USSR

PUBLIC SCHOOLS

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THE CLAIM TO HER RIGHTFUL HERITAGE OF A WHOLE WORLD OF KNOWLEDGE LIES WITHIN EASY REACH.

USSR

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ON THE FIRST DAY OF SCHOOL EACH YEAR, IT IS AN OLD TRADITION FOR THE TENTH-GRADERS TO GREET THE YOUNGEST PUPILS WITH FLOWERS AND WARM WORDS OF WELCOME.

The Public School in the Soviet Union

THE GOAL of the Soviet public school is the broadly educated citizen, not the narrow specialist. It aims at education in the round—to provide the student with the cultural and pre-vocational background with which he can interpret the past and contribute creatively to build the present and the future.

This article has been prepared especially for the magazine USSR *by the editorial staff of* Uchitelskaya Gazeta *(Teachers Newspaper), the leading publication of the country's educational workers.*

All children between the ages of 7 and 16 are obliged by law to attend school. Parents are required to enroll children yearly and attendance is carefully checked and followed up.

There are more than 200,000 public schools in the country with 30 million children in attendance. A school will be opened wherever there are children—even though there may be no more than a half-dozen within the school district area.

Schools are to be found in the most remote parts of the Soviet Union. In the Far North, beyond the Arctic Circle, for example, there are some 5,000 schools for the children of the Evenki, Chukchi, Eskimo and other peoples. Before the Socialist Revolution of 1917 these peoples had no schools at all; nor did they have a written language.

There are no national or racial restrictions in the Soviet schools. Children study in their native tongues. Textbooks and visual aids are prepared in 59 of the languages spoken in the country.

Although schools are supervised by local

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IT BEGINS WITH THE QUERY: "WHAT'S YOUR NAME?"

THE SOVIET SCHOOLS

Continued

boards of education and curriculum is planned by the Ministry of Public Education of each of the Soviet Union's republics, all schools are part of the single nationwide system and are supported by government funds. About 13 per cent of the entire national budget is allocated to education; for 1957 this came to 78.9 billion rubles.

Since the end of the Second World War new schools have been built at an extraordinarily rapid rate. From 1946 to 1955, the government built 29,555 schools to accommodate 5,006,000 children. By 1960 another four million children will be studying in newly built schools.

Types of Schools

There are three types of schools. The primary school covers grades 1 through 4; the seven-year school, grades 1 through 7; the ten-year school, grades 1 through 10. The type of school opened in any given locality is determined by the number and ages of the children in the school district. All schools are coeducational.

In addition to the general schools, there are special schools for children gifted in music, dance, dramatics and the fine arts which combine general education with special training. There are schools for physically and mentally handicapped children and what we call the sanatorium or forest schools for children in delicate health. There are also many evening schools for those young people who work during the day and who want to complete their courses for secondary school graduation.

The curriculum, drawn up by the Ministry of Public Education of each republic after consultation with teachers, parents, leaders in industry, agriculture, science and culture, is followed by all the schools of the particular republic. When necessary it is, of course, modified to conform to local needs and revised to meet the rapidly changing requirements of modern life and the findings of science and technology.

The Course of Study

In the Russian Federation—to use the largest republic in the Soviet Union as illustration—the curriculum for the first three years includes Russian language, arithmetic, drawing, singing, physical culture and introduction to manual training. In the 4th grade elementary biology, geography and history will be added.

In the middle and upper grades the subjects are grouped into the humanities—Russian language, literature, foreign language and history; the science and mathematics courses—arithmetic, algebra, geometry and trigonometry, physics, chemistry, botany, zoology, anatomy, principles of Darwinism, geography, astronomy and drafting; polytechnical training—which includes the principles of industrial and agricultural production and practical work; and aesthetic development—singing, drawing and physical culture.

The six years of grades 5 through 10 will have a total of 7,196 instructional hours. Of this total, 2,499 hours will be devoted to the humanities; 3,009 to the science and mathematics courses; and 578 to principles of production and practical work in school shops. In addition, fall and spring work on school experimental plots and practical training at the end of the school year add up to 294 hours in city schools and 330 hours in rural schools.

THE SCHOOL PROGRAM

In the Russian Federative Republic
For the Primary, 7-Year and 10-Year Schools in 1957-58

SUBJECTS	Number of hours a week in the different grades										Total number of hours		Additional number of hours a year	
	1	2	3	4	5	6	7	8	9	10	per week	for the year	city schools	village schools
Russian language and literature	13	13	13	9	9	8	6	5	4	4	84	2,856	...	...
Mathematics	6	6	6	6	6	6	6	6	6	6/5*	59.5	2,023	...	...
History	..	..	..	2	2	2	2	4/3*	3/4*	4/5*	19.5	663	...	...
Geography	..	..	..	2	3	2	2	2/3*	3	..	14.5	493	...	...
Biology	..	..	..	2	2	2	3	2	1	..	12	408	...	...
Physics	..	..	..	..	..	2	3	3	4/3*	4	15.5	527	...	...
Astronomy	..	..	..	..	..	..	..	..	..	1	1	34	...	...
Chemistry	..	..	..	..	..	..	2	2	2	4	10	340	...	...
Foreign language	..	..	..	..	4	4	3	3	3	3	20	680	...	...
Physical culture	2	2	2	2	2	2	2	3	3	3	23	782	...	...
Drawing	1	1	1	1	1	1	..	..	..	..	6	204	...	...
Drafting	..	..	..	..	..	..	1	1	1	1	4	136	...	...
Singing	1	1	1	1	1	1	..	..	..	..	6	204	...	...
Introduction to manual training (1-4 grades); work in school shops (5-7 grades)	1	1	2	2	2	2	2	..	..	..	12	408	...	...
Fall and spring work on school experimental plots (5-7 grades); practical training at end of school year (5-6 grades)	..	..	..	..	..	..	..	..	..	..	..	...	102	138
Principles of production	..	..	..	..	..	..	..	3	4	4	11	374	...	...
Practical training at end of school year (8-9 grades)	..	..	..	..	..	..	..	..	..	..	..	...	192	192
Excursions	..	..	..	..	..	..	..	..	..	..	..	...	191	191
Total number of hours	24	24	25	27	32	32	32	34	34	34	298	10,132	485	521
Elective practical courses	..	..	..	..	..	..	..	1	2	2	5	170	...	...

*The numerator indicates the number of hours in first half-year, denominator in second half-year.

Required Subjects

Russian language and literature readings are taught through the 7th grade; course of literature begins with the 8th grade; history and a foreign language, with the 5th.

The curriculum of each republic provides for study of the native language and literature. In these schools Russian becomes an additional language which the children will learn.

Among foreign languages most widespread are English, French and German, although the study of Chinese has lately been gaining considerable ground, as has Hindi, Arabic, Farsi and Urdu. Only one foreign language is required, but a student may, if he wishes, study a second in one of the extracurricular language clubs.

Mathematics is studied in every grade. The study of physics begins with the 6th grade; chemistry and drafting with the 7th; the principles of production with the 8th. Geography and biology are studied from the 5th through the 9th grades and astronomy in the 10th.

As part of the polytechnical training for grades 8 through 10, one day a week is devoted to instruction in a factory or on a farm, depending upon whether the school is urban or rural. This work aims to give children the feel of real productive labor and to relate their class study in the sciences to living situations and problems.

Optional Courses

Besides the required courses, students may choose one of the optional practical courses designed to give them the basic elements of certain special knowledge and skills. This may be some trade, stenography and typing or domestic sciences.

Every school also offers the child a wide choice of extracurricular activities—clubs in mathematics, physics, chemistry, history, geography, literature, a foreign language. There are circles for embryo botanists, technicians, aircraft designers, writers, artists, dancers, musicians and for the future housewives, dressmakers and athletes.

Children may join these clubs or not, as they choose; they are not obligatory. The concern of the teacher is to see that children do not overburden themselves with extracurricular activity to the detriment of health or studies.

Progression in Studies

The area covered in any one subject in successive grades could be roughly diagrammed as a series of concentric, ever-widening circles. As the children move upward in the grades, they return to the same areas of the subject covered in the earlier grades, but the study is given much more depth.

In study of the Russian language, for example, children in the primary grades are taught reading, oral and written Russian and the very minimum of grammar they can manage with. In the 5th-7th grades, when formal grammar is given, the same points will be covered but with the more intensive approach suitable for the older group.

TOTAL NUMBER OF HOURS
(in the schools of the Russian Federative Republic)

SUBJECTS	Grades		
	1-4	5-7	8-10
Russian language and literature	1,632	782	442
Mathematics	816	612	595
History	68	204	391
Geography	68	238	187
Biology	68	238	102
Physics	...	170	357
Astronomy	...	...	34
Chemistry	...	68	272
Foreign language	...	374	306
Physical culture	272	204	306
Drawing	136	68	...
Drafting	...	34	102
Singing	136	68	...
Introduction to manual training; work in school shops	204	204	...
Principles of production	...	...	374
Practical training	...	102* 138**	192
Elective practical courses	...	...	170

*in city schools
**in village schools

In the 5th-7th-grade literature readings the children read and discuss various literary works suitable for their age level. They include books or extracts from the classics of Russian literature, the works of Soviet and foreign writers. Among the English and American writers read are Charles Dickens, Sir Walter Scott, Jonathan Swift, Daniel Defoe, Mark Twain, Harriet Beecher Stowe and Jack London.

In the upper grades students are given a fairly intensive course in the history of Russian literature from the earliest days to the contemporary period; the literature of the peoples of the Soviet Union; and the writings of the great among West European writers—Shakespeare, Goethe, Cervantes, Molière, Schiller, Byron, Balzac, Stendhal, Shaw and other world classics.

History

In some fields the progression in studies from grade to grade would diagram as a continuous unbroken line rather than as a series of concentric circles. History is a case in point. The whole course is studied in chronological sequence.

While in the 4th grade children are acquainted with certain of the outstanding events in the history of the country, it is all still very general. They are presented through stories read or told by the teacher and through pictures and movies.

The actual study of history in a formal way is not begun until the 5th grade with ancient Greece and the ancient East. In the 6th grade the children continue with the history of ancient Rome and the beginning of the medieval period. In the 7th grade they complete their study of medieval history. In the 8th, 9th and 10th grades they go on to modern and contemporary history and at the same time study the history of the peoples of their own multinational country.

Mathematics

Mathematics receives particular attention in Soviet schools because of its close relation to so many branches of knowledge, both theoretical and practical, and its value in developing logical thinking.

Primary-grade arithmetic is continued with a formal course of elementary arithmetic in the 5th and 6th grades. In the 6th grade they

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TEN YEARS LATER IT IS: "SHALL WE GO STEADY?"

THE SOVIET SCHOOLS

Continued

IT'S ALL SO FASCINATING FOR THE FIRST-GRADERS.

begin the study of geometry and algebra and go on with these two subjects through the 10th grade. In the 9th and 10th grades they study trigonometry as well.

In mathematics teaching emphasis is upon mastery of basic mathematical concepts and methods and their application, but as tools rather than as dogma. Class work is related as much as possible to the solution of practical problems, to surveying in the field and other such real situations. Students are taught to use tables, computing apparatus and measuring and drafting instruments.

Physics and Chemistry

Physics is studied for five years. The course of study in the 6th and 7th grades is introductory. Students are given an elementary knowledge of mechanics, heat and electricity. They do simple laboratory experiments and learn to use apparatus and measuring instruments. They make excursions to factories, power stations and construction sites.

In the 8th and 9th grades they study the principles of molecular physics, mechanics, sound and heat. In the 10th grade they study the structure of the atom, electricity, radio and optics.

In their studies students learn how the laws of physics are applied in production and they acquire an understanding of the underlying physical foundation of modern industry. They study the principles governing the structure and functioning of hydraulic, thermic and electric engines; of various machines and vehicles; of transmission mechanisms and methods of transmitting energy over great distances.

This knowledge is both broadened and deepened during their later study of the principles of production and study of machine engineering and electrotechnics. Students spend considerable time doing laboratory experiments and practical work, making instruments and models and going on excursions.

The major goals in the study of chemistry are to develop an understanding of chemical reactions as they are explained by modern chemical theory; to develop an ability to observe and explain the chemical phenomena which occur in nature and in industry; to learn laboratory skills; to learn the basic applications of chemistry to power, industry, farming, transportation; to understand the relation of chemistry to everyday living.

WHILE LEARNING TO WORK WITH VARIOUS MATERIALS, THE FOURTH GRADE DRAWING CLASS MAKES BOOK COVERS.

Art and Music

The curriculum emphasizes art and music, both as appreciation and as active participation studies. The study of history and literature is given deeper meaning by frequent excursions to museums. Creative ability and interest in the fine arts is fostered by the study of drawing in the first six grades, accompanied by talks on the world's noted painters and sculptors, and on schools of art.

Class studies are further supplemented by extracurricular clubs in painting, modeling and art history for those children who are interested. There are, in addition, art classes at special children's studios and Young Pioneer clubs with yearly exhibitions of children's work shown in many of the country's larger cities.

In music the children are taught solo and choral singing. The teacher tells them about the works of the classic and modern composers. They learn to appreciate music by both listening and singing. For those who wish to play an instrument there are optional classes in piano, violin and folk instruments.

Throughout school the children are given physical culture and participate in extracurricular gymnastics and sports.

Polytechnical Training

A basic aim of Soviet education is to acquaint children with an understanding of modern industrial and agricultural production and to provide them with the fundamental skills which will help direct them to the vocation of their choice. This emphasis, termed polytechnical, includes practical work, school courses in the principles of production, and an orientation in study of the sciences which relates theory to practice.

Children art taught to do manual work beginning with the first grade. They work with paper, cardboard, fabrics, modeling clay, wood, white metal and wire to make simple toys and models. On the school farm plots they grow plants and take care of animals. In the process of this work they apply their class learning in arithmetic, the natural sciences and drawing. *Continued on next page*

In the 5th-7th grades work-study is done in the school shops and experimental plots. Children learn to work wood and metal with hand tools and machines; to assemble simple electrical equipment; to make and to read simple technical diagrams and working drawings.

In the summer 5th and 6th grade students do practice work in plant growing at collective and state farms for periods of 6 to 12 days, working four hours a day. They keep written records of their observations. There are quite a few schools where students, guided by teachers, have been doing very serious experimental growing which has resulted in the development of new kinds of plants and hybrids or in the improvement of existing work methods.

There are "factories" and "plants" specially set up to introduce children to production work. There are such "plants" at the Ushchelninskaya School in the Crimea and the Lvovskaya School in Moscow Region. There is a printshop at Boarding School No. 19 in Moscow. In other schools there are many other "shops" and "commercial enterprises."

There is of course an element of play in all this, as there should be. The children play at being real builders and erect their own "plant." But there is also a good deal of room here for real work and learning and for mastery of practical skills.

Principles of Production

The course in principles of production is the core subject around which polytechnical study is built. It is given in the 8th, 9th and 10th grades.

In the 8th grade pupils study machine engineering—the elements of technology of metals and the basic data on mechanisms and machines. They work metal and wood, set up and assemble simple machine units. In the 9th grade they study the principles of industrial production in operation at a specific plant. The course, given four hours a week, includes theoretical studies, excursions and practical work. Tenth grade study consists largely of practical work and study of the automobile and electrotechnics.

In rural schools the course in the principles of production is organized somewhat differently. Elements of plant growing are studied in the 8th grade and elements of livestock breeding in the 9th. Farm machine engineering is studied in both the 8th and 9th grades. In the 10th grade pupils study the automobile, the tractor and electrotechnics.

Eighth and ninth grade students in both rural and urban schools do practical work-study in the summer, in addition to their practical work during the school year.

Practical Work-Study

School No. 85 in the Ukrainian city of Dniepropetrovsk is a typical Soviet secondary school. Students in the 8th, 9th and 10th grades receive their practical training at a large coke and chemical plant. Here is what fifteen-year-old Pyotr Andreyev, a 9th grade student, wrote in his diary about the things he learned at the plant.

ALL SORTS OF VISUAL AIDS ARE USED IN THE CLASSROOM. THIS GEOGRAPHY LESSON ENDS WITH A FILM.

AS MUCH EMPHASIS IS PLACED ON THE PUPIL'S PHYSICAL WELL-BEING AS ON HIS MENTAL DEVELOPMENT.

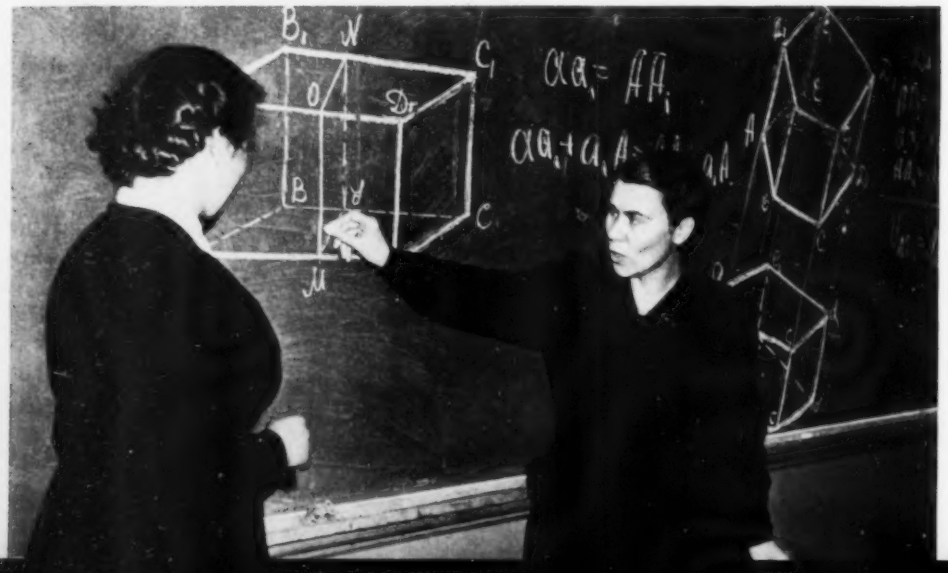
THE MORE DIFFICULT AND DEMANDING SUBJECTS ALTERNATE WITH THOSE REQUIRING LESS MENTAL EFFORT.

THE PROBLEMS GET HARDER IN THE UPPER GRADES.

A COMPREHENSIVE COURSE IN CHEMISTRY BEGINS WITH THE SEVENTH GRADE AND ENDS WITH THE TENTH.

BY THE TENTH GRADE STUDENTS HAVE LEARNED TO USE COMPUTING, MEASURING AND DRAFTING INSTRUMENTS.

IN MATHEMATICS, AS IN ALL OTHER SUBJECTS, THE AIM IS TO DEVELOP INDEPENDENT THINKING HABITS.



THE SOVIET SCHOOLS

Continued

He describes the coke-and-chemical industry, its significance in the national economy and the products turned out by the plant. He reports on the chemical substances he worked with, their physical and chemical properties and their application. He outlines the scientific principles behind the production of chemicals which he had learned earlier in class and was now observing in application at the plant. He writes in technical terms of the increase in the concentration of reacting substances and their circulation, of the increase in the surface of contiguity, the application of optimum temperatures, counterflow and catalyzers. He discusses uninterrupted production, mechanization and automation.

This student, like all others during the practical training periods, develops a real sense of the meaning of scientific principle—of physics and chemistry—as the foundation of modern production. At the same time he acquires valuable skills and a working discipline.

The School Year

The organization of the school year is essentially the same for all schools in the country. The school year begins on September 1 and ends between May 20 and June 20, depending upon the grade.

All children go to school six days a week. A lesson is 45 minutes long with a 10-minute recess. The lunch-hour recess is 30 minutes.

The 1st and 2nd grades have 24 lessons a

IN THE SIXTH GRADE AN INTRODUCTORY PHYSICS COURSE IS GIVEN WHICH INCLUDES SIMPLE EXPERIMENTS AS WELL AS THEIR PRACTICAL APPLICATION IN EVERDAY LIFE.

week; the 3rd grade, 25; the 4th grade, 27. The number of lessons in the upper grades varies somewhat with the republics: in the Russian Federation, the 5th-7th grades have 32 lessons a week and the 8th-10th have 34 lessons, while in the Ukraine and some other republics the 5th-7th grades have 34-35 hours and the 8th-10th have 35-37.

For the 1st, 2nd, 3rd and 10th grades the school year is 34 weeks; for the 4th through the 9th grade it is 35 weeks, with one week specifically allocated to excursions. Besides the long summer vacation children have a 12-day winter holiday early in January and a 10-day spring holiday late in March.

The school year is divided into four quarters. Marks are given for each quarter, upon which the final marks and promotion to the upper grades are based. Children who receive unsatisfactory marks are either left back to take the year's work over or are given a summer assignment to do.

At the end of the 7th and 10th grades students take final examinations. In the other grades there are no examinations in the schools of the Russian Federation and most other re-

Continued on next page

PUPILS MUST TAKE EXAMINATIONS AT THE END OF THE SEVENTH AND TENTH GRADES.

INDEPENDENT RESEARCH AND OBSERVATIONS ARE PART OF EIGHTH GRADE BIOLOGY.

EXPLANATION OF HOW THE TELEPHONE OPERATES.

THE SOVIET SCHOOLS

Continued

publics. In the schools of the Ukraine all students from the fifth grade upward take examinations.

Textbooks and Teaching Aids

There are textbooks and teaching aids for every subject in the course of study. They are standard for all the schools of a given republic and present in systematic form the knowledge to be mastered at a particular level. They also contain questions and assignments for home study. All the texts are richly illustrated.

Additional teaching aids include readers in literature, history and geography; exercise and problem books in mathematics, physics and chemistry; and a large literature for extracurricular reading in all the fields of school study.

All republics publish textbooks in their languages, usually in enormous editions. The publishing house of the Ministry of Public Education of the Russian Federation—the largest of its kind in the country—last year published 1,700 different textbook titles in a total printing of 198 million copies.

