SOCIAL SOLINGES

SSIR

SUMMER VACATIONS FOR EVERYBODY

No. 10-20 Cents





USSR

ILLUSTRATED MONTHLY

1706 Eighteenth Street, N.W. Washington 9, D. C. ADams 2-3426

The magazine U S S R is published by reciprocal agreement between the governments of the United States and the Soviet Union. The agreement provides for the publication and circulation of the magazine U S S R in the United States and the magazine Amerika in the Soviet Union.

All Kinds of Summer Vacations	Page 1
On Moscow's Teeming Beaches by Yevgeni Tikhanov and Boris Dunayevsky	10
Across the Top of the North Pol by Mikhail Gromov	e 12
Visiting Stars of World's Stages by G. Geronsky	14
Boarding School by Lyubov Kabo	16
The People's Choice	20
Soviet Democracy—What It Means and How It Works	21
Stalingrad 1943-1957 by Alexander Dynkin	24
Gay Holiday of Youth	30
A Collective Farm Managed by a Research Scientist by Juozas Chlivickas	35
Men and Machines by Grigori Shaumyan	38
New Passenger Planes by Arnold Markusha	42
Rural Electric Stations	44
At a Factory Carnival by Elena Surova	46
Photo News	48
Sergei Yutkevich—Film Director Writer, Artist by Gennadi Rozental	·, 50
Ancient Monuments in Old Samarkand by Yevgeni Belov	54
On the Boulevards of Moscow	58
How a Boxer Is Made by Lev Sergeyev	60
Young Chess Grandmaster	63
The Birth of a New Champion by Salo Flohr	64

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

Subscr	iption I	2	a	ti	e	6								
6	Months													\$1.00
	Year .													
2	Years													3.00

Published by the Embassy of the Union of Soviet Socialist Republics in the USA

Second Class mail privileges authorized at Washington, D.C., with additional entries at Milwaukee, Wis., and Chicago, Ill.

Printed by The Cuneo Press, Inc.





BOOKKEEPER VLADIMIR KOZMIN OF KIEV LIKES NOTHING BETTER THAN TO TAKE HIS FAMILY AND FRIENDS ON A WEEK-END LAUNCH TRIP UP THE DNIEPER RIVER.

All Kinds of Summer Vacations

Ask any ten, twenty, thirty passers-by on any street in any town or city this question: "What are you going to do for your summer vacation?" And you'll get ten, twenty, thirty different answers.

The first person we happened to meet on a Moscow street was Julia Khapalina. She works in a telegraph office. "Where are you going this summer?" we asked.

"Kuskovo," she said. Kuskovo is a resort near Moscow. At one time it belonged to the Sheremetyevs, one of the richest families in old Russia, a fabulous mansion with miles of grounds, garden walks and woods, a big lake, a private theater.

"Why Kuskovo?" we asked.

"I've been there before and I like it. I had a lot of fun last summer. It gets a young crowd and the swimming and boating are good. I had thought of going to the Crimea, but I don't want to spend any of my two-week vacation in traveling time."

We stop Mikhail Zhizhov. He is a machin-

ist. "How about your vacation?" we ask. "Are you going to a summer resort?"

It was obviously a bad guess. Zhizhov shook his head in a decided negative. "I've had as much summer resort as I want. I've stayed at Sochi, Odessa and a half dozen others and once you've been to one, you've been to all of them. I eat too much and I rest too much. This summer I want to stretch my legs and get around. My wife and I have booked passage for a 24-day steamer cruise for a European tour."

Yuri Golovanov is a third-year student at the Aviation Technology Institute. He answered our question almost before we had a chance to ask it, "A 250-mile camping trip. It's all planned out, the route, hostels and the rest. We start from Bakuriani. It's in the Caucasus. I'm a member of a hiking club and this summer I'm going to be leading a group of "tenderfeet." That's my idea of a vacation—camping, hiking, a couple of mountains to climb on the way. Our club even has next

summer all figured out. We're tackling a forest area in the Far East."

And so it went. Dr. Maria Ronina, who is in charge of a nursery, takes her nursery with her on vacation, she and her hundred two-tofive-year-olds and a staff of fifty move out to the country for two and a half months.

Artist Sergei Melnikov is looking forward to getting out of the city to his summer place 125 miles north of Moscow. In a couple of years he plans to retire on his pension and live there the year round.

Lawyer Irina Kupinskaya has a month's vacation and she and her husband are going to spend the first two weeks on a 1,250-mile auto trip to Riga. Both of them like driving and in the four years they've had their car they have covered a major slice of the country. The second two weeks they hadn't decided on yet. They thought they might take it easy at one of the seashore resorts on the Black Sea coast.

Continued on page 2



THIS IS GAGRA WITH THE FOOTHILLS RUNNING TO THE EDGE OF THE BLACK SEA, TYPICAL OF THE CAUCASIAN SEACOAST WITH ITS WARM CLIMATE AND SUNNY BEACHES.

All Kinds of Summer Vacations Continued

It seemed to us after we had talked to a dozen or so people that nobody was going to be left in Moscow this summer. Everybody was going someplace else. But Moscow gets its share of vacationers. People from all over the country make excursions to the capital to take in the sights and to visit museums and theaters.

Everybody Vacations

Everybody in the Soviet Union gets an annual vacation with full pay. It is one of the rights guaranteed by the Constitution to every citizen. The length of vacation varies from twelve to forty-eight working days, depending upon the job.

The basic vacation is two weeks, but people doing heavy work—miners, iron and steel workers, workers in the oil, chemical, printing and certain other industries—get supplementary vacations of from two weeks to thirty-six days. Teachers have a two-month vacation and scientific workers at research institutes a month, a month and a half or two months.

All workers in the basic industries get an additional three days' vacation after the second year on a job. People who need medical attention at a sanatorium obtain additional time for travel and for treatment.

Almost everyone in the country has vacationed at one time or another at one of the 3,873 summer resorts, rest homes or sanatoria scattered through the most beautiful scenic areas. These vacation resorts provide facilities capable of accommodating close to a half million guests daily, and very many of them are open the year round.

All of the resorts are operated under the Continued on page 4



While the resort areas draw millions, thousands prefer to avoid the crowds and take the family on a touring vacation by car or common carrier, spending their time visiting new and interesting spots.

City dwellers escape the summer's heat by commuting from Moscow to their dachas, as the country houses are called in Russian.



Lake scene near the city of Chistyakovo in the coal-rich Donbas region. Steel, coal and chemical workers are a majority of the vacationers.





A windy day on Baltic seacoast near the Estonian city of Parnu. Couples, families and individuals find their relaxation comes easily in this salty sea air and they return to their jobs refreshed.



A rival of the seashore is the mountains. Mountain climbers are offered a network of camps in the most interesting places that provide equipment for hikes into the high back country. Trade unions and management combine to provide thousands of tourists with all facilities needed at little cost.



This resort in Gudauta on Black Sea coast is popular with construction workers. About five million guests visit such resorts annually. Workers and office employees get accommodations free or at a 70 per cent discount. Balance is met by state social insurance fund.

Other workers find their vacation contentment in backyard gardening, like this dachnik (summer suburbanite).





This resort for miners and their families with its sunny beach at Sochi, on the Black Sea, is one of the 3,873 vacation centers, rest homes and sanatoria in the country. Some are converted villas and palaces, and many others are new, such as this one, to rival the older structures in beauty and conveniences.



Practically perfect weather permits resorts in the Crimea to remain open the year round, although the main season runs from May through October. This is the Mountain Sun Sanatorium near Miskhor.

A few of a large group of sanatoria concentrated around the famous mineral water spa in the mountains of the Northern Caucasus. The country's resorts are run by Republican Ministries of Public Health.



All Kinds of Summer Vacations

Ministry of Public Health of the particular republic in which they are located. The bulk of accommodations are handled and assigned through the trade unions. A considerable part of the state social security fund administered by the unions goes toward helping workers meet the cost of their accommodations.

A stay at any of the country's resorts is well within the means of every citizen. The trade union to which the guest belongs foots seventy per cent of the bill. For example, if the regular charge for accommodations for a two-week stay is 240 rubles, the worker pays seventy-two rubles and the remainder is paid by his trade union out of the state social security fund.

Summer Resorts

The older resorts, those in the Crimea and along the Caucasian coast of the Black Sea, were the private villas and summer homes of the nobility and the rich merchants before the October Revolution of 1917. The few luxury hotels, like the very fashionable Caucasian Riviera Hotel, were conspicuous for wealth and dazzling display. They were completely out of reach of the great mass of the Russian people.

All these great mansions, villas and hotels were turned over to the service of the people under an early edict after the Revolution. Year by year they have been modernized and equipped for public use, with many new resorts added to accommodate greater numbers of vacationers. Last year alone 140 new vacation centers were opened, some in the old resort areas, others in new ones.

The well-planned itinerary of the tourist visiting our country will usually include a stopover of at least a few days to swim off the sunny beaches of Sochi or Yalta and to rest in between a strenuous program of sight-seeing. Groups of European tourists from many countries stay at the Soviet resorts each summer.

Health Resorts and Spas

Many of the finest health resorts and spas in the world are to be found in the Soviet

Hot springs, mineral water spas and places with curative muds have brought many health resorts into being. View near Arzni, an Armenian resort.





Shipyard workers play a game of dominoes at a resort on the Pacific's shore in the Far East.



While sports facilities of all kinds are available, the guests of a summer resort often like to spend some time indoors at less strenuous pursuits. An impromptu concert is always a welcome diversion.

Union. Our country has long been noted for its medical springs and therapeutic muds. Through its fourteen regional institutes, the Ministry of Public Health develops and maintains health centers and spas at Sochi, in the Crimea, the Caucasus, Georgia, Azerbaijan, the Ukraine and elsewhere.

People who need a rest or whose health needs building up go to these resorts for periods from a month to three months. The spas provide mineral waters, curative muds and healing climate in addition to the required medical treatment, special diet and physiotherapy.

Many of the country's best health resorts are situated in the Crimea, a favorite area for its wonderful sea air. Among them are resorts for coal miners, ore miners, chemical workers, medical workers, railwaymen, communication workers and lumberjacks. Every year more than 100,000 people come to the Crimea for rest or for health treatment.

Equally famous are the resorts at the Caucasian spas, at Pyatigorsk, Yessentuki, Kislovodsk and Zheleznovodsk, which provide

hydropathic and mud therapy treatment. The Georgian Republic has some of the largest spas, all built since the Revolution. Most notable are the watering places at Borzhomi, and the one at Tskhaltubo with its radioactive springs.

Sochi, one of the finest and oldest Russian resort areas, which attracts visitors from all parts of the world, has been changed almost beyond recognition since the period of Soviet power. Famed for its sulphur springs and warm sea, it was a favored watering place for wealth and nobility. But aside from the fashionable area of private villas and palaces, the town itself was as squalid and primitive as were most Russian towns of the period, with no water or sewage system and with unpaved streets.

Sochi now is a resort area that compares more than favorably with any of the world's famed spas. It extends along the Black Sea coast for fifteen miles, with sixty-seven health and holiday resorts open the year round, a modern automobile road along the Black Sea



A sandy beach, sun, tangy air and a dip in the sea are the lures at this Baltic coast near Riga.

shore and a handsome theater with regular performances by leading Moscow and Leningrad theater companies.

Continued on page 6

Nurse checks exposure time to make sure that a healthy tan will replace the city pallor.



A life-guard at a Black Sea resort beach, puts on a regular "floor show" for admiring vacationers. And the young woman assisting so expertly is doubtless the envy of practically every other girl in the crowd.



All Kinds of Summer Vacations

Continued

A Collective Farm Resort

The southern shore of Issyk-Kul, a mountain lake in Kirghizia, is a picturesque resort area in the Tien-Shan Mountains. It is famous far beyond the bounds of Central Asia for its mineral springs. Two springs are located on the land of the Budyonny Collective Farm.

A mountain road with great firs lining both sides leads to the collective farm spa. Bath houses and guest accommodations have been built near the springs. In the last year and a half the health resort has catered to 500 collective farmers from neighboring villages—dairy workers, wheat growers, shepherds and poppy growers. Guests pay only part of the cost for accommodations; invalids and aged people are put up without charge. The mild climate and the bracing mountain air have made the new farmers' resort one of the most popular in the area.

The building of this resort was made possible by the large income earned by the Budyonny Collective Farm. Its livestock division brings in close to a million rubles annually. In addition, it grows wheat, poppies for medicinal uses, sugar beet and corn.



Vacation-bound busses with kids leave Moscow for summer camps. Parents pay a small part of the cost, which is met mainly by state social insurance and by plant managements.



Croquette permits the boys to show off their male strength and prowess to the admiring little girls.



Teenagers like to make it on their own, and the popular youth hostel movement allows them to travel, hike or cycle their way across the country. These student tourists are on their way to new sights.

Long famed among children's camps is the big Artek resort on the Black Sea which draws approximately 12,000 youngsters each summer. The boys learned how to construct the gasoline powered aquaplane and sailboat models at camp.

Papa arranges the posing of his young lady atop model beach elephant near Riga, while a friend focuses his camera. The mother, not liking the mid-day sun, is enjoying shopping in Riga stores.







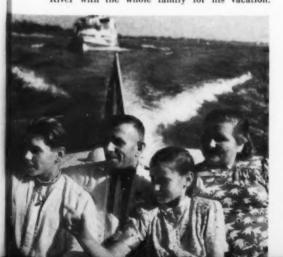
For Children

This summer, some six million children will spend at least a month at one of the many thousand camps throughout the country. Some will stay at camp for the whole two and a half months of the school vacation. These summer camps, set on lake and river shores, in forests and on the seacoast, are jointly maintained by the trade unions and management of industrial organizations and offices.

Parents pay only a part of the cost of sending a child to camp, less than a third. Ten per cent of the places in each camp are reserved without charge for children from large families, those whose fathers were killed in the war and for children of disabled veterans. The main portion of the cost for accommodating children at camps is paid out of contributions from plant and office managements' money

Continued on page 8

Locomotive engineer Sergei Golubitsky from Kiev is taking an excursion up the Dnieper River with the whole family for his vacation.

