. After breaching the German defense lines on the west banks of the Oder and Neisse the Soviet units drove on to Berlin. On April 25, 1945, the enemy force in Berlin was surrounded by Soviet units. That was the day, too, when American and Soviet soldiers made their historic link-up on the Elbe River and celebrated the victory which had been won by their common effort.

The Enemy Surrenders

After stubborn resistance the Berlin garrison surrendered on May 2 and Soviet troops raised the flag of victory over the Nazi Reichstag. Six days later the German high command signed an unconditional surrender in Karlshorst, a suburb of Berlin. The joint efforts of the peoples of the Soviet Union, the United States, Britain, France and other countries were crowned with total victory. The fascist empire was done with.

Adhering to its pledge given at Yalta, the Soviet Union declared war on Japan on August 8, 1945, after the Japanese Government had refused to capitulate. Japan had maintained a fully equipped army of a million men on the Soviet border all through the war. Despite the difficult conditions in the Far Eastern theater of operations, the Soviet army soon defeated the Japanese forces in Kwantung.

On September 2 Japan signed an unconditional surrender and the Second World War was ended.

For the second time in its brief history, the Soviet Union was faced with the task of rebuilding a war-ravaged economy. In March 1946 the country embarked upon the fourth five-year plan for the restoration and development of its economy. The same courage and indomitable will of the people that brought victory in war made it possible to complete the plan in four years and three months and to exceed the targets set. This was also true of the fifth five-year plan that followed.

As consumer goods became more accessible, prices were reduced systematically. The standard of living continued to rise steadily. Allocations from the national budget for free services to the population increased. Tremendous strides were made in science. The world's first atomic power station was built in the Soviet Union and the first sputnik successfully launched.

In the second year of the sixth five-year plan it became obvious that it was now possible and necessary to plan ahead for longer periods of time, and in February of this year target figures were set for a seven-year plan to be completed in 1965.



Germany signs an unconditional surrender. Hitler's empire is done with. Fascist banners are flung to the ground at a victory parade in Moscow.

FIRST



SPRING OF THE SEVEN-YEAR PLAN

By Georgi Radov

THIS is the first spring of the seven-year plan in which Soviet farmers—wheat and cotton growers, truck gardeners, dairymen and livestock breeders—pledged themselves to perform an agricultural miracle. At least this is what many people abroad call it—this plan to outproduce every country in the world in the next few years.

In the Soviet Union spring comes first to the farmers of Central Asia. They start sowing as early as February when fields in the European part of the country are still deep in snow, and blizzards are still blowing in Siberia. The country is so vast that several months pass before spring has traveled from south to north, coming fully into her own everywhere only by May.

This year spring reached the southern threshold of the Soviet Union when the Twenty-First Party Congress was concluding its memorable sessions. Farmers listening to the radio reports and reading newspaper accounts of the proceedings were looking over their fields and barns with a speculative eye and a question. The question? How much earlier than the time scheduled by the seven-year plan could they hit the target figures the Congress proposed? Soviet farmers are not awed by agricultural miracles, they have set precedents before this one.

A "Grainy" Year

Take the year just passed, 1958. A "grainy" year, people called it, because the country harvested more grain than ever before in its history—139 million tons. Everything had made for a bumper crop—the 90 million acres of virgin lands newly plowed, efficient organization and teamwork, plenty of equipment, and, no small factor, fine weather.

This year, the first of the seven planned years, people are beginning to talk of as a "meaty" year. As far as grain is concerned, farmers predict a steady rise in this top priority crop over the next few years.

The target for 1965 is 164 to 180 million tons of grain, this very sizable increase to come through more efficient farming. Figur-

ing in all predictable factors, most farms are certain they can better the target figures.

The collective and state farms in the Russian Federation calculate on harvests of 115 to 130 million tons; the Ukraine's farms are aiming for 34 million; Kazakhstan for 24 million. Apart from the other twelve Union Republics, these three alone are expected to be yielding more grain than the seven-year plan schedules for all the farms in the country.

A considerable rise is forecast by the seven-year plan in output of cotton, flax, sugar beets and vegetables. Farmers face a challenging task to double the output of fruits and berries, and the output of grapes is to quadruple. Vineyards in the Kuban this year will be as numerous as in France's Champagne. Scores of new vineyards are being planted along the Don and orchards in the Crimea are being expanded. Horticulture is to be further developed in Moldavia, the South and the North, and indeed everywhere in the Soviet Union.

