SOVIET UNION

No. 1 (71) JANUARY 1956

Moscow. Red Square on New Year's Night
Photographed by I. Arefyev

COVER:
Drawing by A. Zhitomirsky

SOVIET UNION

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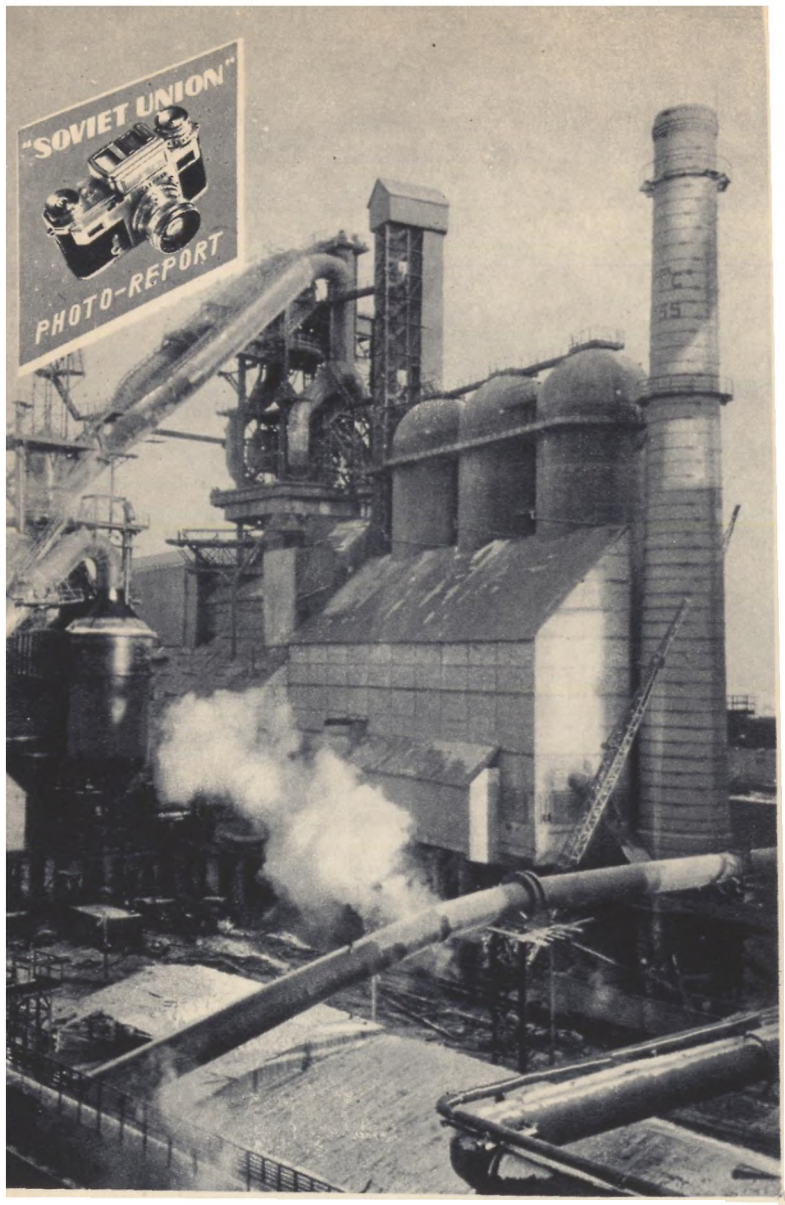
FOURTH SESSION OF USSR SUPREME SOVIET

During its fourth session, held December 26-29, the Fourth Supreme Soviet of the USSR approved the State Budget for 1956 (revenue: 592,761,156,000 rubles and expenditure: 569,634,972,000 rubles), adopted a decision on the exchange of delegations with the parliaments of other countries, and passed a resolution on the results of the trip by N. A. Bulganin, Chairman of the USSR Council of Ministers, and N. S. Khrushchov, Member of the Presidium of the USSR Supreme Soviet, to India, Burma, and Afghanistan. A report and a speech on the latter item were made, respectively, by N. A. Bulganin and N. S. Khrushchov. The Supreme Soviet also approved the decrees passed between sessions by its Presidium. Photograph shows N. A. Bulganin reporting on the Soviet Government Delegation's trip to India, Burma, and Afghanistan. The USSR Supreme Soviet unanimously approved the activity of N. A. Bulganin and N. S. Khrushchov during the visit as fully corresponding with the Soviet Union's foreign policy of peace and contributing to international peace, friendship, and co-operation.

Photographed by Y. Korolyov



CHELYABINSK. This powerful new blast furnace was built in seven months and ten days

Photographed by A. Khodov

ON EVE OF 20TH PARTY

The Soviet people are making new advances in the economic and cultural fields in honour of the forthcoming 20th Congress of the Communist Party of the Soviet Union. Knowing, as they do, that every step taken by the Communist Party and the Soviet Government is aimed at promoting their welfare and the country's development, they are carrying out the Party's policy with greater enthusiasm than ever; they know that this is a policy which conforms with their vital interests and aims.

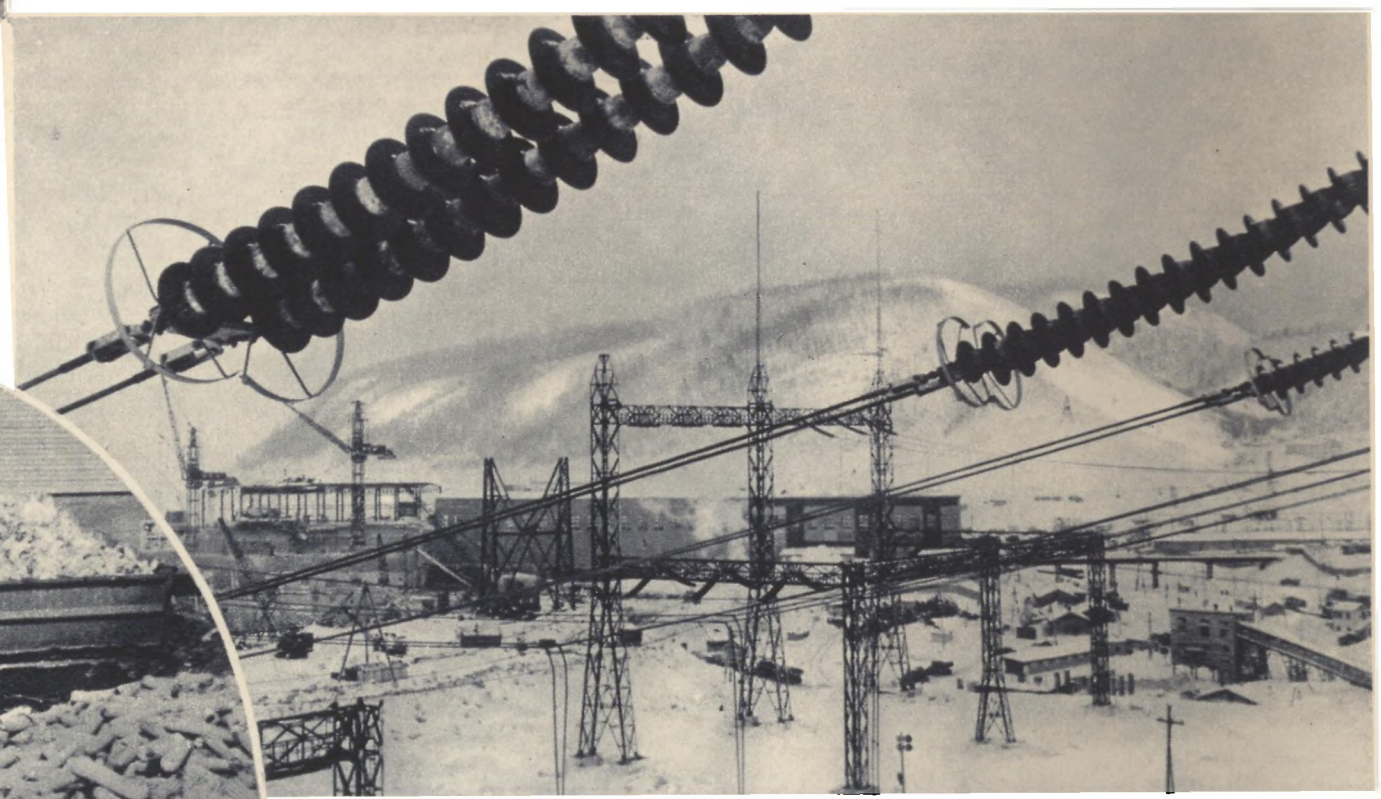
Nineteen hundred and fifty-five, last year of the Fifth Five-Year Plan, was devoted to fulfilment of the history-making decisions adopted by the Central Committee of the Party at its January and July Plenary Sessions. Socialist industry, particularly heavy industry—the mainspring of national-economic development—continued to grow thanks to the introduction of new techniques and to better organization of production. As compared with the 1913 level, gross industrial output in the USSR in 1955 showed an increase of 27 times, the production of means of production an increase of 60 times, power output 86 times, and engineering output more than 160 times.

Last year saw the commissioning of an iron and steel works in Cherepovets, the Southern Concentrating Mill in the Krivoi Rog area, an aluminium works in Sumgait, Azerbaijan, and a number of other heavy industry projects. The light and food industries were likewise extended.

Electrification, an important factor in economic development, is being continued on a large scale. Last year the Gorky, Kakhovka, Narva, and other hydroelectric stations went into operation and work began on the Bratsk Hydroelectric Station, the world's largest, on the River Angara in Siberia. The giant Kuibishev station started supplying power to industrial consumers.

The decisions of the Communist Party have armed agriculturists with a wide and clear-cut programme whose realization will mean an abundance of food for the population and of raw materials for the light industries. Valuable data has now been amassed from the experience of front-rank collective farms which have shown that the targets set by the January Plenary Session can be reached ahead of schedule.

The country-wide emulation campaign in honour of the forthcoming Party Congress is a salient feature of the Soviet scene today.



ZHIGULYOVSK. A view of Kuibishev Hydroelectric Station, now in operation, from the high-tension substation

Photographed by A. Batanov and I. Semin

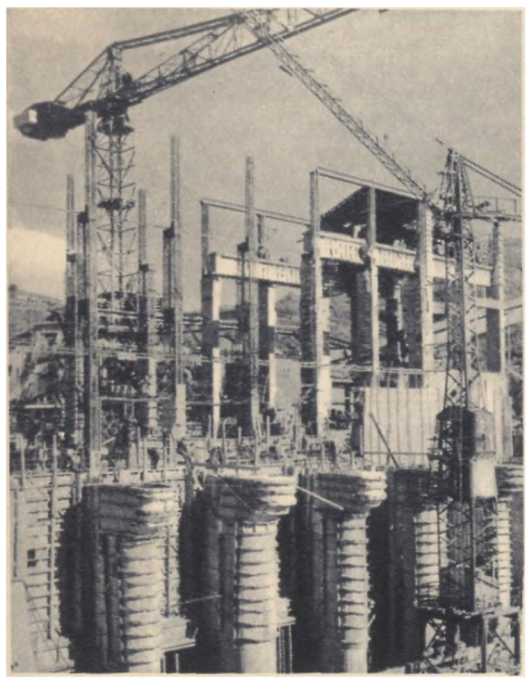
CHERKASSI REGION IN THE UKRAINE. Selecting maize for a two-year fodder stock the Zdobutok Zhovtnya Collective Farm in Talnoe District is building up

Photographed by I. Diament

UKRAINIAN REPUBLIC. Dniester Bay Bridge was opened for traffic a fortnight ahead of schedule

Photographed by A. Fateyev

CONGRESS

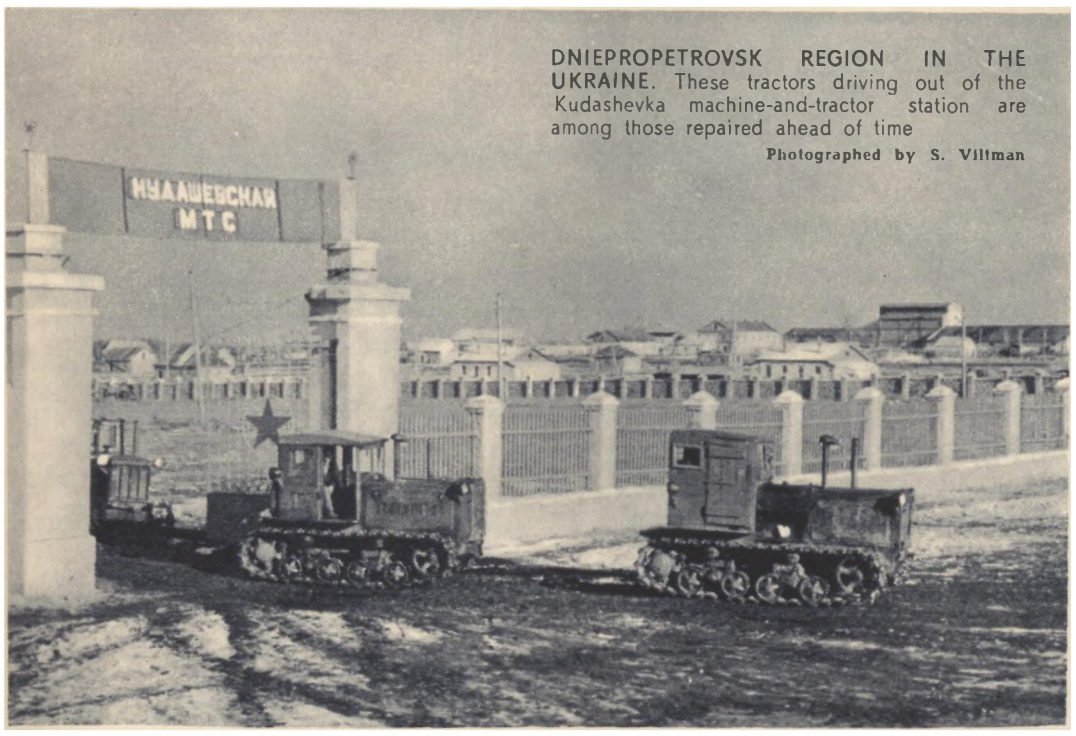


GEORGIAN REPUBLIC. The building crews at the Second Gumat Hydroelectric Station are competing to finish concrete and assembly work first

Photographed by P. Lulsenko

GORKY. The Molotov Auto Works here was one of the dozens of local plants which fulfilled the five-year plan ahead of schedule

Photographed by P. Voznesensky

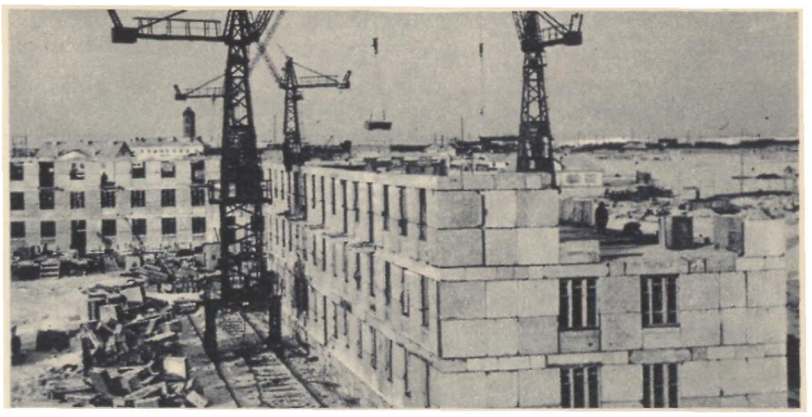


DNIEPROPETROVSK REGION IN THE UKRAINE. These tractors driving out of the Kudashevka machine-and-tractor station are among those repaired ahead of time

Photographed by S. Viltman

MOSCOW. A. S. Smirnov, a turner at the Vladimir Ilyich Works who was a delegate to the 19th Congress of the CPSU, is topping his production plan by 200 per cent in honour of the forthcoming Congress