Textbook authors are scientists, professors of pedagogy and practicing teachers. Frequent contests are held with handsome prizes awarded to the writer of the best textbook on one or another subject.

Usually new textbooks are published experimentally in relatively small editions, tried out in schools, and the text revised if necessary. Only after this testing is the textbook finally approved by the Ministry of Public Education of the republic for general use and issued in the usual large edition.

Teaching Methods

In the 1st to 4th grades all class subjects are taught by a single teacher except for drawing, singing and physical culture which are taught by special teachers. In the 5th through 10th grades each of the subjects is taught by a specialist in that field.

The more difficult and demanding subjects are usually taught in the earlier part of the school day. Subjects that require greater mental effort are arranged to alternate with shopwork, drawing and singing.

Teachers work from lesson plans which they prepare for each period. These serve as guides for the material to be covered rather than as rigid plans to be strictly followed. They will be altered as the lesson proceeds, depending upon the pace at which the children move along.

The major teaching aim is to develop the initiative of the child and to lead him on to independent thinking and study. Throughout there is constant emphasis upon relating theory to practice.

The teaching process at all times combines a review of material already studied with the learning of new material in order to foster independent and creative thinking. This approach holds for every subject studied. Assignments frequently require independent research.

In the chemistry laboratory students are required to draw conclusions independently —guided, of course, by the teacher—about the properties of the substances they combine in experiments.

In mathematics they will be asked to prove a theorem which they have not yet studied, to derive a new formula or to find a method for solving a new type of problem.

In a literature class they will be asked to analyze a new book for content and for style. Reports will be written or oral and may take the form of discussions, debates or round table forums.

But throughout all this the teacher directs the student's work. He tries to have him master the scientific knowledge actively and consciously. The aim is to develop the personality of the young person, as well as his thinking and creative abilities.

Homework

In addition to class work students are given daily home assignments, except on Saturdays and before holidays. Homework may be of a theoretical or practical character and may be a textbook assignment, supplementary reading, problem solving, performing an experiment, drawing or making a diagram or model.

THE GIRLS EMBROIDER APRONS AND OTHER THINGS FOR THE HOUSE IN SEWING CLASS.

THE BOYS LEARN TO USE A LATHE AND OTHER MACHINES IN THE SCHOOL WORKSHOPS.

The school maintains close ties with parents through individual consultations, parents' meetings, and lectures for adults on child problems.

Some schools have organized rather comprehensive courses for parents on bringing up children. Every school has its parents' committee, elected by the parents themselves to work with the teachers and school administration.

Bright and Backward Students

Homework and classwork are checked daily. Marking is done on the five-point system—with five the highest mark and one the lowest. The best students are awarded honor certificates and prizes, usually books. Gold and silver medals are awarded at graduation for outstanding work.

Soviet schools do not punish pupils for poor work in studies. The lazy student feels the very strong moral pressure not only of teacher and parent, but of his classmates as well. With education so easily available and intellectual and practical achievement so honored in Soviet life, this kind of social censure is usually sufficient to make the able but lazy student toe the mark in his studies.

The willing but backward student is given every help and encouragement by both teachers and fellow students. If, however, in spite of special help the student is unable to master the required material and receives more than two unsatisfactory marks at the end of the year, he must repeat the work of the grade. If he receives one or two unsatisfactory marks, he will be given assignments in the failing subjects to be completed during the summer and his promotion decided in the fall.

Not only backward students but students of outstanding ability are given special attention. The teacher will try, as far as possible, to encourage and develop natural abilities and talents. It is the usual thing for the teacher to give additional and individual assignments to the very good students as well as the very poor ones.

Classroom Work

A 7th grade geography lesson at school No. 27 in the city of Kazan may serve as an illustration of classroom work. The theme of the lesson is rivers of the East European plain.

The lesson begins with a study of the new material to be learned. The children are asked to find the largest rivers on the map, to trace their sources and to find which sea basins they flow into. The teacher then suggests that by using the scale of altitudes, they can calculate the approximate altitudes of the sources and find the lengths of the rivers by using a corresponding scale. A motion picture is then shown.

This is followed by a general discussion during which the teacher describes the rivers of the northern and southern parts of the East European plain and their use in the national economy. At the end of the lesson the children tell of their own observations of the Volga River, on whose banks their city is situated. They recall songs they have heard and poems they have read about this great river.

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IN VILLAGE SCHOOLS THE PUPILS LEARN NOT ONLY HOW TO OPERATE A TRACTOR BUT EVEN WHAT MAKES IT GO.

BEFORE THE YEAR IS UP, EVERYBODY WILL HAVE HAD A TURN WAITING ON THE TABLES.

FIFTH GRADE SHOP CLASSES ARE FOR BOTH BOYS AND GIRLS. THEY WORK WITH WOOD, METAL AND WIRE.

A WEALTH OF EXTRACURRICULAR ACTIVITIES COMBINE RECREATION WITH LEARNING.

THEY ADD QUITE A BIT TO THEIR CLASSROOM KNOWLEDGE AT THE BOTANY CLUB.

THE SOVIET SCHOOLS

Continued

A 10th Grade Physics Lesson

Here is a 10th grade physics lesson given at secondary school No. 23 in the town of Vladimir. The lesson begins with a quick review of uniformly alternate motion, acceleration, the formula for deriving velocity and distance covered during uniformly accelerated motion, and Newton's laws. It is followed by laboratory exercises.

The teacher then asks a series of questions which require that the students explain a new physical phenomenon using the laws they have studied: "To what altitude did our second sputnik ascend? What was its velocity at the moment of launching? What velocity did it have at the moment it went into orbit?"

After the students give the answers, the teacher asks that they determine the time it took the rocket to reach a given altitude and the value of its acceleration. The students set about their calculations.

Valeri Kalachikhin has the answer first. "The rocket's acceleration," he says, "was 20 meters per second every second."

Nikolai Litvinov, another student, has calculated that the rocket reached the given altitude of 1,600 kilometers in 400 seconds.

Both answers check with those of the other students.

ASPIRING YOUNG WRITERS READ AND DISCUSS EACH OTHER'S WORK AT A MEETING OF THE LITERATURE CLUB.

The teacher says: "Let's think about the figure we've arrived at for the high acceleration reached by the sputnik. Where else do we have such great accelerations? What can these accelerations be compared with?"

The students answer that the acceleration of the sputnik was more than twice the acceleration of the earth's gravitation.

"Very good," says the teacher. "We have solved the problem we set ourselves but there are some slight inaccuracies in the answer. What are they?"

Students Volkov and Zhiltsov raise their hands.

"When we solved the problem we assumed that the sputnik was flying along a vertical path. Actually the direction of its flight changed."

"We did not take into consideration the changing resistance of the air. We assumed that the acceleration was uniform throughout."

"True," says the teacher. "As a result our figure is somewhat different from the actual one." He asks another question. "Once it entered its orbit, how did the sputnik keep flying around the earth without engines?"

"The property of inertia kept the sputnik moving," answers a student.

"Let's recall what inertia is and Newton's first law of motion," continues the teacher. "Is inertia always a helpful property? How would we be able to reduce the speed of an airplane if we wanted it to land safely?"

"We could have air brakes. . . . Increase the head resistance. . . . Use a rocket device to retard motion. . . . Open parachutes." These are some of the answers elicited.

The lesson is concluded with a motion picture which explains Newton's first law.

The Teacher

More than 1,800,000 teachers are employed in the schools of the Soviet Union. All have had pedagogical training.

AIRCRAFT DESIGNERS OF THE FUTURE MAKE INTRICATE MODELS AND FLY THEM TOO.

THE STUDY OF HISTORY IS GIVEN DEEPER MEANING BY FREQUENT TRIPS TO MUSEUMS.

Primary school teachers are trained at teachers' training schools; 5th to 10th grade teachers are graduates of universities and pedagogical colleges. About 100,000 young teachers graduate from these institutions every year, so that the nation's school system does not suffer from a lack of well prepared teachers.

For teachers who wish to do advanced study there are graduate schools of education in every part of the country. One-month summer refresher courses are offered by advanced teacher training institutes.

The Academy of Pedagogical Sciences of the Russian Federation has eight research institutes staffed by a thousand researchers and teachers. It also has its own publishing house which issues three journals of education.

Published material on pedagogy and methodology is very abundant. There are 60 journals of education published and 16 newspapers primarily directed to teachers. During the period 1954-1955 almost 14,000 books on educational theory and practice were published in a total printing of more than 100 million copies.

The teacher's salary scale is equal to that of a skilled engineer, with periodic increments. A teacher with 25 years of service receives, in addition to his salary, a bonus amounting to 40 per cent of his salary. There is a two-month paid vacation.

Teaching is a highly respected vocation in the Soviet Union. More than 122,000 teachers are deputies to the national and republican legislatures and the city, town and village councils. More than 270,000 teachers have been awarded medals for merited service or contributions to pedagogical theory and practice.

Look into the Future

There can be little doubt that Soviet progress in science, technology and the arts owes much to the scope and quality of the country's educational system. But the pace of this progress makes ever greater demands upon the school for even better trained, more broadly educated workers and citizens. There is consequently a continual search for ways and means of improving curriculum, teaching methods and school organization.

This search is not confined to specialists in pedagogy. Since the quality of the school so profoundly affects every area of living, everyone discusses school problems—parents, teachers, scientists, industrial and farm workers.

Widespread discussion is going on now with regard to such educational problems as how better to prepare school graduates for professions and trades; how better to achieve an integration of classroom and production work, of general and polytechnical education.

It is too early to predict the results of this nationwide consideration of current school problems. Proposals are legion, and experimentation going on now will unquestionably bring changes.

Education cannot be static; it must be ever receptive to the new thoughts and new approaches that new times inevitably bring. That is the main guiding principle of the Soviet school. ■

This is the first of a series of articles on Soviet education. Next issue: *Colleges and Universities.*

THE SCHOOLS GRADUATE YOUNG PEOPLE WELL EQUIPPED TO HOLD DOWN A JOB OR GO ON TO COLLEGE.

U.S. EDUCATORS Inspect Soviet Schools

FOUR DELEGATIONS of American educators visited the Soviet Union this past summer as part of the USA-USSR cultural exchange program. Soviet educators will visit the United States this fall.

The most representative of the American delegations was composed of ten leading U. S. educators interested in observing various aspects of the country's education program. They visited all types and levels of schools and extracurricular educational facilities in various cities. The guests had conferences with officials of the Ministry of Public Education and the Academy of Pedagogical Sciences of the Russian Federation and the USSR Ministry of Higher Education.

Summing up the delegation's four-week stay in the Soviet Union, its head, Dr. Lawrence Derthick, U. S. Commissioner of Education, said that all the members were amazed to find out how little they knew about the Soviet system of education. He went on to say: "This once again emphasizes the great importance of cultural exchanges in all spheres. We can learn a lot from each other. We can make use of some of the experiences of Soviet educators, and the delegation of Soviet educators which is to come to the United States on a reciprocal visit will also learn a lot from their trip.

"During our visits to schools we saw that Soviet children and teachers strive to learn more about other countries. This is evident from the correspondence they carry on with the children of many countries and the exhibitions they exchange. I hope that similar ties are established between the children and teachers of the USA and the USSR. This will be another channel for improving relations and mutual understanding between our countries."

Continued on page 14

AMERICAN EDUCATORS INSPECT THE GEOLOGY DEPARTMENT OF MOSCOW UNIVERSITY.

A RECEPTION FOR THE AMERICANS AT THE ACADEMY OF PEDAGOGICAL SCIENCES.

MEETING VALENTINA SHATSKAYA OF THE CHILDREN'S ART RESEARCH INSTITUTE.

BETWEEN EXAM SESSIONS COLLEGE STUDENTS CLUSTER ABOUT ONE OF THE GUESTS AND PLY HIM WITH QUESTIONS REVEALING SPECIAL CURIOSITY TYPIFYING YOUTH.

HELEN MACKINTOSH IS INTERVIEWED BY STAFF MEMBERS OF A STUDENT NEWSPAPER.

LAWRENCE DERTHICK MEETS STUDENTS OF MOSCOW'S TEACHERS TRAINING INSTITUTE.

VYACHESLAV YELYUTIN (CENTER), USSR MINISTER OF HIGHER EDUCATION, WITH EDWARD LITCHFIELD, HEAD OF THE UNIVERSITY PRESIDENTS DELEGATION, AND HARRY GIDEONSE.

U.S. EDUCATORS

Continued

Of the three other delegations of American educators that came to the Soviet Union to get acquainted with its educational facilities, one was composed of university presidents and the other two of professors and instructors in the fields of liberal arts and natural sciences. Edward Litchfield, President of the University of Pittsburgh, headed the delegation of university presidents. Commenting on what they saw, he cited Kazakhstan as an example:

"We were amazed by the tremendous progress of the Kazakh people who only forty years ago were illiterate and now have not only college-trained specialists but scientists as well. I have traveled a good deal, but nowhere have I come upon so many people working for doctorates. All modern sciences are represented in the Kazakh Academy." ■

U. S. GUESTS INSPECT EQUIPMENT AT A MOSCOW MACHINE-BUILDING SCHOOL.

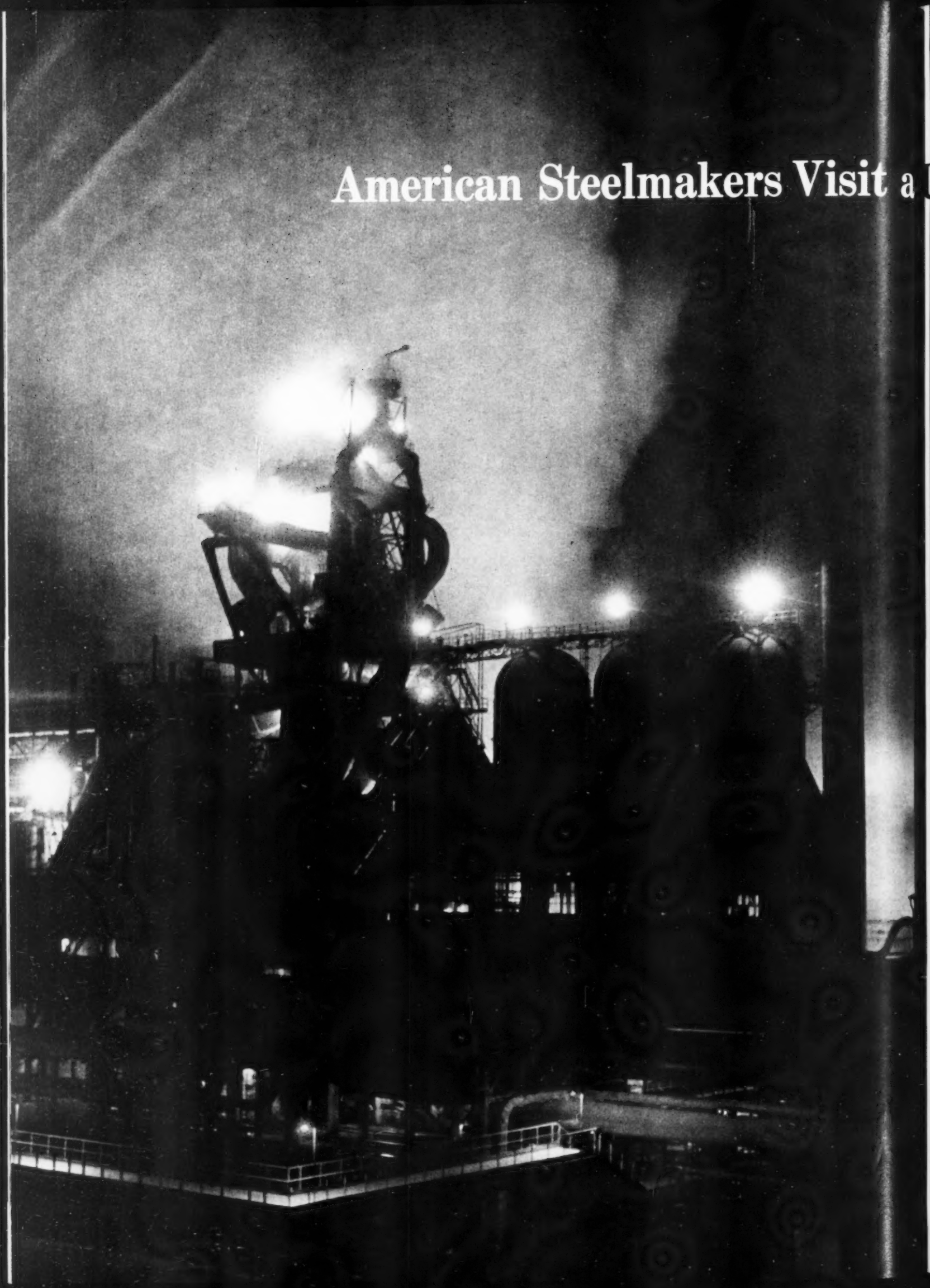
AMERICAN UNIVERSITY PRESIDENTS VISIT THE LIBRARY OF A JUNIOR COLLEGE.

RECEIVING A GIFT FROM SAKSAGAN BAISHEV, VICE PRESIDENT OF THE KAZAKH ACADEMY OF SCIENCES.

AT THE KAZAKH ASTROPHYSICAL INSTITUTE'S OBSERVATORY.

CONFERENCE WITH PROFESSOR TEMIR DARKAMBAYEV, RECTOR OF KAZAKH UNIVERSITY, TOUCHED ON VARIOUS PHASES OF REPUBLIC'S EDUCATIONAL AND SCIENTIFIC WORK.

American Steelmakers Visit a



Urals Plant

By Yuri Grafsky

Nineteen American engineers, research workers, economists and specialists in the ferrous metal field visited the Soviet Union as guests of the Science and Technology Committee of the USSR Council of Ministers. These American iron and steel experts toured the main metallurgical mills and plants and became acquainted with the work of research centers in Moscow and Leningrad.

THE AMERICAN IRON AND STEEL EXPERTS WERE HEARTILY GREETED BY WORKERS OF THE MAGNITOGORSK MILL.

THE VISITORS FROM THE USA FIRST INSPECTED THE RECORD-SETTING BLAST FURNACE.

THE MAGNITOGORSK Iron and Steel Mill in the Southern Urals was one of the first to be erected in the dawn of industrialization of the Soviet Union in the early thirties. Since then the plant's capacity has steadily increased and yearly reports showed it marking up higher production totals. When it was announced that Magnitogorsk's blast furnaces had succeeded in smelting 250 metric tons at a single melt, American engineers who helped in the construction of its first furnaces simply refused to believe such productivity was possible.

Tour of the Magnitogorsk Mill

And now a group of American iron and steel experts came to Magnitogorsk to see for themselves. They were met by Feodosi Voronov, director of the mill. He told them that "the Magnitogorsk mill embraces eight blast furnaces and 28 open-hearth furnaces. The average volume efficiency of blast furnaces is 0.63. The steel smelters obtain about nine tons of metal per day for each square meter (10.763 square feet) of open-hearth space.

"Production keeps increasing constantly," Voronov continued. "In 1957 we produced 1.5 times more cast iron, 37 per cent more steel and almost 35 per cent more rolled metal than in 1952. By 1965 the volume of production will reach even higher levels: we shall turn out 48.2 per cent more steel and 43 per cent more cast-iron than last year, while the production of rolled metal will be up by 1.5 times."

After the "theoretical" part of the visit had concluded with the director answering questions, the American guests were conducted on a tour of the mill. From the mining district where the ore is extracted by the open-cast method, they went to the agglomeration factory. Some of them took samples of caked agglomerate from the conveyor and Michael Holowaty commented: "Very good. The whole factory reflects efficient operation."

The visitors reached the blast furnaces just as the men were ready to cast the iron. The Americans gathered to watch the process they had come so far to see. Was it really true that Magnitogorsk furnaces had

Continued on next page

American Steelmakers Visit a Urals Plant

Continued

THE GUESTS WATCH A BLOOMING MILL IN OPERATION FROM THE CONTROL ROOM.

BLAST FURNACE HEAD IVAN SAGAIDAK REPLIES TO QUESTIONS ABOUT PRODUCTION.

such a huge efficiency? One by one the great ladles were filled until there were four and a half, which added to exactly 250 tons.

"This is excellent," said Earle Smith, one of the delegation, "and is another proof that you have done a fine job in organizing production."

The visitors were also impressed by other shops of the plant. They lauded the open-hearth workers on the quality of their steel. Of particular interest for them was the method of pouring out the steel with a double ladle. Stephen Jenks, a vice-president of the U. S. Steel Corporation, praised the fine state of the mill's equipment and the perfect order in which the shops were maintained. Commenting on the use of chromomagnesite brick in the open-hearth furnaces, he said: "This brick is essential for the length of service of furnaces. And we don't have such raw material at home."

The Americans walked from one shop to another, stopping at each new machine to ask questions. They were interested in everything. They wanted to know the results of high-temperature blasting and the effectiveness of using hot agglomerate. They were very attentive as Ivan Sagaidak, head of the blast furnace shop, explained the system of repairs. Here they found out that Soviet blast furnaces have an operational life about twice that of furnaces in the United States.

Questions and Answers

As the Americans toured the Magnitogorsk shops, they, too, had to answer lots of questions. Floyd Eckhardt, for example, explained the method of oblique rolling that is widespread in American plants. Detailing this method, he traced a diagram and gave it to Valentin Kozhevnikov, chief rolling mill expert at Magnitogorsk.

"This is very interesting," said Kozhevnikov, thanking his colleague. "We'll be glad to try your method."

It went on this way throughout the visit, the American and Soviet iron and steel experts sharing experiences and becoming better acquainted. When Stephen Jenks learned that Foreman Grigori Kubov had spent 36 years in the industry, he firmly embraced him, saying:

"I've also been working in metallurgy for 36 years. And we'll smelt a lot more steel, old man, won't we?"