A "Meaty" Year

Since things are moving with such celerity in all the farm branches, why then so much talk about this year as a "meaty" year?

"Don't count your chicks until autumn" is the Russian equivalent of the old proverb. That caution applies even more emphatically

GOOD SILAGE AND GRAIN RESERVES FROM LAST YEAR'S HARVEST ENSURE FULFILLMENT OF THIS YEAR'S MEAT GOAL.

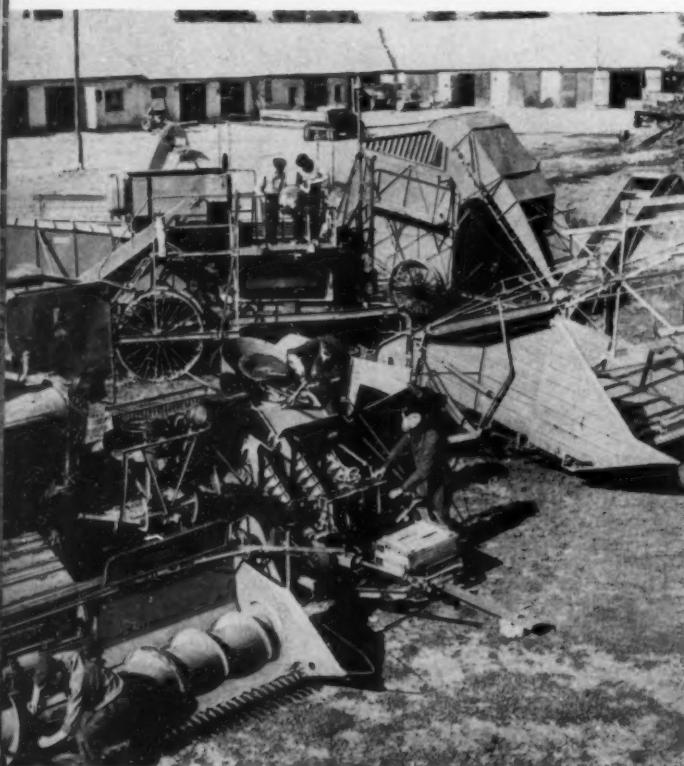




MANY FARMS USE SPECIAL PLANES FOR CROP-DUSTING.

FIRST SPRING OF THE SEVEN-YEAR PLAN

THE INCREASING NUMBERS OF VARIOUS MACHINES ACCOUNT FOR THE HIGHER PRODUCTIVITY OF AGRICULTURE.



to sown crops. Man has not yet learned to forecast nature's caprices. Allowance must be made for the unpredictable. It has happened more than once and the likelihood is it will be happening many more times in the future that a farmer will plow deep and well, sow quality seed on time, watch it sprout, and then have to look on while his field is burned out by scorching sun or drought wind.

But the Soviet Union is big, and thanks to its planned economy, a drought in one district does not mean ruin and starvation for the farmer. Food and seed will be sent in from unaffected regions. But the Soviet farmer, for all that, prefers to leave a large margin for these unheralded acts of nature.

Meat production is another story, however. Granted that a drought can wreak havoc with livestock, too, nevertheless when the granaries and silos are full of rich feed and there are plenty of cows, pigs, calves and sucklings, one can predict meat output with a fair degree of accuracy regardless of weather.

That is very much this year's meat picture. Of the 139 million tons of grain stored in the granaries from last year's harvest, 16 million is corn. And the silage is more plentiful than ever before.

Soviet livestock farming has been on the rise steadily. Last year two-odd million more tons of meat were produced than in 1953. In the next few years the hope is to reach the American per capita production figure. To do this, gross output of meat will have to be brought up to 20-21 million annual tons. This means boosting the average yield to 37 pounds of meat per acre of arable land, a goal already achieved by many state and collective farms, although not everywhere in the country.

While Soviet farmers equaled and to some degree even bettered the gross milk yield of



the United States last year and also beat the American butter output figure the year before, meat producers still have a long way to go before they equal the American meat figure.

A Good Summer Ahead

"We've already heard the first larks, and they promise a good summer," Nikita Khrushchev said at the Party Congress when he was commenting on the possibility of exceeding the target figures for the seven-year plan.