Photographed by Y. Korolyov

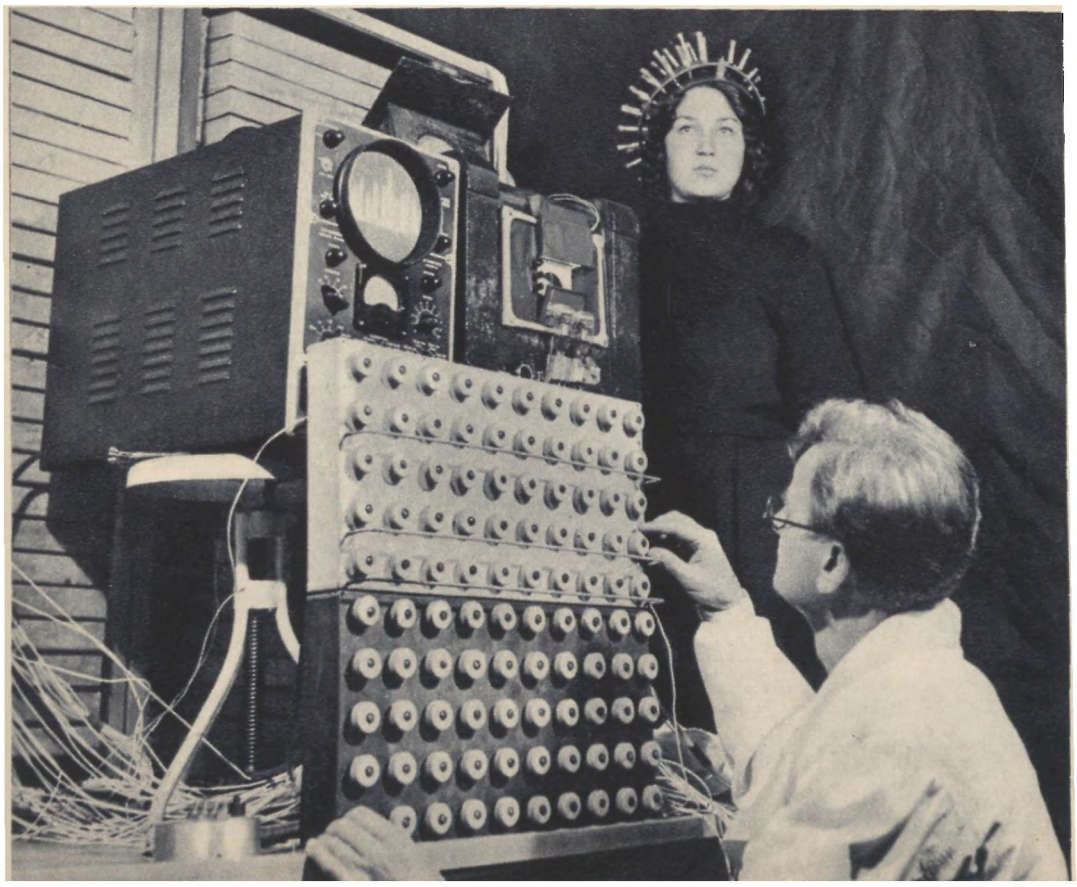


KAZAKH REPUBLIC. This housing estate in Pavlodar is being put up for the workers of the country's largest harvester combine factory, now under construction. The builders of the estate have pledged to exceed the programme in honour of the 20th Party Congress

Photographed by V. Miryasov

MOSCOW. Brain TV is the name of this apparatus for the simultaneous observation of the bioelectric currents of 50 various points of the brain. Designed by Professor M. I. Livanov and V. M. Ananyev, an engineer, who is seen here at the controls, this apparatus will help to solve many problems in medicine, psychology, and education

Photographed by V. Kuzmin



VINNITSA. A new library with reading and lecture rooms has been opened here

Photographed by Y. Bagryansky

KHABAROVSK. A new house in Serishev Street, one of the many houses built here over and above plan

Photographed by V. Baldalov

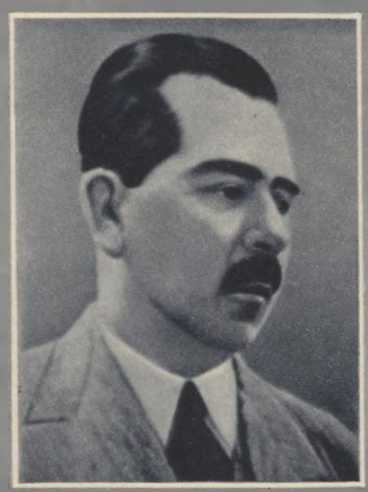
A view of the meeting held by the Moscow City Soviet of Working People's Deputies together with representatives of Party, Soviet, and public organizations, and the Soviet Army, in Bolshoi Theatre in honour of a historic date—the 50th anniversary of the first Russian Revolution, 1905-1907

Photographed by Y. Korolyov

ORDER OF LENIN FOR LENINGRAD METRO

The Order of Lenin, highest award in the Soviet Union, was presented to the Leningrad Metro by K. Y. Voroshilov, President of the Presidium of the USSR Supreme Soviet, in the Tavrichesky Palace, Leningrad, on December 17 last. The ceremony was attended by the tunnelers, marble workers, bricklayers, plasterers, installation men, track layers, architects, and others who built the underground railway. Many prominent people of Leningrad were among the guests.

The Leningrad Metro builders had to work in exceedingly difficult geological conditions. Many of them have been decorated by the Government in recognition of their fine work.



Lázaro Cárdenas (Mexico)

Sheikh Mohamed Al-Achmar (Syria)

Joseph Wirth (German Federal Republic)

Ton Duc Thang (Viet-Nam)

Akiko Seki (Japan)

Ragnar Forbech (Norway)

FOR PROMOTION OF PEACE AMONG NATIONS

The Committee of the International Stalin Prizes "For Promotion of Peace Among Nations" has passed its sixth resolution, conferring the Prize on the following outstanding fighters for peace: Lázaro Cárdenas, ex-president of Mexico; Sheikh Mohamed Al-Achmar, Syrian public figure; Joseph Wirth, ex-chancellor of Germany; Ton Duc Thang, Chairman of the National Committee of the Patriotic Front of Viet-Nam; Akiko Seki, Japanese art worker; and Pastor Ragnar Forbech, chaplain of the Cathedral of Oslo.

In previous years the Stalin Prize "For Promotion of Peace Among Nations" was awarded to men and women of 23 countries—distinguished public and political figures, scientists, technicians, writers, artistes, and churchmen, people of various political views and religious persuasions.

LENIN'S STUDY Thousands of people visit the flat of Vladimir Ilyich Lenin, now a museum, in the Moscow Kremlin. They linger in the great leader's study where everything has been preserved intact since his death. This picture shows a group of students of Moscow University in Lenin's study. Left to right are Ewald Bibow (GDR), Claude Frioux (France), Chancdrsanath Chakravarti (India), Yang Miao-sung and Chang Yang-te (China), and Alya Osadchaya and Igor Dedkov (USSR)

Photographed by Y. Korolyov

Delhi during the stay of the Soviet leaders

Photographed by Our Special Correspondent **A. Garanin**

FRIENDSHIP BETWEEN TWO GREAT PEOPLES

Bulganin, Khrushchov, and those accompanying them visit Taj Mahal, the famous monument in Agra

Girls sing in honour of the guests

It is thousands of miles from Moscow to Delhi. But despite the different geographical position of the two countries and their different cultures and social relations their peoples have many aspirations in common—first and foremost the desire for peace—and call each other brothers from the bottom of their hearts.

Nearly five centuries have passed since the first Russian—traveller Afanasy Nikitin—visited India and spent several years there. He came to love that country and wrote a noteworthy account of his voyage. Subsequently relations between India and Russia developed and strengthened; they became closer still, and mutual understanding grew immensely, after the victory of the Great October Socialist Revolution, which proclaimed the principles of equality and self-determination of nations.

The courageous, selfless struggle which the Indians waged to regain their country's independence roused deep sympathies among the Soviet people, who would like to know more about the reforms being carried out in the Republic of India, about its history, customs, economy, literature, and art.

Indo-Soviet co-operation is assuming an increasingly varied character. In addition to the cultural and economic fields, it is manifested in the struggle to promote peace and lessen international tension, a fact greatly appreciated by the people in the USSR.

Soviet-Indian relations, which are based on the famous Five Principles, clearly show the possibility of peaceful co-existence and friendly contact between states with different socio-political systems.

A view of the Presidential Palace, where the Soviet guests resided during their stay in Delhi

Rajendra Prasad, President of the Republic of India, and N. A. Bulganin, Chairman of the USSR Council of Ministers, welcome those arriving at the reception given by the President

N. A. Bulganin and N. S. Khrushchov talk with Rajendra Prasad and Jawaharlal Nehru

FRIENDSHIP BETWEEN TWO GREAT PEOPLES

The recent visit of Prime Minister Jawaharlal Nehru to the USSR brought the two peoples even closer together and strengthened the conviction that people both in India and the Soviet Union can learn much from each other and greatly benefit by their co-operation.

The fraternal solidarity of the two great peaceable peoples was forcefully demonstrated again during the return visit to India by N. A. Bulganin, Chairman of the USSR Council of Ministers, and N. S. Khrushchov, Member of the Presidium of the USSR Supreme Soviet. The guests from the Soviet Union were given a most cordial welcome; their route was strewn with flowers, and millions of people gave enthusiastic shouts of:

"Indians and Russians are brothers!"

"Welcome to India, dear neighbours!"

The "Hindustan Times" noted: "The arrival of the Soviet leaders marks an important event in the history of Indo-Soviet relations. . . .Coming after the visit of Nehru to the Soviet Union in June, the visit to India of the Soviet leaders in the same year further strengthens the growing friendship between the peoples of the two countries and gives greater emphasis to the Panch Shila policy of peaceful co-existence in the world."

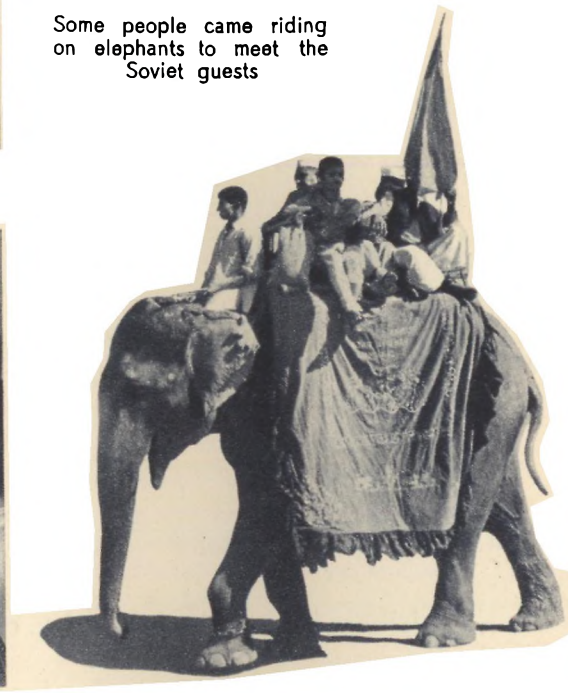
The Parliament of the Republic of India in Delhi. Bulganin and Khrushchov spoke here at a joint session of the two houses

The Soviet guests on their way to Rajghata to lay wreaths at the urn of Mahatma Gandhi assassinated by a hireling of reactionaries

People of Agra welcome Bulganin and Khrushchov

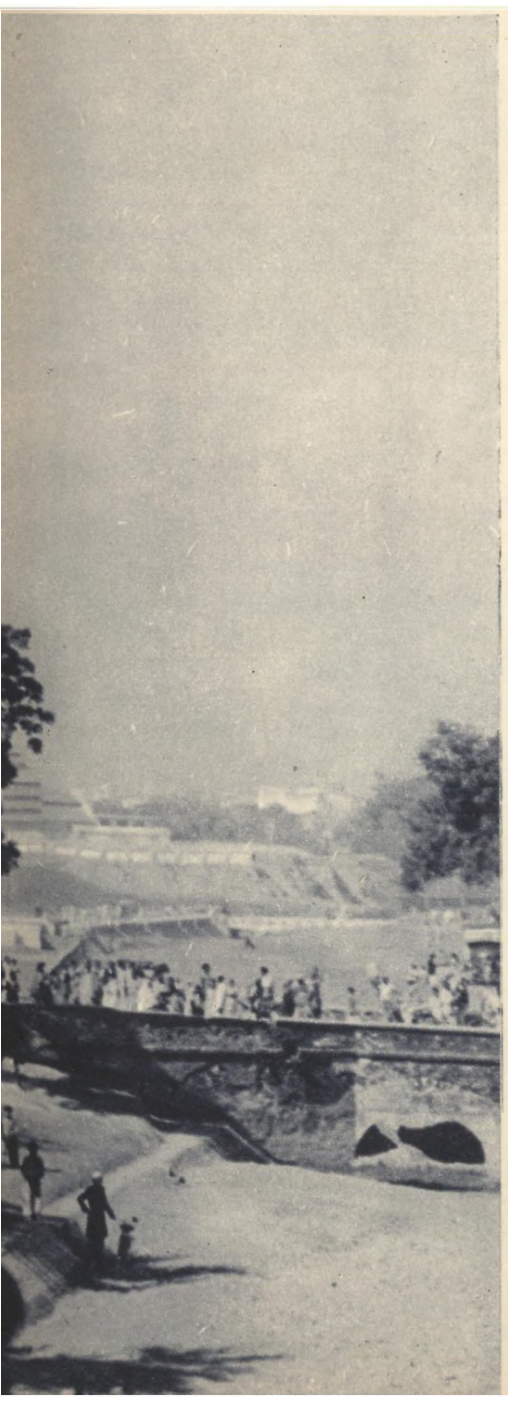
The fort in Agra, built in the second half of the 16th century

The guests view the palatial rooms of the fort



Some people came riding on elephants to meet the Soviet guests

Lal Kila (Red Fort) Fortress in Delhi. In August of 1947, Jawaharlal Nehru hoisted the Indian State Flag over this fortress as he proclaimed India's independence



Bulganin and Khrushchov greet the people gathered in front of the Agra fortress

Five Questions

The Institute of Metallurgy of the USSR Academy of Science recently held a conference at which the problem of teeming steel uninterruptedly was discussed by representatives of the country's leading metallurgical plants and research institutes. A "Soviet Union" correspondent approached I. P. Bardin, Hero of Socialist Labour and Vice-President of the USSR Academy of Science, with the request to describe the new method of teeming steel. Below, we publish Academician I. P. Bardin's replies.

This is how Vasily Tarasov worked at the casting pit

QUESTION: What exactly is the keynote of the new method of teeming steel?

ANSWER: Before answering this question, I would like to say a few words about the old method which is still in wide use in the world—the method of the so-called casting pit. At the end of each melt, the usual practice is to feed the molten metal to the casting pit, where it is poured into steel forms or moulds. Here the metal cools and shrinks. Blisters form in every ingot, while part of it becomes porous and useless as processing material. Under this method the unavoidable losses are very high and often amount to as much as a fifth of the smelted metal. Without delving into technology, I will only say that such a method does not let man control the process by which steel crystallizes. The result is that the quality of the ingots is far from uniform and is frequently not up to standard.

To return to your question. Under the new method, the molten metal is directed from the furnace or ladle to a special installation with a water-cooled crystallizer, from which a machine draws out the hardened steel in the shape of a long, continuous billet. Then the billet is cut into workpieces and sent to the rolling shops. Thus, molten steel is teemed continuously into the installation at the top, while at the bottom we get a ready billet that meets all the requirements of technology.

QUESTION: How much will the new method save?

ANSWER: Very much. Employed on a big scale, it will do away with costly and bulky equipment: there will be no need for blooming mills, moulds, and soaking pits. Besides, the quality of the metal will be considerably higher and waste will be cut to a minimum. It will see the end of the notorious casting pits, as well.

QUESTION: How will the new method affect labour conditions?

ANSWER: The usual method still entails quite a bit of hard work, such as tending the casting pits, preparing moulds, and working at the soaking pits. Put together, the high temperatures, the gases, the dust, and the sparks make the metallurgist's job difficult and sometimes even dangerous.

The method of teeming steel uninterruptedly will bring about a basic change in labour conditions. The casting pits and moulds will give way to well-lighted shops, where automatic machines will control complex processes.

QUESTION: How was the installation for teeming steel uninterruptedly built?

ANSWER: The problem of perfecting teeming methods has been occupying the minds of metallurgists for a long time. Scientists and practical workers were busy at many Soviet enterprises, seeking progressive ways and means of changing the process. The method we are talking about was developed at the Central Research Institute of Ferrous Metallurgy. The task was resolved with the co-operation of the engineers and worker-innovators of the Krasnoye Sormovo Works. After numerous experiments and painstaking work, engineers M. Boichenko, V. Rutes, V. Fulmakht, A. Khripkov, K. Korotkov, and others built a unique, highly efficient installation.

QUESTION: What are the prospects of the new method?

ANSWER: Several Soviet enterprises are already employing it and doing a great deal in the way of introducing improvements. This shows that it is still in the developmental stage. But even now there can be no doubt that the new method is a considerable step forward along the road of technical progress.