From the shops several members of the party moved to the office of Vasili Kiselyov, chief engineer of the Magnitogorsk mill. John Stephens wants to know how rapidly the number of workers increases.

"About 1,500 people a year," Kiselyov replies. "That's mainly because we are expanding production. Another reason is the transition to a seven-hour workday and forty-hour week, which started a year ago."

"Suppose I wanted to work here," Stephens says. "What would I have to do?"

"Well," Kiselyov replies, "let's go to our personnel department and find out."

Boris Buivid, head of the personnel department, met them in his office.

"Mr. Stephens would like to know how to get a job here," Kiselyov explained following the usual introductions.

"If this is your first job, you'll have to fill out a short questionnaire, giving your name, age, address and trade. A person who has worked before presents his work-book, which contains all the data we need. We took on twelve workers today. If Mr. Stephens decides to take a job, he will be No. 13."

"But suppose my specialty doesn't fit your needs?" Stephens asked.

"Don't worry about that," Buivid said, smiling. "In most cases we accept people who are not specialists, but they readily acquire a specialty right here at the mill. We operate our own vocational school and also offer on-the-job training courses for new workers. In addition we have courses where some seven thousand workers improve their skills each year. They study new equipment and all the innovations in iron and steel production."

One of the visitors wanted to know how much this instruction costs a worker.

"Nothing," was the reply. "On the contrary, every novice gets an apprentice wage of about 300 rubles a month."

Kiselyov next invited the guests to see the polyclinic, which provides free medical service for the mill workers. It also puts all workers through periodic examinations and this has helped to eradicate occupational diseases such as silicosis. The day's tour of the mill was concluded in the workers' cafeteria of one of the shops.

Summing up the impressions of the tour, John Stephens said: "It is apparent that everything needed for the workers is provided here, and that's why they're doing such a good production job."

At the Workers' Club

In the evening the Americans visited the Palace of Culture of the Magnitogorsk iron and steel workers, which was built at the same time as the mill. The performance opened with a symphony orchestra on the stage. All its members were workers and many of them had spoken to the visitors during the tour.

The first number was a rendition of Franz Schubert's *Unfinished Symphony*. It was followed by vocal solos. Semyon Karmanov, a technician, sang a Urals folk song, then Valentina Kazanina, an employee of the executive offices, charmed the audience with her remarkable soprano. Accompanied by the orchestra and chorus, she sang the "Habanera" from *Carmen*. An amateur dance group concluded the program with national dances.

The American guests were pleased and applauded enthusiastically. When the curtain fell, they went backstage and thanked the performers. Shaking hands with Galina Karamysheva, chairman of the board of the Palace of Culture, John Stephens said: "It was worth traveling to the other end of the world to attend such a concert and listen to such a chorus and orchestra."

"We'll have to work pretty hard to keep up with you when your iron and steel delegation comes to the States," Mr. Merle Thompson added.

THE VISIT TO MAGNITOGORSK WAS NOT ALL MILLS, FURNACES AND PRODUCTION.

DR. MICHAEL HOLOWATY FOUND THAT THE AGGLOMERATE USED WAS OF TOP QUALITY.

The guests left the Urals the next day. Mr. Edward Ryerson, as chairman of the delegation, readily agreed to write a few words for *USSR* on his impressions. He was joined by Messrs. Jenks, Strassburger, Stephens and Vedensky. They wrote:

A Few Words for *USSR* Magazine

"Most important among our observations so far is the warm, friendly way the Russian people have received our delegation from the United States iron and steel industry. We have been greeted with the utmost cordiality everywhere, and the excellent entertainment of music and dancing given at Magnitogorsk was enjoyed by us all.

"Our brief visits to the iron and steel works of Chelyabinsk and Magnitogorsk have given us an excellent opportunity to observe the high quality of production being maintained at these plants.

"We have been impressed with the productivity of the furnaces, rolling mills, mines and all departments, and particularly the progress in new construction and the interest exhibited by the employees in their work.

"So far our trip has been most interesting, but it must be realized that the time we have been here is as yet far too short.

"We shall look forward to the time when we shall have the opportunity to entertain the representatives of the Russian iron and steel industry when they come to the United States.

"In this statement we are expressing the views of all our associates.

Edward Ryerson, Chairman
John Stephens, Industrial Relations
Stephen Jenks, Steelmaking
Julius Strassburger, Blast Furnace
Dmitri Vedensky, Raw Materials"

This comment serves as a sort of summing up of the visit of the American iron and steel men to the Urals, a visit that proved valuable to both American guests and their Soviet hosts. ■

INSPECTOR NIKOLAI KOZIENKO (LEFT) CHECKS CONDITIONS IN THE CONTROL ROOM.

SAFETY Is My Job

As told by Nikolai Kozienko

I WORK as a crane operator in the rail-and-beam department of the Nizhni Tagil Iron and Steel Mill in the Urals. Four years ago I was elected a voluntary safety inspector by the trade union group of crane operators. There are 44 voluntary safety inspectors in my own department and 1,200 in the whole mill. Our job is to keep a weather eye on labor protection and safety.

Why so many? To cover every possible source of accident, to think up ideas that will make for better and healthier working conditions. No one is better equipped to do that than the men who actually work on the job. They know the shop and its problems and they know the production process. They know best what will make their jobs, and everybody else's, easier and healthier.

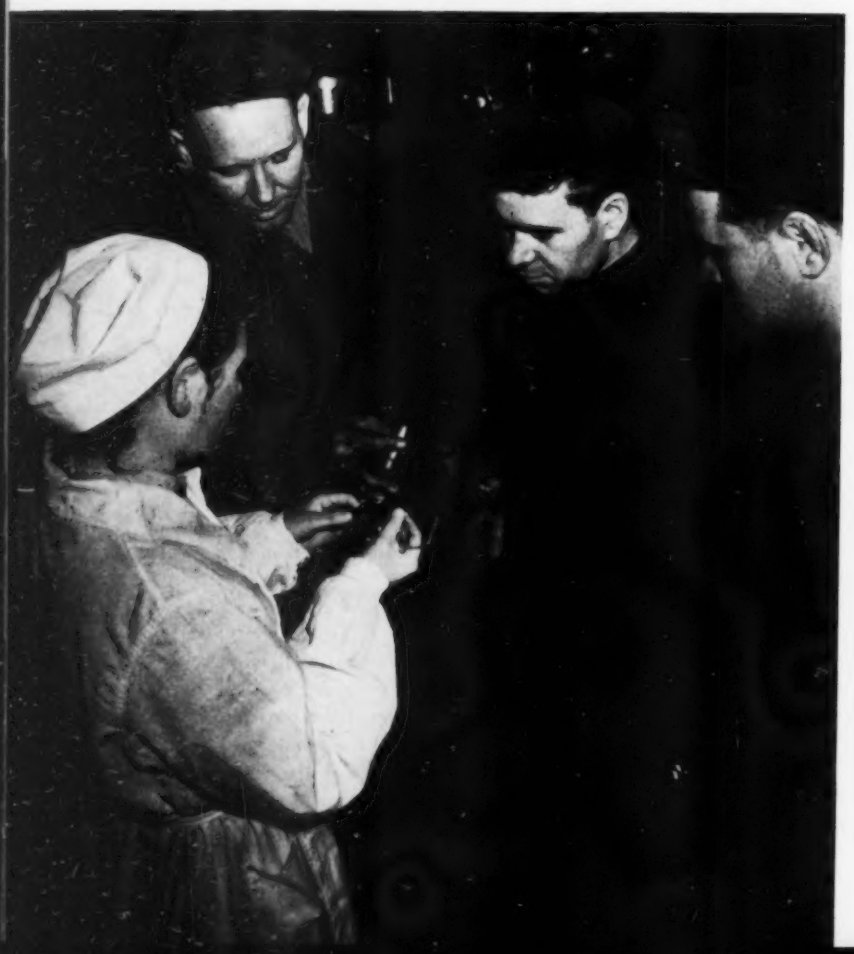
The plant is gone over periodically by government safety inspectors besides. We work with them closely to see that ventilating systems are operating efficiently, that safety devices are properly installed, that workers in hot shops are protected by water curtain arrangements and that a hundred and one other safety and health measures are in operation. No plant is allowed to operate unless it comes up to labor protection standards.

Safety measures add to costs and are often expensive, but the protection of workers is our most important job and no task holds a higher priority. In my own department, which has several thousand workers, the number of accidents on the job was reduced by 50 per cent last year. In 1956 there were approximately four accidents per 1,000 workers, and last year there were only two. The number of sick days have also been cut from a total of 2,300 days in 1956 to 550 days in 1957.

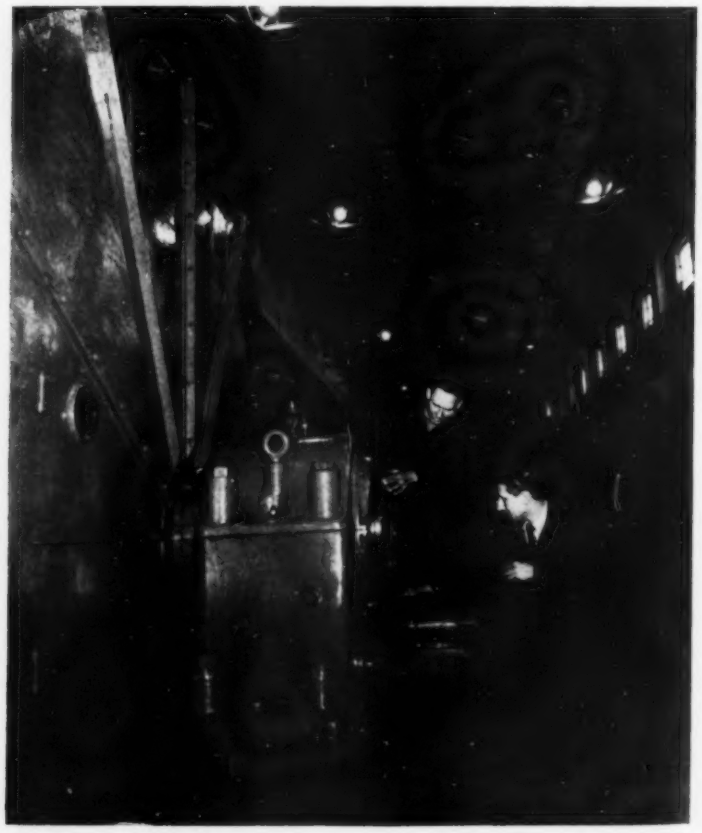
Clauses regulating safety, health and working conditions make up a sizable part of the yearly union-management contract.

Our contract, or collective agreement, as we call it, indicates general safety standards to which the management is required to conform. It stipulates particular safety measures which must be included in shop reorganization programs. It even specifies in detail that the manage-

"Safety glasses must be worn, not carried in your pocket," insists Dr. Serafima Dyagileva, who is making regular rounds with the safety inspectors.



Nothing escapes the eagle eye of the inspector, and if he finds that the safety guards are not working properly, he stops the machines at once.



ment provide workers with special clothes and footwear. But no agreement can provide for every detail. That is where we voluntary inspectors step into the picture.

The mill appropriates several million rubles a year for safety measures and improved working conditions. In my department the sum allocated last year was 32.000 rubles. But when additional measures recommended by the trade union safety inspectors had been carried out, it was found that actually 146,000 rubles had to be spent by the management.

What I Do

Ivan Bazhin works a crane which brings ingots to the soaking pit. He is a healthy, strapping fellow, but last year, in hot weather, he kept coming down with one cold after another. The doctor couldn't figure out why, and neither could Bazhin. I watched him working for a while and there it was—a simple enough reason. When his crane moved near the soaking pit, Ivan was in a spot where the temperature hit 160 degrees; when he moved away, he was right in the middle of a stream of cold air. No wonder he had colds.

I went to the department superintendent and told him about it. My recommendation was that the crane cab be glassed in. This suggestion was adopted, and soon after all the crane cabs were glassed in and provided with asbestos curtains.

Mostly it's a matter of knowing your job well enough to figure out what the accident possibilities are. Take this one: Once I happened to be in a situation where I had to stop the crane cantilever suddenly. The knife switch was located on a platform over the cab. That meant I had to waste precious time to get out of the cab. It was no problem at that particular time, but it occurred to me that in an emergency situation this might mean just the difference between an accident and none.

I talked it over with the other crane men and everybody agreed that the switch was badly placed and should be inside the cab, near at hand. When the labor protection and safety part of the union agreement was being discussed with the management in a shop meeting, I proposed that the switch be shifted. The other crane operators supported my proposal and a special clause to that effect was written into the contract. As a result all switches were gradually shifted inside the cabs.

Continued on next page

SHOP SUPERINTENDENT GUBERT MEETS REGULARLY WITH THE SAFETY INSPECTORS.

Inspector Victor Labetsky puts his demands before the management.

Safety in the furnace department is steelworker Andrei Turanov's job.

Inspector Ivan Deryabin requested changes that would bring drinking water directly to the workbenches.

Fitter Pyotr Vasin, crane repairs section inspector, insists that the control of the cranes be simplified.

SAFETY Is My Job *Continued*

All our safety inspectors work along these same lines. Vasili Alexeyev and Pyotr Zhidelyaev, who are rolling mill operators, spent some time looking into the control cabins from which the rolling mills are operated. They felt that more could be done to guard against sharp temperature fluctuations in the cabins. First, health was involved, and second, efficiency. So the safety inspectors proposed that in addition to the air-conditioning, which was already there, all control cabins be equipped with double walls and that the capacity of the water-cooling system be increased. The suggestion is now being put into practice.

Health Inspection

Another of our jobs is to work with the medical station in each of the departments. Our shop doctor is Serafima Dyagileva who has been working with us for three years and knows the shop problems as well as we do. When the safety inspectors make the weekly rounds of the department, she always joins us.

Each worker gets a free medical examination every six weeks. Our department medical station is equipped not only with first-aid materials, but is set up like a full-scale clinic. Dr. Dyagileva gives vaccinations, injections, heat therapy. She has regular visiting hours daily, both at the department station and at the big polyclinic attached to the mill. The polyclinic has 40 offices equipped for treatment of all kinds of ailments.

With Dr. Dyagileva, we inspectors also supervise the department cafeteria. We see to it that the menu is nutritive and varied and that it meets the standards recommended by the Nutrition Institute of the USSR Academy of Medical Sciences.

On the initiative of our safety inspectors, the union shop committee asked the workers for ideas and suggestions on improving safety. We got more than 300 responses and a committee made up of five representatives of management, three members of the union shop committee and nine safety inspectors was chosen to look them over.

The committee approved 166 of the proposals. Many of the less complicated ones were put into operation immediately. Among them was the suggestion of Yevgeni Tokmakov, rolling mill operator, that the control post of the roll-straightening machine be raised three or four feet to provide better visibility. Similarly, the size of the guard at the saw cutting the beams was enlarged at the suggestion of Fyodor Sklyarov, the saw operator.

Other suggestions, although valuable, need considerable work, like the proposal of Oleg Kostylev on better sound insulation for the operators' cabins. He is now working with engineers from the mill's designing office on the preparation of drawings.

We Have Our Problems

I don't want to give the impression that we voluntary inspectors always get immediate cooperation. We have our difficulties. And there are times when we have to ask our union shop committee to intervene in order to make the management aware of its responsibilities.

Every month the department superintendent reports to a meeting of the committee on progress on agreed labor protection and safety measures. And every so often the minutes of the meeting record the fact that some section heads are better at promising things than they are at getting them done.

Boris Mordukhovich, assistant superintendent, was once called on the carpet by our union committee. One of the safety inspectors had reported that the ventilation system in the resharpening room was inadequate, the dust content in the air was higher than permitted under standard health requirements. The management promised to take care of it within a specified time. But the time passed with nothing done. The union committee laid down the law to the management, and within a month a new 40,000-ruble ventilation system was functioning.

Had the management continued to hold off, the shop committee would have gone to the Central Committee of the Metallurgical Workers' Union to ask that those guilty of the neglect be fined. But these situations are rare. The overwhelming majority of our safety inspectors' proposals and recommendations, once approved by the trade union, are put into effect—and very speedily. ■

THE MEN WERE NOT THE LEAST BIT SORRY WHEN A NEW ELECTRONIC CONTROL IN THE RAIL AND BEAM ROLLING MILL MADE SAFETY INSPECTION UNNECESSARY.

TEXTILE WORKER SERGEI BEZENOV HAS BEEN WRITING ABOUT HIS TRADE FOR SOME 35 YEARS. BELOW ARE 14 OF HIS 15 BOOKS.

SERGEI BEZENOV lives in the city of Ivanovo, one of the oldest Russian textile centers. For some 35 years his avocation has been writing. He is the author of many articles and books on the machinery and technology of the textile industry. Bezenov celebrated his sixtieth birthday in 1956, and to commemorate the anniversary the Ivanovo Regional Publishing House presented him with the first press copy of his fifteenth volume.

But Bezenov is not a professional writer. He is a hereditary textile worker and has spent 50 of his 62 years at the looms of mills in his native town. From 1927 until his recent retirement, Bezenov worked at the Felix Dzerzhinsky Mills, a big spinning and weaving plant.

The feat of a worker's writing fifteen books and having them published is not at all unusual. Many workers in Soviet industry and agriculture have set down their experiences in book form, helping to increase productivity and to save novices from mistakes. There is no effort to hoard knowledge anywhere and this practice of sharing experiences and innovations is widespread and includes engineers and scientists as well as industrial and agricultural workers.

Bezenov began writing about the time he graduated from a textile technical school which he had attended while holding his job as an assistant foreman. First he contributed articles to the Ivanovo newspaper *Rabochi Krai* and the metropolitan papers. The readers liked them immediately, and wrote him letters—even argued with the author. But principally they asked for more of his experiences and methods of work. That is how his first book *Weaver's Notes* came about.

The volume sold well and the author, thus reassured, sat at his desk each evening to do some writing. To help young textile workers learn to run the British-made Platt weaving looms, which were very popular in the thirties, Bezenov wrote his book *Platt Weaving Loom*. Soon it became a study guide for factory trade schools.

Later Bezenov became one of the regular authors of the Ivanovo Regional Publishing House and the Moscow Technical Publishing House, which issue books dealing with the textile industry. He received offers to write on other industrial topics, but he was wary of signing contracts with publishers. He made a careful study of machinery and analyzed the experiences of front-rank workers in his industry. As time passed he became a popularizer of the best production methods used in the factories of his town. Six of his books deal with this subject.

It would be difficult to find a textile worker in Ivanovo not acquainted with Bezenov's books. "I regard this as the highest praise of my literary activities," the old weaver once said.

Today Sergei Bezenov has retired. His pension is sufficient to assure him a tranquil and pleasant life, but he continues to write and is full of plans for new books. ■

FIFTEEN BOOKS BY A TEXTILE WORKER

Expanding Consumer

By Georgi Yuryev

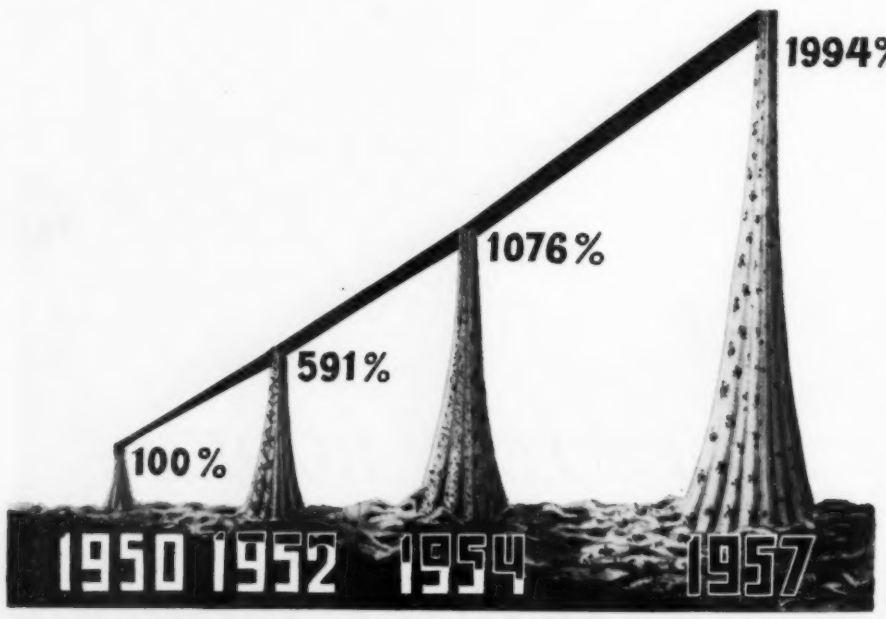


DIAGRAM SHOWING THE INCREASE IN THE VOLUME OF PRODUCTION AT KALININ SYNTHETIC FIBER MILLS.

WOVEN chemicals—rayon and other fabrics made of synthetic fibers—are the newest products of the old Russian textile city of Kalinin, with many of the old cotton and silk specialists working with the young chemists on the production of yarn made of wood pulp.

Around the big Synthetic Fiber Mills has grown up the Novopromyshlenny (New Industrial) District, with wide streets which have not yet been named and with new buildings in all stages of construction. The new district is destined to become one of the major Soviet and perhaps world centers for synthetic fabrics.