If first signs are meaningful, it certainly does seem as though many parts of the country are likely to come through much ahead of schedule. Ryazan farmers, for example, have reason to believe that they will hit the meat and milk target in two to three years instead of seven. By the end of this year they will have quadrupled their meat production.

The Ryazan region's collective and state farms have large herds of well-fed cattle, plenty of feed stored and, what is most important, farmers who know their business. It is worth noting that the Ryazan region, not too long ago one of the more poorly developed farm areas, now stands first in the country for its dairy produce.

Ryazan farmers are now setting the pace for the collective and state farms of the Stavropol, Moscow and Rostov regions, of the Ukraine and Byelorussia, and of many other areas of the country. But each area is carefully estimating its own possibilities. The Ukraine feels it will be completing its seven-year plan for meat and milk in five years. So, too, for Latvian farmers. The Kuban is really cutting corners—farmers in that area are growing a great deal more corn so as to hit their meat and milk targets in two and a half instead of seven years.

Higher Productivity

There is another angle on which Soviet farmers are now working, illustrated by the comment made by the chairman of a collective farm near Kiev, an engineer by the name of Dudchenko. He had come to the farm three years ago and had done wonders with it. Under his management the farm's income jumped 800 per cent. When a visitor congratulated Dudchenko, his comment, after the rather matter-of-fact thank you, was to say that the farm needed to cut its production costs, more particularly its labor costs.

To cut labor costs in any enterprise in the Soviet Union, whether factory or farm, does not mean cutting wages or lengthening hours. What Dudchenko had in mind was the greater productivity that could be gotten by more farm mechanization.

That is something of a general problem now. The collective and state farms have plenty of the bigger machines like tractors and harvester combines. Curiously enough, there is a shortage of the smaller and simpler machines like those for loading and unloading green fodder and silage.

But that is being taken care of. The seven-year plan provides not only for more tractors, harvesters and other heavy farm machinery but also for more auxiliary equipment for loading, gardening, fruit growing and livestock breeding.

The Kharkov Tractor Plant, a giant of farm equipment industry in the Ukraine, has been retooling for mass production of a new type of tractor—a lighter, faster and more economical model. The plant will also be turning out its first batch of narrow-gauge caterpillar tractors for vineyard work very shortly.

The amount of electric power used by the country's collective and state farms will be increased about four times over during the next seven years. This, too, will help to lower overhead by increasing labor productivity.

New machines are being designed and old ones revamped to get the seven-year plan off to a fast start. The country has some 300,000 harvester combine trailers. Up to now they have been pulled by 300,000 tractors. But not too long ago mechanics in the Saratov region began to remodel these trailers into self-propelled combines. By the time harvest rolls around, thousands upon thousands of these self-driven trailers will be out on the fields.

This spring there has almost been a mass movement among corn farmers particularly to get away from manual labor, with thousands of tractor drivers taking part. The Ukrainian tractor driver Alexander Gitalov has been raising corn on large areas without manual labor. He is the Soviet farmer who spent some time working on Mr. Roswell Garst's farm in Iowa.

When Mr. Garst visited the Soviet Union he told Nikita Khrushchev that he would be glad to show Soviet farmers how a man working single-handed could raise 250 acres of corn. Alexander Gitalov went to Iowa to see how Mr. Garst did it and came back with a lot of very useful information.

While Gitalov was still in America, Voronezh farmer Nikolai Manukovsky and his helper, Ivan Visotsky, were working 500 acres of corn without manual labor and were raising 16 tons of green fodder on each acre. In the Siberian Altai, the two Knyazev brothers are raising corn by machine on 375 acres of virgin land. They are not the only ones by far. Others can be cited by the score in the Ukraine, the Kuban, Stavropol, Siberia. Mechanization has been spreading far and wide this spring to other crops, which normally demand a great amount of manual work, like sunflowers and cotton.

Livestock farmers are mechanizing, too. A state farm near Moscow, managed by Nikolai Tashev, is one of those leading the march to automation. In the farm's automatic kitchen, two men prepare feed for ten thousand pigs by pushing various and sundry buttons. The fodder is unloaded by a single truck driver and only one swineherd is needed to care for a thousand pigs. New mechanized livestock buildings like that one are being built by collective and state farms everywhere in the country this spring.

In the village these days one hears the constant buzz of circular saws and the bang of hammers. This is a busy spring for Soviet masons, carpenters, electricians, plumbers and all the other building trades. There are seven million homes they are scheduled to build in the next seven years, not to speak of farm buildings, schools, clubs and hospitals.