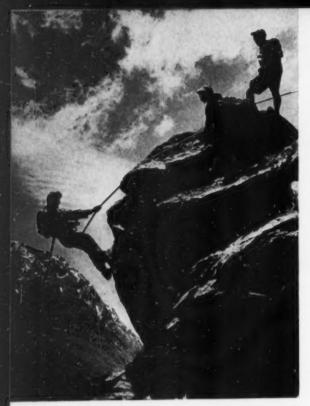




After morning exercises, they are eager for a dip in the sea at Artek resort. Here, as in every summer camp, the program is aimed at strengthening the children's health and broadening their interests.

The surf has a world-wide attraction for youngsters, and this pair emerging with their rubber fish and float are having a wonderful time at one of Yalta's beaches. Whether it be ocean or lake, mountain or rich earth steppe, the resorts in every section have excellent facilities available to everyone.





Devotees of the art of mountain climbing will get opportunities galore to practice. Mountain camps provide adequately for their summer fun.

This is not summer K. P. duty. These vacationers are just back from a mushroom-picking excursion and are cutting up mushrooms before stringing.



All Kinds of Summer Vacations

and sums which the trade unions allocate from the state social insurance fund.

There are 650 summer camps in the country area around Moscow alone which accommodate 340,000 boys and girls from the Soviet capital. The camp of the Krasnoye Znamya Textile Mill is situated on the grounds of an old palace near Moscow on the banks of a river. Its program—swimming, boating, hiking, excursions to points of interest, games, dramatics, nature study, photography, building model boats and planes and a variety of other activities—is directed by a trained staff of counselors and teachers.

Younger children also spend the summer in suburban areas. Many of the city nursery schools move out to the country with equipment, staff and children for the summer months.

There are, in addition, mother-child resorts. They are generally set up near light industry centers where the majority of workers are women. To give both mother and child a vacation, the children are cared for by trained counselors during the day and sleep in children's dormitories.

There are also an increasing number of rest homes for expectant mothers. By the end of the year, eighteen new rest homes will be opened for expectant mothers and for mothers and small children.

High Climbers

One of the people we talked to when we were playing "Inquiring Reporter" was Galina Feldsherova. She is 23 years old, works in a Moscow store and is keen on mountain climbing. It was easy to guess what Galina intended to do for her vacation. She is one of the many young people—and older people—who go in for this hardy variety of vacationing every summer.

Galina was going to Camp Alibek, she told us, the mountaineering base in the lovely Caucasian valley of Dombei. She will spend three weeks at the camp. After a few trial ascents with one of the expert instructors, she will try one of the many surrounding peaks.

The Caucasus is more than a thousand miles from Moscow, an expensive vacation, what with travel, accommodations and mountaineering equipment. We asked Galina how much she made. Seven hundred rubles a month, she told us. For three weeks at the camp, she pays 175 rubles, that includes room and board, instruction and use of climbing equipment. Her travel expenses and the

remainder of her camp bill was being paid by the union.

Hiking also has its many thousands of enthusiasts. They are served by hiking camps. One of the most popular is called Krasnaya Polyana which means "Lovely Clearing." It is a tiny village in the heart of the wooded slopes of the North Caucasian Mountains, forty miles from a major road.

Every summer a big camp for hikers is set up at "Lovely Clearing." During the season —May to September approximately—a good 10,000 persons start a three-week hiking trip from this camp.

As hikers come into the base camp they are split into groups of twenty, each group headed by an instructor. It would not seem that hiking calls for much in the way of instruction—a matter of putting one foot in front of the other. But this is mountain hiking and each hiker must have some practice. Only then does the big walk begin—a six-day hike from the base camp to lovely Lake Ritsa, deep in the mountains.

From Lake Ritsa the tired but triumphant group goes—by bus this time—to the Black Sea resort of Gagra. Nine days are spent swimming, motorboating, fishing, excursioning, and then back home—a twenty-day vacation in all.

Seeing the Country

Touring the country is another of the favored vacation activities. The trade unions run tourist centers in many parts of the country. People make extended vacation trips either by train, automobile or boat.

Boat tours along the inland waterways, particularly the river trip from Moscow to Rostov-on-Don, are especially attractive to vacationers. Last year more than 100,000 tourists, including several thousand from abroad, made the fascinating trip along the Moscow, Volga and Don Rivers, through the man-made seas and canals.

For the more venturesome there is yachting. Anyone can be a yachtsman in the Soviet Union. This is not nearly so costly as it may sound. Membership in the yacht clubs maintained by the trade unions is nominal—three rubles a year, the cost of a ticket to a movie show. Major requirements are a love of sun, wind and water.

Yacht clubs—and yachts—will be found wherever there is a suitable stretch of water. Members must know how to read charts, navigate, how to handle and care for a boat, how to make repairs and keep a boat shipshape. Free study courses are offered by the yacht clubs, and every would-be yachtsman must pass an examination given by his club. Yachting has many enthusiastic devotees from all walks of life.

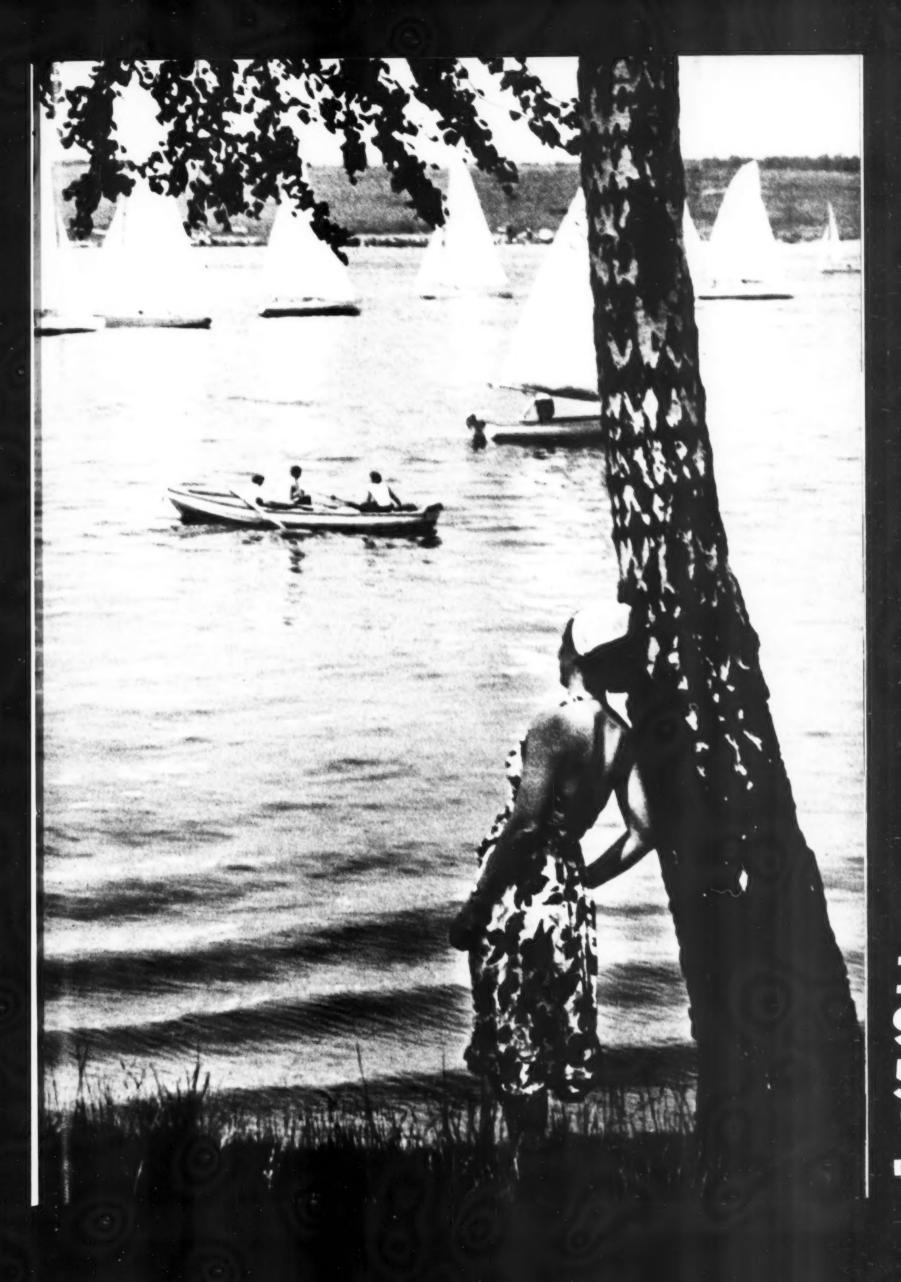
There are vacationers who think a summer incomplete without fishing, others who are inveterate hunters; there are vacationers who like the seashore, others who like only the mountains; there are vacationers who like it hot in the summer, others who like it cold. But whatever the individual preference, the country's great variety of climate, its plains, mountains and forests, its lakes and rivers, its warm South and its icebound North can meet every vacationer's taste.

One of the most popular attractions for all visitors to Moscow every summer is this excursion boat ride. Trips leave each fifteen minutes for a tour upstream and back. Muscovites also enjoy these trim vessels.











Moscow's many beaches along the clean river may lack a certain expanse, but they offer sun and sand and pine-scented breezes for all these bathers.

ON MOSCOW'S TEEMING BEACHES

By Yevgeni Tikhanov and Boris Dunayevsky

It was very hot in Moscow when we were sent to dig up a story about what average folks do on a summer day. The idea was for something breezy and light . . . so we decided to try the beaches.

The Moscow River is kept clean and clear. And there are many sandy beaches where folks seeking relief from the heat can loll on the water's edge or swim and dive to their heart's content. We found exactly what we wanted. There were hundreds of picture possibilities at every hand.

Here a couple of youngsters were building sand castles under the watchful eye of a doting mother using a parasol to keep from freckling; a romantic couple walked hand-in-hand into the cooling water; some boys were playing ball—and just missing a group of laughing girls who squealed in pretended fright.

It's a safe bet that the subject is male. Here two Moscow girls are really enjoying a holiday afternoon.

Splashing the girls is a universal custom, and it always has a plausible excuse, like chasing a beach ball. Anyway, these young women don't seem to mind. It's such a fast way to cool off.





Further in the water there were the heads of swimmers bobbing along as they practiced the crawl against the lazy current. A pair of school girls were near shore with the water lapping their browned shoulders. Nearby a father was seriously engaged in the eternal task of teaching junior how to swim and having no little difficulty convincing him that the water would hold him up. The mother stood anxiously by and uttered repeated words of caution to the instructor.

Everybody seemed happy. They were relaxed and really enjoying themselves in the water.

On the beach itself were dozens and dozens of sun bathers—men and women—busy putting on a rich summer tan. There were youngsters and oldsters—the fats, thins and mediums . . . and the just rights, too.

Moscow's beaches draw thousands every summer day and on weekends they are literally teeming with humanity enjoying the water, the sun and sand. Most of all they enjoy the summer at this conveniently close expanse of sand.

The photographs will give a general idea of what we found.



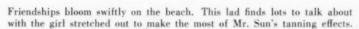
Father has quite a chore. As is often the case, the daughter must be first as a pupil, and interference of a son doesn't seem to help matters at all.

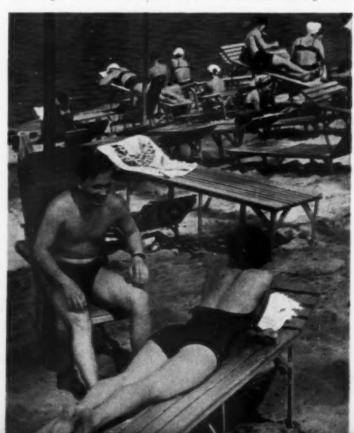


There may be more pleasant ways to cool off on a sunny afternoon, but these girls, who are waiting for their friends, would find it hard to name one.



Helpless or not, a pretty girl can always find eager fellows ready to help teach her to swim, without the aid of inner tube support. This one has two!





Little charmer squatting at the water's edge thinks her mama's quite nice. although she doesn't know how to play in the sand as well as kids next door.





The First USSR-USA Nonstop Flights

It took 60 hours and lots of rough flying, but Gromov and his crew found a hearty welcome waiting when they arrived in the USA 20 years ago.

Across the
Top of the
North Pole



BY MIKHAIL GROMOV

Colonel General of Aviation, Retired

Mikhail Gromov's career spans the history of aviation. In his forty years of flying he has spent tens of thousands of air hours over Europe, Asia and America. He was retired from active duty last year when the Soviet Union reduced its armed forces by 1,200,000 men.

Twenty years ago, in 1937, Valeri Chkalov, Georgi Baidukov and Alexander Belyakov made the first nonstop flight from the USSR to the United States across the North Pole in a single-engined plane. They wrote an important page in the history of flight.

It was shortly afterward that Mikhail Gromov made his USSR-USA hop across the North Pole to set a world long distance record.

In this article the famous Soviet airman looks back twenty years to these historic flights over the grim Arctic wastes that brought two continents and two nations closer together.

Our big heavily-loaded single-engined plane took off from a small airfield near Moscow one bright sunny morning in the summer of 1937. We were headed for the United States via the North Pole, the route Chkalov had taken. We landed sixty hours later, near San Jacinto, California, after a nonstop flight of almost 5,500 miles. Andrei Yumashev was pilot, Sergei Danilin was navigator, and I was captain.

Our flight over the Arctic route, and Chkalov's, which preceded ours, was made for more than the obvious reason of showing what Soviet aircraft engineering could accomplish. We were carrying an important, even if intangible, cargo to the United States—good will and friendship. The point was well made by an American cabinet member at the reception which President Franklin Delano Roosevelt gave us, when he said that ten years of diplomacy could not achieve nearly as much as these two flights had in bringing the peoples of our two countries closer together.

As far back as 1930 Soviet airmen were exploring the possibilities for a nonstop flight to the United States. But it was some years later

before a suitable plane was developed and built, and Chkalov and his crew took off on their pioneer flight.