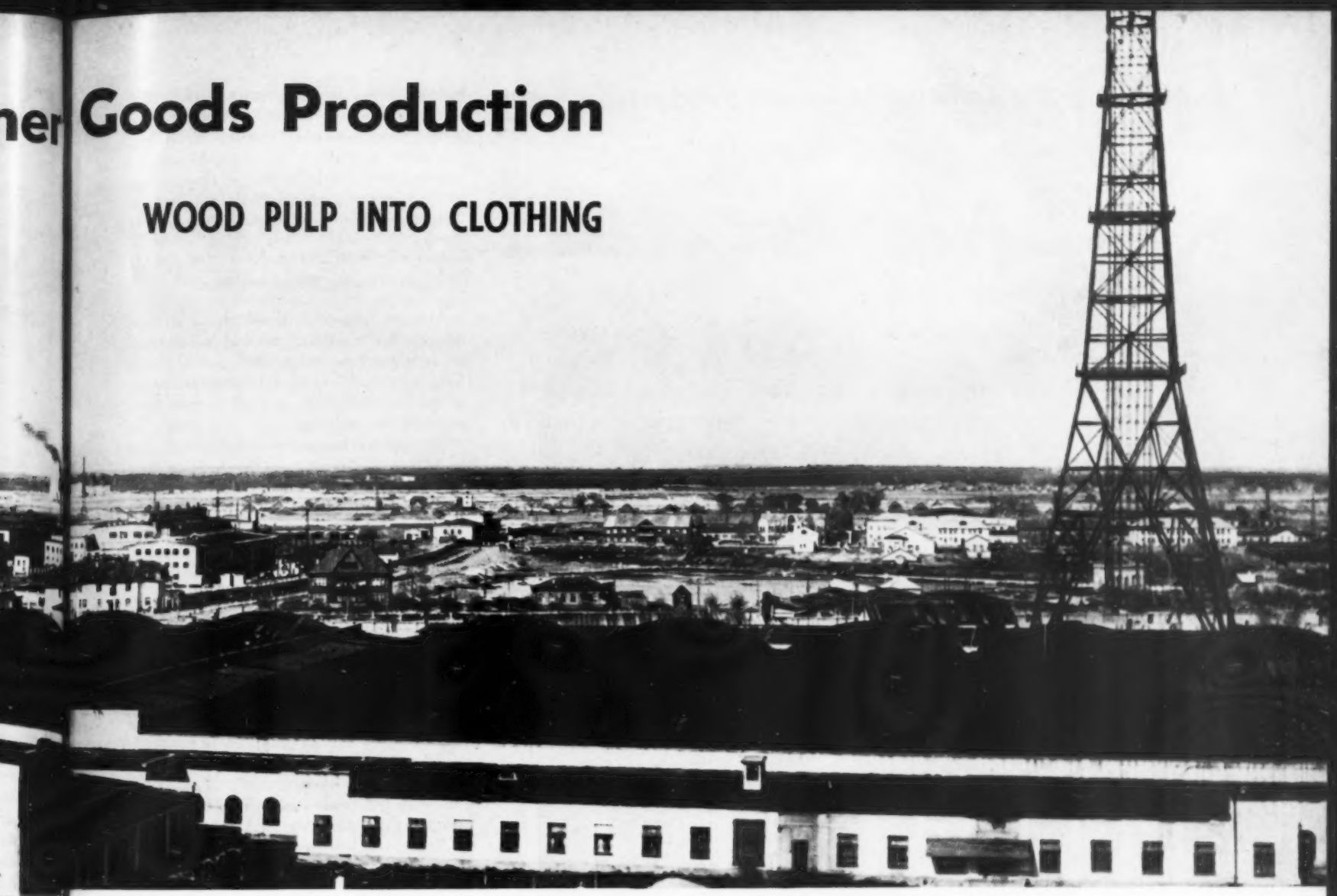
Kalinin adjoins the northern lumber regions and is conveniently close to both the big textile centers—Ivanovo, Orekhovo-Zuyevo and other central Russian cities—and to such highly industrialized cities as Moscow and Leningrad. with their great consumer markets. The new district is thus a centrally situated link in the chain from wood pulp—to rayon yarn—to woven fabric—to manufactured garment—to consumer.

Kalinin's rayon yarn, stronger and richer than natural silk yarn although produced at a fraction of the cost, goes to 270 textile mills. Rayon fabrics woven of Kalinin's yarn are famous throughout the country and sell out in the stores very quickly.

It was no small operation—building the

Goods Production

WOOD PULP INTO CLOTHING



AN ENTIRELY NEW DISTRICT OF THE CITY IS RAPIDLY GROWING UP AROUND KALININ SYNTHETIC FIBER MILLS, AND MANY OF ITS STREETS ARE STILL WITHOUT NAMES.

new giant Kalinin fiber mills. A rapid pace was set for construction and two years after the first stump had been pulled out to clear a site for the beginning section of the mill, the first lot of rayon fiber was turned out. Soon after, the plant to produce the carbon disulphide which is required to treat the yarn was commissioned, followed by completion of the cord mill. In 1954, the mill for the production of staple rayons was operating—a giant of a mill by itself.

Most Modern Equipment

The mill machinery and equipment, installed only five or six years ago, is constantly renewed or changed, as the chemical engineering industry works out more modern methods for the manufacture of synthetic fiber. More and more automatic and semi-automatic machines have been installed each year, with a resulting boost in production of almost twenty times over in the last seven years. Now in one day the Kalinin mills turn out enough yarn to weave more than 435,000 yards of fabric.

The mills are equipped for the most part with Soviet-made machinery. But they also have a good deal of imported equipment. Five Nelson combines for continuous silk spinning made by the British firm of Dobson and Barlow were imported recently. A number of

Continued on next page

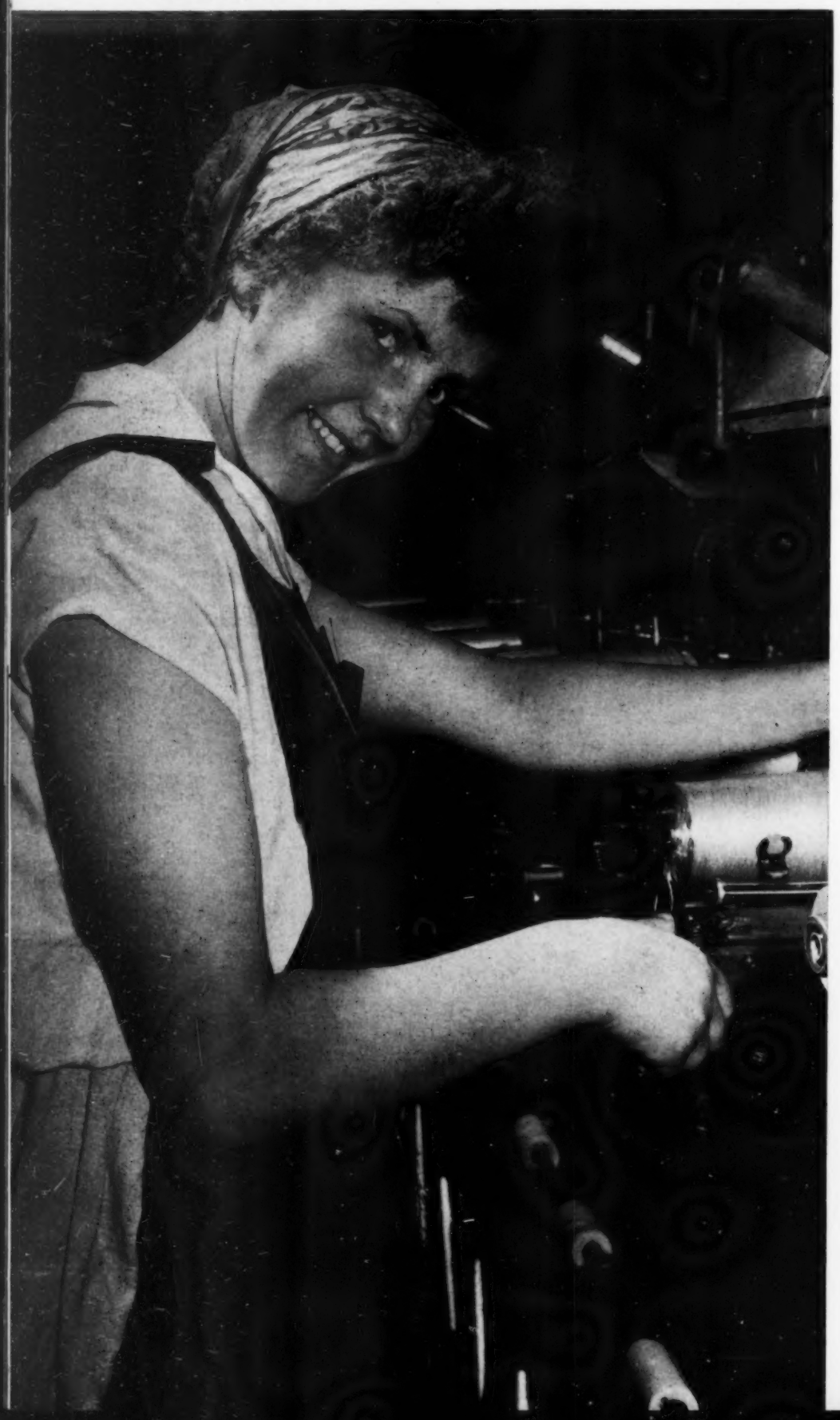
EVENING GOWNS AND OTHER CLOTHES MADE OF SYNTHETIC FABRICS PRODUCED AT KALININ MILLS.

Expanding the Consumer Goods Production

WOOD PULP INTO CLOTHING

Continued

HIGH SCHOOL GRADUATE ANNA KARKAN LEARNED HER TRADE AT THE MILLS' VOCATIONAL SCHOOL.



spinning looms and an electric furnace for the production of carbon disulphide were bought from the Swiss Company of Maurer. The latest acquisition is a twining machine supplied by the Belgian firm of Charpentier. In the past few years the Kalinin mills have bought more than two billion rubles' worth of foreign equipment.

Training Skilled Workers

As new processes developed and new equipment was installed the mill had to train its own workers. Some 400 young people have been coming to work at the mills in each of the last three years, and all of them have received free training.

The plant has its own vocational school—one of 3,200 spread throughout the country. Most of the students who attend it are high school graduates. The course of study covers the technology of fiber production which involves a good theoretical background; machinery and equipment; safety engineering and labor protection. A good deal of time is devoted to practical training in the mill shops.

Older men who are past the age limit for entrance to vocational school and have had no experience in the trade take a six-month course of training which covers the principles of synthetic fiber technology and machine operation.

All training is given free and new workers are paid a wage while learning. The instructors—mill engineers and technicians—receive additional payment for teaching.

Every year about 1,300 of the workers take the courses offered by the mills to advance their skills and to qualify for better-paid jobs. This system of training permits large-scale changes in equipment and ma-

chinery to take advantage of the latest technological developments without costly readjustments in personnel or expensive stoppages in production.

Future Growth

Growing consumer needs for textiles, garments, and other manufactured goods have been responsible for the rapid growth of the synthetic fiber industry. This also accounts for the special emphasis upon speeding production so as to satisfy increased consumer demand for these commodities within the next five or six years.

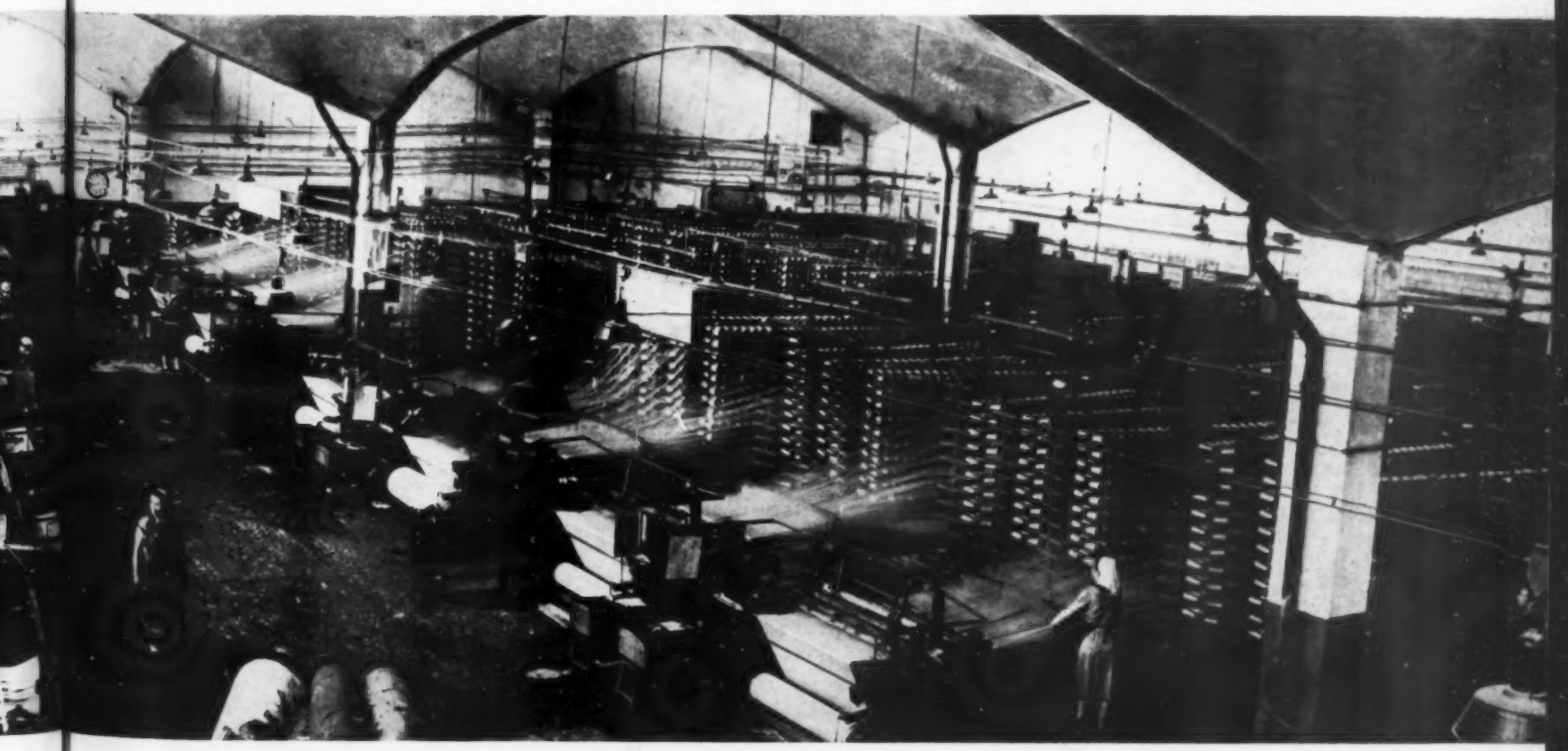
The production goals envisioned for the chemical industries as a whole—including synthetic fiber production—are very high. But if one is to judge by the present rate of progress, they are thoroughly realistic.

Chemical production in 1957 was five times greater than in the prewar year 1940, but a still larger increase is contemplated within the very near future. For example, as compared with 1957, production of mixed cotton-and-rayon textiles is expected to increase sixfold and fabrics for suits tenfold by 1965. Annual production of woolens by that time is expected to reach more than 550 million yards as compared with 300 million for 1957. Fabrics produced from synthetic fibers will total more than 490 million yards—to surpass 1957 yardage by 75 per cent.

To carry this very large increase in synthetic fiber production, plans are to build 120 new factories and mills and to rebuild and modernize 137 old plants during the period 1958-1965. Within a few short years there will be great enterprises like the Kalinin Synthetic Fiber Mills in many other parts of the country turning paper pulp into yarn. ■

SCIENTIST BORIS GELLER WORKS AT THE MILLS' BRANCH OF THE ARTIFICIAL FIBER RESEARCH INSTITUTE.

THE EXPANSIVE WEAVING DEPARTMENT OF KALININ MILLS, WHERE THOUSANDS OF SPINDLES OF THREAD ARE CONVERTED INTO BOLTS OF FINE ARTIFICIAL FABRICS.



A Wonderful Play about a Wonderful Fish

By Miroslav Murazov

AN audience of charmed youngsters laughed with the hero, hissed the villain and applauded every twist and turn of the plot as "The Will of the Pike," an adaptation of the old Russian fairy tale, was presented by young student actors of the Drama Studio of the Moscow City Young Pioneers Club.

The story is an old favorite, familiar to generations of Russian children. Yemelya is the happy-go-lucky hero to whom unusual things keep happening. He carries a bucket to the well. No sooner does he lower it, than it pops up out of the water holding a huge pike.

"Wonderful," says Yemelya, delighted with his unexpected catch. "There's nothing I'd rather have right now than a fine stewed fish. I'll just get you into the pan, my fine finny friend, and in a little while you'll be all nice and juicy and tender."

But this is a very special kind of fish. The pike suddenly opens his wide mouth and in perfectly good, if somewhat tearful Russian, begs Yemelya for his life. "Let me go," he pleads, "and you can ask me for anything your heart desires. You'll be the happiest boy on earth. All you need do is say: 'At my bidding and at the will of the pike, I wish for . . . .,' and anything you wish for I will bring you forthwith."

Yemelya is interested. He ponders a moment to decide whether this is really a good deal and then agrees to try it. He lets the bucket down again and the much relieved pike slips back into his watery home. Then Yemelya pronounces the magic words: "At my bidding and at the will of the pike, let the buckets come up by themselves." In a trice the buckets clatter up again.

This is only the beginning of Yemelya's adventures—the opening scene of the three-act play. For the children who acted the parts and worked at the countless details that make up a staged play, the production was no less a wonder and an adventure.

They resolved the many problems which arose with an inventiveness and ingenuity that would have done credit to much older and more professional theater folk.

The casting was done by studio teachers, people with a rich background of stage and educational experience. It was noticed that immediately after the announcement of auditions for roles, even the most mischievous students became angelic and the laziest began to work hard at their school studies. They all knew that only children with satisfactory grades were to be auditioned.

Long before the first performance, the children were busily engaged in creating their costumes.

Everybody assists. Even the Czar must carry his throne, as Seryozha Nikonenko demonstrates here.

But the labors of preparation are well rewarded when the audience responds to the stage action.

Acting successes were scored by Lyonya Nechayev and Seryozha Nikonenko, who played the roles of Yemelya and the Czar. A last minute replacement—these things happen in theaters large and small—Oleg Muratov, the youngest actor, who played the role of Vanya, the peasant boy, also scored a large and somewhat unexpected success.

And the audience? They clapped and yelled "Bravo" until their hands were sore and their throats raw. ■

LYONYA NECHAYEV IN THE LEAD ROLE AS THE EVER-LUCKY AND CHEERFUL YEMELYA.

The Czar was amazed and gasped: "Whence did this stranger come unto my court?"

SO THE CZAR DECIDED TO CALL IN THE WISE MEN FROM ALL OVER THE KINGDOM.

FASHIONS FOR CHILDREN

PARENTS are much the same everywhere when it comes to styles of a boy's suit or a girl's dress. They like to have their children garbed in attractive, bright-colored clothes.

The House of Fashions in Moscow and its counterpart in other major cities of the country hold seasonal exhibitions of children's fashions with the participation of the leading factories handling juvenile wearing apparel. The best of their samples are reproduced with patterns and photographs in fashion magazines and all sorts of publications read by women. Patterns can also be purchased almost anywhere.

Many designers and artists are continually at work on juvenile wardrobes, and their ideas are sent to thousands of factories. In designing and manufacturing garments for the younger generation there is a conscious effort to make most of them combine smart appearance with good wear and reasonable retail prices.

Illustrated here are some of the past summer's styles for children that were produced by Soviet industry and found generally popular acceptance among the youngsters and their parents. ■

Sketch for settings to ballet *Le Sacre du Printemps* (1913)

NIKOLAI ROERICH

an artist of uncommon talent

By Konstantin Yuon

MOSCOW EXHIBITION HALL WHERE PAINTINGS OF NIKOLAI ROERICH DREW BIG CROWDS LAST SEASON.

When Nikolai Roerich died in India in 1947 he bequeathed 500 of his paintings to the Soviet Union. They were shown in Moscow at an exhibition arranged by the Union of Artists and the Ministry of Culture. Other exhibitions are being scheduled for Leningrad and other cities.

This article on the painter was written by Konstantin Yuon, a noted Soviet artist who died in April of this year.

THE RUSSIAN PAINTER Nikolai Roerich began his long and fruitful career at the end of the 19th century. He was an artist of uncommon talent, distinguished for his deeply expressive painting and intensely personal style.

Roerich was, besides, a scholar, with a profound interest in history and archaeology.

Continued on page 35

Guests from Overseas (1906)

NIKOLAI ROERICH

Continued

Le Sacre du Printemps (1945)

Prince Igor Takes the Field (1941)

Sketch for settings to drama *Peer Gynt* (1912)

Sketch for settings for opera *Tristan and Isolde* (1912)

***Idols* (1907)**

NIKOLAI ROERICH

Continued

On the Heights **(1936)**

Guga Chohan **(1932)**

Stronghold **(1925)**

The Himalayas (1941)

Fires of Victory (1940)

His interest in these fields of investigation and study were not academic, nor were they separated from his art. They gave him a perception of primeval nature and of ancient peoples which contributed largely to the beauty and depth of his painting.

His interest in archaeology and the work he did in excavating old burial mounds in the Novgorod, Pskov and Tver regions, his study of ancient manuscripts in the St. Petersburg Public Library and the encouragement of the library director and prominent art critic Vladimir Stasov—these were the decisive factors which determined the later course of Roerich's life and the direction his painting was to take.

Antiquity, science and art were the three components of his paintings. His earlier pictures portrayed the life of the ancient Slavs.

The men that Roerich depicts—his hunters, fishermen, builders, warriors—are strong, hardened by their labors and struggles. They are an inseparable part of North Russian nature.