It's a busy season for everybody in the Soviet Union—this first spring of the seven-year plan.



A simple formula: mechanization equals less work and more pay for farmers.

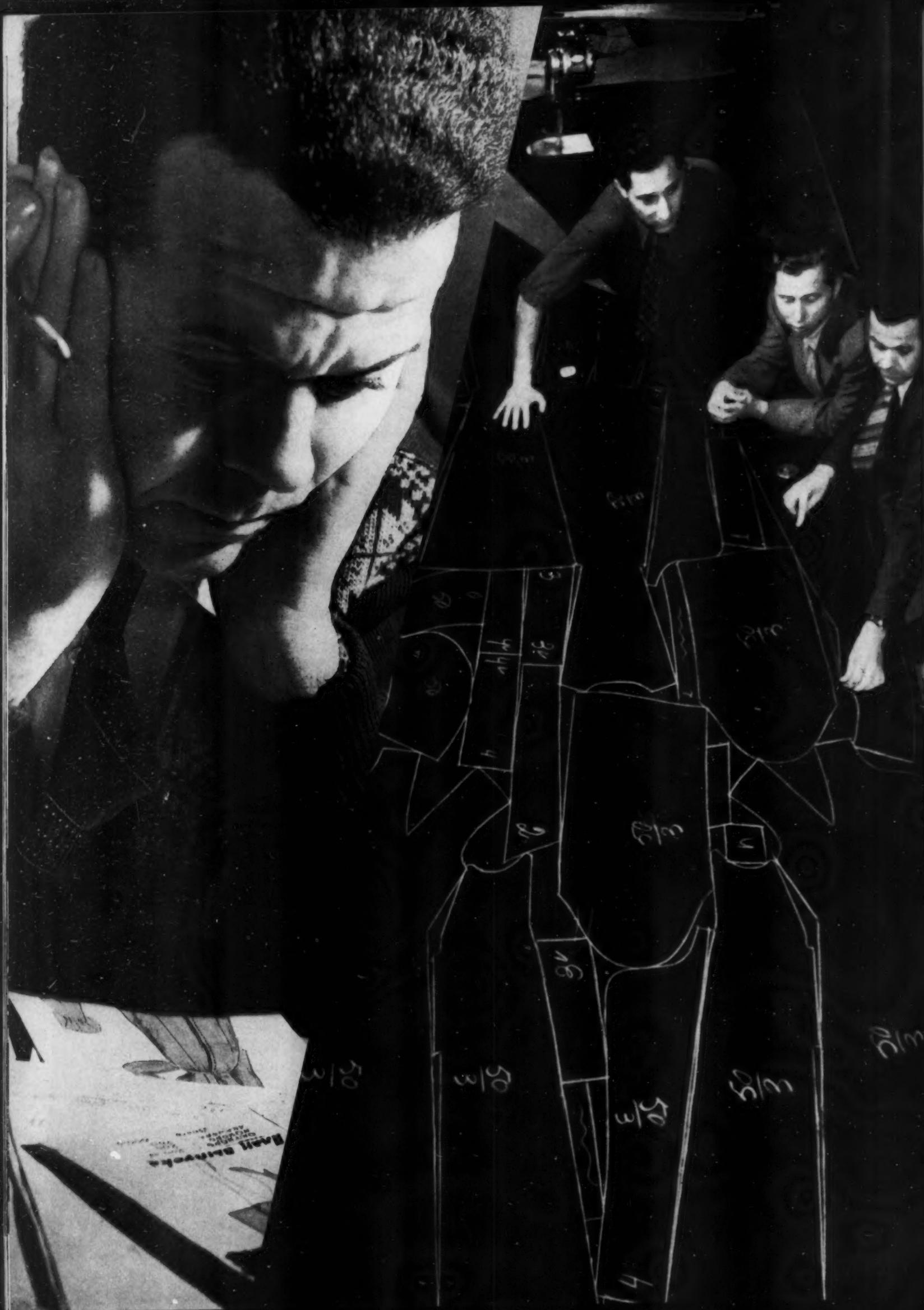


Nikolai Manukovsky is one of those farmers who raise corn without manual labor.



These students will help fill the country's demand for more agriculture specialists.