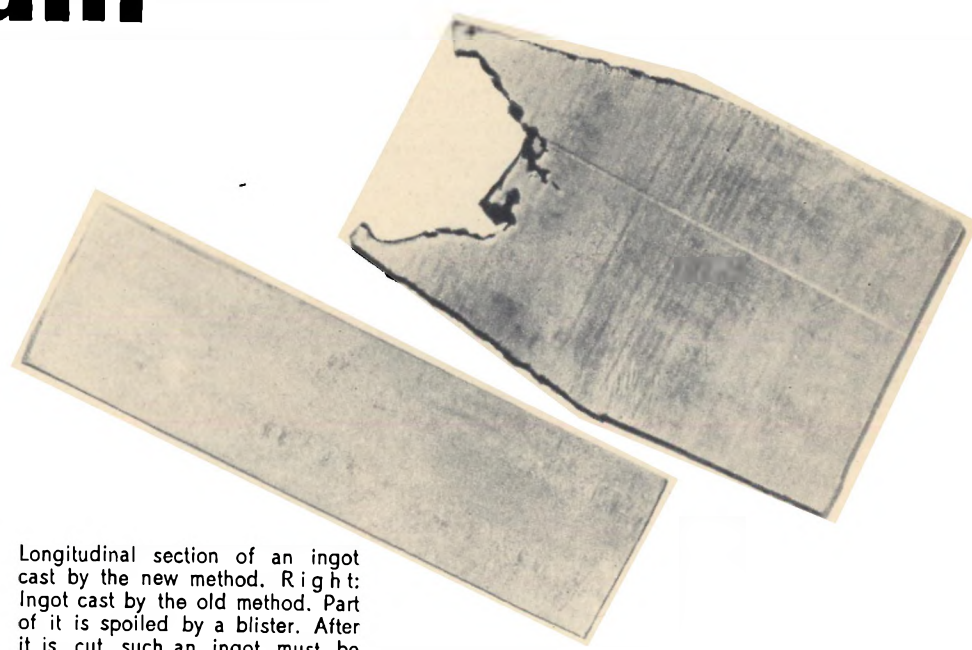
Here is the Krasnoye Sormovo Works' installation for teeming steel uninterruptedly. The molten metal passes through the "cooling zones", where it hardens and then goes to the cutting department in the form of a continuous billet

Engineers A. Khripkov and K. Korotkov test a radioactive gauge which measures the level of molten metal

The continuous billet is automatically cut into workpieces of the necessary size

to Academician Bardin

Photographed by Y. Korolyov



Longitudinal section of an ingot cast by the new method. Right: Ingot cast by the old method. Part of it is spoiled by a blister. After it is cut, such an ingot must be additionally heated and rolled in a blooming mill

And here is Vasily Tarasov at work today. He tends an installation into which steel is teemed uninterruptedly

Ready steel billets come off the conveyer

The Lenin hydropower station at Yaropolets supplies electricity to 25 villages including Kashino

Lenin Came to See Us

In November 1920, when the young Soviet state was beating back the attacks of foreign and internal enemies, the peasants of the village of Kashino, near Moscow, built a small hydropower station. It was a great event at that time. The peasants invited Vladimir Lenin to the opening ceremony and greeted their beloved leader warmly. They will always remember his speech at the meeting and the talks they had afterwards. The Kashino peasants recently celebrated the 35th anniversary of Lenin's visit

V. I. Lenin and N. K. Krupskaya visiting the peasants of Kashino
Drawing by A. Chashcharin

A street in Kashino

A meeting of Kashino collective farmers and the inhabitants of the neighbouring villages held on the occasion of the 35th anniversary of Lenin's visit to the opening of the hydropower station

Photographed by V. Kivrin, I. Tunkel, and M. Savin

"The words of our dear Vladimir Ilyich have come true," writes T. Rodionova. "The peasants of Kashino united in a collective farm, and in a short space of time they have made great progress. We are proud of our wonderful agricultural machines and our new farm buildings.

"The electric lights we called 'Lenin Lamps' went on for the first time in the village of Kashino thirty-five years ago. We now have electricity not only in our homes, but in the farm buildings as well.

"We shall meet the Twentieth Congress of the Communist Party with new achievements."

The picture shows T. Rodionova getting the latest issue of a newspaper which published her reminiscences of V. I. Lenin.

On November 13, 1955, the Kashino villagers laid the corner-stone of a monument to Lenin

"Lenin knew that the opening of a small village hydropower station was the beginning of a great plan of electrifying the whole country, and that's why he visited us," said I. Oshmarin, a collective farmer. "At the meeting Vladimir Ilyich said that electricity would light up the peasants' lives throughout the country and ease their labour in the near future. The words of our great Lenin have come true."

The picture shows I. Oshmarin telling the children of the village of his meeting with Lenin.

Decorating a New Year's tree at F. Kozlov's home at Kashino

"According to the Russian custom, we met Lenin with bread-and-salt," Y. I. Malofeyeva, a collective farmer, recalled. "Our dear Ilyich talked to us for a long time. He said, 'The land now belongs to you, and you don't have to pay for it. Work hard and it will reward you. The Soviet State will do its utmost to help you.' We are unswervingly following Lenin's path."

The photograph shows Y. Malofeyeva, the manager of the dairy-farm (right), and A. Budayeva, a dairymaid.

What's New in Your Line?

Illustrations by A. Zhitomirsky, S. Kaplan, A. Katkovsky, and K. Kuzginov

"Soviet Union" put that question to a number of engineers, designers, scientists, architects, and economic executives. Here are some of the answers.

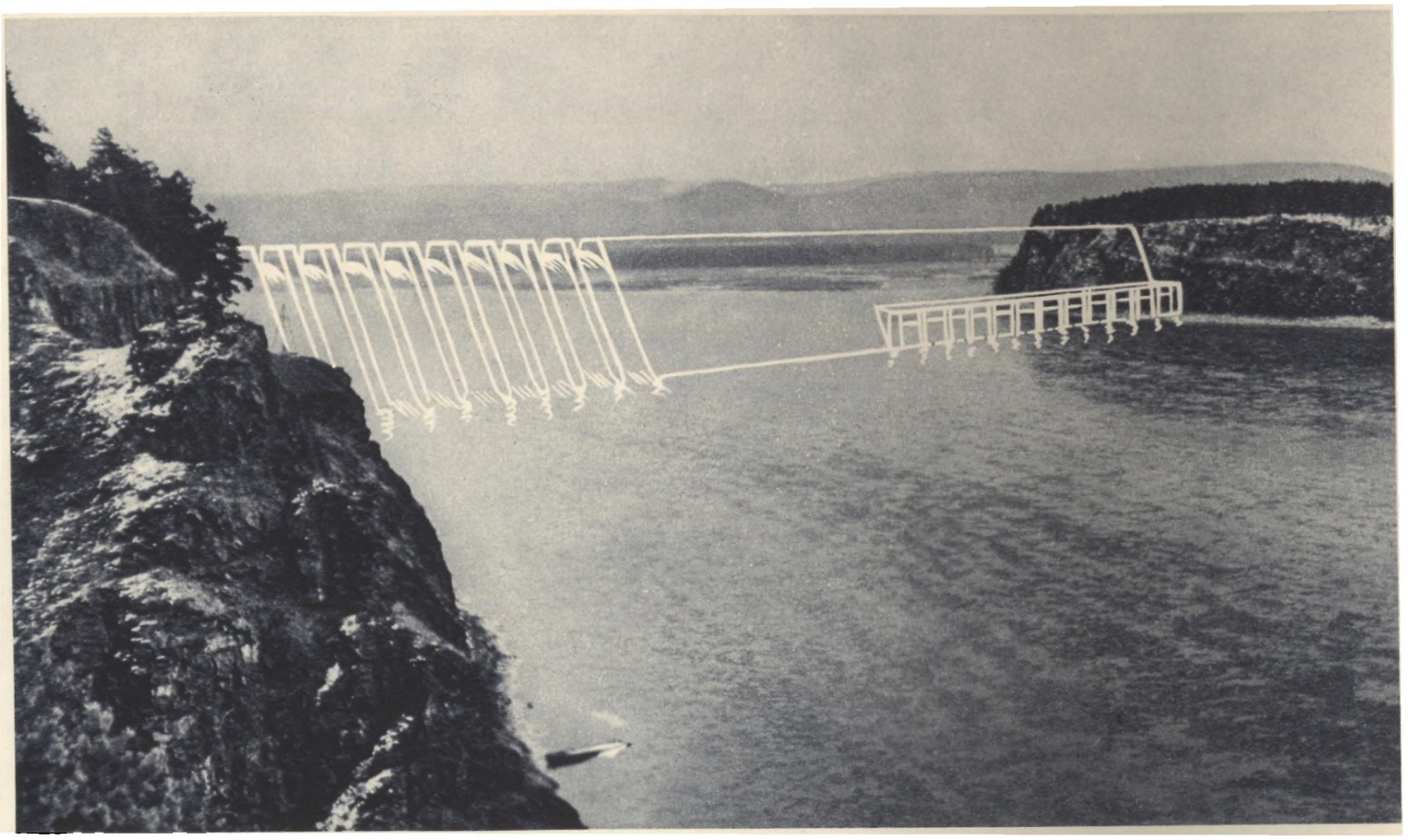
WORLD'S LARGEST

Preparatory work on the Bratsk Dam project is under way. This will be the second hydroelectric station on the Angara River (in Siberia) and the largest in the world.

"The new construction site is situated not far from the old Siberian village of Bratsk, 370 miles from the first station of the Angara cascade now being built near Irkutsk," our reporter was told at the USSR Ministry of Power Station Construction. "At Bratsk the Angara is hemmed in by high cliffs. The Bratsk station will generate more than 3,000,000 kw., which approximates the output of the giant Volga stations, the Kuibishev and the Stalingrad, taken together.

"Impounded by the dam, the Angara will form a reservoir with an area of more than 2,000 square miles. It will be three times as large as Kuibishev Sea.

"The builders are expected to put the first Bratsk power units into operation in 1960. That is a difficult job, but quite feasible."



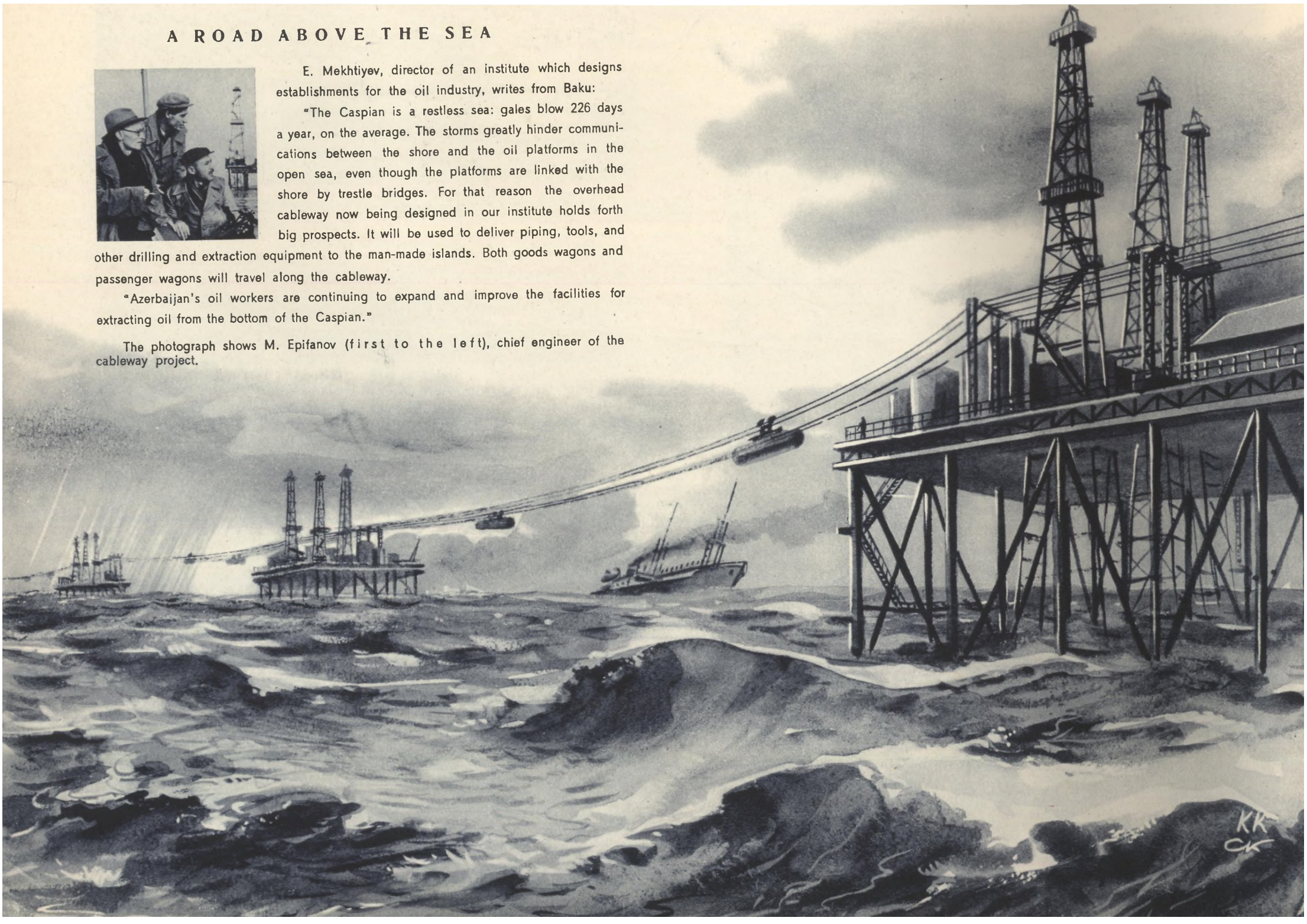
A ROAD ABOVE THE SEA

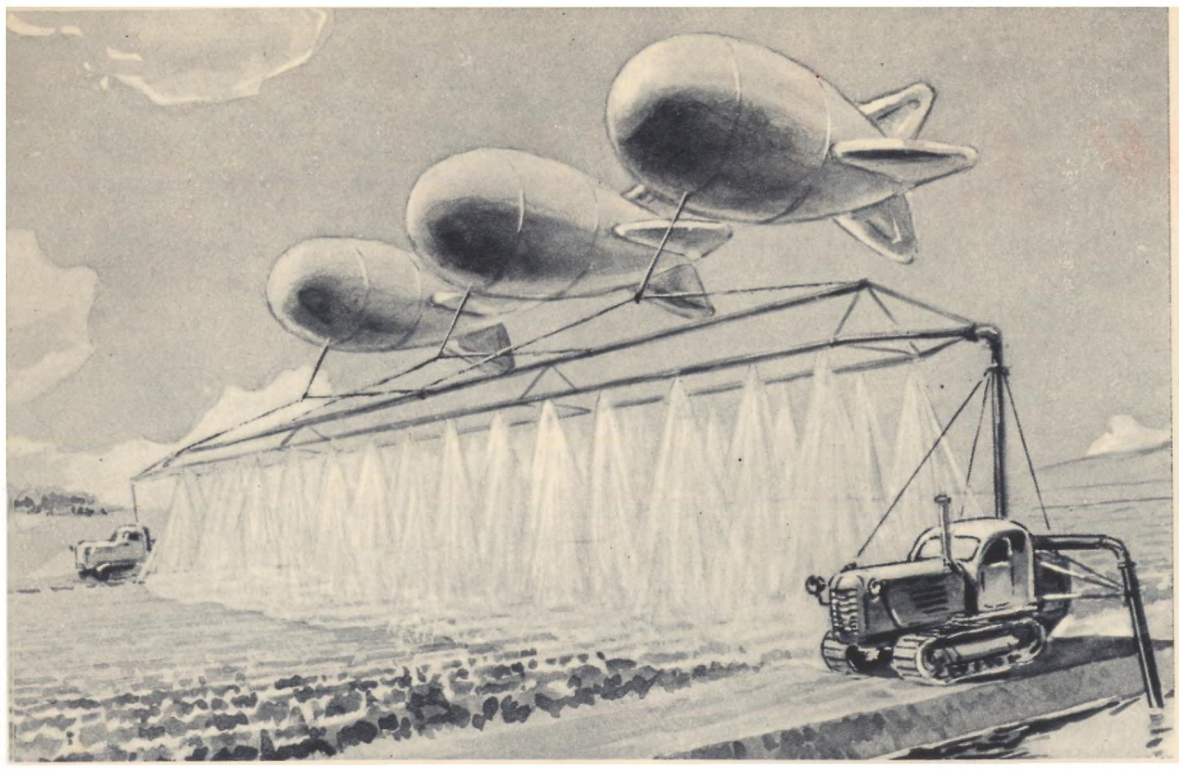
E. Mekhtiyev, director of an institute which designs establishments for the oil industry, writes from Baku:

"The Caspian is a restless sea: gales blow 226 days a year, on the average. The storms greatly hinder communications between the shore and the oil platforms in the open sea, even though the platforms are linked with the shore by trestle bridges. For that reason the overhead cableway now being designed in our institute holds forth big prospects. It will be used to deliver piping, tools, and other drilling and extraction equipment to the man-made islands. Both goods wagons and passenger wagons will travel along the cableway.

"Azerbaijan's oil workers are continuing to expand and improve the facilities for extracting oil from the bottom of the Caspian."

The photograph shows M. Epifanov (first to the left), chief engineer of the cableway project.





ARTIFICIAL RAIN

A. Tsarevsky, Director of the USSR Research Institute of Hydrotechnology and Land Reclamation, says:

"Artificial rain is the most rational method of irrigating crops. Our institute has designed several sprinklers with a daily capacity ranging from 40 to 100 acres. They are intended chiefly for steppe areas where there is no woodland or network of power transmission lines to interfere with their operation.

"To irrigate very large tracts, however, one would need sprinklers with a swath of about three-quarters of a mile and working on electrical or atomic power. This artificial rain, as we call it, would water more than 1,200 acres of crops in 24 hours. We picture these new sprinklers as having a flexible pipe-line and 'rain wings' supported by balloons or perhaps helicopters. The water would be taken from irrigation canals."