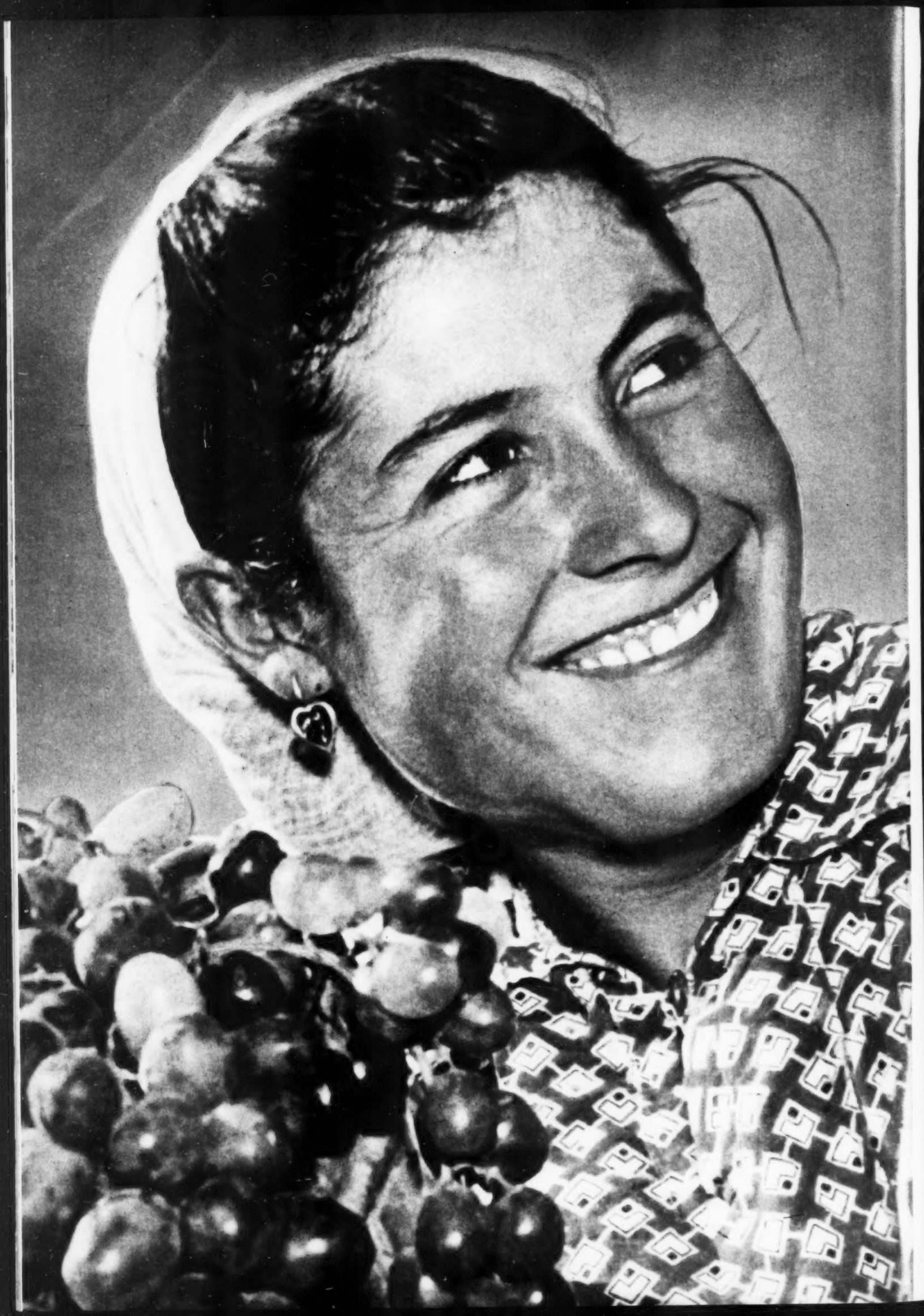
Roerich visited the ancient centers of Russian culture to study the rich diversity of the old architecture and decorative arts. Elements appear in his paintings and stage sets.

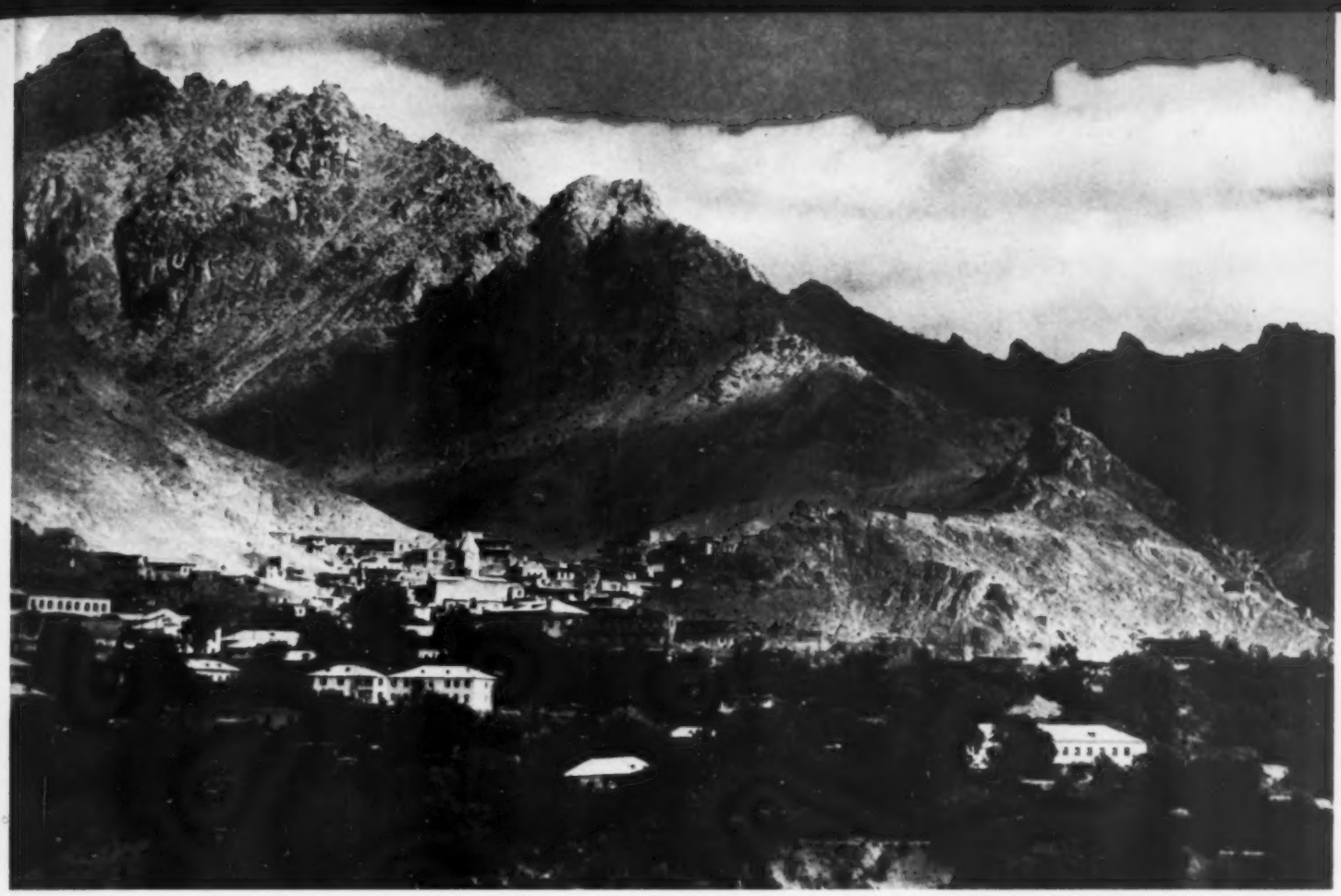
Roerich's art was highly appraised in many countries, particularly in Scandinavia, Britain and America. In 1921 he founded the Master Institute of United Arts, now attached to the Roerich Museum which he established in New York in 1923. More than 1,000 of his canvases can be seen on exhibition there.

He visited most of the untraveled corners of the world, led archaeological expeditions to Mongolia, China, Tibet and India. He spent more than twenty years in India and was friends with Rabindranath Tagore, Jawaharlal Nehru and other Indian leaders. The East colored his thinking and his painting.

His receptive mind was deeply touched by both the ancient and the legendary, by nature's forces and by mythology. He portrayed the formidable and awe-inspiring forces of nature which in bygone days gave rise to ecstatic religious sentiments and prejudices.

Roerich's paintings must be seen. Their essence cannot be phrased. They are paintings for the mind and for the heart. ■





THE VALLEY ORCHARDS ALL BUT OBSCURE THE HOUSES OF MEGRY, WHICH IS LOCATED SEVERAL MILES FROM THE RAILROAD AND SURROUNDED BY HIGH MOUNTAINS.

MEGRY: Village of Grapes and Honey

ALTHOUGH the village of Megry is almost buried in the mountains of Armenia, it is a lovely spot and as sweet-smelling as its name implies—for in Armenian *megr* means honey.

In order to reach Megry one leaves the train at a small flag stop at the mouth of a gorge several miles away. The steep mountains on both sides jut out like a buffalo's horns from dense forests.

At first one has a feeling of being cut off from the outside world, in a sort of narrow blind alley. Then, quite suddenly, one comes to the village with its power station and cannery, schools and libraries. This is Megry, with its clubhouse and movie and its houses ranging roof over roof within a sort of amphitheater encircled by the mountains.

Megry is a community of complete literacy with a large population of intellectuals educated in the colleges of Yerevan, Tbilisi and Moscow.

Enter the home of any inhabitant and you'll find a modern city apartment. Here is one of them. In the clean, nicely furnished living room there's a piano with the scores of a pupil of the local music school. A ginger-colored kitten plays with a ball of wool left by someone who was knitting on the couch near the window. The bookshelves seem alive, the volumes much handled with numerous markers in them. A newspaper lays folded in half with a pair of old spectacles on the table.

Live in Megry a few days and you'll learn that this leisure is earned by tireless work. From sunup, the head of the family is at work in the collective farm orchards. His wife is a breeder of silkworms.

Industrious hands have transformed everything here and brightened the grim mountains with color. In the spring, when the orchards blossom, the air is saturated with the bitterish scent of almond, the spicy fragrance of quince, fig, pomegranate and lemon. The freshening breeze rustles through the grapevines and one sees the bright green of the terraced fields of wheat, with herds of livestock grazing in the meadows.

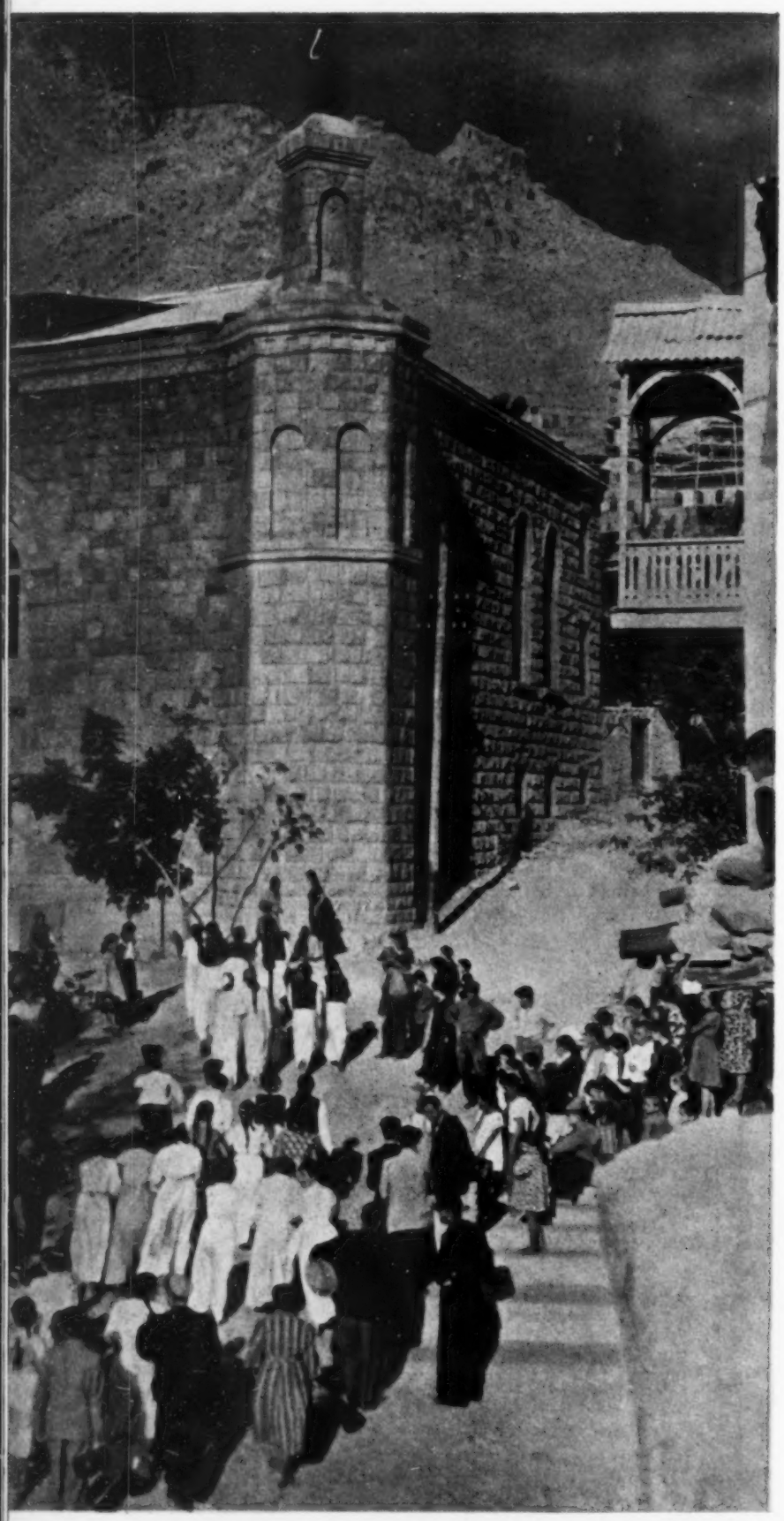
The lush fruit and the sunbeam wines produced in Megry are well known far beyond the borders of Armenia and their wealth brings back modern farm machinery, new books, films and consumer goods to its busy collective farmers. *See more pictures on following pages.*

◀ GRETA MKRTYCHIAN IS THE BEST GRAPE-PICKER IN THE ARMENIAN VILLAGE OF MEGRY.

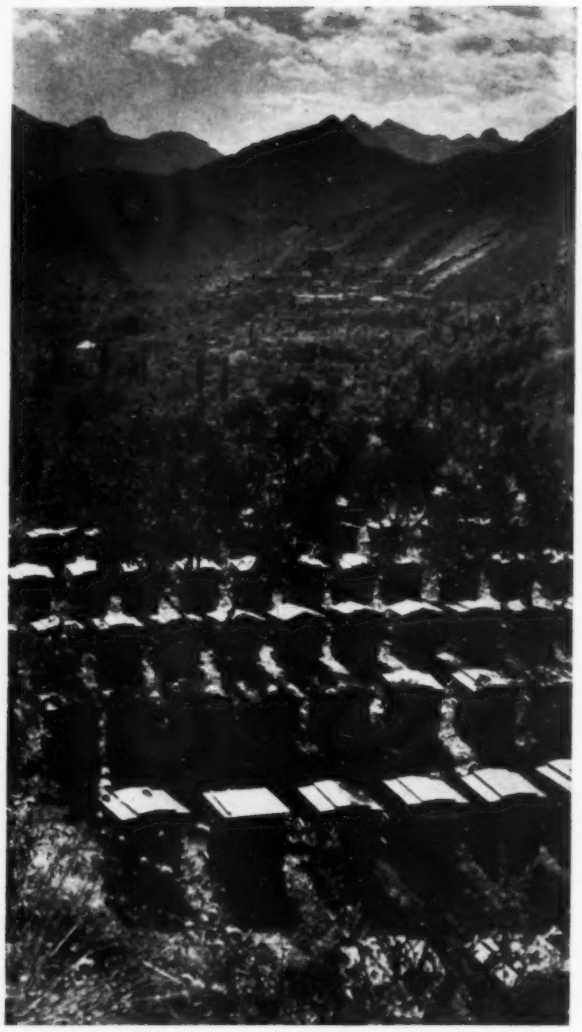
ONLY THE JEEP-TYPE VEHICLES AND MULES FIND THE ROAD TO MEGRY PASSABLE.

MEGRY: Village of Grapes and Honey

Continued



THE ARCHITECTURE OF THE VILLAGE CLUBHOUSE IS OF CLASSIC ARMENIAN STYLE.



MEGR, HONEY IN ARMENIAN, HAS GIVEN THE VILLAGE ITS NAME.

ALL KINDS OF PRESERVES ARE PROCESSED BY THE MEGRY CANNERY.

IT WILL BE HIS JOB TO CARRY ON THE OLD TRADITIONS OF THE MOUNTAIN VILLAGE.

THE CANNERY'S LABORATORY ASSURES QUALITY AND TASTE CONTROL.

THE VILLAGERS ARE PROUD OF THEIR MUSICAL SCHOOL. MEGRY IS A COMMUNITY OF COMPLETE LITERACY WITH A LARGE PROPORTION OF COLLEGE-TRAINED PEOPLE.

OLD WOODEN BUILDINGS, LIKE THE ONE THE FAMILY OF YEGOR GNEUSHEV LIVED IN, ARE TORN DOWN TO MAKE ROOM FOR MODERN APARTMENT HOUSES AND WIDER STREETS.

"Our new apartment is up there," Gneushev's son shows his new friends. "Come on over tonight."

NEW APARTMENTS FOR GROWING FAMILIES

By Adolf Antonov

A HAPPY MOMENT—YEGOR GNEUSHEV'S APARTMENT APPLICATION HAS BEEN OKAYED.

WHILE AT WORK, YEGOR INVITES FRIENDS TO COME TO HIS HOUSEWARMING PARTY.

STATISTICS show that every day in the week an average of 5,500 Soviet families move into new apartments. This year a total of more than two million new apartments will have been turned over to the population. But a housing shortage isn't solved overnight, and an even larger building program has been scheduled for next year and the years after.

Among the many thousands of Muscovites who have had housewarmings this year is the family of Yegor Gneushev.

He came to the capital eight years ago from a village in Oryol Region to take a construction job on the Moscow subway system. Soon he met Klava Svetlova and they got married. The management gave the newlyweds a single room in a house shared by several families.

When Kolya came along, they made application for an apartment. But there were other families who had higher priority. The Gneushevs managed somehow with the one room until their daughter Irina came along. The room, needless to say, hadn't gotten any bigger.

In the meantime extensive housing construction was going on all over Moscow. Old wooden buildings, like the one that the Gneushevs lived in, were being torn down one after another and replaced by large apartment houses. There wasn't a street in the city without at least one construction project. Whole new residential sections were rapidly growing on the outskirts. And during the past year or two Moscow's building program has assumed a scale unprecedented in all the city's history.

When the Gneushevs filed their application for an apartment, they had every reason to believe it would be approved. They knew that within the next five years about 350,000 apartments would be made available for Muscovites in new houses. So they waited their turn.

Aside from their housing problem, they were doing well. Yegor had moved up a couple of categories in his trade. He was earning an average of 25,000 rubles a year, enough for the family to manage on easily. And Klava had left her job to stay home and take care of the children.

One of the new apartment houses was being built next door to the Gneushevs. They watched the building going up, looked on enviously at the large windowed rooms, the new kitchen and bathroom fixtures and speculated on the possibility of their being next in line for one of the bright new apartments.

Came the day when the joint housing committee of the subway con-

Continued on next page

EVEN THE HOUSEHOLD CHORES ARE FUN WHEN YOU'VE JUST MOVED TO A NEW HOME.

NEW APARTMENTS FOR GROWING FAMILIES

Continued

AFTER A MORNING SPENT MOVING, EVERYBODY IN THE FAMILY IS READY FOR A GOOD HOT MEAL.

THERE IS EVEN ENOUGH ROOM FOR HIDE-AND-SEEK GAME.

struction management and the trade union posted the list of families to whom the apartments had been assigned and there were the Gneushevs. It was a big day.

Moving into a new apartment always means mixup and confusion, but of a pleasant variety. All the tenants of the old house moved on the same day. The Gneushevs didn't need a moving van; their new apartment was only a few steps away. Friends helped to move the furniture.

The high point was the family's tour of their new apartment after the furniture had all been moved and the friends had wished them the best of luck and gone. The whole family—father, mother and the two

UNPACKING THE TOYS IS A REAL EVENT FOR THE CHILDREN AND THEIR FRIENDS.

children—paraded from room to room, opening and closing doors, turning taps on and off and trying out the kitchen fixtures.