A YOUNG MAN IN STEP

WITH THE TIMES

By *Yuri Grafsky*

VASIL BOYKO is a young man with the quick energetic step of the person who knows where he's headed. He is a cutter-designer at the big Ukraina Garment Factory in Kiev and as he walks into the sample room with a batch of pale blue cardboard patterns slung across his shoulders, he has the pleased look of a trapper returning with a good catch of blue-fox pelts.

The comparison is not too extravagant. Vasil sees these dress patterns he has designed and cut translated into a lovely gown much as the trapper fancies a fine fox skin gracing the shoulders of a woman.

As for Vasil's energetic step, that is consistent with his idea that "a man has to keep in step with the times he's living in"—he means the very rapid pace at which the country is going to be moving ahead the next seven years.

Vasil is not a member of the Communist Party. But like all Soviet people he has followed the proceedings of the Twenty-First Party Congress and its discussion of the new seven-year plan with keen interest. He is one of the many millions of Soviet citizens who helped formulate the plan. Ukrainian workers held a series of discussion meetings on the draft before the Congress met.

Vasil was particularly pleased at the comment Nikita Khrushchev made in his report to the effect that the Soviet people are going to be dressing much better in the coming seven years. "That's my part of the job," said Vasil.

Dresses by the Thousands

Vasil Boyko came to the Ukraina factory in Kiev from Uman, a small Ukrainian town where he worked as cutter for five years in a custom tailoring shop. He learned the trade at this shop after he was demobilized from the navy.

When he started work at the Ukraina, Boyko had something of the feeling of a man who suddenly shifts from a motor launch to a trans-Atlantic liner—everything magnified a hundred times. But he got himself oriented to this big-scale work soon enough. He liked the sweep of it, the belt conveyors carrying dresses, suits and coats by the thousands in all colors, styles and sizes. Ukraina manufactures ready-to-wear apparel for matrons, misses and children.

The factory equipment is up-to-date, most of it Soviet-made by textile machinery plants

VASIL BOYKO ALWAYS TRIES TO CHECK THE WORK WHEN ONE OF HIS DESIGNS IS IN PRODUCTION.





VASIL PRESENTS HIS IDEAS FOR A FALL COAT WITH A SHAWL COLLAR TO THE PLANT'S ART COUNCIL, WHICH MUST PASS ON EACH NEW CREATION.

A YOUNG MAN IN STEP WITH THE TIMES

He gets a reaction to his new designs by visiting retail shops.



in Podolsk, Rostov, Kuibyshev, Gorky, Novosibirsk, Kuznetsk and by the experimental machine factory in Moscow. Ukraina also uses machines built by the German Durkopp and Strobel firms and by the British Below Machine Company.

Semi-automatic machinery is used for seaming, for sewing buttons and making button-holes, for embroidered trimming, for stitching cuffs and other operations.

Ukraina turns out garments in from 80 to 100 styles a year, some patterned on designs from the Moscow and Kiev Fashion Houses, others originated by its own cutters who also do designing. The garments are shipped to retail stores all over the country.

School for Designers

When Vasil came to the Ukraina factory, he worked for a while as an operator and was then moved up to the cutting department. An improved pattern he worked out for a children's coat showed that he knew his business and he was soon transferred to a more responsible job in the sample shop. But more important for his progress, he was sent by the factory to take an eight months' course for dress designers at a school maintained by the garment industry. While at school, he was paid a cutter's average wage and when he came back, he was promoted to the job of cutter-designer.

Vasil is a designer before, during and after work, awake and asleep. A walk through Kiev's bustling streets on a Sunday or holiday might be just a walk for other people, for Vasil it's to see what the ladies are wearing. He'll suddenly get absent-minded about a novel idea for a cuff, collar, sleeve.

It was during one of his promenades that Vasil dreamed up the idea of a long scarf which could double as a collar for a lady's coat. He lived with that imaginary scarf-collar for quite a while trying to think up the rest of the coat to go with it.

Then, at a fashion show arranged by the Kiev Fashion House, he was watching the pretty Italian models parade the latest Rome fashions when a version of "his" coat suddenly flashed before his eyes. That was it—he could almost feel the texture of the softly draped lines and see the severe lines of the back.

He worked out the patterns, made the first sample and submitted it to the factory's art council. This is the group of experienced designers and tailors who pass on designs before they are put into production and includes, of course, the sales executive, Mikhail Voloshanovich, otherwise known as the Ukraina "barometer." It's his job to know which styles, colors and fabrics are likely to sell and which won't.