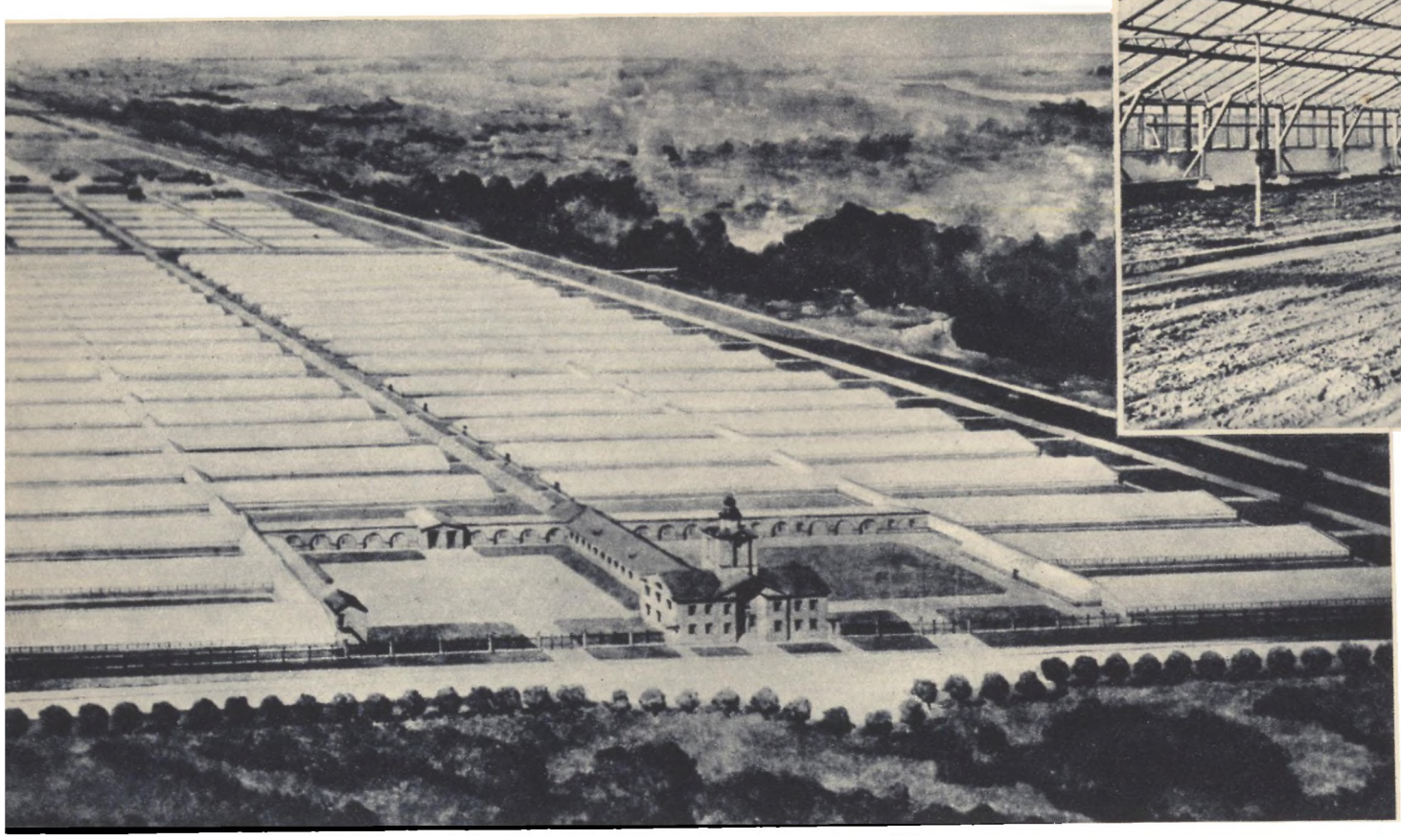
GIANT WALKING EXCAVATOR

"We are now designing a dragline excavator with a bucket capacity of 880 cubic feet and a boom nearly 330 feet long," B. Satovsky, assistant to the chief designing engineer of the Urals Heavy Engineering Works, reports. "This new self-propelled excavator will have a capacity from two to two and a half times more than the model with a bucket capacity of 495 cubic feet which we are now putting out. Furthermore, its operation cycle will not exceed 75 seconds.

"The designers are concentrating on making the machine more dependable, lighter in weight, and more convenient for the operating crew.

"For one thing, the new excavator will help the coal industry to increase output in open-cast mining, the cheapest of all methods."

What's New in Your Line?



VEGETABLE FACTORY

"Our goal is to supply the people of Moscow with fresh vegetables all the year round," says L. Dubov, director of the Belaya Dacha State Farm, a large establishment specializing in the production of vegetables for the capital. "To achieve it we are building a large number of hothouses and hotbeds. In fact, a whole town of glass structures is now rising on the farm. The hothouses will cover 753,000 square feet, the hotbeds 107,500 square feet, and truck gardens with warmed soil 215,000 square feet.

"Our 'vegetable factory' has quite an original heating system. Not far away from us there is an industrial establishment which has to cool large quantities of water all the time; after the water has been cooled it is used in the technological process again. We decided to help that establishment and ourselves at the same time. Now the water warms our hothouses and then, after it has given off its heat, flows back again. This saves us 250 tons of anthracite daily.

"The first section of the new town of hothouses and hotbeds will be finished this year. Then we shall start supplying Moscow with cucumbers, tomatoes, onions, celery, and other vegetables in quantity. Later we plan to go in for grapes and pineapples."

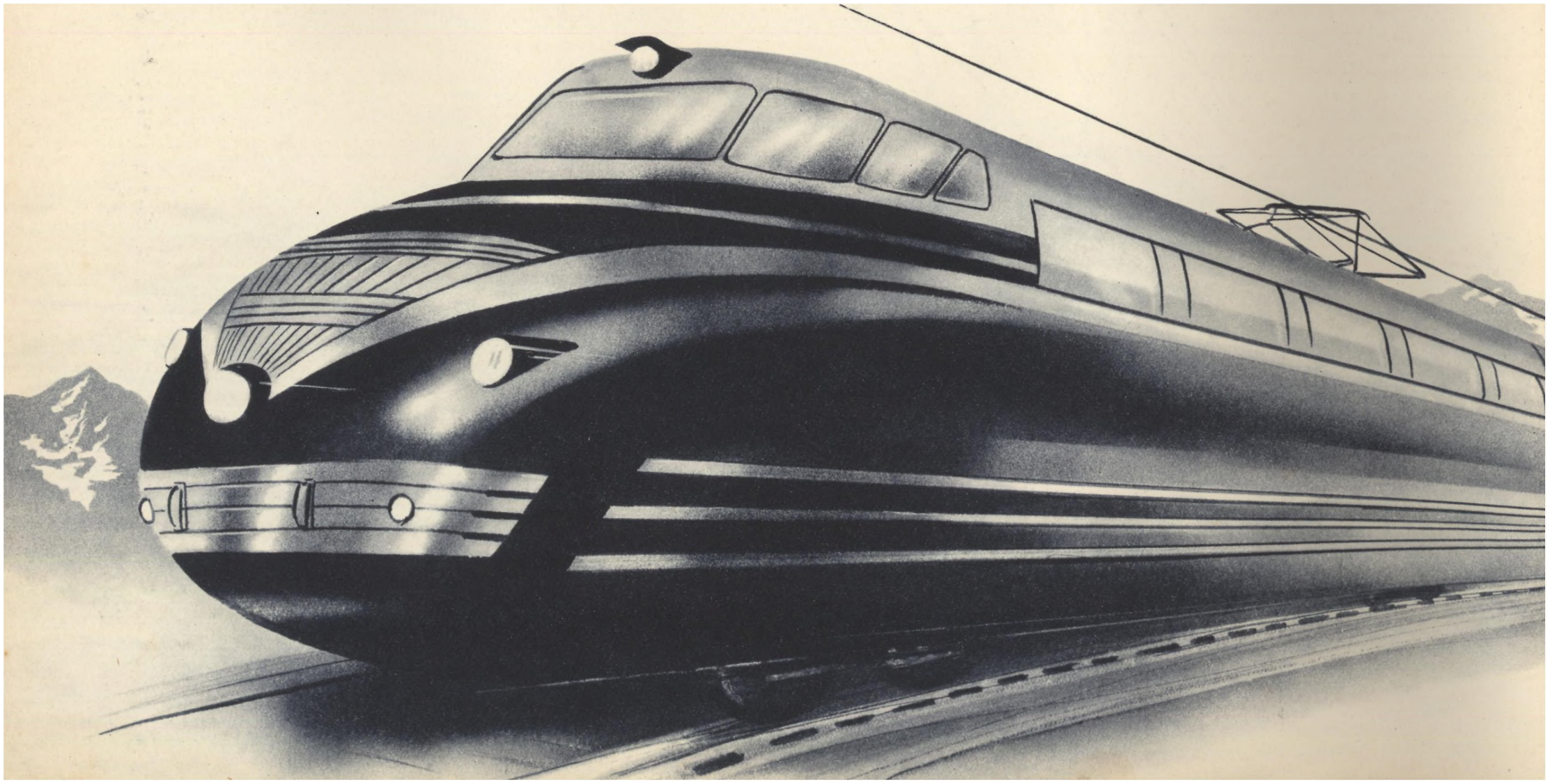
TWICE AS FAST

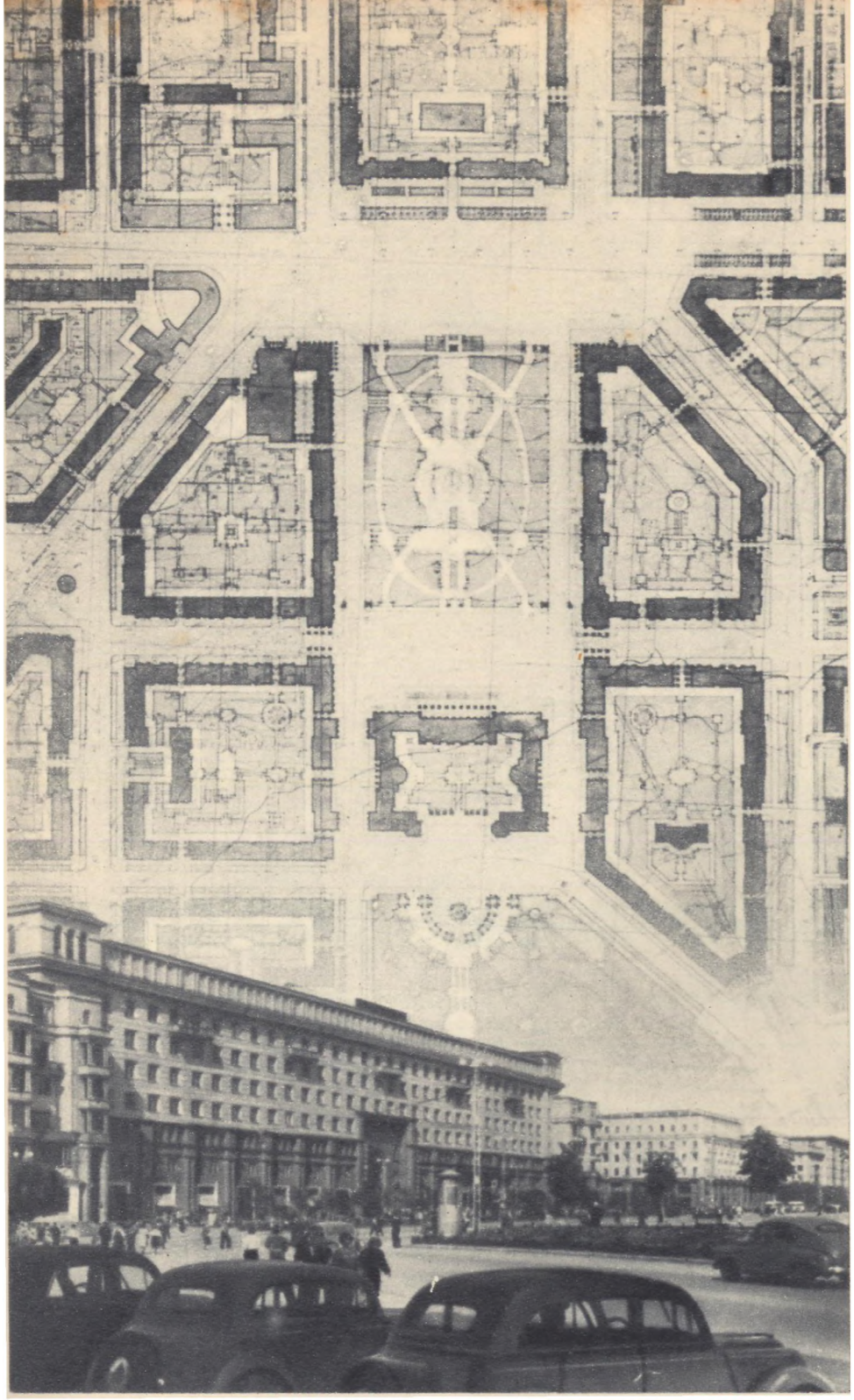
Prospects in railway electrification were described to our reporter by D. Vorozheikin, an engineer at the USSR Ministry of Railways.

"The huge power stations now under construction will soon make it possible to go over to electric traction completely on many lines. This will bring important cities and regions of the Soviet Union considerably closer to one another.

"Experimental models of a powerful six-axle trunk-line electric locomotive are to be put out by the Budyonny Electric Locomotive Works in Novocherkassk in honour of the 20th Congress of the Communist Party. Besides, engineers are designing a new passenger electric locomotive which in the near future will haul a train of from 15 to 18 all-metal carriages at speeds of up to 100 m.p.h.

"When the whole of the Trans-Siberian line has been switched to electric traction, trains will cover the distance from Moscow to Vladivostok in five days instead of the present ten."





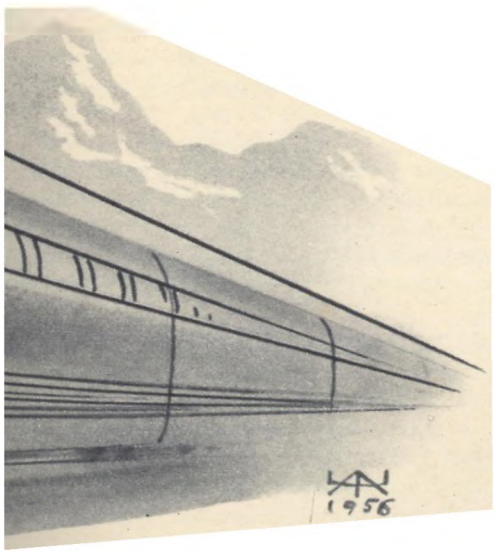
300 BUILDINGS A YEAR

"Three hundred new buildings a year," was I. Chernadyev's answer when we asked him what was new in his line. Chief architect of Chelyabinsk, a city in the Urals, I. Chernadyev visited the "Soviet Union" editorial office while in Moscow recently for the Second USSR Congress of Architects.

"Chelyabinsk architects are now drawing up a long-range urban development programme, including detailed projects for building up various districts of the city. We are building at a very high rate indeed. While in 1950 the people of Chelyabinsk received 538,000 sq. ft. of housing, the 1954 figure was 1,500,000 sq. ft. Under the Sixth Five-Year Plan we shall put up more than 10,750,000 sq. ft. of housing.

"Building work on that scale naturally calls for a sizeable industrial supply system, for the houses are constructed by progressive methods from pre-cast reinforced concrete sections. Factories producing plasterboard, large pre-fabricated constructions, plumbing and other equipment, glass, and so forth have gone up in Chelyabinsk or are still under construction. This supply system will enable us to carry out our programme.

"But building new houses isn't all. There is still the matter of planting trees, shrubs, and flowers and other work to create the maximum comforts and conveniences for the inhabitants. All that is being taken into account in our long-range development programme for Chelyabinsk."