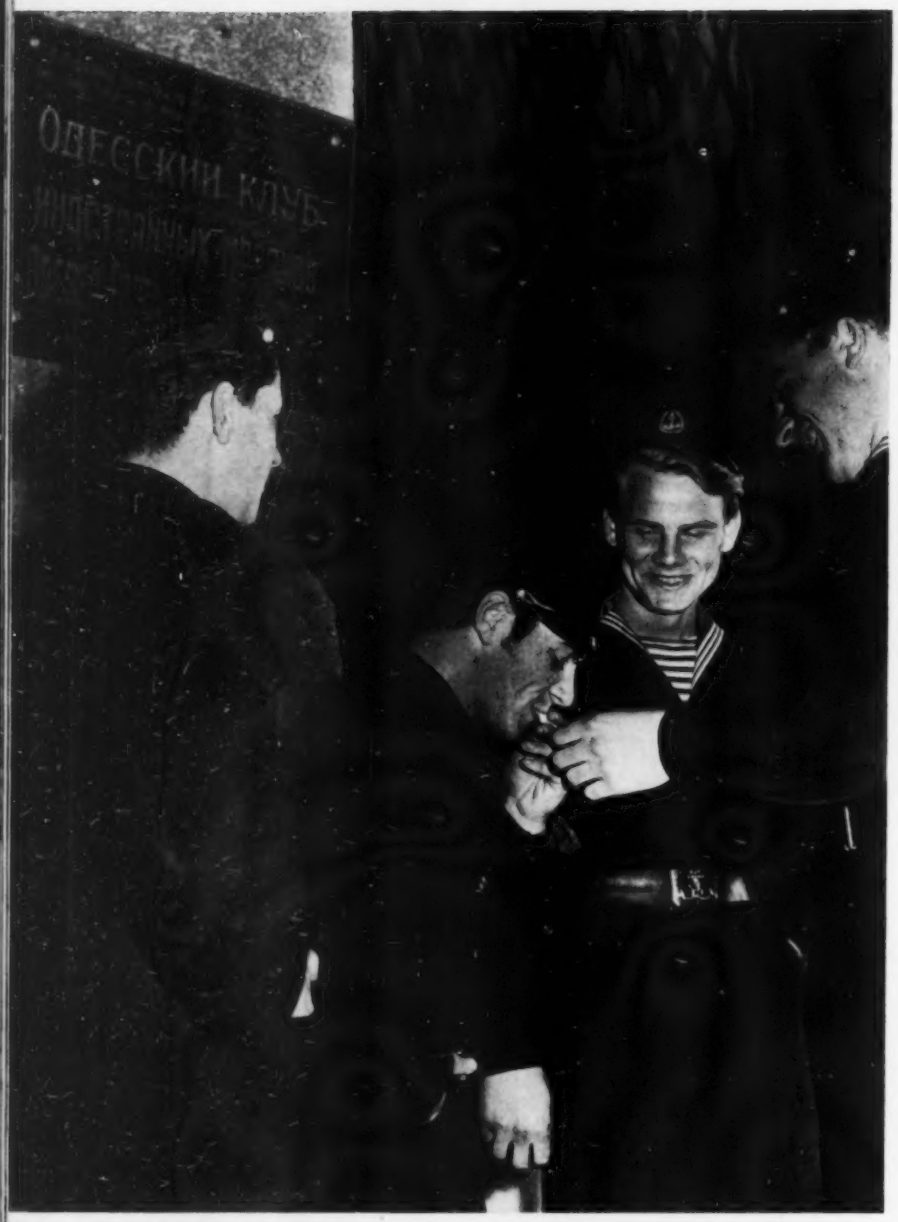
The Gneushev apartment has 616 square feet of living space—154 square feet for each member of the family. The rent is 47 rubles 26 kopecks a month or 567 rubles 12 kopecks a year—2.16 per cent of Gneushev's salary. With utilities it costs him 1,536 rubles a year—6.14 per cent of his salary.

Rent scales are fixed by law in every Soviet city. The cost depends, of course, on the size of the apartment, but income and the size of the family are also factors taken into account. Rent and utilities never exceed 10 per cent of the income of the head of the household. ■

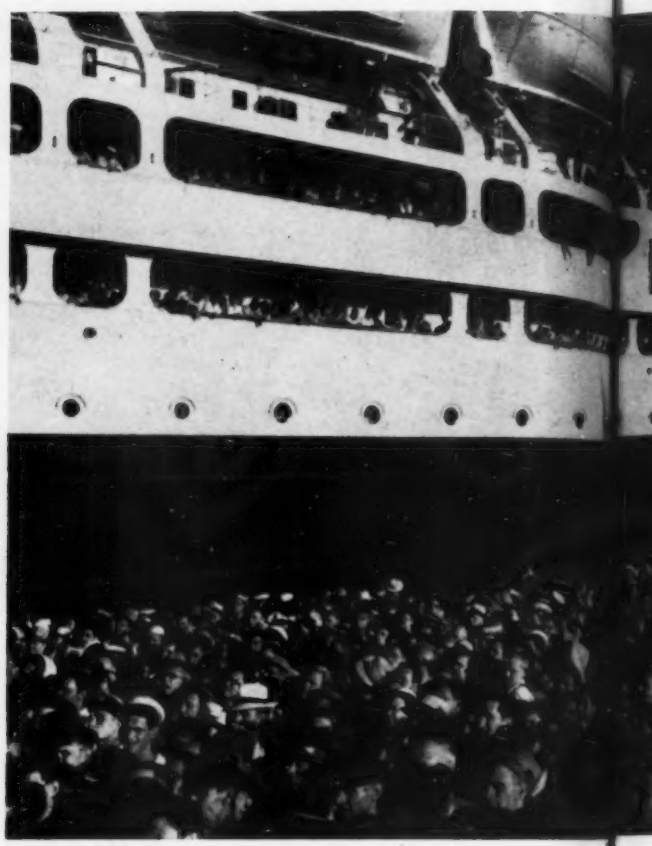
KLAVA LIKED EVERYTHING IN HER NEW KITCHEN AND FELT QUITE AT HOME.

IRINA IS NOT SURE THAT HER TEST RUN HAS BEEN COMPLETELY SATISFACTORY.

Hospitality in a Dozen L



THE FOREIGN SEAMEN'S CLUB IN ODESSA WELCOMES THE CREWS OF ALL VISITING SHIPS.



By Dmitri Petrov

Photos by Alexander Mokletsov

ODESSA is a port of call for ships from every country in the world—and for the sailors who work the ships. It's a hearty, robust city with an international flavor and a deep water tang. At the Foreign Seamen's Club in this friendly welcoming city, you can hear a dozen different languages.

The club is near the waterfront, on one of the main streets of Odessa, a large pleasant building with an air of ease and relaxation. It was founded by the Soviet Seamen's Trade Union 35 years ago and is maintained by that organization.

Most of the visitors who drop in for an evening of billiards, a movie or a concert are, of course, seagoing people, but there is a sizable sprinkling of landlubbers—people who have a hankering for things nautical and students who want to practice their foreign languages.

The motto of the club is: If you don't find your particular brand of diversion, we'll arrange to get it for you. And a quick tour of the club's facilities shows the motto in operation.

Here is student Antonina Sokurova at a piano surrounded by foreign seamen. She is accompanying an impromptu concert of request numbers—Indian folk songs, Finnish, Italian, French, English, Ukrainian and Russian. Everybody chimes in. Those who can't manage the words, sing the melody.

In the billiard and ping-pong room lively battles are being fought with cue and paddle by Bulgarian seamen from the *Khristo Smirnensky* and members of the crew of the *Indian Endeavor*.

José, a young sailor from the Cuban ship *Olympus*, and Zhenya, an Odessa garment worker, are among the couples on the dance floor in one of the spacious halls of the club. They dance the same language, and for talk they manage somehow on a mixture of Russian, Spanish and English. They have both studied English in school and find they have other things in common.

Zhenya is entering Odessa University this year. She is going to major in mathematics

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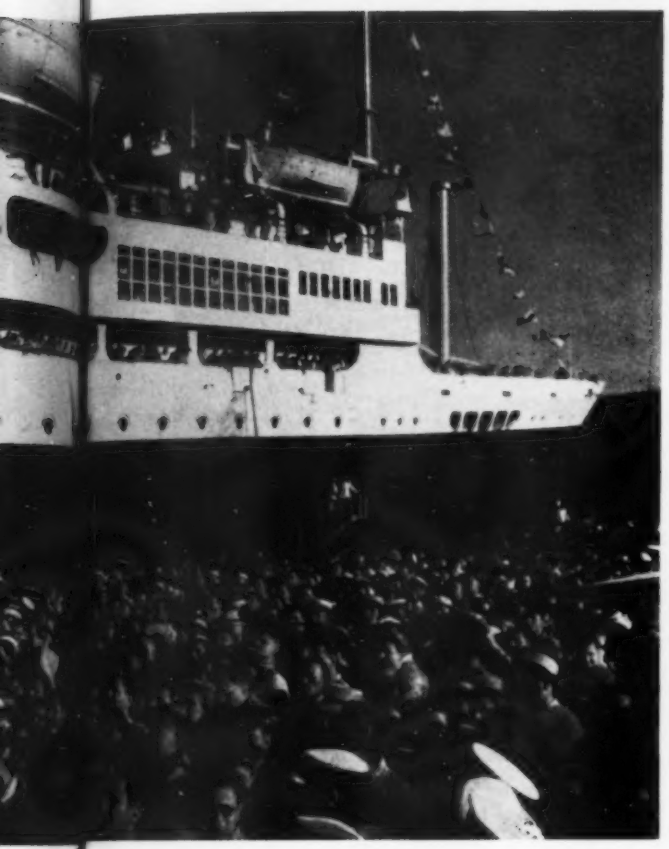
...en Languages



ODESSA GREETS TOURISTS ARRIVING ON A FRENCH LINER.

AFTER A LONG VOYAGE, THESE FOREIGN SEAMEN ARE EAGER TO SET FOOT ON DRY LAND AGAIN.

THERE ARE A GOOD MANY INTERESTING LANDMARKS IN ODESSA, AND THE FOREIGN SEAMEN'S CLUB IS ALWAYS READY TO ARRANGE SIGHTSEEING TOURS FOR ITS GUESTS.

Hospitality in a Dozen Languages

Continued

THIS MAP SHOWS THAT THE PORT OF ODESSA HAS EXTENSIVE TRADE CONTACTS.

Crewmen of the French ship *Galatea* and Instructor Alexander Yekhimovich of Odessa Merchant Marine School had lots of questions to ask each other.

and physics. José, it turns out, is very good in science but he hasn't the money to go to college. He is hoping to make enough in a couple of years to see him through. He says Zhenya is lucky because her university tuition will be free.

The older seamen group around the bar where over a glass of beer they exchange tall and short stories of ships they've worked and odd corners of the world they've seen.

The club organizes various kinds of activities. Foreign seamen are interested in what's going on, and lectures and discussions are arranged on topics ranging from the current Soviet theater to sputniks. There are visits to factories, schools, museums. Tickets are provided for soccer games, plays, opera, ballet. Tours are arranged to see Odessa's sights.

Sight-Seeing Tour

The people of Odessa are famous for their sociability—and for their curiosity. They readily start conversations with foreign visitors, and there is always someone in the crowd who knows the language of the guests. Even if the knowledge is not quite perfect, soon enough the interpretations go thick and fast.

This bus marked "International Seamen's Club" carries a group of French seamen. It stops at one of many interesting Odessa land-

marks and almost as soon as the sailors leave the bus, they are surrounded by passers-by.

The ship is the *Galatea* and the most vocal of the French seamen is Robert Jaque, a man with a luxuriant mustache, ship's electrician. Somebody in the crowd identifies himself as a shipyard worker and invites the sailors to visit the yacht club he belongs to.

They would like to, Robert Jaque answers for them, if their ship stays in port long enough and if they have time after a look around the city.

There is a good deal to see around Odessa. It is a city with a long and proud tradition. During the war many of its most beautiful old buildings were destroyed by the fascists—whole sections of Odessa had to be rebuilt from ruins. But the city, say the older people, is as beautiful as ever.

The French seamen look at the lovely greenery along the seashore—Primorsky Boulevard—and the 130-foot Potemkin Staircase that leads upward from the waterfront. They go through the splendid mansion that is now the Palace of Young Pioneers and the Odessa Opera Theater where Tchaikovsky once gave a performance of his opera *Queen of Spades*. They visit the famous music school which has trained such virtuosos as David Oistrakh, the violinist, and Emil Gilels, the pianist, both of whom recently played for American audiences.

Before the day's tour is over the French seamen are reminded by their guide that there is a big concert scheduled at the Seamen's Club that evening. He asks them whether they would like to see the circus tomorrow.

The answer is a loud *"Oui!"* and Robert Jaque says with a broad smile: "We're not used to such fancy treatment. We feel more like first-class tourists than like ordinary seamen."

Thank You's From Every Country

Comments of this kind are frequently heard at the club. The club secretary has a big file of thank-you letters from sailors of all nationalities.

Here is a comment from the captain and first mate of the Italian ship *Golfo di Augusta*: "We thoroughly enjoyed our excursion through the city. It was so different from our visits to ports in most other countries where we wander through the city at random. Often enough we leave without even knowing the name of the main street. We will remember Odessa because we have learned something of its history and have seen its historic buildings."

And another from a steward of the British ship *Stenpark*: "This is my first trip to your country and I confess I was biased when I came here. I expected to find the things I had read about in the papers back home—people who didn't like the British, people dressed in rags, and police following us around everywhere we went. What I saw in Odessa was something altogether different. The people in the streets smile, everybody looks happy and we were treated handsomely."

The Seamen's Club never says good-by when its foreign visitors leave. It's *Au revoir*—until we meet again. ■

The club has a large collection of letters and souvenirs sent by foreign seamen who have enjoyed its hospitality.

Seamen swap yarns and take it easy over a drink at the club's well-stocked bar.

THERE'S NO WAY OF KNOWING HOW MANY COUNTRIES WILL BE REPRESENTED AT THESE IMPROMPTU CONCERTS.

TWO PARTY LEADERS MEET: ADLAI STEVENSON TALKS WITH NIKITA KHRUSHCHEV.

Adlai Stevenson in the Soviet Union

ADLAI STEVENSON, leader of the Democratic Party of the USA, his two sons and several of his friends recently made an extensive tour of the Soviet Union.

During their four-week trip by automobile and train, steamer and plane, Mr. Stevenson and his party went to Moscow and Leningrad; Tashkent, Samarkand and Alma-Ata in Central Asia; Novosibirsk and Rubtsovsk in Siberia; Sverdlovsk in the Urals; Kazan and Gorky on the Volga River. The American guests stopped in Kiev, capital of the Ukraine; Odessa, Yalta and Sochi on the Black Sea; and Tbilisi, capital of Georgia.

The visitors went everywhere and saw everything they wished. They inspected power plants, construction sites and factories; plodded through the fields of state and collective farms; took sightseeing trips to places of historical interest. They saw museums, libraries and churches and visited schools, colleges, a children's camp, sports stadiums and theaters.

Mr. Stevenson was received by Nikita Khrushchev, Chairman of the USSR Council of Ministers and First Secretary of the Communist Party of the Soviet Union, with whom he had a long talk. He also met people prominent in the fields of Soviet culture, education and public health.

FOUNTAINS OF PETRODVORETS NEAR LENINGRAD.

THE GUESTS VISIT A COLLECTIVE FARM MARKET IN ALMA-ATA, CAPITAL OF THE KAZAKH REPUBLIC.

STEVENSON SEEMED TO ENJOY HIS VISIT TO A CHILDREN'S CAMP AS MUCH AS THE YOUNGSTERS.

NIKOLAI BOBROVNIKOV, MAYOR OF MOSCOW, GIVES ADLAI STEVENSON A SOUVENIR PICTURE ALBUM OF THE CAPITAL.

THE TRIP IS OVER AND IT'S TIME TO LEAVE.

AT MANY FACTORIES THE VISITORS AND THE WORKERS ASKED EACH OTHER LOTS OF QUESTIONS.

STEVENSON SAW SOME OF THE COUNTRY'S CHURCHES AND TALKED TO THE CLERGYMEN.

Before leaving the Soviet Union Mr. Stevenson made the following statement at the Moscow airport:

I leave the Soviet Union full of gratitude to the people of this great country who have been so hospitable. It's been a deeply rewarding experience and I leave with a better understanding of this country's objectives, its remarkable growth, its problems and its blessings. Few people have had an opportunity to hear and see so much so quickly, thanks to the many officials who have made our long journey so comfortable and enlightening. I'm especially thankful for the long intimate talk with Prime Minister Khrushchev, which served to measure the gulf which unhappily divides our countries and also the goals and the interests that unite us. We were firmly agreed that the latter must prevail. I've been deeply disturbed by the widespread misunderstanding and ignorance about the United States and what it stands for. I believe we must have a much wider and freer exchange of ideas and information as well as tourists, artists and athletes, for we must not only learn more from each other, but more about each other. Let's compete in those areas that construct rather than destroy, in expanding the span of human life for example. And why not follow the international geophysical year with an international health and research year to bring under control the scourges that affect mankind. More important, however, than competition between great responsible powers is cooperation, and that means give and take and common goals; the greatest is peace and freedom for all peoples. Let's cooperate to develop, not dominate, less fortunate peoples. Let's fight again shoulder to shoulder in the fields of health, education, economic development, international amity. Let's make future generations bless this century and not curse it. As Abraham Lincoln once said: "The way is open, plain, peaceful, generous, and just, and a way, which if followed, the world will forever applaud, and God must forever bless." My sons and my friends join in thanks, and *doh svidaniya*—good-by.

LEOPOLD STOKOWSKI

Appears before Soviet Audiences

By Victor Gorokhov

LEOPOLD STOKOWSKI was an event in the Soviet Union. This should come as no surprise to anyone who has heard Stokowski—a great conductor, very likely the greatest living today—nor to anyone who knows how heartily Soviet music lovers respond to fine musicianship.

What is more unexpected is that the Soviet Union was an event to Leopold Stokowski. The conductor last visited our country as a tourist back in the thirties. Now, to cite his own words, he was literally unable to recognize his surroundings. "Everything has changed. The streets have grown wider and handsomer, the houses taller and nobler."

In spite of an incessant round of rehearsals, concerts and recordings, the maestro squeezed every moment of free time to learn what was being done in Soviet art and music. Stokowski has long been devoted to Russian classical music and is a warm champion of Soviet music.

He talked to people and looked at the sights with an enthusiasm that was refreshingly youthful, belying his seventy-five years. "I walked about the Kremlin and the streets around it time and again," he said, "looking at the St. Basil Cathedral on Red Square, thinking how good it was that this cathedral had been restored to its original brightness of color, and that it had been done with such taste and sense of proportion. . . ."

He mentioned the St. Basil Cathedral at almost every interview he gave in Moscow, he was so pleased with the care taken to restore it. He asked for a room at the Hotel National with a view of Red Square, and in

moments snatched from his rigid schedule he did oil paintings of the Kremlin and the Cathedral. His sketches have the same fresh spontaneity and spirited youthfulness which characterize his conducting.

In Leningrad, the State Orchestra of Russian Folk Instruments gave a concert for Stokowski. The charm of the full-toned Russian songs was heightened by the fact that they were played entirely on wooden instruments, the traditional balalaika among them. For all his long experience as musician, Stokowski had never heard anything like it. He said he would very much like to conduct the group, and the conductor yielded the podium to listen to his orchestra playing a Shubert symphony with Stokowski conducting.

As memento, the guest conductor was presented with a concert balalaika, the same instrument that had once, long before the Revolution, been played by Andreyev, the great performer whose name the State Orchestra of Russian Folk Instrument bears. Andreyev's balalaika occupies an honored place among the maestro's souvenirs, the folk songs and symphonic works on sound tracks and records, books on Russian music and orchestral scores which he came away with.

In Moscow, Leningrad and Kiev, Stokowski met with composers daily, returning to his hotel with new orchestral scores to read. From Kiev alone he brought back with him a dozen new works of Ukrainian composers.

At a meeting held in his honor at the Central House of Art Workers, largest actors' and musicians' club in Moscow, Stokowski talked of the great impression the stimulating and many-sided musical activity in the Soviet Union had made upon him. He was unsparing in his praise of the musicians in the Soviet orchestras he had conducted. He called many of them "brilliant connoisseurs and true masters of their art."

When asked what he thought of the performances of the Boston and Philadelphia Symphonies in the Soviet Union and the possibility of exchange tours to the United States by Soviet orchestras, he spoke with deep feeling.

"The most remarkable thing here," he said, "is the people. I am speaking not only of audiences at my concerts who were so wonderfully responsive to music. I am speaking of all the people I have met or even just seen here. The Americans and Russians have so much in common. Both Americans and Russians are equally sensitive, equally sincere and have the same sense of humor. If all the Americans and all the Russians could meet, they would become fast friends at once. Such a great meeting cannot be arranged, of course, but let the representatives of the two great peoples meet. We send you a symphonic orchestra, and then you send us a symphonic orchestra. Our farmers come to visit you and your farmers shall come to visit us. Our teachers are enjoying your hospitality and your teachers shall enjoy our hospitality. . . . "

The graceful hands of the maestro stressed the rhythms of his speech forcefully as though he wished to augment these meetings, to multiply them to the point where they would encompass not tens and hundreds but tens of thousands and hundreds of thousands of the best people of both nations. ■

THOUSANDS OF MUSCOVITES ATTENDED THE CONCERTS GIVEN BY THE GREAT AMERICAN CONDUCTOR.

ALL CONCERTS WERE BRILLIANT, AND STOKOWSKI WAS CALLED UPON TO PLAY ENCORE AFTER ENCORE.

A TOAST TO GOOD MUSIC AND SKILLED CONDUCTING—LEOPOLD STOKOWSKI AND ARAM KHACHATURYAN.

The New Theater o

By Inna Borisova

LIST OF PRESENTATIONS FOR THE MONTH GIVES THEATERGOERS A WIDE CHOICE.

SHOLPAN ZHANDARBEKOVA AND IDRIS NOGAIBAYEV STARRING IN NAZIM HIKMET'S *FARHAD AND SHIRIN*.

IN the Kazakh theater the bridge is a very short one between yesterday and today, between the storyteller's legend recounted around a nomad campfire and the full-bodied, subtle staging of the modern theater.

Two young men—both are brave and handsome, both are in love with the same girl. One belongs to the girl's tribe; he is the eligible suitor. The other is a member of a hostile tribe, but he is the one the girl loves. Both are killed, the tragic close of a tribal feud. This is the bare skeleton of the play *Yenlik and Kebek*, presented on the stage of the Drama Theater in Alma-Ata, the capital of Kazakhstan.

The play is younger by many centuries than the legend upon which it is based. It was written in 1917 by Mukhtar Auezov and marked the beginning of the development of a national dramatic art. Kazakhstan had no theater before the Revolution.

The first performances of the play were hardly orthodox theater premières. They were done in the villages and summer pastures to which the Kazakh herdsmen moved with the coming of spring.

It was some years later, in 1925, that the first Kazakh theater opened with a performance of the third act of *Yenlik and Kebek*. The infant theater was not equipped for more ambitious projects than one-act plays.