The Arctic crossing was a difficult and hazardous one. Bad weather forced them to fly at a high altitude. They ran into cyclones, and heavy ice formation on the wings was an ever present danger. On the other side of the Pole the water in the cooling system gave out. It could very easily have meant disaster but for Chkalov's quick thinking. He slit the rubber containers of drinking water, emptied them into the tank and added the tea from the thermos bottles. Chkalov said afterward that when they saw that the cooling system had gone back to normal, the icicles they sucked on as substitute for the hot tea tasted like nectar and ambrosia.

The flight did much to enrich the science of aeronautics. For one thing, it established the altitude of Arctic clouds and helped our meteorologists to verify hypotheses of Arctic nebulosity. This was very important data for subsequent Arctic flights, particularly for ours which was made shortly after Chkalov's.

Our flight set two world records—for straight-line distance and for broken-line distance. The International Aeronautical Federation considered these records made by our very young Soviet aircraft engineering the most important development of the period and awarded the crew the De La Vaulx Medal.

Like Chkalov, we had our tricky moments during the flight. Toward the end we ran into a fog that blanketed the coast line. We finally came out of it and found a field near San Jacinto where we could land. But it was full of cows grazing. We tried to frighten them off by flying low, but they were remarkably stubborn animals. It was only after we had circled the field four times that they moved off languidly and allowed us to land on territory of the United States.

We spent about a month in the United States, and even after these twenty years we still remember with pleasure the warmth and hospitality of Americans.

Today, of course, flights across the Pole are a commonplace and a plane will cover the route in a fraction of the sixty hours that we spent in the air. These last twenty years, progress in aviation engineering has made the world much smaller, has brought countries and continents closer together not only in point of time and geography, but in the need for common efforts.

TWENTY YEARS LATER: (FROM RIGHT) MIKHAIL GROMOY, ANDREI YUMASHEY, PILOT ON SECOND NONSTOP POLAR FLIGHT, AND SERGEI DANILIN, NAVIGATOR, AT A REUNION



Visiting Stars of World's Stages A galaxy of internation to the star of the

By G. Geronsky

A galaxy of international stars of the opera, ballet and concert stage toured our major cities during the past season and everywhere won enthusiastic welcomes from appreciative audiences.

American offerings included the singer Jan Peerce, Isaac Stern and his violin and the Boston Symphony Orchestra directed by Charles Munch and Pierre Monteux. There were the London Symphony with Sir Adrian Boult directing, the Italian singers Toti dal Monte and Maria Eira d'Onofrio, Italian tenor Luigi Infantino, and the Greek tenor Georgios Kokkolios-Bardi. There were the pianists, Mura Limpani from Britain and Monica Haas of France; the Brazilian conductor Edoardo

BOLSHOI THEATER. JOAN HAMMOND (BRITAIN) AIDA, PAVEL LISITSIAN (USSR) AMONASRO, DMITRI UZUNOV (BULGARIA) RADAMES, CONSTANCE SHACKLOCK (BRITAIN) AMNERIS.



de Guarnieri, who amazed audiences with his sensitive and deep interpretation; Geori Boue and Roger Bourdin of the Paris Opera Comique sang in Eugene Onegin and Madame Butterfly; Krystina Szczepanska, Polish star, sang the lead in Carmen.

These and many more appeared. The list is far from complete, but it may serve to indicate the breadth and scope of this international cultural exchange that attracts such crowds to our theaters. In this same period more than 5,000 Soviet artists and cultural workers visited fifty-eight different countries.

None of this is an innovation for us. The Bolshoi had as invited guests seventeen singers from the United States, Bulgaria, Austria, Yugoslavia, Rumania, Poland, Hungary and Finland. The interest in the work of performers from other countries is always high, and each year our theaters invite more and more of them to come to us as guest artists.

Muscovites will long remember the truly international performance of Verdi's opera Aida on the Bolshoi stage at the end of February when Aida and Amneris were sung in Italian by the British singers Joan Hammond and Constance Shacklock; the role of Radames by the Bulgarian, Dmitri Uzunov; and the fourth main role, Amonasro, by the Armenian baritone, Pavel Lisitsian.

This performance was a tremendous and instant success. Audiences commenting between acts unanimously noted the British singers' superb voice control and their natural interpretation. At the end the English visitors took fifteen curtain calls. And then the Bolshoi Theater company paid them a tribute on stage. Turning to the guest stars, ballerina Raisa Struchkova said: "Our applause is not only a tribute to your

talent; it is a greeting to people whom we came to love during our own performances in London."

Miss Hammond later sang the part of Tatiana in Tchaikovsky's Eugene Onegin at the Maly Opera Theater in Leningrad, and Miss Shacklock appeared as Carmen at the Kirov Opera and Ballet Theater.

When the British singers were asked about their impressions, Miss Hammond, speaking for both, said: "We were glad to learn that Soviet people are as cordial as the people of England. Our entire trip was highly instructive and enriched our experience. We return to England with happy memories of warm feelings of friendship."

We have had many more such exchanges and among the most memorable was the visit of the Hungarian Variety Company to present its "Budapest Postcards" in Moscow. Members of the company were warmly received and applauded everywhere. At the opening performance only two words—"Glenn Miller"—introduced a series of the popular composer's melodies. They were old, but as pleasant and haunting as ever. The Variety Company also appeared in Tbilisi, Baku, Yerevan, Krasnodar and Rostov-on-Don, and was followed by more than 150 other Hungarian artists—singers, musicians and circus performers—who toured the country's theater circuit during March, April and May.

As a person who has attended most of the performances by foreign artists this season, my general impression is that the taste of Soviet audiences for outstanding exponents of different types of international art is reaching a new peak. And I know that these audiences join me in the hope that we will be favored by more and more such appearances in the coming season.



Boarding School



"You see, it's simple. You multiply the length by the height," is the helpful hint given here.

By Lyubov Kabo

Small boy blowing a big horn. He's practicing for the school concert and is putting forth plenty of youthful energy.

Studies are over for the day at Boarding School No. 7 in Moscow and the children troop out of the classrooms, some of them still puzzling through the intricacies of the multiplication table question the teacher had asked just before the bell rang, others chattering away about one or another of the myriad excitements that children everywhere find to chatter about.

The boarding school is a new venture in Soviet education, and No. 7 is one of three hundred opened this year. It has an enrollment of 150 children, ages ranging from seven to twelve. Some of the children come from homes in which the father has died, others from large families where, for one reason or another, the parents are unable to give all the children the kind of rearing they want for them. Still others come from homes where one of the parents is chronically ill. One of the children at the school is an orphan, the child's only remaining relative is a brother who visits regularly.

Placement of a child in a boarding school is completely voluntary. While several of the parents who have enrolled their children still have some reservations about the arrangement, most of them feel that this type of school has a great deal to recommend it. The academic standards are very high, and the children receive an excellent polytechnical and liberal arts education. Having the children full time under the direction of the school makes it possible to create the best conditions for the child's physical, educational and cultural needs. But in addition, the boarding school does solve many a family problem, not the least of which is constant adult supervision of the child when this is impossible within the family circle.

In boarding schools the state provides for the full maintenance and education of children. However, if the family income is sufficient, the parents contribute to the cost of maintenance. The school gives the children as close a substitute for a home as is possible, the affectionate care of trained teachers and housemothers, a stable emotional environment, a rounded school program, out-of-school activities, and the cooperative values of living together.

Moscow Boarding School No. 7 is housed in an old mansion that has been completely renovated and equipped for school use. A million rubles has been spent by the government so far on the pleasant house furniture, the dormitories, dining room, textbooks, musical instruments, motion picture equipment, television sets, playground materials, a summer camp, and the many other requirements of a well-equipped boarding school.

Some of the school organization is necessarily experimental to allow for change and modification with time and experience. Each class, for example, has one teacher and two assistants. The question is asked by some educators whether so much supervision and individual attention is not likely to stunt initiative. But so far these doubts seem to be unfounded. The school is organized to provide the children with duties and responsibilities commensurate with their ages. Activities are arranged so that the child's initiative is fos-



THE CARPENTRY SHOP TRAINS FOR SKILL AND COORDINATION OF A BOY'S HANDS WITH HIS THINKING.







"TELL MOTHER THAT YOU'VE GAINED FIVE POUNDS."



IT'S A BIG WORLD WE LIVE IN-IS THE LESSON



FUTURE RADIO ENGINEERS ARE OFTEN FOUND HERE.



MOVIES IN SCHOOL ARE SURE TO BE EXCITING.

A QUIET AND SCHOLARLY ATMOSPHERE PREVAILS.





"RISE AND SHINE, SLEEPYHEAD. IT'S TIME TO GET UP AND DRESS OR YOU'LL BE LATE FOR BREAKFAST."

Boarding School Continued

tered. Alongside the instructors and staff, there are student groups to share each of the responsibilities.

All the children make their own beds and keep their rooms neat. The older children wash and iron their own clothes and do their own mending. Responsibility for keeping the school clean rests on all the children, and they take their duties very seriously. Even in questions of discipline and behavior the children exert a large measure of influence upon each other. Censure or commendation by the students, the school has found, is usually more impressive and more effective than censure by teachers.

At the school's frequent parties and socials, teachers and staff are not much in evidence. The children put on their own concerts and recitations before an admiring audience of parents.

Parents visit regularly to consult with teachers and to see their children. They are, for the most part, unskilled workers in the lower wage brackets—cleaning women, attendants and people in other such occupations.

Children may spend Sundays, all holidays and winter, spring and summer vacations at home. This adds up to nearly one-third of the year. Thus, the question of the elimination of parental influence does not exist. As a matter of fact, parents' participation is encouraged in every possible way—supervision of the children's recreation, dining room duty and countless other activities.

The school recognizes that the family and the staff must work together if they are to produce happy, well-adjusted youngsters. Regular talks on educational topics given by the school to help the parents and self-elected parent councils to assist the teachers contribute to this end.

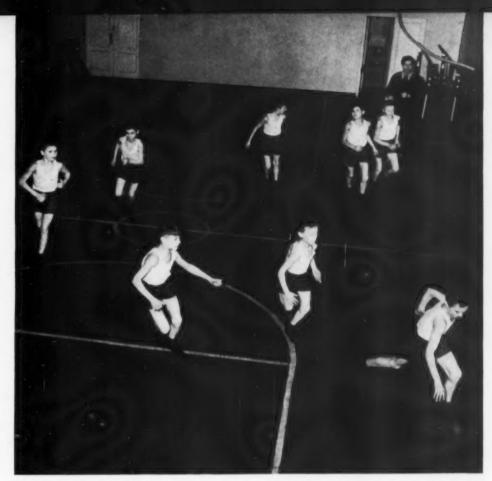
The children and teachers together form a family community with the problems of both family and community conjoined. But the problems would seem to have been met constructively, to judge by the reaction and comment of both the children and the teachers. The latent potentialities of many of the children have begun to show up in this well-adjusted environment.

Svetlana Sugarenko, one of the young teachers in School No. 7, says of her charges:

"Seryozha Belov always wants me to come and tuck him in before he'll go to sleep. He lies in his bed, his eyes wide open and shining until I kiss him and say 'Good night.'

"Sasha Chernov says to me: "When I was little I wanted to be an aviator, then a





INTER-CLASS BASKETBALL HAS VERY OFTEN SHOWN ITSELF A PROVING GROUND FOR PROMISING ATHLETES.

scientist, now I want to be a musician.' He's all of eight and can just about reach the smallest music stand we have. I think he's a talented child and lots of fun to talk to—a really original sense of humor.

"Misha Grebennikov is a very steady child, very neat and well ordered and well organized. But he doesn't smile as much as he should. We are trying to find out why."

Even in the few months since autumn, when the school was opened, the change in some of the children has become noticeable. Vera Lavrova, teacher of one of the older groups, thinks living together has changed one of her students quite markedly.

"When Tanya came here, she was a rude, spoiled and self-willed child. The other children wouldn't put up with it. She learned, after a struggle with herself, that if she wanted to make friends, she would have to be a friend herself. She still flares up every once in a while, but she's making progress. She is a much happier child now than she was the first two or three months."

"It's a slow job," adds Principal Konstantin Vakhrushev, "but we are dealing with children who need more than simply education. They need affection and understanding as well."

That is what Moscow Boarding School No. 7 tries to give its 150 children.





Besides being a talented composer and director of the Ukrainian Folk Chorus, Grigori Verevka is a civic leader and deputy to Kiev City Soviet where he is active in matters of art and music.



Tamara Gracheva, not yet 20, is the youngest deputy in the Moscow City Soviet. At present she is an electrician at an engineering works, but she plans to make engineering her vocation.



Olga Komova, deputy of a Moscow district Soviet, is a well known meteorologist. She represents members of the Antarctic expedition at Mirny. South Pole, who were former residents of Moscow.

Valentina Fishchenko works in the assembly division of the Moscow Engineering Works. She is only 21, but she has been elected deputy to the City Soviet. Besides working, she is taking evening classes and plans to enter the university. Victor Blazhenov is deputy to the USSR Supreme Soviet. He is a locomotive engineer by trade and worked out a higher speed rate system for heavy freight trains a few years ago. His book on the subject is required reading for railroad people.



The People's Choice

MEN AND WOMEN ELECTED TO OFFICIAL POSTS



Vera Krasovskaya is a teacher of literature and deputy to one of the Ukraine's district Soviets.





Nikolai Serbinovich, a tunneler in the Donets Coal Basin, is deputy to USSR Supreme Soviet.



Yakov Kazimirenko has been a fitter in a Kiev ▶ plant for 35 years. A member of the trade union committee, a good mechanic respected for his skill in the plant, and a friendly neighbor, he was elected deputy to the Kiev City Soviet.



Krasnoshchelye is a village in the heart of the Kola Peninsula, far beyond the Arctic Circle. During the long winter, it can be reached only by air or by sled. Ballots are delivered to the local reindeer breeders of the village by helicopter.



Election Day at Moscow State University on Lenin Hills. Many of the students are freshmen who have just turned 18 and are voting for the first time at this official university polling station.

SOVIET DEMOCRACY

What It Means and How It Works

In old Russia, in the provincial city of Taganrog, of the city's 65,000 inhabitants, only 700 were eligible to vote. All were merchants, industrialists and landowners. The rest of the population was disenfranchised and had no voice in government.