AIRBUS SERVICE

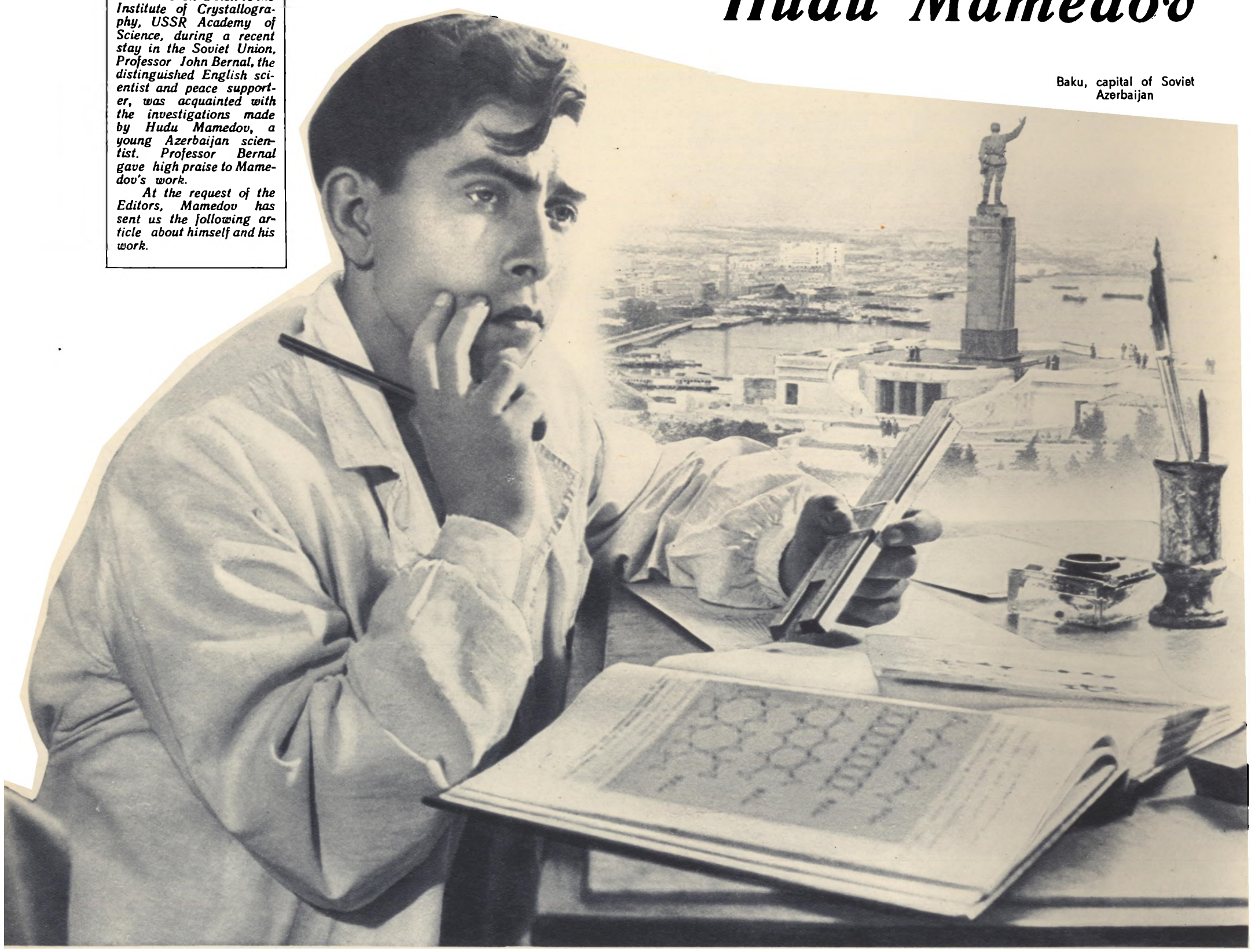
Vnukovo Airfield, in the suburbs of Moscow, and Manezhnaya Square, in the heart of the city, will soon be connected by a helicopter "bus" service, our reporter was told at the Civil Aviation Administration. Travelling time from the airfield to the centre of Moscow will then be cut to about eight or nine minutes. Postal helicopters are also planned. They will deliver mail and urgent goods from the airfield to the roof of the new Central Post Office now under construction.

John Bernal Congratulates Hudu Mamedov

While on a visit to the Institute of Crystallography, USSR Academy of Science, during a recent stay in the Soviet Union, Professor John Bernal, the distinguished English scientist and peace supporter, was acquainted with the investigations made by Hudu Mamedov, a young Azerbaijan scientist. Professor Bernal gave high praise to Mamedov's work.

At the request of the Editors, Mamedov has sent us the following article about himself and his work.

Baku, capital of Soviet Azerbaijan



Hudu Surkhai ogli Mamedov, Candidate of Geologo-Mineralogical Science. He works at the Institute of Chemistry of the Azerbaijan Academy of Science

During a visit to his native village Hudu Mamedov (left) listens to a folk singer

By **HUDU MAMEDOV,**
Candidate of Geologo-Mineralogical Science

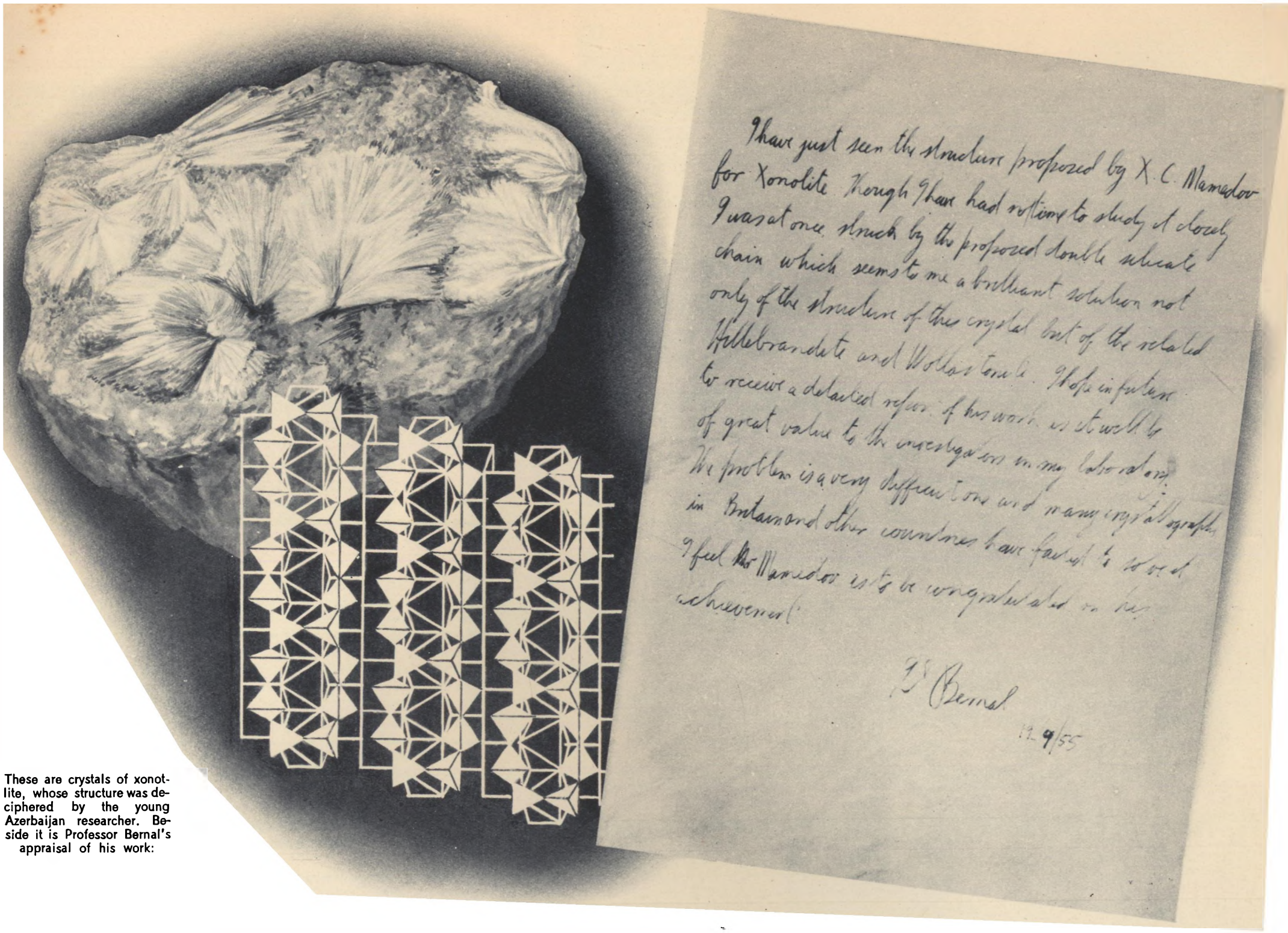
Photographed by Y. Bagryansky

My first job was in the Khrushchov Collective Farm. In summer, when school ended, I became a herder; I went off with the flocks to the highland pastures and lived there, a stone's throw from the clouds. Since childhood my imagination was captivated by the panorama of the Azerbaijan mountains, by the fantastic shapes of crags, the sudden changes in the relief, and the crystals of minerals sparkling in the sun. But how unsatisfying it is to contemplate Nature without understanding her secrets! School helped me to learn many of the secrets of Nature. Then the curtain was lifted still higher; I became a student of geology; in September 1946 I first entered a lecture hall in the Kirov State University, in Azerbaijan.

I remember the deep impression made on me by a lecture which pointed out that the regular shape of crystals is an outward expression of their internal harmonious structure of atoms-ions distributed according to the laws of symmetry, and that the properties of bodies are determined by the peculiarities of their structure. The complex connection between the chemical composition, physical properties, and internal structure of crystals—that is the knot of interdependence that has to be unravelled to open up the path not only to a knowledge of countless natural and synthetic processes but also to mastery over them. How can one help being carried away by all this!

In my last year at the University I became a laboratory assistant at the Institute of Chemistry of the Azerbaijan Academy of Science. While working there I wrote my diploma paper about rhodonite. The rich pink colouring of this mineral had attracted me back in the days when I used to sit on a boulder watching my flocks.

When I finished the University, the Azerbaijan Academy sent me to do post-graduate work at the Institute of Crystallography of the USSR Academy of Science. At this Institute I received new opportunities for research. Furthermore, I met with friendly and whole-hearted assistance from the entire staff of the laboratory of structural analysis, and in particular from Academician N. V. Belov, who guided my work.



These are crystals of xonotlite, whose structure was deciphered by the young Azerbaijan researcher. Beside it is Professor Bernal's appraisal of his work:

"I have just seen the structure proposed by H. S. Mamedov for xonotlite. Though I have had no time to study it closely I was at once struck by the proposed double silicate chain which seems to me a brilliant solution not only of the structure of the crystal but of the related hillebrandite and wollastonite. I hope in future to receive a detailed report of his work as it will be of great value to the investigators in my laboratory. The problem is a very difficult one and many crystallographs in Britain and other countries have failed to solve it. I feel Mr. Mamedov is to be congratulated on his achievement.

J. Bernal."

As the subject of my thesis I chose the deciphering of the structure of xonotlite which, together with rhodonite and a large number of similar silicates, is part of what is called the wollastonite group. The structures that the scientific literature has proposed for that group do not explain the physical properties of these minerals, and above all the fibrousness of most of them ("mountain wool").

Intensive research led to the conclusion that xonotlite is made up of endless double oxy-silicate and hence very stable chains. They are shown in the accompanying drawing as endless chains with octagonal links against a background of little white bricks. These bricks are atoms of calcium among atoms of oxygen or, in other words, slaked lime, the most ancient of all known binding materials, which by these little chains is turned into a particularly strong cement.

That structure provides a good explanation of the physical properties and morphological features not only of the crystal already studied but, it is to be assumed, of all the members of the wollastonite group as well. This opens up new possibilities of fathoming the structure of other cement silicates whose structure has hitherto not been studied.

On completion of my post-graduate work at the Institute of Crystallography I returned to Azerbaijan, where I am continuing my research into other cement silicates.

Actually, I have only just entered on the difficult but rewarding path of the researcher, a vocation which demands hard work. And I shall work hard, doing everything I can to promote our country's scientific progress.

After he presented his thesis in Moscow, Hudu Mamedov paid a visit to the collective farm he used to work at. The herders with whom he had once worked gave him a hearty welcome →

The station-master on duty at Avtovo Station gives the signal for the train to start

THE LENINGRAD METRO

Photographed by B. Utkin

By K. KUZNETSOV,
Chief of the Leningrad Metro Construction

← The central control room of the Leningrad Metro

They met at Pushkinskaya Station, in front of the poet's statue. It has become a most popular place for rendez-vous

A little less than three months have passed since the Leningrad Metro, the second underground railway built In the Soviet Union, has been opened to the public.

People say that one quickly gets used to everything nice. It is true, perhaps, but the inhabitants of Leningrad take great pride in their Metro and talk admiringly of its structures even now, after the blue underground cars have transported millions of passengers.

At the Leningrad Metro stations a passenger forgets that he is deep under the ground. But its builders are always aware of it because every metre of the tunnel cost them great and often heroic effort.

The Leningrad Metro was built under extremely difficult geological conditions. The city is situated on delta formations of the Neva and on sedimentary rocks piled up by an ancient sea. The strata formed by fine-grained sands contain sub-soil water. The shifting sands made our work extremely difficult, and we had to make wide use of compressed air and freezing installations while working on the tunnels.

Studying the experience of the Moscow Metro builders, we came to the conclusion that it would be most expedient to drive tunnels at a great depth. Then their direction is not dependent on the city's construction plan. Building operations deep underground complicated our task to a great extent, and yet we chose precisely this method, as we were aided by modern techniques and machinery.

Soviet Metro builders apply the so-called shield method for driving tunnels, considering it the most expedient. In co-operation with their Moscow colleagues, the Leningrad Metro builders have considerably improved tunnelling techniques and created a unique mechanical shield. The tunnellers were not able to drive more than 10.5 feet of tunnel a day, using the ordinary shield, but the new installation brought the daily productivity up to 40 feet.

Not only did the Leningrad builders design the mechanical shield for tunnelling, they were also the first to apply such shields more extensively than ever before.

The Metro is supposed to take care of a considerable part of the daily passenger traffic (with which task it has already coped to some extent), and thus make it possible to remove tramway tracks from many of the streets. That is why the first line of the Leningrad underground runs through the most densely populated districts of the city, and its stations have been erected on the intersections of busy thoroughfares and on the main squares.

It takes 15-17 minutes for the underground trains to cover the whole distance between Uprising Square and Avtovo Station, but if you go by bus it will take you almost four times as long. The safety of the traffic is guaranteed by an automatic block system and by special automatic train stops. Telemechanics and automatic control devices make it possible to regulate the Metro power supply system from the central control room.

The Leningrad Metro is designed as a single architectural ensemble harmonizing with the austere, majestic beauty of the city. The designs of the stations reflect the main episodes of the city's history and the leading role of the Leningrad proletariat in the revolutionary struggle of the working class.

Fourteen quarries in the Urals and the Caucasus, Karelia, and the Ukraine provided various kinds of marble and granite for facing the underground structures. Nearly 236,500 square feet of marble was required to face the stations and entrance halls; 107,500 square feet of granite was used for the floors, walls, and pylons.

"Which Metro is better?" ask the Muscovites who have not seen the Leningrad Metro; Leningraders who have never been in the Moscow Metro also want to know this. But it is difficult to answer this question, for both were built according to the same principle. Their purpose is not only to provide Soviet people with a most convenient form of transport but also to satisfy their aesthetic demands, using the achievements of modern engineering and architecture.

Baltiiskaya Station

Uprising Square Station

Avtovo Station

Vladimirskaya Station

Narvskaya Station

Leningraders admire their Metro

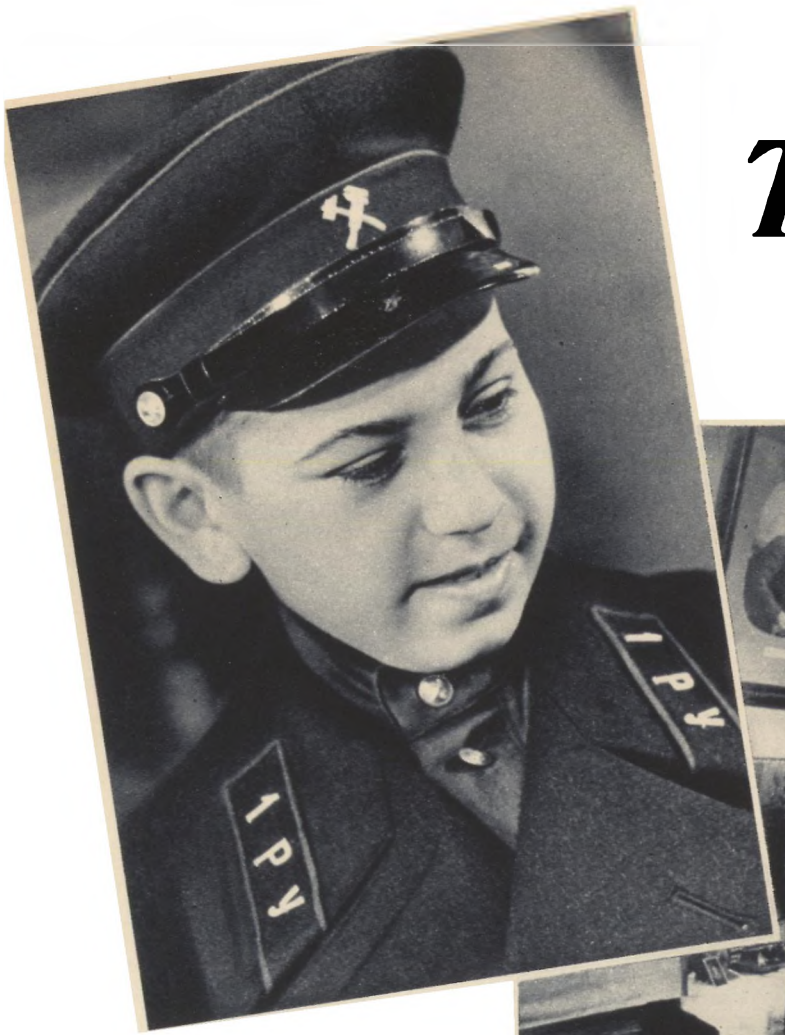
Kirov Works Station

Technological Institute Station

Pushkinskaya Station

THE ROAD TO LIFE

Photo-Report by Y. Khalip



November, 1940. Valentin Bablo was leaving for his first day in trade school

I was going through my albums recently and came across some pictures taken fifteen years ago. One was of a boy in a trade school uniform. His eyes were averted, and he was trying hard not to smile. I think I must have asked him not to stare at the camera. The inscription on the reverse side of the photograph read: "Moscow. Valentin Bablo, son of a worker at the Stalin Auto Works. November, 1940." Then I recalled the day I had photographed the boy. He had been very excited, for it was to be his first day in trade school.