At first folklore plots predominated in the repertory. Gradually playwrights, actors and audience widened their area of interest. So that today's repertory is by no means exclusively composed of plays based on folklore. Shakhmet Khusainov's *On the Irtysh Shore* uses a contemporary locale and situation. Sabit

er of Kazakhstan

Scene from *Coevals*, a modern play by Mukhtar Baitanayev, an instructor in a teachers' college.

BOTH NATIVE AND VISITING THEATER GROUPS PERFORM AT KAZAKH OPERA AND BALLET HOUSE IN ALMA-ATA.

Mukanov's *Chokan Valikhanov* is written around the life of a noted nineteenth century Kazakh educator. The celebrated Kazakh poetess and singer, Maira, is the central character in Abdilda Tazhibayev's play of that name.

The world's classic plays are also well represented. Among them are Molière's *The Miser*, Shakespeare's *Othello*, and Ostrovsky's *The Truth Is Good, but Happiness—Better*. The present repertory of the young theater mirrors the whole short history of Kazakh dramatic art.

Two Generations of Actors

The merging of past and present, of the traditional and the new is discernible not only in the repertory. Actors of two generations meet on the stage. When the first Kazakh theater was getting started, this announcement appeared in the local newspapers: "Whoever may happen to see Kalibek Kuanyshpayev is asked to tell him that he is wanted at the theater in Kzyl-Orda." Kzyl-Orda was the capital of Kazakhstan at that time.

Kalibek was a well-known folk singer and storyteller who traveled about from fair to fair. His songs and stories were loved everywhere. So popular was he that long after he had become a professional actor, audiences would clamor for him to sing and recite after the curtain had gone down. He had to return with his dombra and give an impromptu recital before the audience would let him go.

It was altogether natural that performers such as Kalibek—and there were others like him—should have become the founders of the national theater. None of them had received dramatic training. They were self-taught actors and they brought with them into the new theater all the pungency of the old folk art.

The younger generation of actors took an altogether different road. The elements of their art that the older people had learned in years of wandering from festival to fair the young people acquired with infinitely less pain and hardship at theater schools.

Here are three actors who play the leading roles in *Yenlik and Kebek*. The first, Idris Nogaibayev, graduated from the Institute of Dramatic Arts in Moscow five years ago. The institute studio, especially staffed to train actors for the various nationalities, works with a group of Kazakh drama students one year, the next with Uzbek students, the next with Tajik students, and so on.

The second, Nurmukhan Zhanturin, studied acting at the Institute of Dramatic Arts in Tashkent, capital of the Uzbek Republic, which borders on Kazakhstan. The third, Sholpan Zhandarbekova, studied at the theater school of Alma-Ata. The school is now the drama division of the Kazakh State Conservatory.

At the theater schools the student actors acquire an understanding of the contributions of the Russian theater and the theaters of other nations. Working in the Kazakh theater, they add to their basic dramatic knowledge those valuable elements of their own national art that the older generation of actors can teach them.

Although the Kazakh theater is young in years, it is old in tradition and the young actors react most sensitively to that heritage of national tradition. As a consequence, there is a blending of the old and the modern style which adds a new dimension even to the old folk plays.

A Very Responsive Audience

The Kazakh audience is very susceptible and emotional. Their sympathy for the tragic character, their joy in the comic, their faith in the

Continued on next page

THE PLAY HOLDS THE INTEREST OF YOUNG AND OLD.

AUDIENCE REACTION ALWAYS PLEASES THE ACTORS

OLD-TIMERS OF KAZAKH STAGE, LIKE KALIBEK KUANYSHPAYEV, NEVER LACK AUDIENCE OF YOUNG THESPIANS.

Laughter rocks the house when Yuri Pomerantsev portrays Cosme in Calderon's *Fair Lady.*

The New Theater of Kazakhstan

Continued

momentary reality of the acting breaks down the fence between stage and audience.

And that sense of relatedness carries on even during intermissions, heightened by the national costumes which so many of the people in the audience wear. The audience is by no means all city bred. Farmers and herdsmen come to the theater because it reproduces for them in language and gesture and song the spirit and mood of their own people and of their youth.

Some of the traditional Kazakh theater is likely to appear static to the observer accustomed to the more rapidly paced movement. A typical example is the trial scene in *Yenlik and Kebek.* Unlike the earlier scenes in the play, it has hardly any action or movement. There are a series of rather lengthy dialogues, or "exchange of opinions."

In essence, this is a traditional contest in oratory, and the Kazakh spectator watches the scene with rapt attention. These contests in improvised poetry in which folk bards compete in public have been held in villages and summer pastures from time immemorial, and the audience finds in the theater a favorite spectacle.

But today's Kazakh many-faceted theater also attracts full audiences to Tchaikovsky's *Swan Lake,* Asafyev's *Fountain of Bakhchisarai,* Rossini's *Barber of Seville* and Rubinstein's *Demon* presented at the Opera and Ballet Theater. The Russian Drama Theater at Alma-Ata offers Dostoyevsky's *The Downtrodden and Oppressed,* Chekhov's *Platonov* and plays by modern Soviet authors. The Young Spectator Theater puts on such plays as *The Mutiny,* based on the Dmitri Furmanov novel of that name, with a combined cast of Kazakh and Russian actors.

What these productions have in common—opera and drama both—is a rare blend of poetry and folk feeling. The productions sing of great expanses of land and sky, of tender women and heroic men, of gay festivals and workaday industry. Showing as they do the life and spirit of a nation, the productions also strive to bring to the Kazakh stage the best that has been accumulated in the field of theatrical art throughout the world. ■

AFTER THE FINAL CURTAIN FALLS, THE HEAD OF THIS FAMILY STRESSES ONE OF THE POINTS IN THE PLAY.

PROF. ALEXANDER VISHNEVSKY WITH DR. HELEN TAUSSIG OF BALTIMORE, MD.

MEDICAL COOPERATION

By Margarita Bagreyeva

IT'S WONDERFUL! Those words from Dr. Helen B. Taussig of Baltimore, well-known American scientist and physician, came during the high point of her visit to Moscow's Vishnevsky Surgical Institute, part of the USSR Academy of Medical Sciences.

Dr. Taussig was accompanied on her visit by Dr. Jean Henley and Dr. Esther Marting. The American women scientists spent several days in Moscow and toured many of its medical and research establishments. The guests were especially interested in an operation to be performed on a six-year-old patient, Lyuda N., by Professor Alexander Vishnevsky, the son of the founder of the Moscow Surgical Institute.

The child suffered from a serious congenital heart disease known as tetralogy of Fallot. The disease is characterized by a stricture of the pulmonary artery and a ventricular septal defect, due to which the patient's blood bypasses the lungs. This, in turn, results in the blood not receiving enough oxygen and dooming the patient to a life of invalidism.

A few years ago Dr. Taussig first proposed a method of surgical treatment for tetralogy of Fallot. Physicians of the Vishnevsky Institute elaborated and improved on her method. As a result, this operation is now simpler, takes less time and causes practically no complications.

Accompanied by the American physicians, Professor Vishnevsky proceeded to the operating room. The patient was already anaesthetized. Picking up a scalpel, the professor made the first incision and the operation began.

Throughout the whole period, all eyes were on the composed, infinitely precise and confident movements of the surgeon's hands. It was then that Dr. Helen Taussig exclaimed: "It's wonderful!"

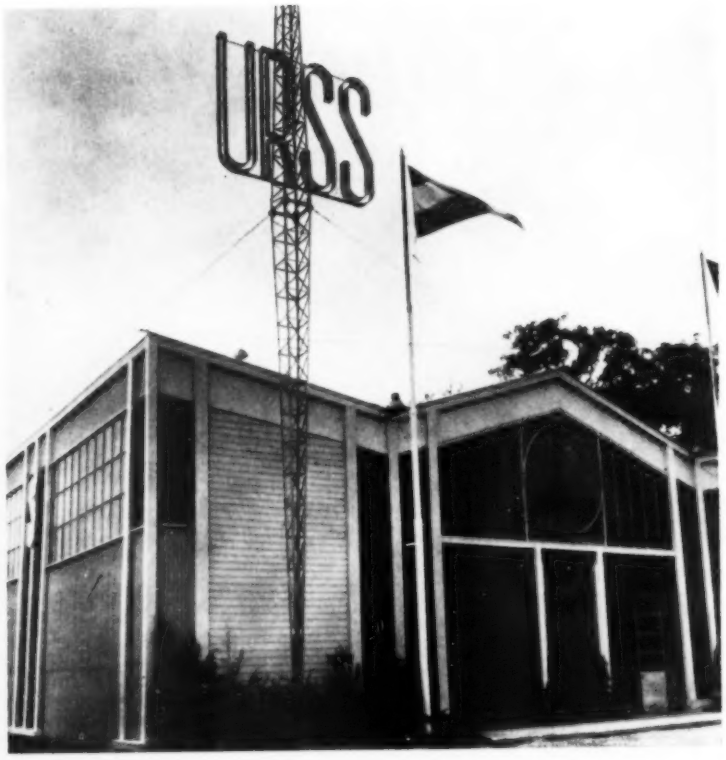
And we would like to add that the operating skill of the surgeon was not the only thing wonderful on that particular day. The fact that American and Soviet surgeons were cooperating in the joint battle of doctors of two great nations for the life of man also marked the occasion as one worthy of note.

As a souvenir of their visit to the Institute, the American physicians were presented with books on various branches of surgery. In one of them, presented to Dr. Taussig, Professor Vishnevsky wrote: "To one of the founders of cardiac surgery, from the Surgical Institute of Moscow." ■

ALL EYES ARE FOCUSED ON PROFESSOR ALEXANDER VISHNEVSKY AS HE PERFORMS A DELICATE HEART OPERATION.

SOVIET DISPLAYS A

HELSINKI 1951

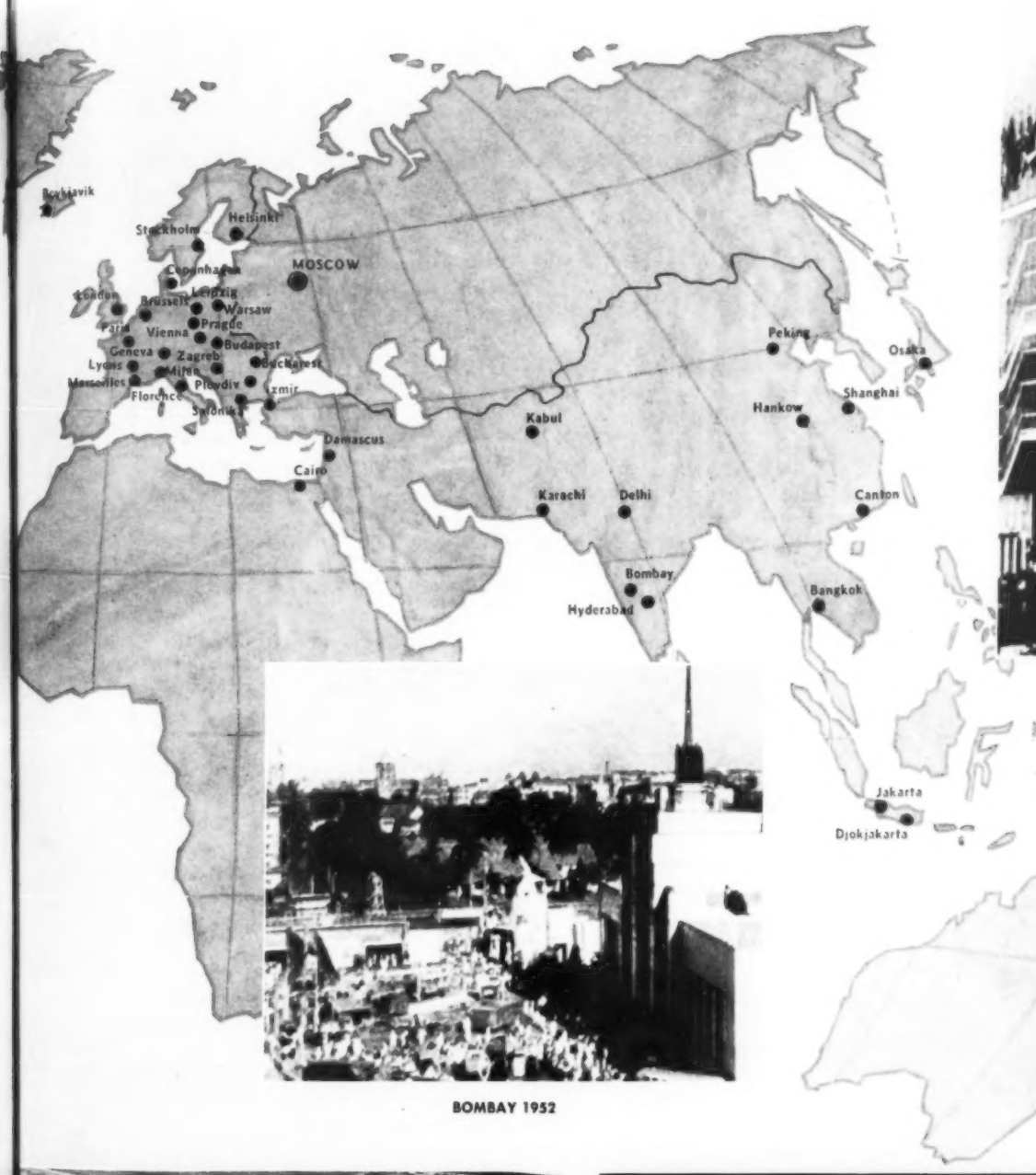


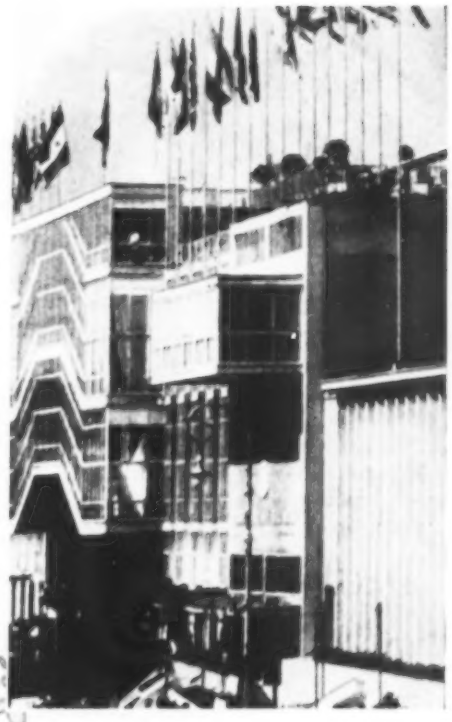
BUENOS AIRES 1957

VIENNA 1955

REYKJAVIK 1955

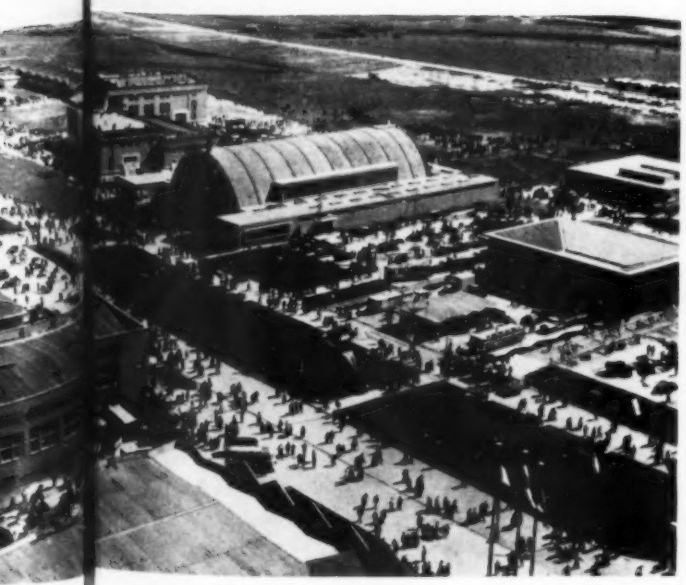
YS AT INTERNATIONAL FAIRS





MILAN 1956

BOMBAY 1952



ZAGREB 1957

DAMASCUS 1957

SOVIET DISPLAYS AT INTERNATIONAL FAIRS *Continued*

THE WORLD'S Fair in Brussels has drawn newspaper headlines the world over. It has focused attention on the peaceful and constructive rather than the belligerent aspects of international competition—on machinery to build rather than destroy; on consumer goods rather than armaments; on the sputnik rather than the ICBM; on exchange of artists, musicians and dancers rather than bellicose declarations.

The two neighboring pavilions of the United States and the Soviet Union, each with its display of a nation's achievements, drew a major share of public attention. Here were grouped for comparison the accomplishments in industry, farming, science, education and culture of two different systems, each bidding for the attention of the world's people. Here was peaceful coexistence, and there could hardly be a more graphic illustration.

The Brussels Fair is only one of many international exhibitions in which the Soviet Union participated. It had large displays at prewar fairs held in Italy, Austria, Turkey, Germany, Bulgaria and at the Paris World Exposition in 1937 and the New York World's Fair in 1939.

The Soviet pavilions at the Paris and New York Fairs displayed in life-size models, charts and photographs the results of 20 years of work of a socialist state and diagrammed the future development which a planned economy made possible. That future was on exhibition in the displays at the Brussels Fair—in the models of the earth satellites and passenger airliners, the giant machines and precision instruments, the consumer goods of all varieties for domestic use and for export.

The Soviet Union now trades with some 70 countries. The volume of its foreign trade has grown more than six times over since 1938 (in comparable prices). Soviet displays at international fairs vividly reflect the country's growing export and import possibilities, and thus help promote the further development of mutually beneficial economic relations.

Since 1950 the Soviet Union has actively participated in the oldest and largest of the international expositions, the Leipzig Fair in the German Democratic Republic. This is an annual event with more than 1,200 exhibitors from 39 countries and an attendance well in excess of 660,000 visitors. Private and government purchasing delegations from countries all over the world negotiate a large volume of business during the run of the Fair.

The list of other international fairs in which the Soviet Union has participated in recent years includes those held in Lyons, Milan, Utrecht, Salonika, Zagreb, Poznan, Plovdiv, Copenhagen, Stockholm and Vienna. The largest Soviet displays during the postwar period were at fairs in China—in Peking, Shanghai, Canton and Hankow where more than 11,500 exhibits were shown.

In 1954 the Soviet Union participated in 11 international fairs and exhibitions. In 1955 this figure grew to 18, with the Netherlands, Argentina, Pakistan, Iceland, Sweden and India among the added countries in which Soviet goods were exhibited. During 1956 the Soviet Union took part in 12 international fairs at which a total of approximately 17 million visitors viewed the Soviet displays.

Among the most interesting of the exhibitions in which the Soviet Union participated in 1957 was that held in Oklahoma City at the Oklahoma Semicentennial. Soviet machinery, consumer goods and art work drew large and interested American audiences, for many of whom this was a first introduction to things Soviet.

An example from among this year's exhibitions where the Soviet Union has been broadly represented was the international fair held in Osaka. It was the first time in the entire history of Soviet-Japanese relations that Soviet goods were displayed in Japan.

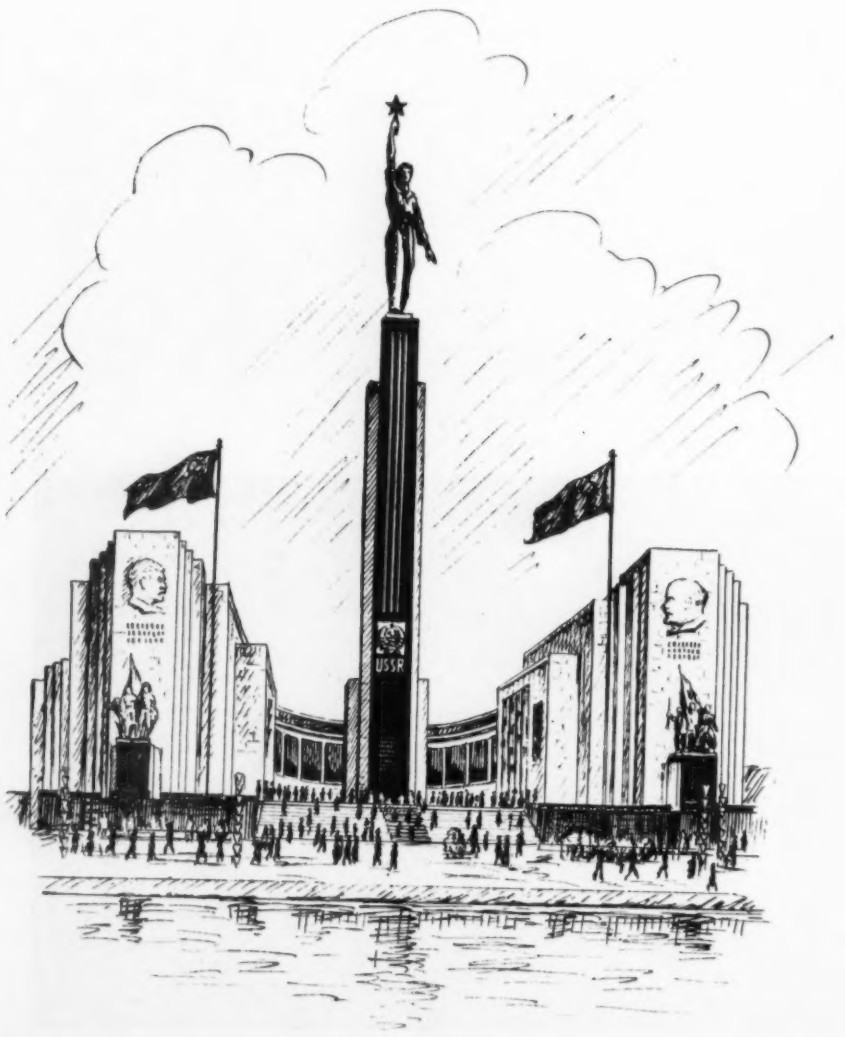
Soviet expositions at international fairs invariably attract large crowds of visitors, both the general public and representatives of industrial and commercial firms. Estimated figures on visitors to the Soviet Pavilion during the two-month New Delhi Fair approximated three million. At the two-week Cairo Fair the Soviet display was seen by more than 400,000 people.