Taganrog's population today is 191,000. All citizens of Taganrog who have reached the age of 18 have the right to vote. In the most recent election for members to the city Soviet, 357 deputies were elected. They included 179 manual workers and 30 white collar workers and professionals.

These comparative figures may be repeated for any village, town or city, and they demonstrate, in dramatic but unmistakable fashion, the historic shift that took place in 1917 from rule by an aristocracy of wealth and birth to participation of all the people in democratic self-government.

The word Soviet means "council" and identifies the basic form around which the political structure of the Soviet Union has developed—government by people's councils.

The form developed out of the Revolution of 1905, when throughout the country the workers elected committees to direct the struggle for bread, land and freedom. They were called Soviets of Workers' Deputies. With the defeat of the Revolution, the Soviet deputies were killed, imprisoned or exiled.

During the Revolution of 1917 these councils sprang up anew, with deputies chosen from the peasantry, the soldiers and city

workers. With the victory of the Revolution, the Congress of Soviets was declared the governmental authority of Russia. This system of workers' councils evolved into the political and economic structure of the Soviet Union today.

The Soviet concept is premised on the proposition that democracy is not merely a form of government but a way of life, one which is based upon economic freedoms-a guaranteed right to a job, to security, to care in old age, to education, to equality of opportunity. These are obligations which the state assumes in relation to all its citizens. Even the severest critics of the Soviet system have been forced to acknowledge its enormous progress in these areas-full employment, an educational system second to none in the world, an elaborate social security system, equality of opportunity for women and for the many national groups which compose the Soviet Union.

The essence of the Soviet system, as in any system, can be felt best not in the higher reaches of governmental bodies, but in the small groups which gather in factory or collective farm to discuss production, needs and management, in village and town council meetings, in the country-wide meetings like those which were held to propose changes in the pension law last year or those held this year to formulate changes in the system of industrial management, in the articles written for factory newspapers, and in the courage of

its bodies and officials not only to recognize achievements but to publicly acknowledge errors and to follow a course of action to correct them.

Who Are the Legislators?

The Supreme Soviet is the highest governing body in the Soviet Union and legislates for the country. Elected for a term of four years in March 1954, the present Supreme Soviet consists of 1,347 deputies; 318 are industrial workers, 220 are farmers, 809 are scientists, artists, writers, engineers, agronomists, teachers, physicians, architects.

This composition is typical of all of the governing bodies, ranging from the Supreme Soviet to the village council. Deputies are chosen by constituents from among their own ranks on the basis of their contribution to the common effort and their personal abilities—a woman from a farm, a worker from a mill or factory, a scientist from a university.

The membership of each Soviet mirrors the population of the given area. In the Soviet of such a large industrial and cultural center as Moscow, for example, factory workers make up 41 per cent of the deputies and scientists and engineers another 20 per cent. Of the 853 deputies, 464 are serving their first term of office.

A large number of the deputies in each of the Soviets, whether on a local, regional or national level, are women. This is a common and distinctive characteristic of the Soviet democratic structure and one in which it leads the world.

In the Supreme Soviet, 348 of the deputies out of the total of 1,347 are women. In the recent local Soviet elections held in March of this year, 37 per cent of all the deputies elected were women. In the Ukraine and in Byelorussia one-third of the elected deputies were women; in the Russian Federative Re-

Continued on page 22



Fyodor Grabilin, employed at the Reutovo Cotton Spinning Mills, is congratulated on the day after the elections by fellow workers who elected him their deputy.



After the first session of newly elected Moscow City Soviet, one of the oldest deputies, Professor Konstantin Kornilov (left), stops to talk to Mayor Nikolai Bobrovnikov, head of the Executive Committee.



Grigori Yedokimov, a Leningrad hospital worker, and family going home after voting for deputies.

public, 36 per cent, and in the Moldavian Republic 42 per cent.

SOVIET DEMOCRACY Continued

All of the country's nationalities are represented in government legislative bodies. In local offices the overwhelming majority of deputies derive from the main nationality of the area they represent. In the Ukrainian Republic 84.6 per cent of all deputies are Ukrainians; in Uzbekistan, 71.1 per cent are Uzbeks; in Azerbaijan, 75 per cent are Azerbaijanians; in Lithuania, 81.1 per cent are Lithuanians.

Candidates and Elections

All persons who have reached the age of 18 have the right to vote and hold office, regardless of educational qualifications, sex, color, religion, social origin or property status. This includes persons serving in the armed forces.

Elections are conducted so as to ensure the fullest possible exercise of electoral rights. Lists of voters are drawn up by village, town, and city Soviets and are open for inspection by any citizen. The list must include all electors living, either permanently or temporarily, in the city, town or village who will have reached the age of 18 before election day.

There is no room for any sort of "gerry-mandering" or manipulation of election districts. Electoral districts are formed strictly in accordance with the size of the population from which the deputy to each Soviet is elected.

Voting is secret, each elector personally casting his ballot in a voting booth. Election

committees see to it that the elections are conducted strictly in accordance with the law. They count the votes, publish election results and certify the deputies elected. These committees are composed of representatives chosen by civic bodies and by general meetings of factory and office workers and collective farmers at their place of occupation. The election committees decide all questions of voting procedure.

By constitutional provision, deputies are subject to recall at any time by a majority of their electors. Although not commonly exercised, the right to recall is not merely a formal provision of the constitution. The people in a village in Poltava Region in the Ukrainian Republic recalled their deputy N. Gerasimenko when they found him incompetent and his work unsatisfactory. Similarly for the electors of Dundaga, in Latvia, who recalled their deputy from the Republic's Supreme Soviet because he had not carried out their mandate.

How Candidates Are Nominated

From local to Supreme Soviets the people vote directly for their representatives without intervening electors. The same holds true for nominations. Any individual or public association—a union, a cooperative, a youth group, a cultural or educational society, a meeting of factory workers, a farm group, army or navy personnel—any and all of these may and do nominate candidates for office and actively campaign at meetings and through

Tatyana Repina, street car conductor, is congratulated on her election to the Moscow Soviet. Of the 853 deputies in Moscow Soviet, 377 are women.



the press for the nominee of their choice.

Much of the campaigning, which in some countries is done after candidates are chosen to run on a party ticket, in the Soviet Union is done before candidates are nominated.

The candidacy—and election—of Tatyana Savelieva will illustrate the procedure.

Tatyana is an employee of a Moscow precision tool factory. Her fellow workers in the micrometer shop of the plant put her name forward as deputy for the District Soviet.

The nominating meeting was held in the factory's club on a Sunday evening. The hall was crowded with workers from other shops. In her nominating speech, fitter Anna Chernyavskaya explained that the workers from the micrometer shop were nominating Tatyana because she took an active and helpful interest in shop affairs and she "always paid attention to other people's ideas."

Other people spoke, wanting commitments from Tatyana on things they thought ought to be done, some of them sharply critical of the past work of the District Soviet, others very specific—they wanted better service facilities in one area, a children's club in another.

Tatyana is not a practiced speaker by any means, but she won the approval of the meeting by her quiet statement of the things she thought the District Soviet should have done and ought to do.

Here is a report of another nominating meeting which ended somewhat differently. The person originally nominated was Shervanyan, director of one of Stalingrad's large factories. The meeting to approve the nominees was held in one of the factory shops and was attended by 453 workers. But only 12 of the people present voted for Shervanyan. Thereupon a wire worker at the meeting nominated Fyodor Yevteyev, a foreman in his shop. Yevteyev is a popular figure in the plant and his nomination was carried by a large vote. There was no hesitancy on the part of the voters in explaining why they rejected Shervanyan. In one or another phrase they said, "He is too concerned with himself."

In much this way the many thousands of candidates elected to office in the Soviet Union are nominated by meetings of workers at factories or farms, in schools and offices, usually by people who have worked with the candidate and know his virtues and his shortcomings.

All costs of election campaigning are carried by the state. Meeting halls, literature, press, radio are placed at the equal disposal, without charge, of all candidates for public office.

When a meeting nominates a candidate, the name goes to the electoral commission of the district for registration. The election commission represents all the local organizations—the trade unions in the district, the Communist Party, local industries, the schools. Its composition will naturally vary widely with the character of the district.

In Tatyana's district the commission consists of five people from her factory, which employs most of the workers in the area.

Raisa Repina, a technologist from the toolmaking division of the plant, chairs the commission. She is a Communist Party member. Assistant chairman is Nikolai Volkov, a fitter. He is not a party member and neither is Maria



The campaigning is over and the one thing left is to put ballots into sealed boxes. Voting is secret. Observance of the law during the elections and decisions on all questions of voting procedure belong to election committees which are chosen by the population in each electoral district.

Smirnova, the secretary, who works as a checker in the tool department of the plant. The other two members are Peter Kuts, a foreman in the smith shop, who is a member of the party, and Maria Evsyukova, representative of the factory branch of the Machine Building Workers Union, who is not.

After a careful examination of the minutes of the meeting which had originally nominated Tatyana, her name was duly entered as candidate for election.

In the meantime campaigners on her behalf were hard at work ringing doorbells and urging citizens to vote for her—as they did almost unanimously on election day. She serves on the local council for two years.

The Communist Party

What part does the Communist Party play in elections and in legislative bodies?

The Communist Party in the Soviet Union has no monopoly of the right to nominate. It shares that right with all other public organizations. Nor, although there are no other parties in the Soviet Union, does it monopolize the Supreme Soviet, the highest legislative body, and in the local Soviets its members are in a minority.

In the regional, district, city and village elections held in March, which were characterized by the usual intensive campaigning and political rallies by all public organizations including the Communist Party, practically every citizen turned out to cast his vote.

In the Russian Federative Republic, of the 844,337 elected to local office, 54 per cent were non-party people. In Byelorussia 69,777 people were elected; 56 per cent were not Communist Party members. In Uzbekistan, 54.7 per cent of the deputies elected were Communists, the remainder were non-party people. In the Tajik Republic 43.9 were non-

party. In the Turkmen Republic, of the 11,300 deputies elected, 52.2 per cent were non-party people. In the Lithuanian Republic, only 32 per cent were party people and 68 per cent were not. And in the Moldavian Republic 60 per cent of the deputies elected were non-party.

This general pattern obtains in elections in the Soviet Union. In 1955, of the 1,536,310 deputies elected to office in the local Soviets, 816,699, or more than half, were non-party.

That election of Communist Party members in secret balloting is as high as it is indicates the respect in which membership in the party is held. Its members have demonstrated both in the trials of two wars and in building the country, the self-sacrifice and devotion to the interests of the people which the Communist Party demands of its members.

The Communist Party of the Soviet Union conceives of its function as one of continuously transferring leadership to all the people. That is the reason for the steadily rising proportion of non-party representatives in the Soviets and the great proportion of non-party people in leadership in industry, in the arts and sciences, and in education. One can explain the building of the Soviet Union into one of the two most highly industrialized countries in the world in the short space of forty years only in terms of a whole people dedicated to the building of a socialist society.

For the Communist Party an election is a demonstration of unity of the voters on issues and program, rather than on the particular candidate. The party will work at meetings to nominate candidates who seem best able to represent the will of the electors.

The Soviet system is an evolving process. Its purpose and goal—to develop the fullest capacities of its individual citizens so they may share completely both the democratic values and the democratic obligations of a socialist society.

Stalingran 194







THIS STAIRWAY ON THE VOLGA RIVER EMBANKMENT IS BUILT ON RUINS LEFT BY THE NAZI INVADERS. MORE THAN 1,300 OF THE CITY'S BUILDINGS WERE DESTROYED.

By Alexander Dynkin, Chairman of the Stalingrad City Council

Stalingrad is more than a city. The new houses, schools and theaters that have been rebuilt on this battleground of the Second World War stand as testimony in steel and cement to a great holding action for freedom.

cement to a great holding action for freedom.

It was on August 23, 1942, that the Nazis launched their massive attack against the city with thousands of dive-bombers that dropped death and destruction day after day and week after week for an unending six months. German tank units broke through to the outskirts of the city and every street and every building became a fortress—a savagely-bitter, unyielding defense of every inch of ground. Four times the Nazi command revised its, time schedule for the capture of the city, each time bringing up fresh units to reinforce this front that had become so crucial.

And within the city, the same battle-weary forces, fatigued Red Army units, old men and women, children, anybody and everybody who could hold a rifle, dig a trench, pass ammunition, held on . . . unbelievably.

Then the battle turned. Soviet troops took the offensive and the Nazi forces, 330,000 strong, hitherto invincible, were surrounded and routed. It was the turning point of the war, the beginning of Nazi Germany's defeat.

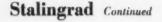
The people of Stalingrad held out, but it was at heavy cost. There were men who returned to Stalingrad after they had been demobilized—they had fought on other fronts—and found not a single street they could recognize although they had lived in the city all their lives. There were no streets, only Continued on page 26



Because Stalingraders know what war means perhaps better than anybody, it is understandable that when the struggle was over they named the rebuilt thoroughfare shown above Peace Street.



This is the bitter homecoming in 1943. About a half-million Stalingraders were left roofless.





STALINGRAD'S SPIRIT IS REFLECTED IN THE FACT THAT THERE IS MORE HOUSING NOW THAN BEFORE WAR.

SCHOOL TEACHER VALENTINA BUROVA WITH HER PUPILS. SHE PARTICIPATED IN THE DEFENSE OF STALINGRAD.

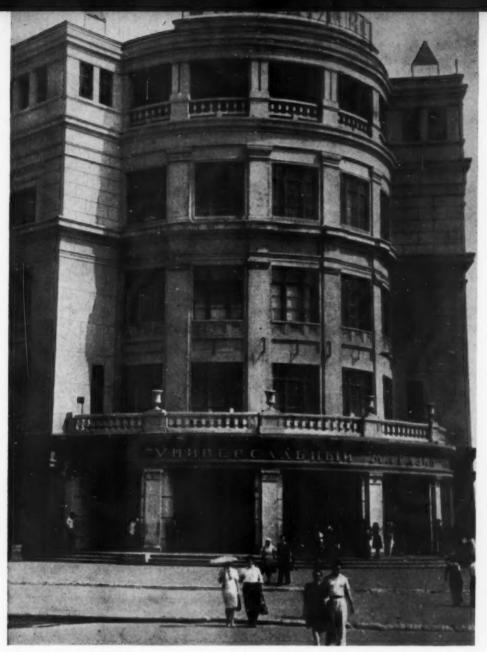


piles of shattered concrete and broken brick, with here and there a bullet-pocked chimney still standing as though to mark the desolation.