We met again fifteen years later at a metal-working factory in Kursk. Valentin's diploma from the trade school had guaranteed his future: he was now a first-rate gauge-maker. When I looked at his two sons, they reminded me of the young boy I had once photographed—so many years ago.

"How've you been, old friend?"

"Not bad," he answered. "I've a family now, a job I like, and my pupils at the factory are bright boys."

"Not to mention a hundred hobbies," his wife added. "Photography, hunting, and motorcycle racing and what not."

Today V. Bablo is an experienced gauge-maker

"I want to be Daddy!"

At home with the family
←

V. Bablo among students of Trade School No. 1 in Kursk
→

MECHANICAL HEART

By **M. ANANYEV,**
Director of the Research Institute
of Experimental Surgical Apparatus and Instruments

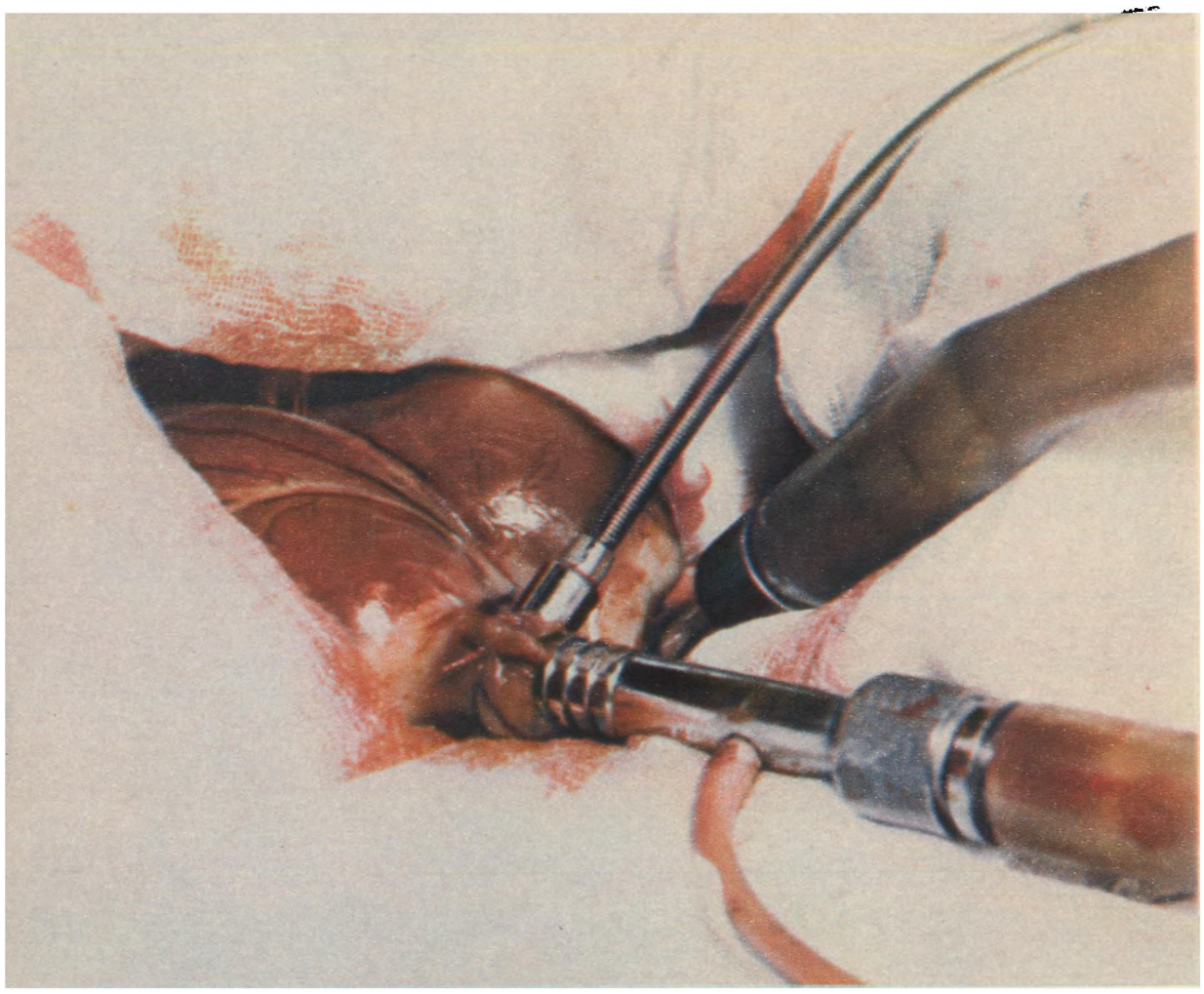
Photographed by K. Yuryev

There is a young research establishment in Moscow whose engineers, side by side with surgeons, are working on new surgical instruments and apparatus, and modernizing and standardizing existing equipment. The models turned out by the establishment's own experimental factory are thoroughly tested in the medical laboratories, which have a surgical instruments proving department.

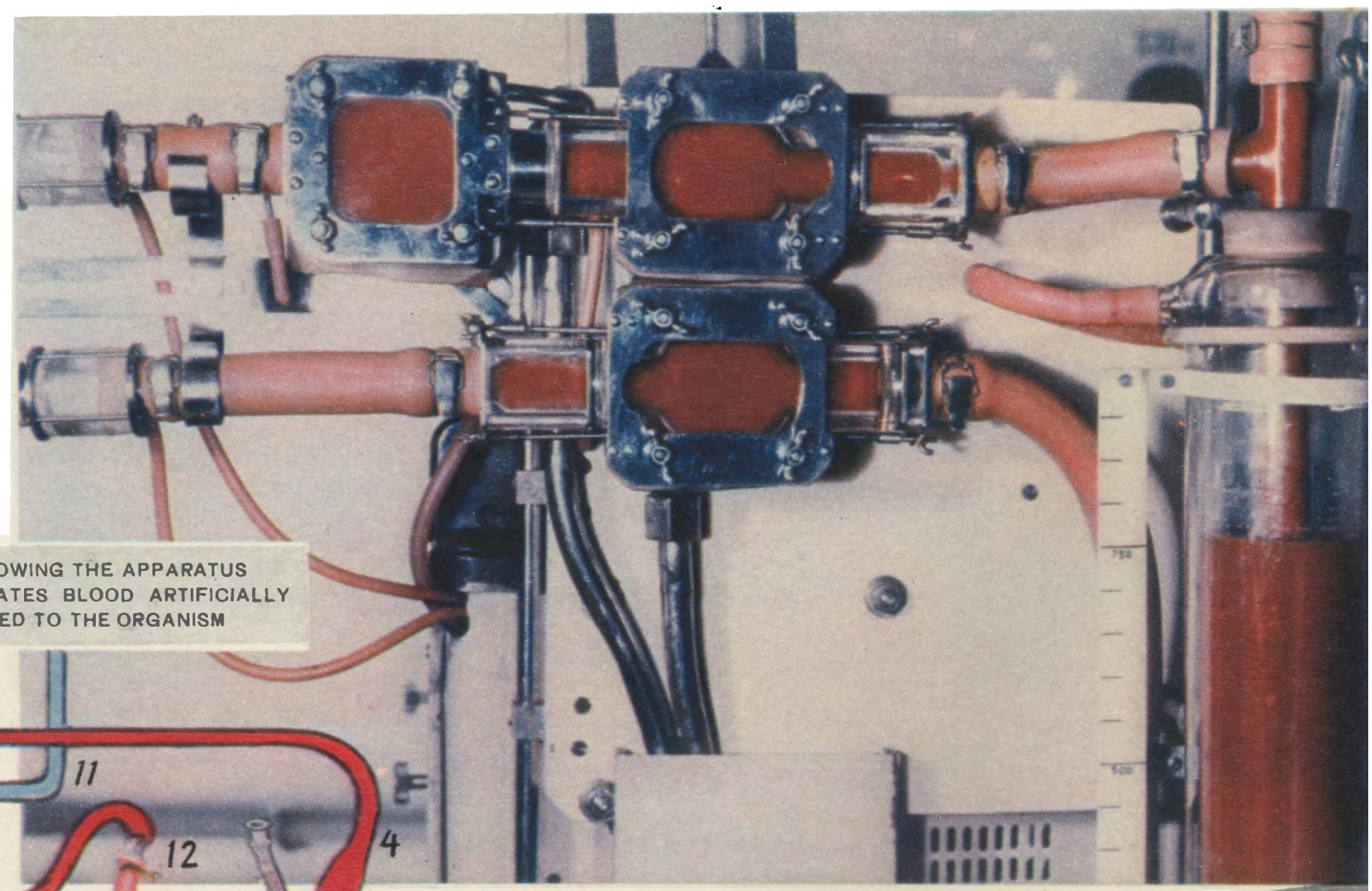
To date we have passed on a set of instruments for pulmonary operations for industrial production and, amongst others, these include original apparatus which suture bronchial tubes and blood vessels mechanically. One of our inventions, a unique apparatus that induces "electric sleep", is winning a place for itself in Soviet medical practice. At the moment we are trying to adapt it for electrically induced narcosis. Other items passed on for production include an electric thermometer and a surgical television set, which enables medical students and surgeons to watch an operation from other premises. The television camera gives close-ups of the most important moments of an operation on a 1,500 sq. inches screen.

Our institute is completing work on new devices for measuring the pulse and blood pressure, for suturing nerves mechanically, for gastro-intestinal anastamosis, and other operations.

An apparatus that will circulate blood artificially is receiving particular attention. By stopping cardiac action and ensuring a parallel circulation of blood under various forms of acute cardiac insufficiency, this apparatus will enable surgeons to perform operations in the region of the heart. The mechanical "heart" and "lung" will help to revive patients in the event of sudden death, and if necessary, force cooled blood to circulate in hypothermia cases, and preserve isolated organs before they are transplanted.

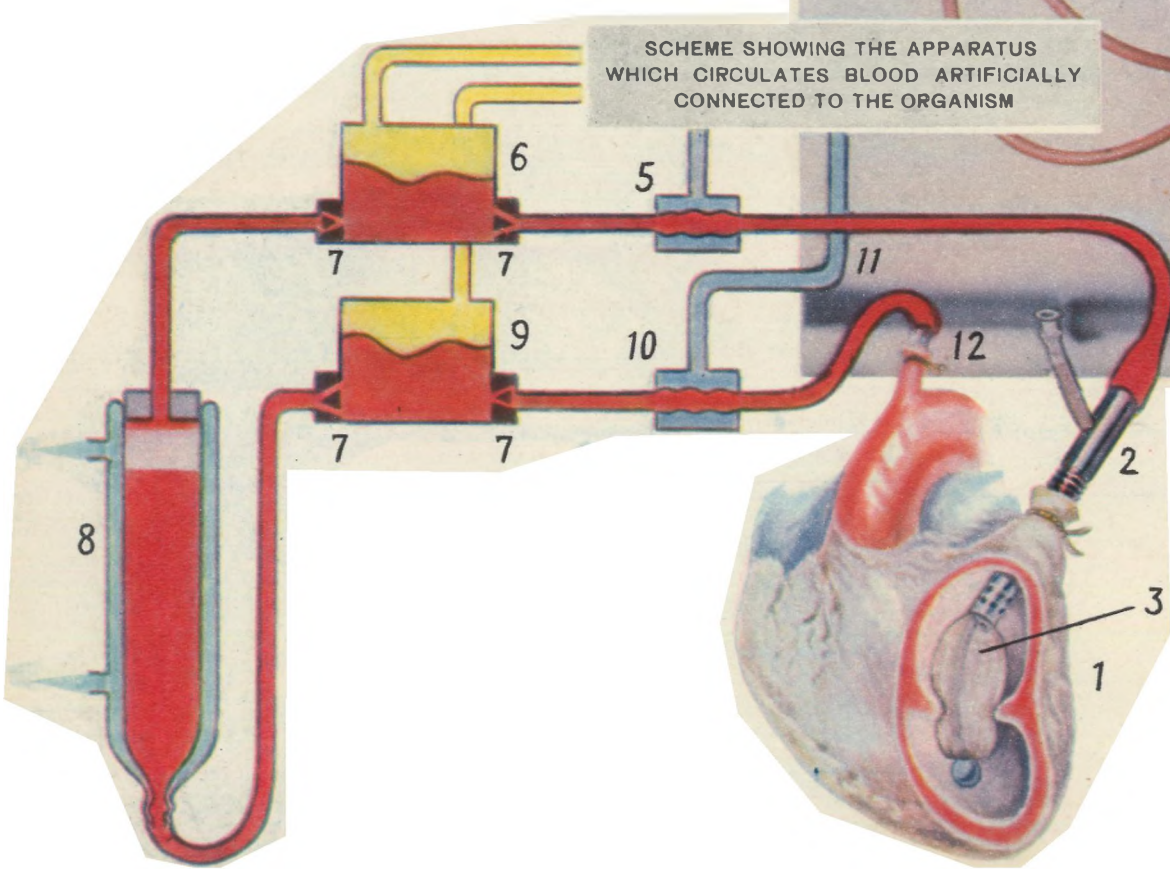


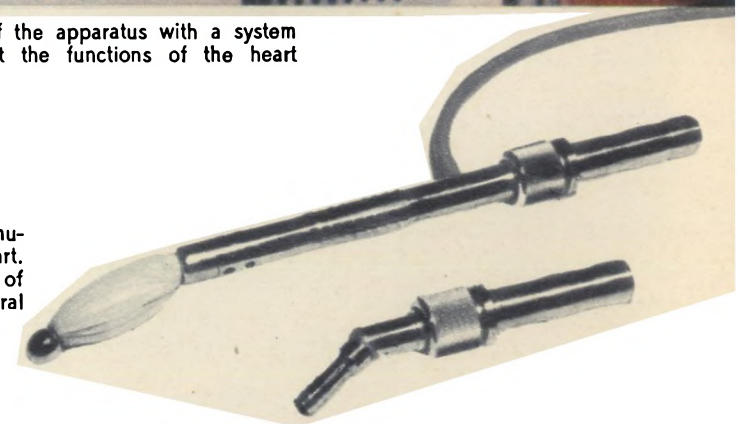
The heart and the subclavian artery of a dog with cannulae apparatus (which circulates blood artificially) joined to them. The blood is pumped from the organism through the cardiac cannula (below) and is returned through the arterial cannula without entering the left ventricle



The "heart" chambers of the apparatus with a system of valves that carry out the functions of the heart

1. Heart. 2. Cannula connected to the heart. 3. Device for closing the mitral valve of the left ventricle. 4. Pipe through which the blood is pumped from the heart. 5. Device showing blood-pressure fluctuations in the suction pipe. 6 and 7. Suction chamber of the "heart" with valves. 8. Reservoir with blood reserve. 9 and 7. Injection chamber of the "heart" with valves. 10. Device showing blood-pressure fluctuations in the pumping line (indicated in the scheme by the numeral 11). 12. Arterial cannula connected to the subclavian artery





Cardiac and arterial cannulae of the mechanical heart. The device on the tip of the former closes the mitral valve

Here we see surgeons of the Institute of Experimental Surgical Apparatus and Instruments stop the action of the left ventricle of a dog's heart and sustain the blood circulation artificially. Left foreground: The apparatus which replaces the heart during the operation

Back in 1924, S. Bryukhonenko, a Soviet scientist, advanced the idea of designing an apparatus that would carry out the functions of the heart and lungs. Many years ago, his apparatus was used to sustain life in a dog's head that had been severed from its body. Later, this apparatus was gradually improved and used in experiments of reviving the organism and in operations on the heart. But it was only in recent years that further work on the apparatus that would circulate blood artificially proceeded on a large scale.

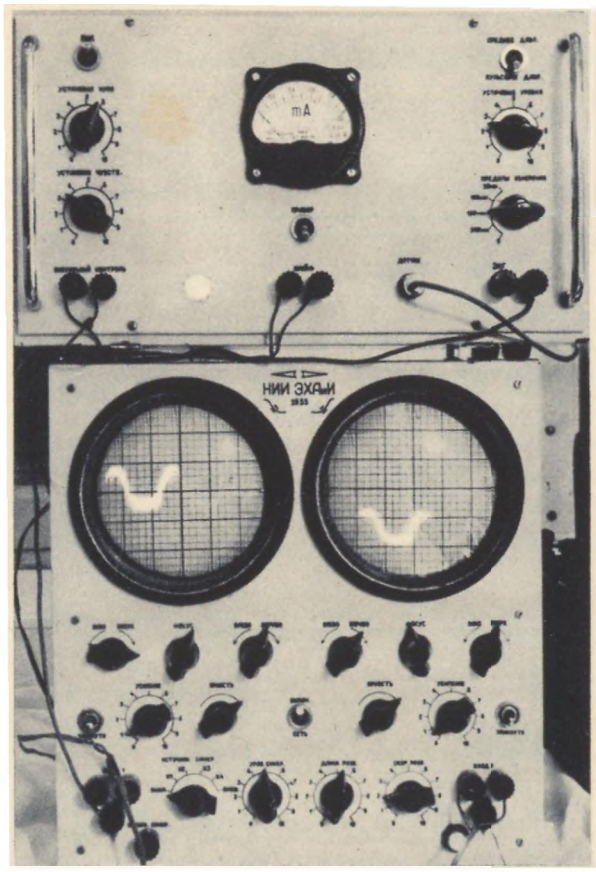
The task was to create an apparatus that would not only force the blood to circulate through the organism, but would also ensure that this circulation was as natural as possible. This meant that the apparatus would have to "watch" and automatically adapt itself to the condition of the vascular system. In particular, the apparatus would have to maintain the maximum blood pressure in the arteries and veins in accordance to a pre-set level.