Voloshanovich wasn't sold on Vasil's original design. He dropped in to talk about it. "I think," he said, "that as original as your scarf-collar idea is, it's a little too fancy for everybody's taste. Suppose you work it over and get something a little simpler—a coat with a shorter scarf-collar and the same very attractive lines, maybe."

Vasil argued a bit and then agreed to think it over. He adjourned to the quiet of the factory library and spent a couple of hours checking through fashion magazines. He tries to keep abreast of the work of French, American, Italian, German and Polish designers and, of course, of the models put out by fashion houses in Lvov, Riga, Moscow and Leningrad.

He spent some time sketching out ideas and finally hit on a design which pleased him, Voloshanovich and the rest of the art council. It turned out to be one of the season's very good sellers.

Designer Turned University Student

From the Ukraina factory to Shevchenko Boulevard is a half-hour's ride by bus. But in that half-hour every day Vasil shifts character. From a clothes designer he becomes a university student. Once he gets to Shevchenko Boulevard and Kiev University he tries to forget about new designs and turns his mind to German grammar or the history of the Ukraine.

This is the sixth year that Vasil has been traveling from the Ukraina factory to the university. There are many evenings when he would sooner take it easy or go to the movies after work, but this is another way he has of keeping pace with the times. So that night after night Vasil is there at what is by now his habitual seat in the university library. He is taking a correspondence degree in history which includes work in archaeology and ancient Slav languages. During examination periods he is excused from his job at the factory, with pay, to do full-time study.

Offhand, there would seem to be little enough connection between the history of ancient Egypt, let us say, and dress designing, but in Vasil's mind the relation is a very obvious one.

Grigori Butenko, a friend of his, once put the question this way, "I don't understand why you're majoring in history. Take me, I work in a fashion house and I'm studying at the textile institute. That makes sense. My studies help me with my work and my work with my studies. But I don't see your logic. If you want to become a historian, why stick at Ukraina? And if you are interested in designing, why are you majoring in history?"

Vasil smiled as he answered: "It's logical enough. After I get my degree I'm going on to graduate study, and I have my thesis subject all picked out. As a matter of fact, I've been doing research on it for some time now—'The History of Russian Costumes.' Get the connection?"



THE PEOPLE WHO WORK IN THE SAMPLE DEPARTMENT OFTEN GET TOGETHER FOR THEIR SOCIAL ACTIVITY.

AFTER WORK, VASIL BECOMES A STUDENT. HE HAS BEEN ENROLLED AT KIEV UNIVERSITY FOR SIX YEARS AND PLANS TO GO ON TO GRADUATE STUDY.





RAPIA AIDAROVA, RESEARCH-BOTANIST OF THE KIRGHIZIAN ACADEMY OF SCIENCES, WAS ONE OF THE FIRST WOMEN TO WIN A MASTER'S DEGREE AT FRUNZE UNIVERSITY.

THREE SCIENTISTS

Botanist from Kirghizia



BORN into a family of Kirghizian shepherds who wandered with their flocks from one pasture to another, Rapia Aidarova witnessed the changes wrought by the Socialist Revolution of 1917 in all spheres of life of her people.

The Aidarov family live near the shores of Lake Issyk-Kul, a huge body of water situated high in the mountains on the republic's border, and it was here that the first houses replaced the tribal tents of the nomad people. It was at this time, too, that schools were first opened and education became a possibility for girls. Previously only male children went to school, and at that only the sons of the privileged and rich.

Rapia finished secondary school and an-

nounced her determination to become a botanist. Thereupon she enrolled in the university at Frunze, the capital of Kirghizia. After graduating she continued her studies and got her degree as a master of biological sciences.

Today Rapia Aidarova takes part in many scientific expeditions and is a member of the staff of the research institute of the Kirghiz Academy of Sciences. She spent the past two years in the Tien-Shan Mountains studying plant life.

The young research worker tries to find grazing areas with the best fodder for livestock. She is the author of a number of monographs on plant life in Kirghizia that have been included in a huge academic work prepared by the institute.

OF THE 700 known alkaloids—caffeine, codeine, quinine and other similar substances extracted mostly from plants—sixty were discovered in the laboratory of alkaloid chemistry of Sabir Yunusov, Vice President of the Uzbek Academy of Sciences.