People lived in cellars and in caves dug in the ruins. Long after the fighting ended there was a haze of dust that rose from the ground, as though the city were still smoldering.

It seemed then as though it would be hopeless to try to rebuild. There were those who thought the ruins should be left as they were and that a new Stalingrad should be built alongside. Twenty million square feet of housing had been leveled, more than 100 industrial plants, 124 schools, 134 nurseries, 89 hospital buildings, 4 theaters—property to the value of two and a half billion dollars.

But there are things beside buildings and streets that go into a city, there is heart and spirit. With the same courage and vigor that the Stalingraders had defended their city, they began to rebuild it. While the war was still being fought on other fronts, building materials and equipment for hospitals, schools and homes for orphaned children came to



REHABILITATED DEPARTMENT STORE IN SQUARE OF FALLEN HEROES. NAZI HEADQUARTERS HAD BEEN HERE.

Stalingrad from cities elsewhere in the Soviet Union. They were tributes to the people who had turned the tide of war.

Stalingrad, fourteen years afterward, is hardly recognizable. Its wide streets are lined with new buildings, its squares and its embankments on the Volga beautified with trees and flower beds. Today's Stalingrad goes beyond the bounds of the prewar city, expanding to the Volga-Don Canal on the south and approaching the hydro-technical development on the north.

Its main thoroughfare is now thirty-seven miles long. Its housing area is larger than before the war by ten million square feet. The city has five colleges, 114 schools, 100 hospitals and polyclinics, 92 libraries, 56 recreation centers, 22 moving picture houses and three theaters.

Besides rebuilding the old factories, Stalingrad has built new ones. Its 140 plants have an output which tops the prewar level by 170 per cent. Its steel mills turn out high-grade steel, its machine building plants make excavators, tractors, drilling machinery and oil

pumps, and its shipyards self-propelled barges and diesel ships.

Five years ago the Volga-Don Shipping Canal was completed. More than sixty miles long, it gives Stalingrad a waterway to the Black Sea via the Don River and will contribute vastly to its industrial and commercial importance. The hydroelectric station with a capacity of 2,310,000 kilowatts now being built in the northern outskirts will further stimulate industrial growth.

Wherever one looks in Stalingrad, one sees scaffolding and men at work. Building is one of the city's major industries at present. The second section of a large prefabricated reinforced concrete plant is now going up, as are others to produce wall panels, hollow tile and silicate blocks. More than 40,000 building workers are busy with construction of the two and a half million square feet of housing and the forty-seven public buildings scheduled to go up this year.

The new Stalingrad has a long-range city building plan worked out in careful detail by Continued on page 29

HAPPY GIRLS, CITIZENS OF THE LEGENDARY CITY.





View inside rehabilitated Red October Metal Works, ruins of which are shown in the photo above, right.

Stalingraders prize this expression of warm feelings from the American people, received in recognition of their fight against the common foe.



Here are some of the men who stood up to the worst the Nazis could deliver, amid the tremendous and devastating wreckage of Stalingrad. They are the defenders who stopped Hitler's war machine.



In the name of the people of the United States of America, I present this scroll to the City of Stalingrad

to commemorate our admiration for its gallant defenders whose courage fortitude, and devotion during the siege of September 13, 1942 to January 31, 1943 will inspire forever the hearts of all free people. Their glorious victory stemmed the tide of invasion and marked the turning point in the war of the Allied Nations against the forces of aggression.

Hoy 7 197

Fried Syponwell

Mashington D.

HEROIC STALINGRAD ATTRACTS TOURISTS FROM EVERYWHERE. HERE IS A DELEGATION OF AMERICAN VISITORS AT WAR MEMORIAL ON SCENE OF FIGHTING NEAR THE VOLGA.







Stalingrad Continued from page 27

the Soviet Union's leading city planners and architects, one which embodies many interesting features developed by the best city planning abroad. The plan provides for the development of a number of district units along the Volga, each with its own parks and playgrounds, its own schools, nurseries, hospitals, theaters and shopping centers. The districts will be connected by three highways and by rail and ferry.

Some of the larger streets have already been laid out. Ulitsa Mira, Peace Street, runs parallel to the river and ends at the city's Planetarium. Lenin Avenue connects the two central squares, Fallen Hero Square and Defense Square, which are to be the sites for memorial

The plan, to obtain over-all harmony, restricts building heights. Buildings in the center of the city are to be no taller than seven stories, those on main streets four or five and those on the city outskirts two or three. Land has also been set aside for groups of single story houses with garden plots. The plan projects an eventual minimum of 180 square feet of planted area to every inhabitant, and each spring Stalingraders in considerable numbers may be seen planting trees, shrubs and perennials along their streets and in front of their houses.

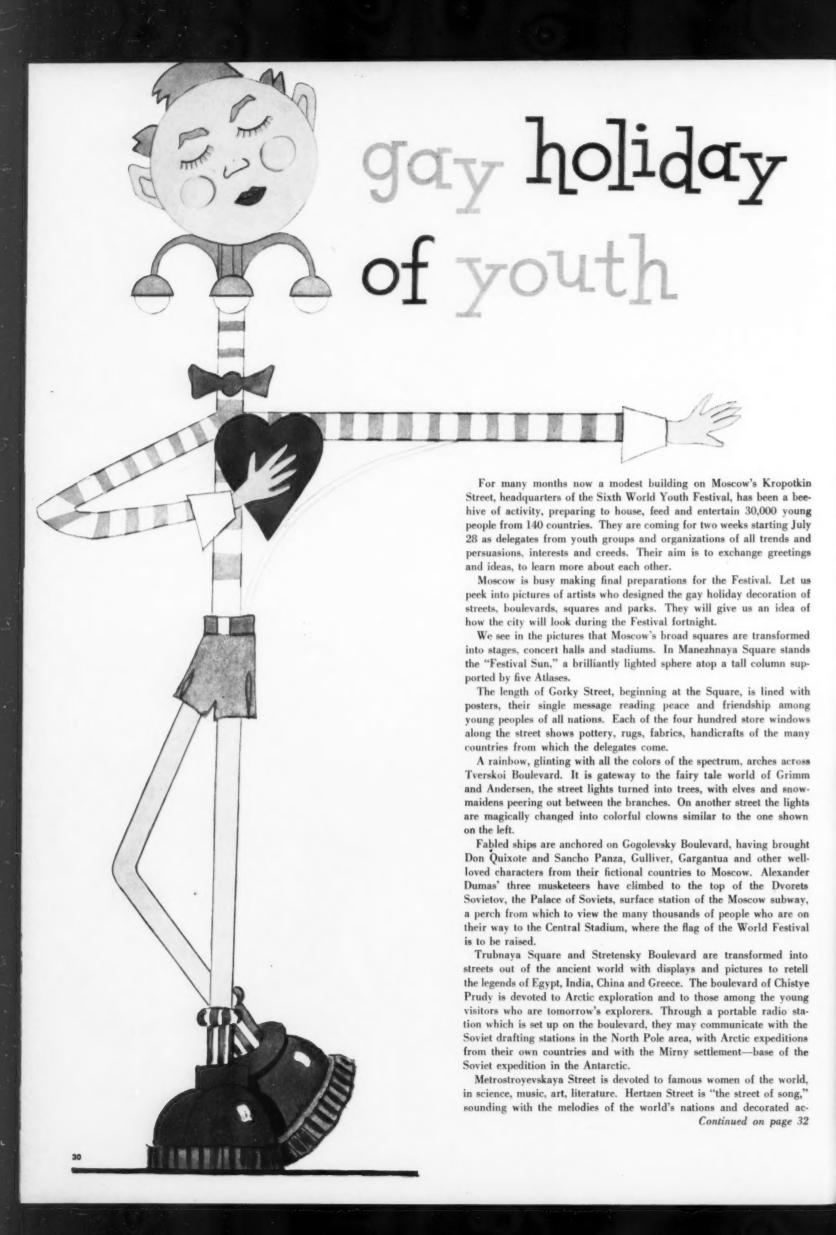
Stalingrad's people are as vigorous and active in the pursuit of peace and friendship between nations as they were in the defense of freedom during the war. The city has close ties with the old English town of Coventry, which also had more than its share of the war's havoc. This ancient town, like Stalingrad, was the victim of wantonly destructive bombing which leveled thousands of homes and irreplaceable historic buildings. Stalingrad and Coventry have exchanged visiting delegations and have twice appealed to the United Nations for a ban on atomic and hydrogen weapons.

Stalingrad has also established friendly relations with Kemi, a town in Finland, Ostrava in Czechoslovakia, Warsaw and Poznan in Poland and with Beppu and Hiroshima in Japan, and is developing relations with Liege in Belgium and St. Etienne in France.

Both because of its valiant wartime defense and its no less courageous reconstruction, most foreign delegations and tourists who come to the Soviet Union make it a point to visit Stalingrad. There were 300 delegations and tourist groups that visited the city last year. Included were four large groups of American tourists, beside 100 or so individual travelers

There can hardly be any question of the value of such visits in which Americans and Russians meet face to face in fostering underto the common peace.

standing. Nor is there any question of the warmth with which Stalingraders welcome American visitors, nor of the city's wish to see that friendship and unity, which played so great a part in the common war, extend also