The pictures on these pages show an apparatus of this kind which was designed at our institute. This "mechanical heart" is equipped with a number of instruments, one of which measures the quantity of blood passing through the blood vessels. The apparatus is being tested on animals, and will later be handed over for hospital use.

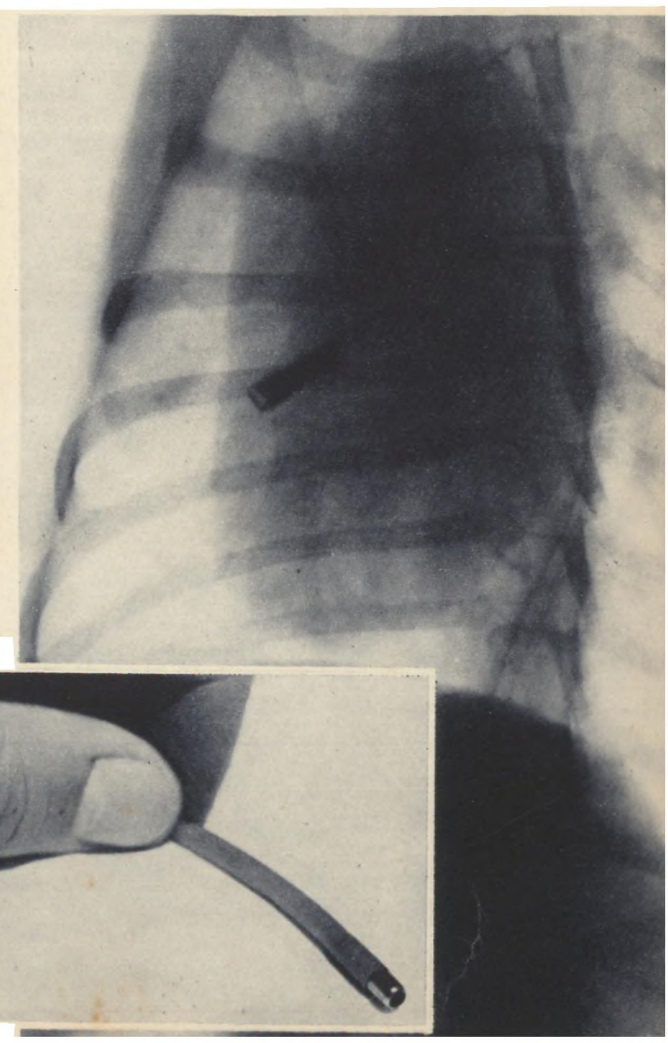
We have invented yet another apparatus to facilitate heart operations. It is intended to probe the heart and the blood vessels and can be used to measure the blood pressure directly in these organs, to take an intra-cardiac electrocardiogram, and introduce roentgeno-contrasting matter into the heart to ensure a more exact diagnosis.

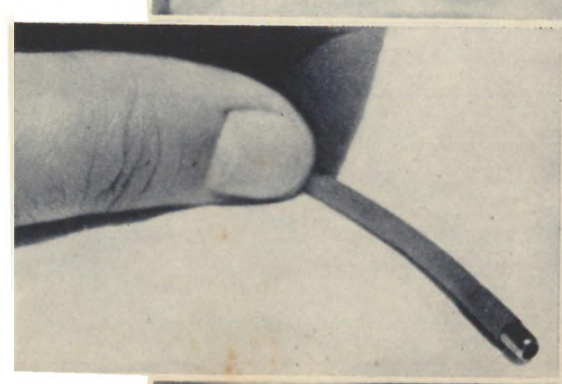
The work of our institute is attracting the attention of surgeons both at home and abroad. Some of our apparatus are already in use in China, India, Viet-Nam, Bulgaria, Hungary, England, and other countries.

The Institute of Experimental Surgical Apparatus and Instruments of the USSR Ministry of Public Health is resolving exceedingly important medical problems. Its aim is to effect a practical link between the steadily-growing requirements of surgery and modern achievements in world science and technique.



This device reacts to blood-pressure fluctuations and transforms them into electric signals which appear in the form of a curve on the screen of the oscillograph. The second screen shows the intra-cardiac electrocardiogram; it is received with the help of the converter body which, in this case, is used as an electrode





General view of the apparatus for probing the heart and blood vessels. Its basic part, a tiny electro-mechanical converter (measuring 2-4 mm. in diameter), is shown in the small picture on the right. It is introduced into the heart through the blood vessels with the aid of a probe (see X-ray picture)

A Wedding

Photographed by Y. Chernishov

Children are an inquisitive lot. They'd never miss such an occasion!

Their parents meet the newly-weds at the door with the customary bread-and-salt

They are coming! Children race after the troikas

The Barricades Collective Farm of Maslyanino District, Novosibirsk Region, had a good year's work. Its members brought in a nice crop and earned twice as much as in 1954. Twenty-five families moved into new houses.

Winter came to stay—and with it the time of weddings. Our correspondent was one of the guests at a wedding in the family of Fofanov, farmer of the Barricades Collective Farm.

The bride

"Bitter!", someone cried at the table. "Bitter, bitter!" chorused the guests. The bride and the groom must kiss each other to sweeten things up, otherwise the guests won't drink any wine. Such is the custom

Report From the Tundra

Photographed by V. Shakhovskoi

Our correspondent chanced to be in one of the reindeer-breeding collective farms on Kola Peninsula, in the Arctic Region. The Tundra farm boasts a territory of more than five million acres, the territory of a small country.

But its boundless pastures for the reindeer are not the only riches of the farm. The Tundra collective farmers go in for fishing, they breed cows and sheep, grow potatoes, cabbages, and forage grass. Fruits and vegetables which do not ripen during the short Arctic summer are brought in from the southern regions of the country. The farm has an animal-breeding station. Its minks and blue foxes bring it a good profit.

Polar night has descended on the community, but the streets and the houses of Lovozero are brightly lit with electricity.

It's hard to imagine the collective farm without the school, the hospital, the library, and the club. The cinema and radio, theatrical performances, concerts, and lectures have become a part of the everyday life of the collective farmers. But the old folk can tell you what life was like before the revolution, though "life" is not the proper word for it. The Saami, Komi, and Nenets peoples were dying out from various diseases and from the ruthless exploitation by the traders and kulaks. The inhabitants of Lovozero were nomads, but everywhere their fate was the same. . . .

The past now seems a terrible dream.

L. Navrotskaya is a graduate librarian and has been working in the Arctic since 1952. The capable and efficient girl soon won the respect of the people of Chudzyaver, and they elected her chairwoman of the village soviet

In the Lovozero tea-room

K. Galkin, the shepherd of the Tundra Collective Farm, came to the head-master to inquire about his son's studies

Mikhail Boitsov, a seventh-grader, tells his younger schoolmates about Afanasy Nikitin's voyage to India—the first Russian to visit the country

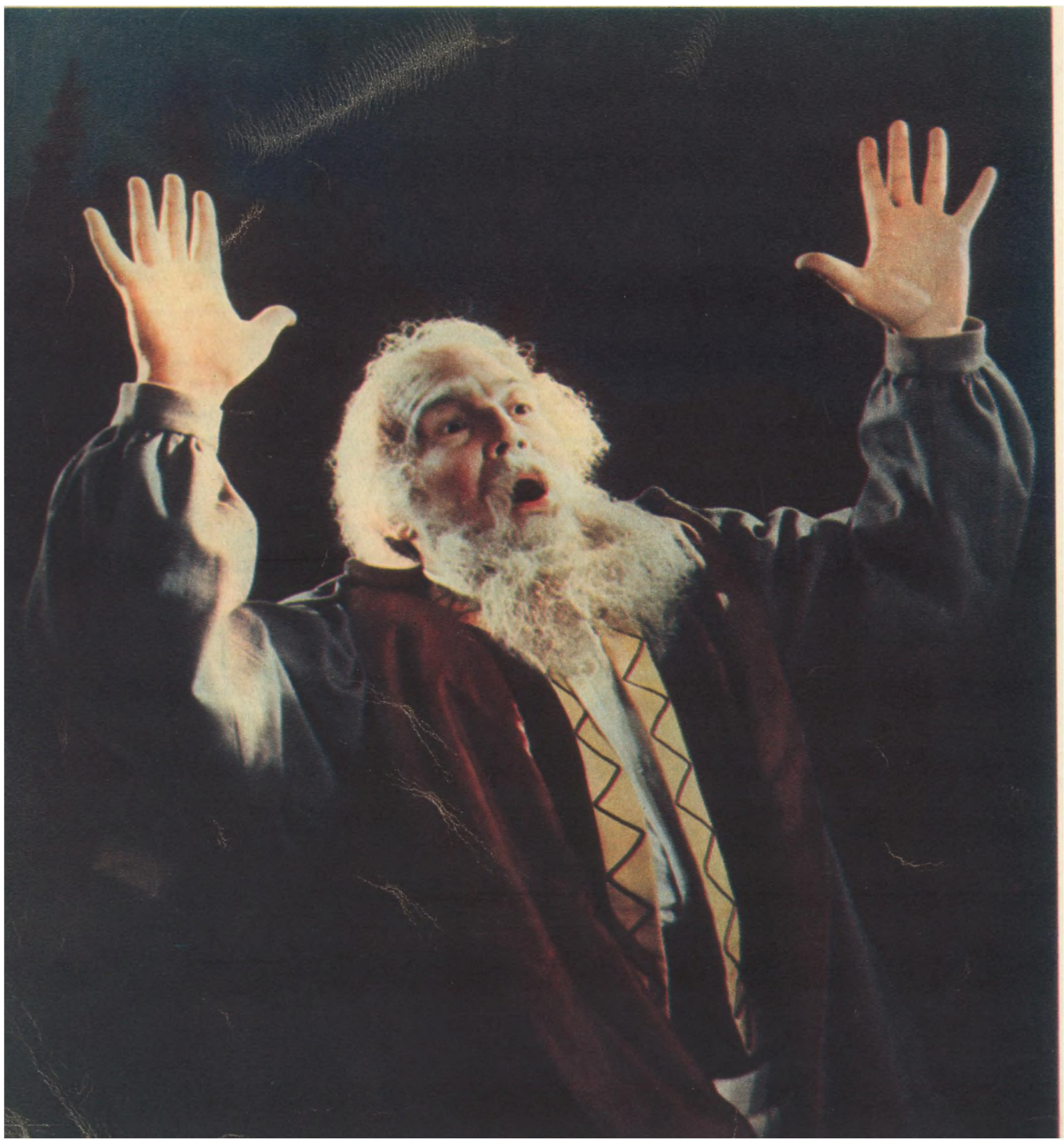
Y. Philippov is an experienced brigade leader of the Tundra reindeer farm

PREMIERE IN A WORKERS' CLUB

The last scene of Lope de Vega's "Fuenteovejuna", as presented by the amateur cast of the Murmansk House of Culture

S. Barkan, a teacher, and E. Barsukova, an office worker, as the King and Queen

P. Shamin, a staff member of the newspaper "Polar Pravda", in the role of Esteban



By A. SHUVALOV

Photographed by V. Dmitriev

The cold polar night and the blizzards that are part of the winter in Murmansk never interfere with factory work-schedules or the functioning of the city's many office buildings. In the evenings the streets are always full of people going to theatres and cinemas, to libraries and clubs.

The Murmansk House of Culture is brightly lit this evening. It is nearly eight o'clock, and the auditorium is packed. There are many sailors among the audience. After the stormy waters of the Barents Sea and the North Atlantic the cosiness of the club is more than welcome to them.

Backstage, the actors are busy with last-minute preparations. They all feel a little nervous and it's quite understandable, for this is the night of the big premiere with not a single professional among them.

The theatrical company of the House of Culture is only five years old. Nina Yakovleva, a professional actress, is the group's coach and she has succeeded in developing a deep love of art and a feeling of the need for constant self-improvement in her pupils.

The troupe does not limit its engagements to the House of Culture; they have given many performances in collective farms and for men of the fishing fleet of the region.

Their repertoire is varied and includes plays by Soviet authors and by Russian and foreign classics. They have started the current season with "Fuenteovejuna", a play by the famous Spanish dramatist Lope de Vega. Many professional theatres in the Soviet Union have included this popular play about the people's struggle for freedom and against tyranny and arbitrary rule in their repertoires. The cast of the Murmansk Club worked on it with great enthusiasm. Members of the Russian Theatrical Society, the Bakhrushin Theatrical Museum, and the Moscow Mayakovsky Theatre helped the amateur actors portray the characters more fully, and achieve a deeper understanding of their roles.

Eighteen-year-old I. Men plays Laurencia, and V. Shibilov, a nautical school student, plays Frondoso

V. Sharonov, a shipyard worker, plays Don Rodrigo

V. Shibilov (Frondoso) and G. Zvegintsev, an office-worker, as the Commendador

F. Karimov, a locksmith, in the role of the peasant Mengo

A scene from the Second Act. T. Antufyeva, a student, as Jacinta, G. Zvegintsev as the Commendador, and A. Mitrofanov, a shipyard worker, as the soldier Flores

RIDDLE

OF THE MAYAS

By Y. KNOROZOV,
Doctor of Historical Science

Photographed by B. Utkin

For many long years science sought to establish the history of the Mayan people, who in ancient times created a highly developed culture in Central America. But every attempt to solve the secret of the Mayas proved futile, as no one could decipher the hieroglyphics in the manuscripts that have been preserved. Yury Knorozov, a young Soviet scientist, has found the key to the written language of the Mayas. The picture shows Yury Knorozov. The degree of Doctor of Science was recently conferred on him for this work

A bas-relief discovered on a stone wall amidst the ruins of an ancient city

Mayan hieroglyphics

Indians of the Maya tribes, the indigenous population of Central America, once had a highly developed culture. In the tropical jungles of Mexico and Guatemala stand the ruins of many ancient cities, some of which are about 2,000 years old. Beautiful temples, built on the summits of stepped pyramids, have been discovered among the ruins. Splendid wall paintings have come down to us intact. Outstanding among these are some frescoes depicting battle scenes, which were found amid the ruins of Bonampac.

Farming was the chief occupation in the Mayan villages. Some of the plants they cultivated, such as tomatoes, maize, the cocoa bean, and tobacco, subsequently spread throughout the world.

The Maya Indians had a written language based on hieroglyphics long before the first century. Many of these intricate symbols were found carved into the walls of buildings and various memorials.

Numerous Maya cities perished over a thousand years ago and we know nothing of their history, since even legends about them have not been preserved. Only the ancient hieroglyphics can tell us their story.

The flourishing Mayan cities in Yucatan were ravaged in the unequal struggle against the Spanish conquerors in the 16th century. Books written in a language based on hieroglyphics were burned in the fires of the Inquisition; even the memory of this "heathen" civilization was erased. Only three manuscripts that were taken to Europe survived. But there was no longer anyone who could read the ancient Indian hieroglyphics. Scientists in different countries subsequently attempted to read them and their point of departure was a manuscript by Diego de Landa, a Franciscan monk who took part in the Conquest. This manuscript, discovered in 1863, gives a detailed description of Maya culture and contains the names of the days and months of the year and their corresponding hieroglyphics. Landa's manuscript helped to establish the hieroglyphics designating colours, the countries of the world, and the seasons of the year. Although the meaning of these hieroglyphics was clear, still, no one was sure of how they should be read or written. In many cases the names of the days and months given by Landa obviously did not tally with the hieroglyphics. Some researchers maintained that every symbol in the Maya written language represented a word or concept, while others believed that the Maya symbols were like our letters and represented separate sounds or syllables. But no one could prove his point and satisfactorily read even the hieroglyphics whose meaning did not arouse doubts.

Soviet researchers took as their starting point the surmise that in the Mayan written language, as in all languages that are based on hieroglyphics, simultaneous use was made of various elements: ideographic elements representing whole words; phonetic, indicating sounds or syllables; and key symbols, which explain the meaning of a word, but are silent. This surmise proved to be correct. For example, the symbol depicting a partly clenched hand stands for the syllable "che" (Fig. 1). The word "akhche", meaning "hunter" (Fig. 2), is written by means of two phonetic symbols: akh-che. The word "kancheknal", meaning "king of beasts" (Fig. 3), is represented by the number 4 (four dots) and three phonetic symbols: che-k-nal. The word "chekin" (later pronounced as "chikin"), meaning "west" (Fig. 4), is written by means of the phonetic symbol "che" and the ideogram "kin" (sun). The name of the god Itsamna (Fig. 5) consists of three phonetic symbols: its-am-na, and a key symbol portraying a face with a peculiarly shaped eye. The latter symbol is indicative of the hieroglyphic representing a god.