Alkaloids are widely employed in medicine and have long been used to combat disease in man. Thanks to the discovery of quinine it was possible to synthesize acrichinum, and knowledge of the structure of cocaine provided the basis for the preparation of novocaine.

Yunusov's first discoveries were made thirty years ago when he, the son of a Tashkent bricklayer, completed his studies in chemistry at the first Central Asian University, and was doing graduate work at a laboratory in Moscow. As his graduation work, Yunusov presented the description of six alkaloids he had extracted from the wild oriental poppy.

Wounded in battle during World War II, Sabir Yunusov is now in his fifties and continues his research work. Some 3,000 plants have been tested in his laboratory and 800 were found to contain alkaloids. The structure of 16 has been thoroughly investigated and the main texture patterns of 13 others have been found.

Yunusov is continuing his study of wild plants to find more alkaloids for the benefit and advancement of science.



ACADEMICIAN SABIR YUNUSOV IS WORLD FAMED FOR HIS MANY DISCOVERIES IN THE FIELD OF ALKALOIDS.

Chemist from Uzbekistan

Physicist from Azerbaijan

AT 28, DR. AZAD MIRZAJANZADE IS A RECOGNIZED AUTHORITY ON VISCOUS AND VISCOUS-PLASTIC FLUIDS.



AZAD MIRZAJANZADE, a young Azerbaijani physicist, is only 28 years old but has already won himself an international reputation for his advanced research work.

Only a few months ago Mirzajanzade celebrated his birthday and won his doctor's degree in technical sciences from the USSR Academy of Sciences. His dissertation was on problems of the hydrodynamics of viscous and viscous-plastic fluids, and it attracted the immediate attention of leaders in this field. He later published more than 50 articles on problems connected with his thesis in various Soviet scientific journals. Some of the most interesting of these were reprinted in the American *Mathematical Review*, the information bulletin of the French Academy of Sciences and other foreign technical periodicals.

In keeping with Soviet practice, Mirzajanzade's defense of his thesis was preceded by a wide discussion of the subject in the scientific press. The interest aroused by his paper is by no means accidental, since a number of important practical problems connected with the drilling and exploitation of oil fields and the shipping of oil were solved by Mirzajanzade in an original manner. Most of his proposals were of great practical importance for the oil industry of the Soviet Union.



A LECTURE-CONCERT ON TCHAIKOVSKY. THE LISTENERS ARE AS ARDENT MUSIC-LOVERS AS THE PERFORMERS, AND CONCERTS ALWAYS ATTRACT LARGE AUDIENCES IN GOMEL.



GOMEL *the city of music*

BYELORUSSIANS say that there are more musicians in Gomel than in any other city of the same size you care to name. Every fifteenth person studied or is studying music, and the city, with its scores of choruses, bands and symphony orchestras, bids fair to become Byelorussia's amateur music capital. Aspiring musicians, singers and dancers come from widespread villages and towns to display their virtuosity at the republic's amateur art festivals held here.

An idea of Gomel's feeling about music is provided by the fact that one of the first things done after the city was liberated from the Nazis was to get a music club going in the railroad workers' community center, the only building left standing. The club has since grown into an evening college with three-year free courses in music, art and dramatics.

Gomel is fast becoming Byelorussia's amateur music capital. Here two boys from the local clothing factory are performing a song, composed by a fellow worker, with accompaniment on the domra, an old folk instrument.

A small orchestra illustrates lectures and seminars on the history of music given at the evening college which grew out of a music club.



Lidia Maslennikova, literature teacher, plays a Chopin waltz. Every fifteenth person in Gomel studied or is studying music.



Nikolai Pugachev is called a "Gomel violinist," which has come to mean an excellent performer. He is a promising student at one of the local music schools.

NEW USSR CHESS CHAMPION

By Alexander Kotov
International Grandmaster



TIGRAN PETROSYAN, USSR CHESS CHAMPION

THE Opera and Ballet Theater of Tbilisi, the Georgian capital, staged a production much different from its usual ones in February of this year—the USSR championship chess matches. The props were ten chess tables and the cast twenty of the country's leading contenders for national honors. Out front an intent audience watched ten demonstration boards that showed the moves.

Focus of keenest attention as the field narrowed down in the final round was Tigran Petrosyan, a slim young Armenian with dark hair who was making his moves with unruffled calmness. All he had to do to clinch the title was to pull a draw. One last carefully calculated move and the crowded theater burst into applause. The calm young man was the new national chess champion, winner of the envied gold medal, perhaps the most difficult of all chess awards to get.