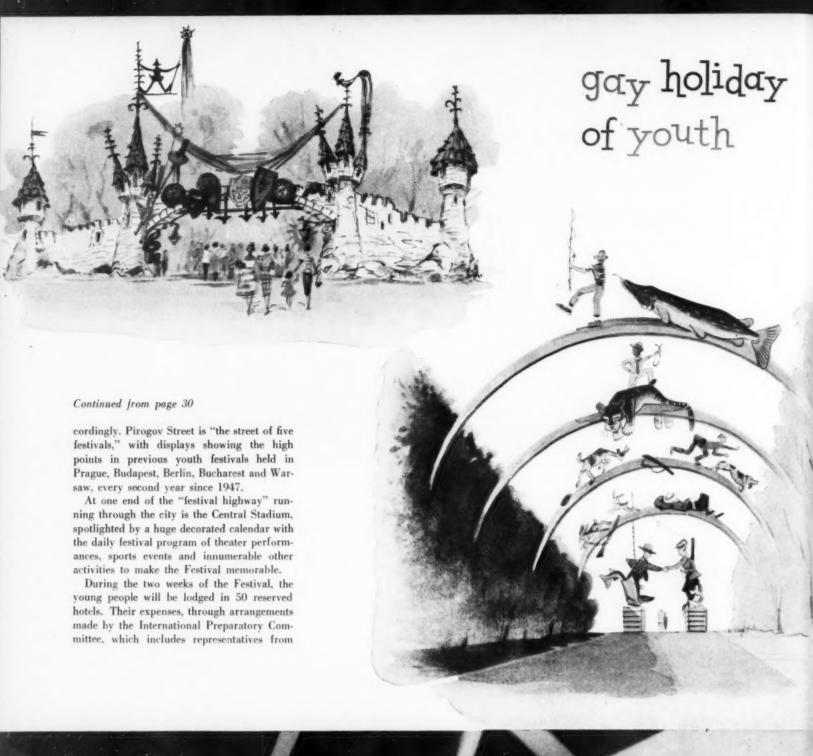


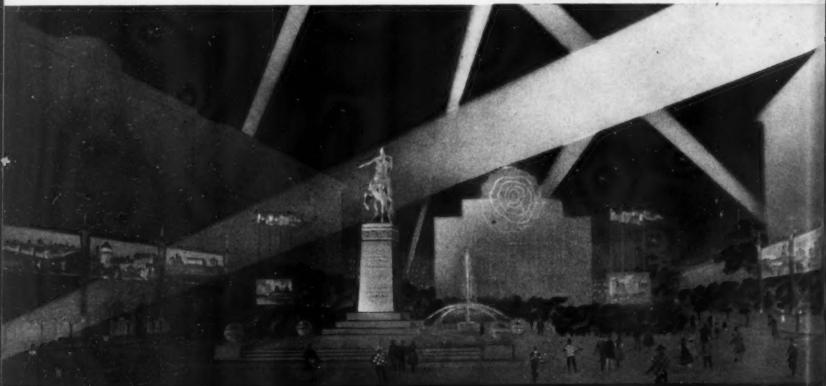


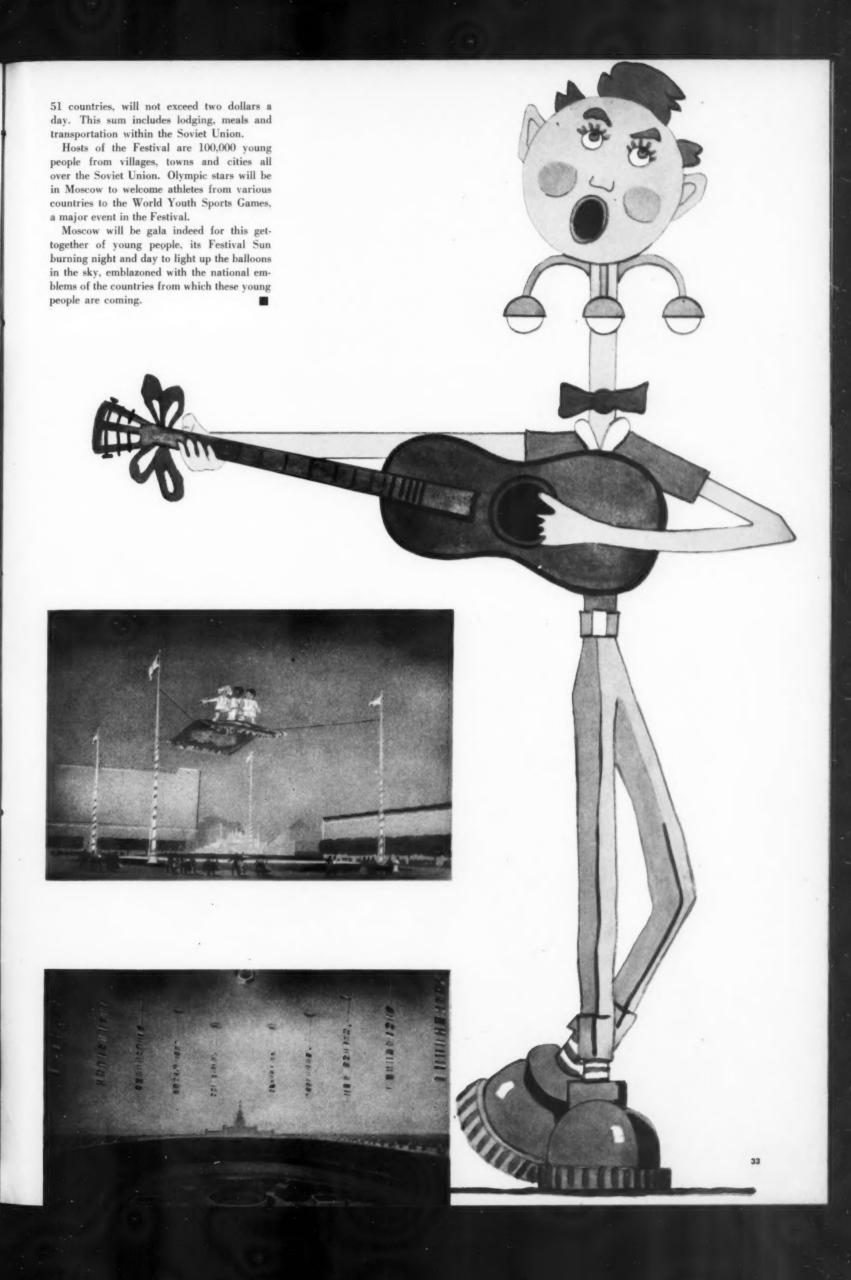


VI FESTIVAL RENCONTRE DES CULTURES I VI FESTIVAL - KULTURFORUM DER VÖLKER I

VI FESTIVAL-INTERNATIONAL CULTURAL GET-TOGETHER













A Collective Farm Managed by a Research Scientist

By Juozas Chlivickas

No one will argue the truism that scientific research and its application to day-to-day living practice are mutually dependent. But not every scientist will order his work accordingly.

Academician Jonas Krisciunas is an eminent Lithuanian research scientist. He is author of some sixty books on various phases of agriculture. His most recent is a book on plant growing and he has one in work on accumulation and use of fertilizer.

Krisciunas is professor at the Lithuanian Agricultural Academy and he has been accustomed to moving his students each summer from laboratory and lecture hall to the Michurin Collective Farm for practical training. The professor, in his frequent visits to the farm for conferences with his students. was asked for advice by the farm management. His suggestions were both productive and profitable. There was a good deal of talk in the farm community, all of it wishful thinking, about how helpful it would be to have the professor's voice in the farm management. But everyone was certain that it was most unlikely that he could be persuaded away from his microscope to active participation in the collective farm's work.

When the talk reached the professor's ears, he surprised everyone by gladly offering to contribute his background of experience. The farmers promptly and unanimously elected him chairman of the farm board to give him no opportunity to reconsider.

Asked afterward why, with his research, writing and teaching, he had assumed the additional burden of managing a collective farm, Krisciunas replied that there was a give-and-take between scientific research and practical work which stimulated thinking in both areas. They had reciprocal values. Besides, he indicated, he liked the practical side of farming and he wanted to see the collective farm really developing its possibilities.

A rather poorly organized and not too efficiently operated enterprise two years ago, under the professor's management the Michurin Collective Farm has amply demonstrated the value of the research-practice approach. An improved system of fertilizing and of cultivation was worked out under the scientist-manager's guidance, extensive work was undertaken to drain the marshes to improve pasture and meadowland and the livestock buildings were remodeled. Within the year the incomes of the collective farm members more than doubled.

The Academician would have found it im-Continued on page 37



FARM MANAGER JONAS KRISCIUNAS, RESEARCH SCIENTIST, HAS WRITTEN SOME SIXTY BOOKS ON AGRICULTURE.



HOLIDAY SCENE ON THE FARM. DANCERS WEAR THE LITHUANIAN NATIONAL COSTUME.



SOME COLD FRAMES AND HOTHOUSES AT THE MICHURIN COLLECTIVE FARM.

"THIS IS THE KIND OF SEED CORN WE WANT TO TRY THIS YEAR," SAYS ACADEMICIAN KRISCIUNAS TO COLLECTIVE FARM AGRONOMIST STASYS LIUKOMAS AND TWO FARM GIRLS.



A Collective Farm Managed by a Research Scientist

Continued from page 35

possible to manage the big collective farm without serious interference with his very demanding program of research and teaching if not for the assistant chairman of the farm agronomist Stasys Liukomas, the brigade leaders, and the farm members, all of whom are aware of the close interrelation between the professor's research work and the welfare of the collective.

"My work on the farm," says Krisciunas, "has a very direct bearing on my research. It helps me to see more clearly into problems I am working on, fertilization and the development of bumper corn crops. I can test my theories both in the laboratory and in the field. It helps my teaching also, I am able to draw on direct illustrations from farm practice, so that my lectures are livelier and more informative."

While it is unusual to find an academician turned farm chairman, a farm chairman who is on the road to becoming a scientist is no longer a rarity. As a matter of fact, many farmers have degrees in the agricultural sciences. The use of machines, complicated crop rotation systems, seed selection and dozens of other tasks in agriculture require high technical skill and knowledge. And the farmers are fast learning that the time they spend in acquiring this knowledge pays off in at least two ways-it takes the guesswork out of farming and it makes it possible to produce more with less effort. On the other hand, large-scale farming, land reclamation projects and a chance for experimentation give the test-tube scientist a chance to use his knowledge and to put his theories into practice.

Asked whether work at the farm interfered with his research, Academician Krisciunas said, "On the contrary." He cited Michurin, after whom the farm was named, to prove his point that the closer a scientist is to living practice, the better his creative work. "Luther Burbank's work," he added, "is another case in point. He stayed close to the soil all his life, and science gained immeasurably by that contact. And when science makes advances in research along peacefully productive lines, it means that people everywhere profit."



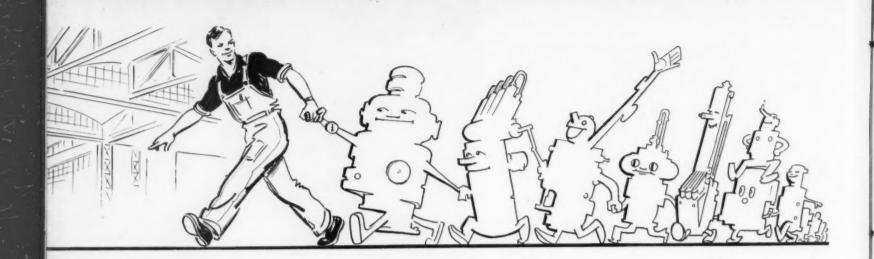
LUNCHEON BREAK FOR AGRICULTURAL ACADEMY STUDENTS IN PRACTICE TRAINING.



THE COLLECTIVE FARM GETS A NEW COMBINE HARVESTER, WHICH WILL SIMPLIFY FIELD WORK CONSIDERABLY.







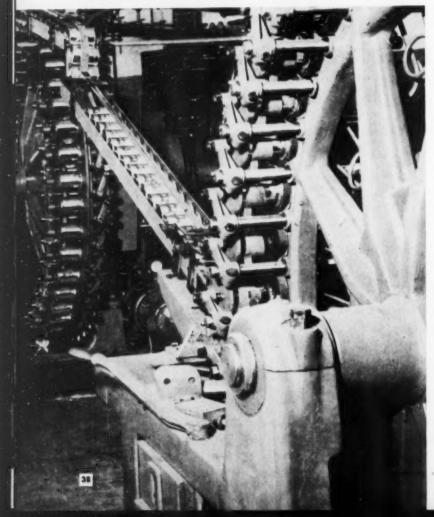
MEN AND MACHINES

Automation In the Soviet Union

By Grigori Shaumyan

Doctor of Technical Sciences

AUTOMATIC MACHINES TURN OUT CANS AT A MEAT-PACKING PLANT IN ALTAI AREA



The conflict between men and machines is an old and bitter one. The changeover from manual labor to complex machine production over the one hundred and fifty years since the beginning of the Industrial Revolution brought with it unemployment and widespread misery—an inevitable accompaniment, it was long considered, of mechanization.

Automation today is the machine multiplied—in function, productivity, potential. But the old question, aggravated and more pressing now—the displacement of men by machines—has new answers.

Is unemployment a necessary and indivisible part of the process of automation? Lower wages? Overproduction? Decreased purchasing power?

The planned economy of the Soviet Union says no—flatly and without qualification. Automation can produce an economy of plenty. It can free men from labors which are wearing, hazardous and unrewarding. It can increase wages while at the same time reducing hours of work. It can give the worker both the means and the leisure to develop his creative capacities.

More Machines, More Employment

Unemployment is a factor which has been permanently canceled out of the Soviet economy. Pull of ownership of the means of production and national economic planning have made unemployment impossible, either now or in the future.

During these last forty years, with an enormously accelerating industrialization and automation interrupted only by war, there has been a steady and marked increase year by year in production, wages, purchasing power and number of people employed.

In 1956, with increasing automation of industrial processes, the total number of workers, engineers and others directly engaged in manufacturing rose by 1,100,000. More than 650,000 trained young people were graduated from industrial training schools to take jobs in industry; 760,000 specialists completed training at technical colleges and specialized secondary schools, 126,000 more than in 1955.

During this same year, 7½ million people qualified for new and better jobs by study and advanced training. Among these millions were many whose old jobs had been eliminated by automatic machines—manual operators, stokers, workers in assembly, inspectors.

With it all, there are still more jobs than people to fill them and an urgent need for skilled and semi-skilled workers on all levels, only partially met by courses of training offered by every establishment of any size and by specialized schools in every major town and city.



SOME 1,500 AUTOMATED AND CONVEYORIZED LINES FOR VARIOUS PROCESSES WERE INTRODUCED IN SOVIET INDUSTRY IN 1956. THIS ONE IS IN A BALL-BEARING PLANT.

New and Better Paid Skills

Delegations of American engineers and industrialists who have visited the Soviet Union have commented—with some surprise—on the fact that Soviet workers seem to welcome automation of the plants in which they are employed. There seems to be no fear that automation will result in unemployment.

What actually happens with Soviet workers whose jobs are eliminated? More important, what happens to a man whose particular skill becomes useless, displaced by a machine?

Without exception, every worker displaced by automation can remain at the plant if he wishes to, at a wage at least equal to his old one, and be shifted to another area of work. If he wishes to leave and take a job at his old skill elsewhere, he can do so, with two weeks' severance pay and his length of service benefits, such as sick pay and pension, carried over to the new plant.

If he wishes to remain, the plant will retrain him for a new skill, at plant expense and with full average pay for the period of training. Training completed, he will take a qualifying examination and move into his new job at the wage scheduled for it. It is obvious that no worker is likely to retrain for a job that will pay less than his old one, so that his new wage will be at least the equivalent of the old one, and in the great majority of cases it will be higher.

For some illustrative cases:

A Ball-Bearing Plant

The Sverdlovsk Bearing Works produces roller and ball bearings—besides roller skates and construction sets for children. The factory is in the process of automating a number of its shops.

This is a machine for polishing bearing rings. It was run by three operators, one to feed, one to operate and one to remove the finished ring. The three workers were Raisa Olekhova, feeder, who averaged 650 rubles a month; Valentina Borisova, who removed the finished ring, 450-500 rubles; and the operator Nikolai Repin, 700 rubles.

The machine was adapted as part of an automatic line, and only one worker, the operator, was needed to do the work previously done by the three. Repin remained on the machine, and is now earning 900 rubles. Raisa Olekhova was retrained to work on another machine that polished the inner part of the ring; she earns 700-750 rubles. Valentina Borisova, whose work was unskilled, was given a similar unskilled job elsewhere in the factory at her old wage.

A Shoe Factory

The Skorokhod Shoe Factory in Leningrad, like most others in the country, is being automated, in this case only partially, as part of its five-year development plan.

In one of the shops where men's dress shoes are made, semi-automatic machines were installed for some of the operations required in cutting uppers. The machine was more than twice as productive as the old hand work and required fewer operators.

Before the machines were installed, the shop superintendent asked two of the women operators, Galina Ilyina and Galina Agafonova, whether they wished to work on the new machines. By Soviet law, a worker can refuse to accept a job other than the one he was hired to do. They wished to stay and were trained for a two-week period at a nearby shoe factory where similar semi-automatics were in use. During the period, they were paid their former average earnings. When they returned to the factory, they trained the other operators. Increased output was followed by increase in earnings.

A Suburban Railway

The steam locomotives at the Likhobory depot of the Moscow suburban railways are being replaced by diesel engines. What happens with the large staff of locomotive engineers, firemen, wipers, maintenance and repairmen, many of them veteran railroaders with long years of experience but little formal education?

Continued on page 40



AUTOMATIC MACHINING OF WATCH CASES. BY 1960 SOVIET INDUSTRY WILL INCREASE PRODUCTION OF AUTOMATIC AND SEMI-AUTOMATIC EQUIPMENT BY 500 PER CENT.

MEN AND MACHINES Continued

Everybody at the depot goes back to school at full wages. Those without education take preparatory courses. Those with a background of education are immediately assigned to full-time courses, nine months for locomotive engineers and five months for assistants. Maintenance and repair men are sent to the diesel repair shops for three months of retraining.

When the changeover is complete and the training periods over, it will mean that the same staff, with additions, will be running the depot, except for those who would normally be retiring on pension. The work will be easier and the pay higher.

Idea Men and Inventors

A considerable number of the automatic machines now at work in Soviet factories are the result of ideas submitted by rank-and-file workers. The range is exceptionally wide, from minor modifications which speed and ease work to complex designs for new machines, products of long and taxing research.