As a rule, trade-industrial exhibits are organized by the USSR Chamber of Commerce working closely with foreign trade organizations. This makes it possible to mount displays which sample the whole of the country's export line. The interested visitor can see the entire range of Soviet manufactured goods displayed in one unit, rather than as individual display booths of single firms.

Along with the traditional Soviet items of export—furs, grain, ores, timber—new machine tools and instruments, all kinds of equipment and machinery of the latest design which have drawn enthusiastic comment from technical visitors, are now customary display items. Careful attention is, of course, paid to selection of display goods that will have as close a relation as possible to the economic, climatic and ethnic needs of the country in which the exhibition is held.

Exhibits are usually full-scale to give viewers a real notion of the equipment in operation. Machines on exhibit are manned and run by specialists prepared to give all necessary data and information.

The glass and metal pavilion at the Brussels Fair is one of a continuing series of Soviet displays. It stands witness to 40 years of labor by 200 million Soviet people. It stands witness, also, to the profound wish of these 200 million people for peaceful cooperation with all countries. ■



NEW YORK 1939

USA—USSR
SUMMER MEETS

By Victor Kuprianov

Sports fans of both the United States and the Soviet Union witnessed a series of interesting meets between the athletes of our two countries this past summer season. Since the USA-USSR cultural exchange agreement was signed last January these meets are becoming a tradition, with men and women in different sports exchanging friendly visits. Here we tell about some of these matches.

MATCH OF THE CENTURY

THAT'S what one Moscow newspaper termed the USA-USSR track and field meet in the Soviet capital and that's what it was to the thousands of fans and the host of sports writers who came from afar to cover the matches. When the American athletes arrived at the Moscow airport, George Eastment, team coach, expounded his views on regular USA-USSR meets:

"I think that it is the most wonderful thing I've heard of in our sport of track and field. I think it's something we've needed for a long time. I believe the athletes will enjoy it *(they did)*. The competition is going to be very close *(it was)*. And I'm certain it's going to bring our countries closer together."

Before the opening of the matches the Americans had about a week for training and sightseeing. Of course, our guests made a close inspection of Moscow's Lenin Stadium, a huge bowl seating 101,000 according to the management—if one overlooks the gate-crashers. Incidentally, all tickets for the meet were sold out long in advance.

While the fans were impatiently waiting, the athletes warmed up before the struggle. All the stadium's sports facilities were at their disposal. When the American runners tested the track, they pronounced it "fast." Records? Why not?

Public interest soon reached white heat. Out-of-towners dropped everything to come to Moscow for the matches. All Sunday morning Muscovites kept their heads craned skyward. The inclement sky discouraged some, but a nationwide radio and TV hookup kept all in touch with the Lenin Stadium. A bit past noon the weathermen announced they didn't expect any chance of rain for the rest of the day, and finally the opening ceremonies started.

There was a long thundering storm of applause as the American and Soviet teams carrying their flags marched past the overcrowded stands. Across the central stand was a huge sign reading in English and Russian: "Greetings to the Athletes of the United States!" And above it floated the Stars and Stripes and the Red Flag, side by side. When the national anthems of both countries sounded over the public address system, spectators and athletes alike stood at attention. . . .

In his reply to the speech of welcome for the guests, Dan Ferris of the U. S. Amateur Athletic Union thanked the Soviet athletes for their warm reception. He praised the Soviet-American sports exchange program being carried out and expressed his hope that "the better team win."

With that, the two teams were set for the 32 scheduled events. The men and women met in the Olympic program with the exception of the marathon and 50-kilometer walk. At the end of the first day, the score showed the Americans ahead by eight points. The coaches commented as follows: .

Peyton Jordan for the USA: "We are very

Continued on page 60

DAN FERRIS, Honorary Secretary of the U. S. Amateur Athletic Union: The people of Moscow have received us with open arms. The exchange of teams between the Soviet Union and the United States this year in wrestling, weight-lifting, basketball, and now in track and field have been arranged and carried out on a most friendly basis. A few minor differences that have come up in our negotiations were settled amicably. We hope that the experience gained in our sports relations will help to set an example which will be followed in all lines of endeavor.

USA–USSR SUMMER MEETS

MATCH OF THE CENTURY

Continued

pleased with the results. We thought it was a great contest between both teams. The meet was beautifully run, well officiated and the contestants were of the highest caliber."

Gavriil Korobkov for the USSR: "It was a great fight for us and it turned out better than I expected. I thought we'd be 14 points behind, and we're only eight. I hope we'll do better next day."

And the Soviet team coach should know. The board of selectors has shifted its emphasis to youth. As a result the squad that faced the Americans had only 25 members of the Olympic team. One-third were youngsters with no experience in international competition. But they made out wonderfully well. One of the newcomers was Oleg Ryakhovsky, an engineering student from Tashkent in Central Asia, making his debut with a world record mark in the hop, step and jump.

The competition was razor-keen. There's no denying the fact that this meet was not only a thrill to the fans, but it also helped the athletes to improve their showings.

Rafer Johnson mentioned it and declared that if it had not been for the way Vasili Kuznetsov and Yuri Kutenko kept on his heels he would never have broken the world decathlon record. The speedy Californian shattered the old mark by the time he had completed the ninth event—the javelin throw—which is phenomenal. But Johnson is a phenomenal athlete.

The American girls shattered their national 4×100-meter relay record. Mrs. Earlene Brown boosted the national shotput record. The American men were but one-tenth of a second off from a new world record in the 4×100-meter relay. Ira Murchison and Ed Collymore clocked in a 10.2-mark in the 100-meter dash. And Murchison started slowly—he might have done even better.

In addition to setting some remarkably good times, the meet was also characterized by sportsmanship and friendship. After the 10,000-meter race, winner Yevgeni Zhukov presented his running shoes to his American opponent, Jerry Smartt. And javelin throwers Franklin Held and Al Cantello were given Soviet javelins that caught their fancy.

At the end of the meet the grand totals showed the Soviet victory, but with a margin of only two points: USSR—172; USA—170. And this final outcome was determined at the very last moment in the very last event. The coaches were not surprised. Dan Ferris said that the 17-point lead of the American men's team was as it should have been. And the American women's 19-point deficit in the total could also be predicted. Gavriil Korobkov promised keener competition next year when the USSR track and field squad pays its return visit to the United States. ■

CONNOLLY SHOWS HOW IT'S DONE—RESULT, 222' .56".

SPIRIN (NO. 69) CAME FIRST IN 20-KILOMETER WALK.

POLE VAULT WINNER BULATOV—14' 9.17".

DRIVING FOR LEAD AT THE START OF WOMEN'S 100-METER DASH.

MEN'S 100-METER DASH, HIT OF THE FIRST DAY'S CONTEST. AMERICANS WON—10.2 SEC.; RUSSIANS, 10.4 SEC.

100-METER WINNER MURCHISON AND SOVIET FRIENDS.

O'BRIEN GETS STARTED ON ONE OF HIS FAMOUS THROWS.

GLEN DAVIS, 400-meter hurdles world record holder *(center)*: Our reception in Moscow was very good. It was wonderful to see all the flowers we got as we came off the plane. My time for the 400-meter hurdles was much better than I showed in the Olympic Games at Melbourne, and I hope my 1960 record will be even better.

CHARLES DUMAS, high jumper *(right)*: My stay here was very enjoyable. I'd like to thank the people that took the time to extend their wonderful hospitality to the American team. I think the competition was great. I hope that the Russian athletes will come to the United States soon and that I may return here again.

EDWARD TEMPLE, U. S. women's coach: This has indeed been a tremendous stay. In my opinion the meet was carried out in the highest possible manner that an international track meet can be conducted. The people were extremely gracious. I think that both the Russian and American teams showed really great sportsmanship.

RAFER JOHNSON, decathlon world record holder: Since I was in the decathlon, I had the pleasure of competing with Vasili Kuznetsov and Yuri Kutenko again. I first met both of them at the last Olympic Games, and I hope to see them in the USA next year. I also think we might continue our competition at the 1960 Olympics in Rome. The Moscow sports fans were terrific. They impartially cheered the man who was winning, regardless of which team he was on, and this made for better competition.

JONES, 100-METER DASH WINNER, WITH RUNNER-UP KREPKINA.

RYAKHOVSKY SETS WORLD RECORD IN HOP, STEP AND JUMP.

USA-USSR SUMMER MEETS

DURING A MEET IN MOSCOW THE UNIVERSITY OF WASHINGTON HUSKIES FINISHED A FULL LENGTH AHEAD OF THE TRUD EIGHT, WINNER OF THE 1958 HENLEY REGATTA.

THE story leading up to the Moscow visit of the University of Washington Huskies can be sketched in a few words. In the 1952 Olympic Games the Soviet Union made its debut in international scull racing. Our oarsmen got off to an auspicious start when their singles entry, Yuri Tyukalov, outrowed the world's best. Then in the 1956 Olympic Games Soviet athletes again copped the singles title as Vyacheslav Ivanov sped across the finish line to outwit the forecasters.

But however brilliant these victories might be, our eights were always outstripped by the American entries in the final reckoning. That's what happened, for example, at the 1957 Henley Regatta in Britain when Cornell's crew nosed out the Trud crew from Leningrad.

Well, this year the same Trud eight went to Henley backed by a bit more experience, some added muscle and more stamina. They churned the narrow Thames in a torrential downpour at a steady 37-38-stroke pace in the preliminary. The Huskies began briskly but had difficulty keeping up with the stiff pace and were eliminated. The Trud crew went on to win the Grand Challenge Cup.

The runners-up from the University of Washington got an invitation to visit Moscow, and then came the day of the race.

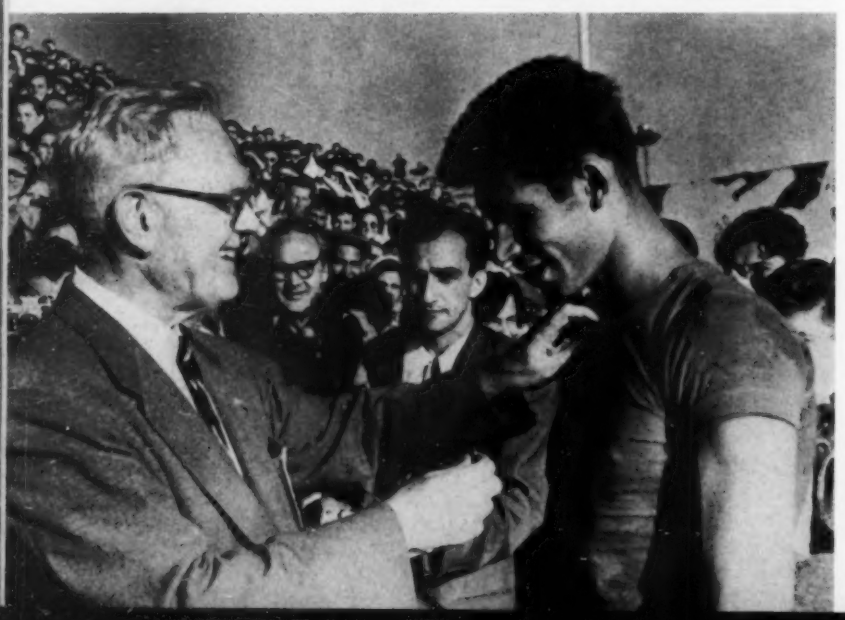
The Huskies got off to a flying start, with the Trud oarsmen looking a bit seasick as their shell danced over the wind-roughened water. No photo finish was required for the race—the Huskies were a full length ahead at the line. This made them feel better for their loss at Henley.

When the race ended everybody cheered, but nobody left the stands. The spectators wondered whether the traditional ducking of the coxswain would follow in the face of the cold, stormy weather. But the Huskies, in a "are we men or mice" spirit, carried on and Coxswain John Bisset was properly tossed off the dock. He was the first American to be given this ceremonial ducking in the Soviet Union. As he came up, he said the water was fine, but the shivering fans knew that whatever heat there was came from the spirited and close contest between the American and Soviet athletes. Afterward there were these comments:

The American coach: "We're used to choppy water and it gave us an advantage."

The Soviet captain replied: "They're better, that's all." ■

JOHN CARLIN, NARA VICE PRESIDENT, AWARDS A MEDAL TO VYACHESLAV IVANOV.



THE HUSKIES WERE PRESENTED WITH SOUVENIR BADGES BEFORE THE COMPETITION.

World Gymnastic Championship in Moscow

By Anton Pikov

THE huge Sports Palace in Moscow was recently the scene of the Fourteenth World Gymnastic Championship. As the athletes of the 22 participating countries moved in the arena from one apparatus to another, it all seemed so simple and efficient—like a smoothly operating machine. When a gymnast finished an exercise, the judges assessed the performance, the head umpire calculated the average score, and the result immediately flashed on the scoreboard. Human energy was converted into the precise language of arithmetic.

On the first day of the over-all gymnastic tournament, when it is still touch and go as to who the closest rivals are, it is chiefly the struggle of an athlete with himself. His efforts are directed toward chalking up the highest possible score. But as the numerous sport prophets at the Moscow meet had predicted, the contest for the men's team and individual honors soon shaped up to be a battle between the gymnasts of Japan and the Soviet Union.

This rivalry has a history. At the Olympic Games in Melbourne in 1956 and at the Third World Youth Games in Moscow a year ago the Japanese gymnasts proved themselves worthy challengers, capable of fighting hard for each tenth of a point. In Melbourne, for instance, they trailed behind the Soviet gymnasts in the compulsory program by only two-tenths of a point.

And now the leading gymnasts of the Soviet Union and Japan were facing each other for the third time. When the Japanese athletes, small of stature in the main, approached the pommeled horse, regarded by the experts as the most difficult apparatus. it looked so big. Yet the "wild" horse was tamed by the Japanese performers. It is true that Yuri Titov, a Soviet gymnast, had the highest score, 9.75 points, but three members of the Japanese team, Takemoto, Kono and Ono, earned 9.35 points each.

The horse for vaulting was still higher, and the Japanese athletes could barely be seen behind its leather-covered back. But they conquered this apparatus, too. The final score, however, showed that they had to be content with third and fourth places—after the Soviet entries.

At the end of the two-day compulsory program the men's teams lined up as follows: the Soviet Union, Japan and Czechoslovakia. In the women's division the Soviet Union was also first, followed by Czechoslovakia and Rumania. In the individual competition Soviet gymnasts Boris Shakhlin and Larisa Latynina were in the lead.

However, the main battle was still ahead. When the gymnasts started to compete on the free program, the Sports Palace was never empty. The judges were there by 8 A.M., and shortly afterward the most impatient of the fans began coming in. They sat in the stands going over the records of the previous day's results and tried to predict the outcome of the current day's events.

Close to 60 foreign reporters were busy taking pictures and broadcasting on the progress of the championships. The Czechoslovak journalists were greatly pleased with the successes of their gymnasts. One of them commented: "Almost all our boys and girls are still very young, and they'll show their real class in the 1960 Olympics. Eva Bosakova is a splendid example for them all. She teaches at the Prague Institute of Physical Culture and still manages to practice three times a day."

Meanwhile the gymnasts were performing miracles. Albert Azaryan,

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BORIS SHAKHLIN, THE SOVIET UNION.

LARISA LATYNINA, THE SOVIET UNION.

World Gymnastic Championship in Moscow

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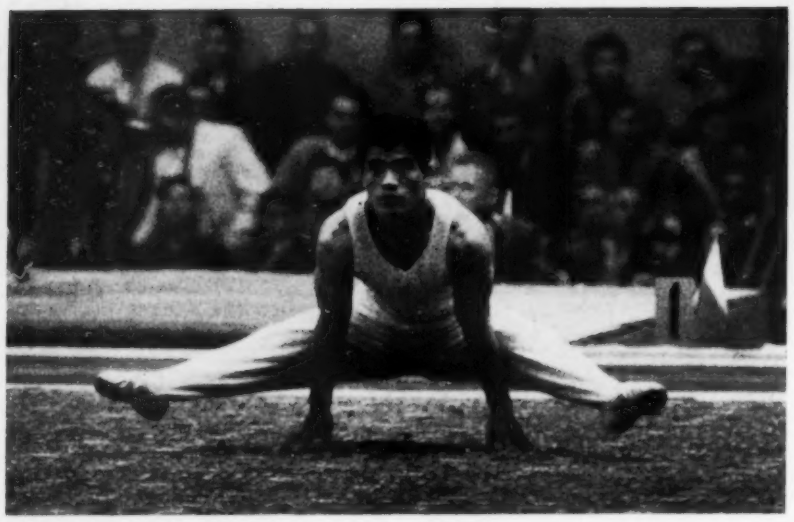
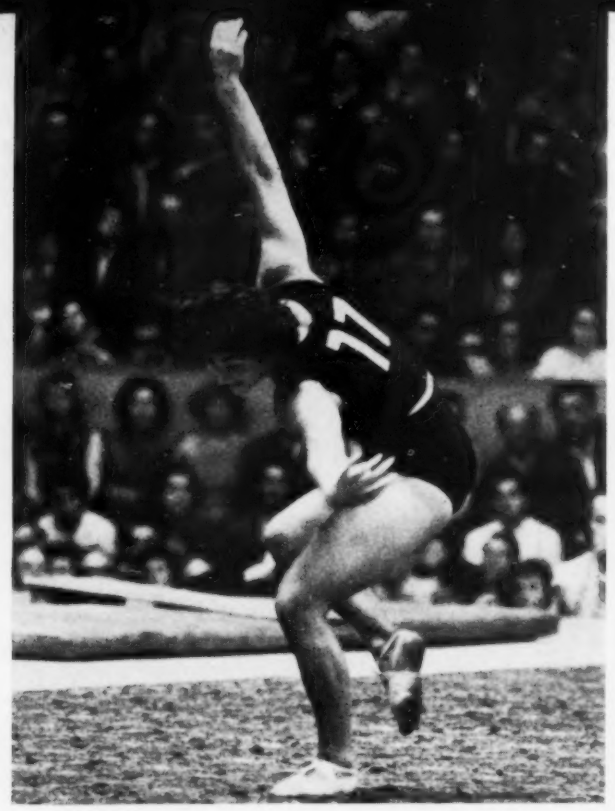


TSUKOWAKI SHINSHAKI, JAPAN.



EVA BOSAKOVA, CZECHOSLOVAKIA.

a forge-hammer worker from Yerevan, registered an amazing result on the flying rings. He received 9.95 points for this exercise, a record score which remained unbeaten in the Fourteenth World Championship. "Only five-hundredths of his performance was earthly, the rest was heavenly," the spectators joked.

The final results among the men became known by the end of the third day of the competition. The gold medal of the over-all world champion was awarded to the Soviet gymnast Boris Shakhlin, who scored a total of 116.05 points. Takashi Ono of Japan was second with 115.6 points, and Yuri Titov of the Soviet Union was third with 115.45 points.

The final scores of the men's teams were: the Soviet Union, first—575.45 points; Japan, second—572.6 points; Czechoslovakia, third—549.3 points.

A word about the top man. Boris Shakhlin is a 26-year-old teacher from the Ukraine. He is an experienced gymnast, having competed in many events at home and abroad. He has won the European Cup, and at the Melbourne Olympics he won the side horse event. He is also the USSR national all-round title holder. In the Thirteenth World Championship in Rome in 1954 he finished fourth with a score of 114.05 points.

In the women's division the situation was clear from the very beginning of the competition. Larisa Latynina, a 23-year-old student from Kiev, the Ukraine's capital, was in the lead, with Eva Bosakova, the Czech girl, a close second. A third rival bidding for the highest honors was Sofia Muratova, the USSR national all-round champion, but an unfortunate jump-off after the exercise on the uneven bars spoiled her chances of taking the prize.

After the completion of all exercises under the compulsory and free programs, the gold medal of the over-all world champion was awarded to Larisa Latynina, who scored a total of 77.464 points. Second place was taken by Eva Bosakova—76.332 points, and the third by Tamara Manina (the Soviet Union)—76.197 points.

The prize-winning women's teams were: the Soviet Union, first—381.62 points; Czechoslovakia, second—371,855 points; Rumania, third—367.02 points.

Larisa Latynina's victory is a logical continuation of her previous success in the international arena. In 1956 she won the all-round title at the Olympic Games. She also holds the women's European Cup and is the USSR national champion for three gymnastic exercises out of four, and a prize-winner of the Third World Youth Games.

On the last day of the Moscow meet the spectators witnessed new heights of gymnastic mastery: the six top-best contestants in each exercise competed for individual world titles. In these finals eight gold medals out of eleven were won by Soviet gymnasts—three by Boris Shakhlin, two by Larisa Latynina and one each by Yuri Titov, Albert Azaryan and Tamara Manina.

Commenting on the results of the championship, Charles Thoeni, President, Secretary General and Treasurer of the International Gymnastic Federation, said:

"One can say that the standards of all the countries that sent teams are improving and that gymnastics is gaining in popularity in the majority of countries. Our Federation makes it possible for both weak and strong teams to take part in the championships. We take into consideration the fact that some countries are just beginning to take up gymnastics."

The USA was represented among the 15 men's teams participating in the world championship in Moscow. Before this only individuals had taken part in big international competitions, but this time it was a full team which managed to take seventh place out of fifteen.

Although the Americans were not out for first place, they did want to make a good showing. And they did. They won lots of applause and friends. In general, American gymnastics showed a marked advance since the last Olympic Games, and fans were a bit disappointed that the United States did not enter a women's team as well. ■

JOHN BECKNER, THE UNITED STATES.

YURI TITOV, OF THE SOVIET NATIONAL TEAM, THE 1958 WORLD CHAMPION IN VAULTING.

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