Petrosyan and ex-champion Mikhail Tahl analyze a draw game at the 1959 matches.



Tigran learned the game when he was a very young schoolboy. He spent his after-school hours at the chess club of the Tbilisi Young Pioneer Palace playing with children of his own age and learning the rudiments of theory from the club's instructor. It wasn't long before he had polished off all the contenders his own age and was going after the grown-ups.

In 1946 the embryo chessmaster captured first place in the USSR junior tournament with a brilliant 14 out of 15 points. That same year he won the championship of Armenia and two years later made the semi-finals in the national matches where he placed fifth. This gave him the master's title.

He scored his first big success in 1952 when he tied for second place at the Interzonal Tournament in Stockholm. That won him the title of international grandmaster and rank with the world's great in chess.

But the trouble was that although he invariably took prizes, he rarely came out on top. There was evidently something in his style that was faulty, so he worked persistently to change it. Thus far Petrosyan hasn't revealed how he went about altering his play, but it must have involved a careful study of combinational positions and incisive variations. Whatever the method, the results were soon enough evident.

In this USSR championship match Petrosyan played many sharp combinational games and chalked up the fine score of 13½ points out of 19. He won eight games and 11 draws. None of his rivals got the better of him.

The Soviet Union is chess country, and Petrosyan's victory caused a stir of considerable dimension. When I called the telegraph office in Moscow to send a congratulatory wire to Tbilisi, the clerk didn't ask me to whom, she told me, "To Petrosyan."

I asked how she knew.

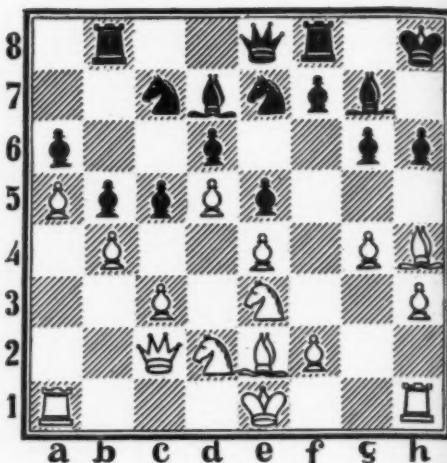
"It's not second sight," she answered. "All we've been doing here today is sending telegrams to Petrosyan."

The new champion will be celebrating his thirtieth birthday this year. "I'm already an old man," he said mournfully after the Interzonal Tournament in Yugoslavia last year. "I'm twice the age of Bobby Fischer."

It's true that American Bobby Fischer broke the record by winning the grandmaster's title at the very youthful age of 15, but Petrosyan is also young and it's still a while before he will have to be pushed around in a wheelchair. He has lots of time to develop his undoubtedly gifts and to win new laurels.

Here is one of the endings Petrosyan played at the USSR championship match in Tbilisi. The game was with Anatoli Lutikov (Black) and the diagram shows the board after the 23rd move.

Black thinks his position completely safe,



but Petrosyan's unexpected move now confronts him with insurmountable difficulties.

24. P-QB4! . . .

How is Black to play? If 24. . . . BPxP, then 25. P-B5! R-R1 26. P-B6! and the White Pawn becomes very powerful. Black hastens to set up a defense.

24. . . .	Kt-B1
25. KtPxP	QPxP
26. PxP	KtxKtP
27. BxKt	RxB
28. O-O	. . .

Now White holds the key QB4 point and with it opens a decisive offensive.

28. . . .	P-B4
29. P-B3	R-B2
30. Kt(Q)-B4	R-Kt5
31. B-K1	R-Kt2
32. B-B3	. . .

Petrosyan's tactics, as always, are sure and precise. It is difficult for Black to hold his position. He therefore decides to chance a desperate thrust.

32. . . .	P-R4
33. KtPxP	PxP
34. PxP	P-K5
35. K-R2	PxP
36. RxP	B-Q5
37. Q-Q3	B-KB3
38. R-KKt1	. . .

Shifting his pieces to the K-side, Petrosyan prepares for the crucial attack.

38. . . .	K-R2
39. BxP	RxB
40. Q-B3	Q-B1
41. R-Kt6	R-KB2
42. R-Kt5	. . .

The game was adjourned at this point, but Lutikov resigned without resuming play.

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PRESSED FOR TIME



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