The interest in automation, and thereby in the productivity of their plant, which, in turn, has a direct bearing on wages and benefits, is manifest in these innovations, improvements and inventions developed by Soviet workers.

At the Rustavi Iron and Steel Works in Georgia, for example, one worker in each ten has been credited with a suggestion or innovation which was introduced into the production process.

These creative ideas, modifications, and designs are awarded cash grants ranging from 2 to 30 per cent of the sum which the factory estimates it will save within the year by incorporating the new idea. Suggestions which affect working conditions but which have no immediate financial value to the plant are awarded a cash grant which varies with the value of the suggestion.

Much of the automation at the Magnitogorsk Iron and Steel Works in the Urals—iron smelted in furnaces equipped for automatic regulation of blast temperature, automatic control of heating in the smelting of steel, operations in rolling steel ingots—were worked out by a group of electricians, foremen and steelworkers led by Maior Torchinsky. This same group is now trying to work out automation of the entire process of making steel, beginning with the charging of open-hearth furnaces.

In Asbest, in the Urals, automation of a building materials plant was developed by Yuri Terentyev, a local electrician.

An automatic stamping machine designed by Voldemar Bush, a fitter at VEF, the Riga electrical engineering plant, increased output fifteen times over.

Toward Complete Automation

Technical progress today rests on automation, with its resultant high productivity, lower production cost and improved quality. In the Soviet Union, this translates, not into competitive overproduction, but into more consumer goods produced with less man-hours of more productive labor. And this adds up to more national wealth distributed in higher wages and more purchasing power with retail prices being continuously reduced. Soviet industry, therefore, is directed toward complete automation of industrial processes and to construction of fully automatic plants.

This holds true for auxiliary processes also, for transportation, inspection, packing, which must also be rationalized if bottlenecks are not to occur.

Development has gone on apace. During the year 1956 alone, Soviet engineering works built some 1,500 automated and conveyorized lines for different production processes. A new industry, which produces means of automation, has begun to develop, and there has been amassed a body of experience in automating whole enterprises and complete technological processes.

In order that automation may develop systematically and have the necessary instruments and equipment available, a long-term perspective plan has been worked out for automating the country's industry.

By 1960, the goal of the current five-year plan requires the machinebuilding industry to boost production of automatic and semi-automatic lines and equipment by 500 per cent, output of control instruments by 400 per cent, and of computers by 450 per cent.

Automation is rapid but uneven in different industries. Development has proceeded most swiftly in power, iron and steel, chemicals, oil refining and food production.

In electrical and radio engineering, machine building, transport and the light industries it has been slower.

In power a high degree of automation exists. Many of the hydroelectric stations are completely automatic, operating without any permanent duty personnel at all.

At a number of steel works continuous casting of steel is completely automated.

In chemicals, automation has been applied to such conversion processes as wood pulp into silk fiber and petroleum gas into alcohol. It is developed, in greater or lesser degree, in mining, production of building materials, manufacture of footwear, communications, steamships, dredging and related work. Computing centers are functioning in Yerevan, Tashkent, Alma-Ata and other cities.

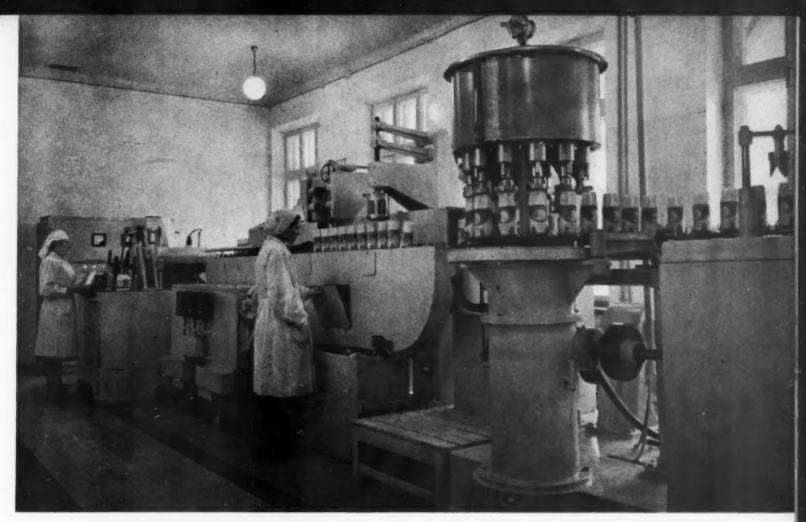
All of the many theoretical and practical problems involved in automation are handled by special industrial research institutes under the over-all direction of the Institute of Automation and Telemechanics of the Academy of Sciences.

Machine Building

In machine-building, priority is given to those operations which are most laborious and hazardous—founding, pressing and forging, heating—and to those industries with a comparatively stable technology and machinery, like watch production and ball bearings.

The rapid speed with which automation development moves is well illustrated by the First Moscow Ball-Bearing Plant.

In one shop we may see semi-automatic machines which process the steel rings for rolling friction bearings. All the operator is required to do is to remove the ready ring and replace it with a blank.



AN AUTOMATIC MACHINE INSTALLATION MANUFACTURED BY THE KRASNAYA VAGRANKA PLANT IN LENINGRAD TURNS OUT 3,000 WAX CARTON MILK CONTAINERS EVERY HOUR.

Another shop has a bank of machines of the same design. But this shop has no operators and no stacks of either blanks or ready parts. The rings of different types run automatically along winding overroads. Each one of them searches out its proper machine tool. There it is placed into position by a mechanical hand which has just cast a ready part onto a discharge conveyor.

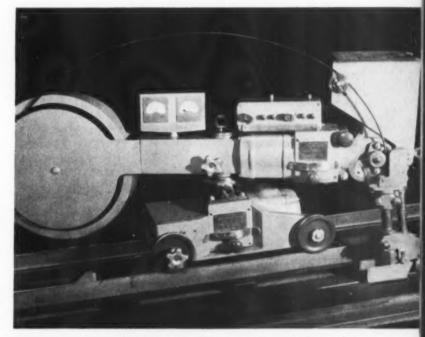
This automatic line was devised by plant workers by modernizing the semi-automatic machines in the first shop. It is serviced by adjusters only.

Four years ago this was considered the height of automation at the plant. Today, however, the shop is outmoded and a completely new type of automatic shop is in operation at the plant equipped with machine units of unique design. In this shop the same rings are not only turned automatically, but are marked, hardened, washed, planished, quality checked and conveyed to the assembly end of the line where other automatic units assemble the ball bearings, grease, wrap and package them, and stamp the boxes.

The Future

But even the most modernized automatic lines today represent only a stage in the rapid development of automation. The next stage, already in study, is the design for automatic systems, lines and control instruments that can with relatively minor modification be used for different processes in many industries—a type of universal automation designed like a child's Meccano Set—a limited number of parts which can be used interchangeably to build widely different structures.

Automation is an inseparable part of modern industrial and technological development. The use of jet techniques, of extreme high and low pressures, of superhigh temperatures and velocities—all these require automation—man to create and supervise, the machine to labor. But even more important, it is the way to providing the population with an abundance of consumer goods at low prices. Automation in the Soviet Union—without unemployment—is geared to raise the standard of living of its people to a level that no country, no matter how highly industrialized, has yet achieved.



THIS UNUSUAL AUTOMATIC WELDING MACHINE IS GUIDED BY MECHANICAL BRAIN.

NEW PASSENGER PLANES

By Anatoli Markusha

Twenty years ago a new glider made its initial flight at the flying club's airfield. The glider won everybody's admiration. It was a pleasure to watch as it easily performed the most difficult stunts, and it was simple to operate. It was the product of Oleg Antonov, a young aircraft designer.

Later, after the war, I saw a plane designed by him. Its stubby and snub-nosed fuselage, biplane wings braced with steel strips, and non-retractile chassis made it look a bit strange. At the time, on the threshold of the jet-plane epoch, it made you think you were having a glimpse of yesterday. However, the very first flights of the AN-2—that is what the plane is called—showed that it possessed amazing flying qualities. With a ton of freight aboard, the machine easily took off from a tiny field and could land just as lightly on a highway or any clear space. In a short time the machine became very popular in agriculture. It is excellent for top-dressing crops, combating agricultural pests and spraying weed-killing chemicals. Geologists, meteorologists and Arctic explorers have also put it to good use.

Wherever you meet Antonov, whether at the aircraft plant, designing office, at home or in a flight, you always feel that here is a man constantly searching for new ideas, a great engineer and a man of allround culture. Apart from designing, he devotes much time to the economics of the civil airfleet.



OLEG ANTONOV, A DESIGNER OF TURBO-PROP AIRLINERS.

ANTONOV'S UKRAINA CARRIES 70 TO 80 PASSENGERS. THE FOUR-ENGINE AIRLINER CRUISES AT 370 MILES AN HOUR, IS CHEAPER TO OPERATE AND EASIER TO SERVICE





THE FLYING WHALE IS AIR-BORNE. IT CAN TRANSPORT A CITY BUS, SEVERAL BULLDOZERS, OR EVEN SMALL HOUSES. IT CAN TAKE OFF OR LAND ON SMALL FIELDS.

"I am convinced," he once said to me, "that an immense potential is latent here. Soon the Civil Airfleet will have a hundred or so turbo-jet airliners and they will yield millions of rubles of income annually." The conversation took place when Antonov's new airliner, later called *Ukraina*, had already been traced on sheets of drawing paper. Today the designing office headed by him is working on several transport planes too. One of them, christened *Flying Whale*, has already been flight-tested.

In Antonov's workroom you will see a small canvas in a modest frame next to models of airships. The canvas, painted by the designer, shows a blue sky and heavy storm clouds and nothing more. But looking at the picture you can visualize a plane which does not yet exist but surely will some day, a fast, far-flying and fearless machine which will find the globe too small for it.

Turbo-Prop Machines

"Today," Antonov told newspaper correspondents, "two types of engines working on jet-propulsion principles are used on fast transport planes, in the main—turbo-jet and turbo-prop. Flights by TU-104 turbo-jet airliners over Europe and Asia have shown the progress of Soviet aircraft building. The plane's two turbo-jet engines give it a cruising speed of better than 500 miles an hour with 50 to 70 passengers aboard. Turbo-jet engines, however, have their shortcomings: they consume much more fuel than the latest piston engines, and their relatively high landing speed requires longer runways.

"The last five or seven years have witnessed a substantial development of turbo-prop engines in civil aviation. Their turbine, driven by gases from the combustion chamber, rotates the compressor which is on the same shaft with it and the propeller as well. The gases ejected by the turbine produce an extra pull, which, however, is considerably less than that produced by turbo-jet engines, as the bulk of the energy is used to turn the propeller. At a speed of 350 to 500 miles an hour these engines have a number of advantages over turbo-jet and piston engines. In engines of the same rating the weight of the engine and area of head resistance are considerably less in turbo-prop engines than in piston engines, and fuel consumption is much less than in turbo-jet and not much more than in piston engines. An added feature is that turbo-prop engines can use a cheaper, lower grade fuel. Experience has shown that the cost per passenger mile is some 30 to 50 per cent less on a turbo-prop plane than on an up-to-date propeller plane.

"Abroad, much attention has been given to turbo-prop planes for civil aviation. In Britain, for instance, they use the Viscount, a turbo-prop plane, on both domestic and international lines. During their stay in Britain Bulganin and Khrushchev flew on one to Birmingham. This plane, designed to carry 40 passengers, is a low-wing monoplane, and its four turbo-prop engines assure it a cruising speed of 310 miles an hour at an altitude of roughly 25,000 feet.

"Soviet aircraft designers are working on turbo-prop passenger planes to surpass similar planes of foreign design. In the designing office headed by Academician Andrei Tupolev, for instance, a huge plane with four turbo-prop engines, designed to carry 180 passengers has been successfully developed. Another well-known Soviet aircraft designer, Sergei Ilyushin, is also working on the design of turbo-prop passenger planes.

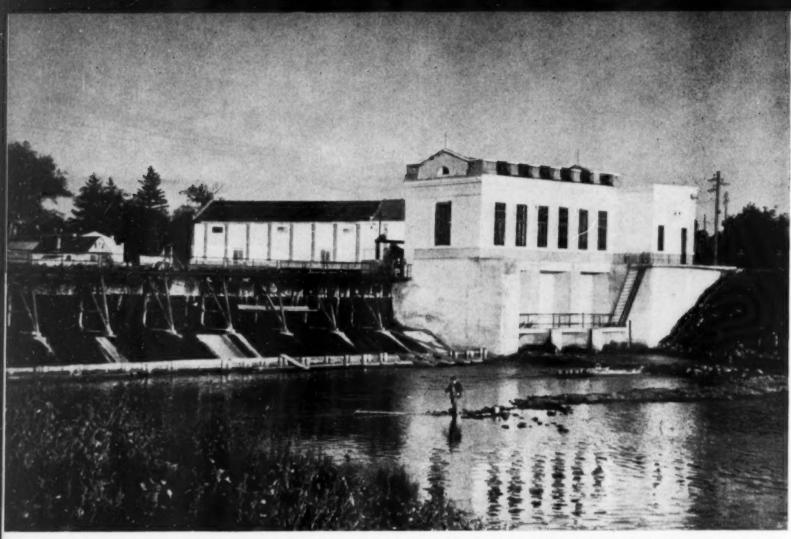
"Our group has designed the *Ukraina*, a new turbo-prop plane to carry 70 or 80 passengers. This plane is a high-wing monoplane and its four turbo-prop engines assure it a cruising speed of nearly 370 miles an hour. Should one engine fail during the take-off, the plane could still rise and while in flight it could go on with only two engines functioning. That, however, is almost inconceivable, as the new turbo-prop engines produced by Soviet designers are very reliable in operation. The engines consume less fuel than the Dart engines made by Rolls-Royce for Viscount planes.