The meaning of many signs and symbols has been established with sufficient accuracy, and attempts can now be made to read the manuscripts. Naturally, we must bear in mind that these manuscripts are in an ancient language, which differs considerably from the tongue the Mayan people speak today. However, we may expect that these enigmatic manuscripts will be deciphered in the near future.

In the Mountains of Kazakhstan
Photographed by M. Galkin

A TAXI DRIVER'S DAY

Y. Cherepanov, a cartoonist, helped us tell the story of the forgotten shotgun

By **V. RAZIN**, a Moscow taxi driver

Photographed by V. Rulkovich

When the telephone rings in the dispatcher's office of a taxi depot, it often means that something has happened.

"I left my shotgun in a taxi. The license number of the car was 51-97. Can you get it for me?"

"Don't worry," the dispatcher says. "You'll get it back in a couple of hours."

"But my train's leaving in two hours! I've just stopped off in Moscow between trains!"

And so, the long search begins. It's no joke to find the cab you're looking for, even if you do know the license number, because there are thousands of cars out in the streets. One thing you can say about a taxi is that it never stays in one place long. Our "Pobedas", "ZIMs", and "ZIS" with the black-and-white checkered strip around the body dart back and forth along every avenue and street. City people and many visitors are always in a rush.

"Hurry! I'm late!" It's always the same story.

I think the fire engines are the only ones that go faster than the taxis.

There are little booths all over Moscow that have a black-and-white checkered strip round them. These are dispatcher points. The telephones there never stop ringing.

"Send a cab to the corner of. . ."

"Send a cab to. . ."

Taxis speed off to pick up their fares. No extra charge is made.

One of the phone calls is to warn Leonid Shatsky, the driver of taxi EZh-51-97, to hang on to the shotgun and phone the main dispatcher's office immediately. Usually, the drivers hand in anything they find in their cabs to the Lost and Found Bureau, but this is an exception: the train will be pulling out soon. But then, again, when will Shatsky pull up to a taxi stand? He might not even have noticed the gun in the back seat.

There are five taxi depots in Moscow, and every morning thousands of cabs speed out into the busy streets. Our fares at this time of the day are usually people rushing to work. Towards evening the picture changes. You know, we chauffeurs can usually guess a passenger's trade and even his character from far off.

Let's stop at a busy taxi stand. How about the one in Pushkin Square?

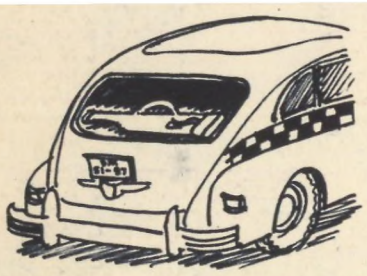
The cabs draw up to the curb one after the other, and someone usually gets in before the driver has a chance to park. The door slams shut, the little green "empty" signal light goes out, and the cab is off. The tall lad with a bouquet of dainty flowers is certainly on his way to meet a girl. And she's probably waiting for him somewhere and looking at her watch, too. These two are a married couple; the wife is all dressed up, and they seem to be hurrying to a theatre. The middle-aged man looking at the neon signs with such great interest is a tourist. He doesn't seem to be in any hurry and just wants to get a good look at the city in the evening. You meet all sorts of people in a taxi!

We're not only drivers, we're guides, too. Out-of-towners snow us under with questions, and we're glad to show them the sights of our city. There's quite a bit to see in the capital!

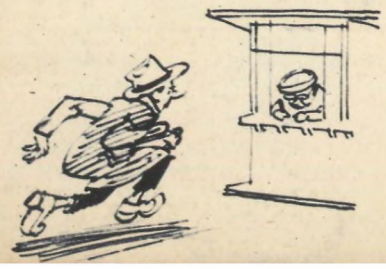
I'm afraid I got sidetracked. Well, an hour passed, but they still couldn't find the lost gun. Finally, though, one of the dispatcher points phoned to say that Leonid Shatsky delivered it to its owner.

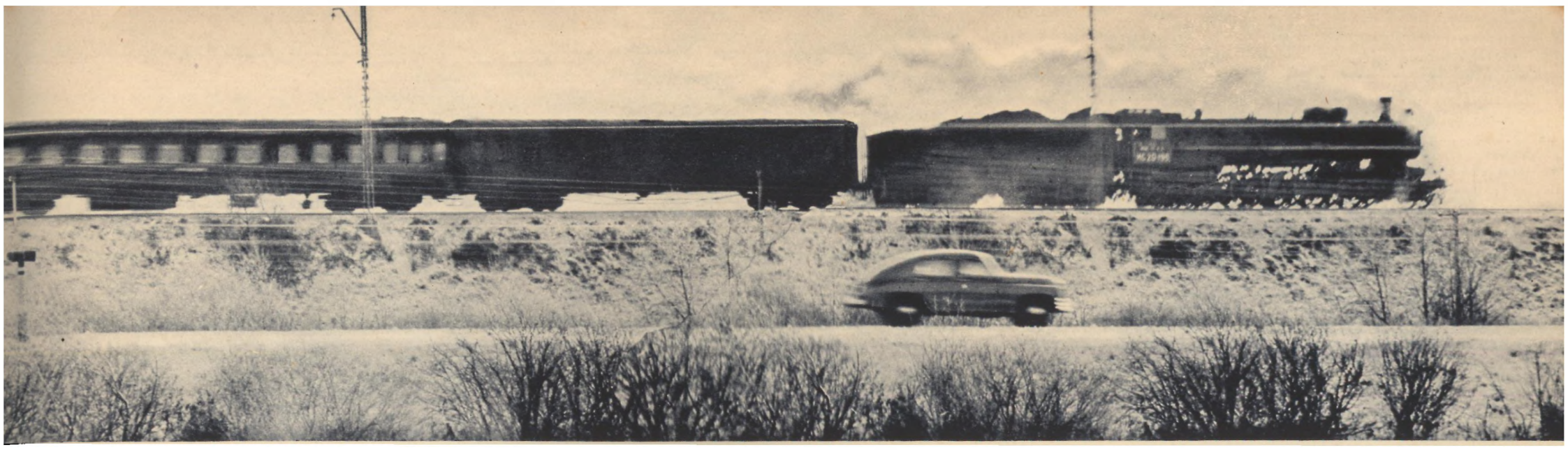
Before you know it, it's evening. The lights go on all over the city; the coloured neon signs start blinking on and off. Taxi drivers have two rush hours during the evening: before and after curtain-time and sports events. Then the number of passengers gets less and less, and many of the cabs go back to the depot. In another hour or two the only cabs left in the streets will be the night-duty taxis.

Good-bye, folks. Till we meet again in a taxi!



Not everyone is as lucky as Gennady Krasnoyarov, an electric welder. The father of newborn twins, he has just collected his family from the maternity home





It doesn't even matter if you've missed your train

Everyone had a wonderful time at the rest home, but the vacation is over, and it's time to leave. The taxi is waiting

The driver comes home for lunch. The children greet him in the yard and plead, "Give us a ride, Uncle Lyosha!"

"Watch out! You'll lose the fir-tree like that!"

"Drive carefully. Pigeons" the road sign says. Even taxi drivers slow down in such streets

What stories you'll hear in the Moscow drivers' club!

STAMP-COLLECTOR'S PAGE

At the "Postage Stamps of the USSR and the People's Democracies" exhibition in Kirov

Photographed by V. Rulkovich

This is the first Soviet postage stamp bearing an allegorical portrayal of the emancipated proletariat. It was issued on August 10, 1921

Here are several of the 1955 issues

MISSION OF PEACE AND FRIENDSHIP

Photographed by A. Garanin, Our Special Correspondent

Rangoon and Kabul had never before given anyone such a gala welcome as that accorded the Soviet people's envoys, N. A. Bulganin and N. S. Khrushchov, the newspapers in those cities pointed out. It was a demonstration of the sincere and heartfelt friendship entertained by the peoples of Burma and Afghanistan for the peoples of the Soviet Union and of their fervent desire for peace and co-operation.

At the fourth session of the Supreme Soviet of the USSR N. A. Bulganin, Chairman of the USSR Council of Ministers, and N. S. Khrushchov, Member of the Presidium of the USSR Supreme Soviet, gave a detailed account of the Soviet Government Delegation's visit to India, Burma, and Afghanistan

The session adopted a resolution which says, in part:

"The Supreme Soviet notes that the visit of Comrades Bulganin and Khrushchov was another important step in strengthening the friendship and co-operation of the USSR with the great country of India, Burma, and Afghanistan, in working for peace, ending the 'cold war' and securing further relaxation of international tension. The identity of the aims and aspirations of these countries in relation to the fundamental problem of international life—the preservation and consolidation of peace—has been reaffirmed. This identity of views of the USSR, India, Burma, and Afghanistan is explained not by transitory causes, it is the result of their common fundamental interests as countries desirous of international peace and security.

"The talks revealed an identity of views on major aspects of the relations between these countries, also on such cardinal international problems as disarmament and unconditional prohibition of atomic and hydrogen weapons, satisfying the lawful rights of the Chinese People's Republic in relation to the coastal islands and to Taiwan, granting the Chinese People's Republic its rightful place in the United Nations Organization, and settling other Asian and Far Eastern problems in accordance with the legitimate rights of the nations."

The resolution further noted that the trip by N. A. Bulganin and N. S. Khrushchov "demonstrated the great importance of personal contact between statesmen for furthering mutual understanding, establishing confidence between states, and developing international co-operation. This visit will have the effect of weakening the forces of war and of strengthening peace throughout the world."

U Nu, Prime Minister of the Burmese Union, and N. A. Bulganin, Chairman of the USSR Council of Ministers, at the Rangoon airfield

← N. S. Khrushchov thanks a girl who has presented him with a bouquet in a street in Mandalay (Burma) where thousands of citizens came out to greet the Soviet leaders

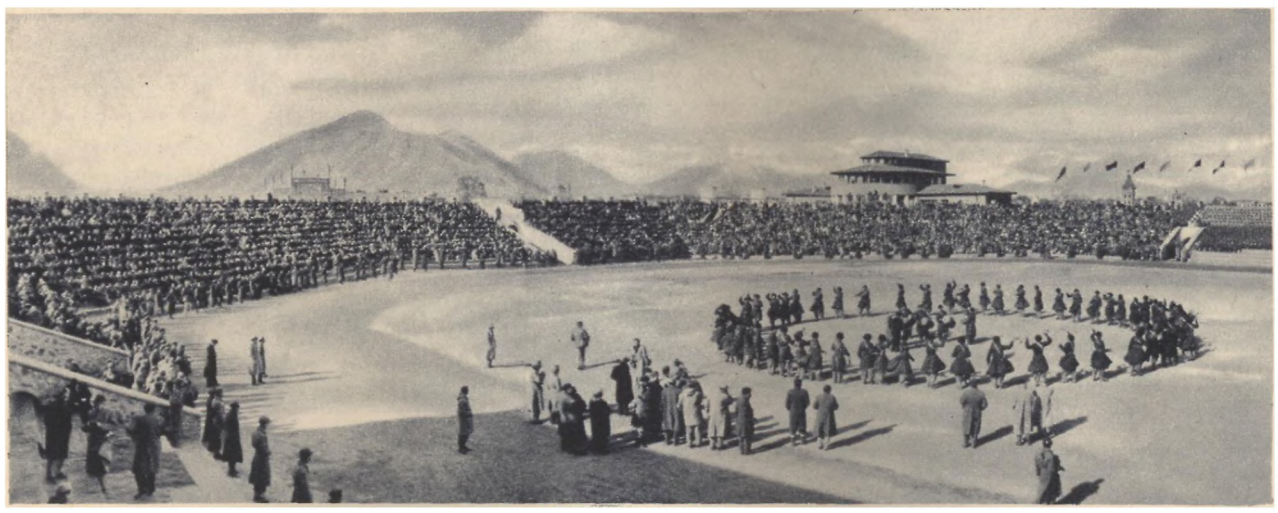
The "Royal Barge" on which the Soviet leaders made a pleasure trip across Lake Inle (Burma)

MISSION OF PEACE AND FRIENDSHIP

Mandalay greets the Soviet visitors

N. A. Bulganin, N. S. Khrushchov, and U Nu sign their Joint Declaration

N. A. Bulganin and N. S. Khrushchov at an audience with Mohammed Zahir Shah, King of Afghanistan



National sports festival in Kabul in honour of the Soviet guests. Left: The "Atan", an old Afghan dance. Right: N. A. Bulganin, Mohammed Daoud, Premier of Afghanistan, and N. S. Khrushchov at the sports festival

Photographed by V. Yegorov

N. A. Bulganin addresses a meeting at Moscow Airport held in honour of his and N. S. Khrushchov's return from their tour of India, Burma, and Afghanistan

Photographed by Y. Korolyov

Crowds of Muscovites greeted N. A. Bulganin and N. S. Khrushchov on their return

The Hungarian Film Festival opens at the Udarnik Cinema (Moscow)

FESTIVAL OF HUNGARIAN ART

Photographed by Y. Korolyov

The Fifth Hungarian Film Festival was held in the Soviet Union last month. Hundreds of thousands of cinema-goers saw the latest Hungarian films.

At about the same time the Budapest Musical Comedy Theatre presented "Silva", "The Piebald Calf", and "Trembita". Like the films these performances scored a success with Soviet spectators.

Speaking at a press conference, Margit Gaspar, art director of the Budapest Musical Comedy Theatre, thanked the Soviet public for its kind attention to the Hungarian actors.

"It is a great honour for us to perform on the Moscow stage," she said. "This has been our dream for a long time and now it has come true."

A scene from Act II of Y. Milyutin's musical comedy "Trembita"

Film director Ilya Kopalin (left) chats with Kalman Latabar at a meeting of Soviet and Hungarian film workers

A scene from Act I of Kalman's "Silva"

Hanna Honthy, star of the Budapest Musical Comedy Theatre, as Cecilia in "Silva"

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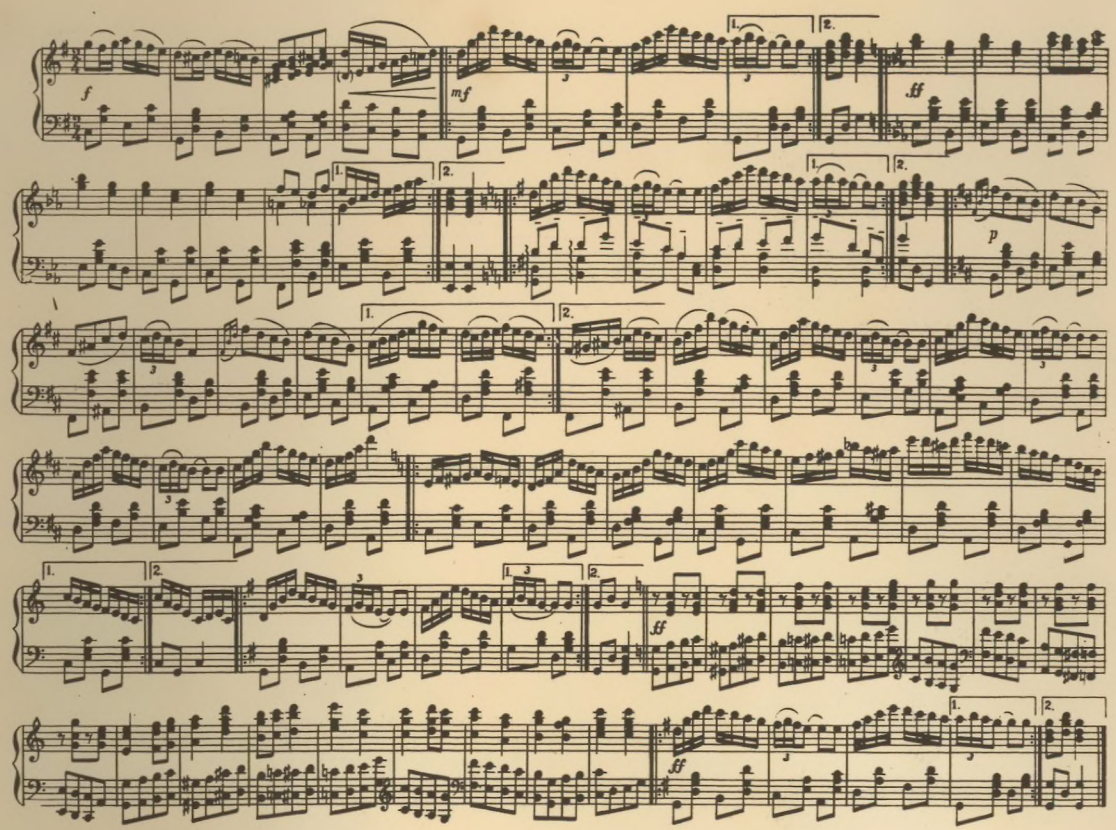
COLLECTIVE-FARM QUADRILLE



The Moscow Radio String Quartet plays the "Collective-Farm Quadrille", written by one of its members, Boris Tikhonov. Left to right: A. Kuznetsov, A. Ignatenko, B. Tikhonov, and N. Istratov

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