"The Ukraina's instruments enable it to take off, fly or land day or night in any weather, and in its hermetically sealed air-conditioned cabin passengers are perfectly comfortable at an altitude of five to six miles. The chassis has three retractile wheels. With its relatively slow landing speed the plane can take off from and land on concrete runways and grass-covered airfields equally well. It is much simpler and cheaper to operate than propeller planes now in use, and owing to the simplicity of turbo-prop engines, the work of the service crew is much easier. Preparing the plane for flight and starting the engines are simpler and quicker, especially in low temperatures.

pler and quicker, especially in low temperatures.

"Our country," Antonov said, "needs different types of passenger planes, very large ones, and very small ones too, the latter for intraregion communication, and also large transport planes. The Flying Whale designed by us is a transport plane of this kind. Its advantage is that it can carry whole bulldozers, large machine tools and even small houses. A city bus can enter it easily. Like the Ukraina, the Flying Whale, a fast machine with a large load capacity and over-all dimensions of a Pullman car, does not require airports with concrete runways; it can take off from or land on small fields. It flies smoothly, is very stable and simple to operate. It uses half as much fuel as any other cargo planes operating on our lines.

"Our staff is working enthusiastically on the design of a plane which we affectionately call Little Bee. It is a small machine, similar to the helicopter in its take-off and landing qualities and surpassing it in everything else; it is needed for fast communication within a region, air ambulance service, mail and light freight delivery and for many farming jobs. The principal model—for passenger service—will resemble a comfortable seven-passenger sedan, with a heating and ventilation system. It will have a minimum speed of 21 to 25 miles an hour and a maximum of over 125, and will require only 45 to 65 yards for take-off or landing. We want to make this machine so simple that any motorist will be able to operate it."



THIS HYDROELECTRIC STATION SERVES SEVERAL COLLECTIVE FARMS. FROM 1946 THROUGH 1956 THE CAPACITY OF RURAL POWER STATIONS INCREASED MORE THAN TEN FOLD.

Rural Electric Stations

An interview with Andronik Sarkisyan, Chief Engineer of Selelectro, a government organization which builds rural electric stations. "Has much been done?" Sarkisyan repeated the question and then answered. "Let's begin with a fact. In the Ukraine, near Kiev, there is a small farm. It uses about 200,000 kilowatt-hours of electricity a year. That is more than all rural localities in our country used to consume before the establishment of Soviet power. Today agriculture in the USSR consumes four billion kilowatt-hours, or more than double the output of all of Russia's electric stations before the Revolution.

"Strictly speaking, the first rural electric station in Russia was built in 1921 by farmers of the village of Kashino, not far from Moscow. Vladimir Lenin, the founder of the Soviet state, regarded this modest beginning as an event of tremendous importance and attended the opening ceremonies.

"The station at Kashino was a gleam of the electric dawn which was to grow brighter and brighter over the villages in the Soviet Union.

"Since the Second World War, electrification of rural areas in our country has greatly expanded. In the decade from 1946 to 1956, the capacity of rural electric stations increased more than ten fold. Today, state machine and tractor stations and state farms are almost completely electrified, but many collective farms have no electricity as yet."

"From what sources is the countryside getting its electricity?"

"First, there are electric stations belonging to one or several collective farms. Some machine and tractor stations and state farms produce their own power. Then there are government rural electric stations serving all consumers in the countryside, and, finally, rural localities obtain electricity from large government power systems, for which purpose a network of substations have been put up in rural areas."

"How do farmers build an electric station?"

"After members of a collective farm decide to build a station or several collective farms agree to build one jointly, they place an order with a special government designing organization, paying for the surveys and project after the design is finished. Then they contract with a government trust in their locality to build and equip the station. There are many of these trusts, in all parts of the country.



Fresh vegetables are grown under artificial light in winter in collectivefarm hothouses, an example of electricity substituting for the sunlight.

"If a collective farm does not have enough money of its own for the purpose, it can get a 10-year loan from the Agricultural Bank, to be repaid in installments beginning with the third year. Interest is at the rate of 2 per cent per annum. Formerly the amount of the loan was restricted to 75 per cent of the cost estimates, but today, to facilitate the construction of power stations, the government has permitted the bank to grant collective farms loans covering the total cost of construction."

Sarkisyan then dwelt on the technical angle.

"Before," he said, "we built a good many small steam stations of 50- to 60-kilowatt capacity. They were, of course, less profitable and the electricity produced by them was rather expensive. Today, preference is given to water power stations; the policy is to make full use of the potential of small and medium-sized rivers and build stations of larger capacities. No loans are granted for the construction of steam stations except where there are no water-power resources. Today we regard it as expedient to build collective-farm stations of 1,000-kilowatt capacity, and in many cases of considerably greater capacity. To illustrate, a group of Ukrainian collective farms are building a 6,000-kilowatt station at Glubochekskaya on the Bug River, and two groups of Uzbek collective farms are putting up two hydroelectric stations, one of 7,500 kilowatts and the other of 5,000 kilowatts. Large collective-farm stations are under construction in other republics and regions too, and the cost of a kilowatt-hour produced by them is no higher than the rates charged by large government power systems.

"Much is being done to improve utilization of the rural electric stations, to increase their load and cut the cost of the electricity. One of the means used for the purpose is to interconnect stations. For instance, the Korsun-Shevchenko power system of rural stations in the Ukraine is made up of five stations on the Ros River, and today it is being linked with the network of a large government electric station. This will ensure uninterrupted current at peak periods for all the stations and a regular market for their surplus electricity in the hours of low demand.

"Construction of rural hydroelectric stations on small and mediumsized rivers is changing the geography of the districts. A series of rural water-power stations and dams have been built on the Tsna and Sosna rivers, not far from Moscow, and as a result, ships now ply these rivers, which had been quite shallow, carrying cargoes for agriculture and considerably reducing the cost of transporting agricultural produce. More and more of the small rivers are becoming navigable as a result of this construction.

"Rural electrification in the USSR has its distinguishing features. Besides being used for domestic purposes, electricity is also widely used in farming tasks. Collective farms use it to clean and dry the grain at the threshing points, to pump water for livestock, and for irrigation. It is used more and more in grinding and mixing livestock feed, milking



Electric-powered tractor used in plowing is one experimental farm technique. Cheap current from government-owned stations make this system economical.

cows and shearing sheep. Some 70 to 80 per cent of the clip is now done by electricity. Some machine and tractor stations plow by electricity. But we regard this as experimental at this time. The use of electricity in farming saves much labor and money. To illustrate, the Voroshilov Collective Farm in the Azerbaijan Republic saved 5,767 mandays and scores of tons of fuel the first year it bought electricity from a government station in the area, saving 105,000 rubles, while paying only 15,400 rubles for current consumed.

"Cheaper and more easily available electric power is the goal of the entire program," Sarkisyan said, "and with the government financing the construction work without profit considerations, more and more current is being made available to agriculture almost at nominal cost.

"The tendency in the period immediately ahead," he continued, "will be toward the building of larger hydroelectric stations to serve wider expanses of territory. The huge stations are not only more practical from the engineering standpoint, but far more economical to build and operate. So, although the program will see another 1,500 rural electric stations come into being by 1960, these will be put in areas where special local conditions make it advisable. The reasons may be a combined problem of irrigation and flood control or a farm or group of them in an isolated region where transmission costs might be excessive.

"Generally speaking," Sarkisyan observed, "such a system will permit greater economies and even cheaper power for agriculture."

This radio relay station located on a collective farm makes it possible to keep in touch with machines and buildings extending over a vast area.



At a Factory Carnival



"I knew you'd forget a mask, so I brought a spare," parts-clerk Galina Lyudinova tells companion Vladimir. "See, the sign says 'Masks Are Required."



The plant's dance band, gaily costumed, welcomed guests to the carnival. Lab assistant Slava Borisov plays the clarinet and conducts. Accordionist is model-maker Arkadi Ilyin; pianist is Anatoli Zaikovsky, a lathe operator.

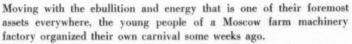
By Elena Surova

Machinist Vladimir Stepanov and Natasha Petrova, inspector, don't miss a dance. She has hinted to friends that something nice may be announced soon.





Guests have numbered buttons and mail-carriers Valentina Ivanova and Veniamin Pavlov are delivering letters that are witty or amorous. Technician Tamara Shmyrkova (right) and bookkeeper Anna Gorbunova get a big bang from theirs.



Although such events are held annually at the plant, this one was made particularly memorable by the fact that the workers were especially enthusiastic because the carnival came almost on the eve of the start of the Sixth World Youth Festival.

The youthful group gathered one evening in the plant's club quarters and laid their plans. Rehearsals were scheduled for volunteer performers. Other participants set about sewing carnival costumes and making up posters, decorations and masks. Everybody had an active part in the program of making ready—singers and dancers, decorators and designers.

A good deal of amateur talent turned up in the process—and all were members of the regular factory working staff.

When at last the club's organizing committee decided everything was set, the date was decided upon and the young people could hardly wait.

The photographs presented here were taken during the factory carnival and they tell the story best.

Curtain time is near. "Let's go over it again," says Tatyana Demidova (upper right) as friends gather to present their skit. "It will be our turn soon."





The daughter of one of the plant's workers came to the carnival, and the boys are having a time guessing who she is. She'll tell them . . . but not just yet.



"Well Pavel, make up your mind. Whom will you ask to dance? Just look at the stags waiting to cut in," says Irina Kireyeva, a light machine operator.

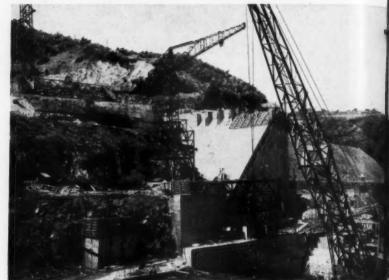
A carnival lottery causes much merriment. A ruble ticket may win a book, a necktie, bottle of perfume or even champagne. Most everyone wins something.







Wedding feast. Vladimir Moguchev, cadet in the Naval Engineering College, and Svetlana, pretty young college student, kiss after enthusiastic toast.



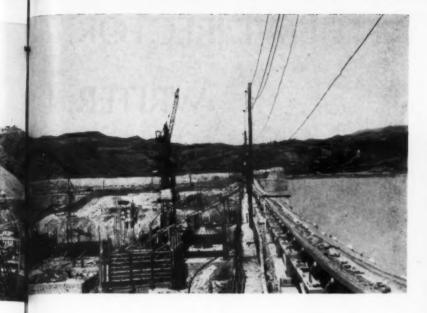
Heavy construction is in progress here on a hydroelectric station and large dam. They are both situated in the Georgian Soviet Socialist Republic.



These extensive new housing projects are located in Krasnoyarsk Territory, Siberia. Apartments are built for workers in a new metallurgical plant.



Klement Voroshilov, President of the Presidium of the USSR Supreme Soviet, awards the Order of the Red Star to Nikolai Smirnov, a young man who risked his life to rescue an elderly woman and a boy from a burning building.



Shown here in the designing stage is sculptor A. P. Kibalnickov's monument to poet Vladimir Mayakovsky. The finished work will be erected in Moscow.







■ Director G. L. Rashal with his new star Raisa Niphontova. Ordeal, his twentieth film, is based on Alexei Tolstoi's novel. Miss Niphontova plays Katya in this production.

Vladimir Kotov, young poet, signs an autograph book for school children to whom he has just read one of his compositions from the collection entitled Summer Days.



Sezgei Kutkevich

FILM DIRECTOR, WRITER, ARTIST

By Gennadi Rozental

Some years ago someone estimated that 250 million people see a moving picture each week, a considerable audience for an entertainment medium that is only fifty years old.

It is an art, the newest of the arts, but one with almost limitless potentialities for moving people to tears and laughter and all the range of emotions in between. Its creators have been able, in their best efforts, to assimilate and project in film the century-old experience of the older arts—literature, drama, music, painting.

For this integration, credit must be given to one of the most important of the artists in the medium—the director.

How is a director made? What is his background in the other arts? How does he think his way through the complex process that transforms a script into a finished motion picture? These were some of the questions I had in mind when I talked to Sergei Yutkevich after I had seen a preview of Othello, his latest film.

Othello is perhaps the most demanding of Shakespeare's plays. It has innumerable artistic reefs upon which a poorly directed production can founder. Yutkevich's Othello was a brilliant production and was so recognized by the awards it received—the best film award at the Ninth World Cinema Festival in Cannes, the gold medal award at Damascus in 1956 and the silver medal award at the Japanese Film Festival.



Yutkevich does some of his work at home. The individualistic decor reflects the varied interests and tastes of this energetic and talented director.

An Eccentric Start

The beginning of Yutkevich's career coincides with the turbulent events after the 1917 October Socialist Revolution, when the developing changes in the social structure of the country were accompanied by equally important shifts in conceptions of art.

In 1920, when he was 16, he put on puppet shows with a portable stage and puppets of his own making, in the streets of Kiev. With his friends Grigori Kozintsev and Leonid Trauberg, who also became cinema directors, he organized the "Factory of the Eccentric Actor," in which actors were replaced by dummies, and the play by tricks and circus acts. The guiding motto they borrowed from Mark Twain and translated it to read, "It's better to be a young dog than a superannuated Bird of Paradise."

Fortunately for his own artistic development, Yutkevich dropped these erratic substitutes for art very quickly. As early as 1926, looking back on that period in his life, he characterized it as exhibitionism and a crude play for attention.

He went through a period of abstract painting and took part in a number of theatrical productions as prompter, scene-painter, artist and director. He then came to Goskino Studio, where he worked as artist and assistant director. In 1926 he had his first chance at independent directing. He did a film about young workers called *Lace*.

"I became a film director," he says, "by the sink or swim method. You toss a man into deep water and watch him flounder. The results are embalmed in my first films. There was not much I could be proud of. I had to go through a long period of training, a difficult schooling, before I did anything I thought worthwhile. But I learned very early that what makes a director is boldness and courage to experiment."

Man on the Screen

Sergei Yutkevich has produced twenty films. Although the stories differ widely, they have certain interesting common features.

Yutkevich's concentration seems always centered on man as the dominant force in historical development, his personality, his aspirations and his relations with his environment. It is revealing that his best film was titled *The Man with the Gun* and showed the events of 1917 through the eyes of a simple peasant who hated war but took up arms to defend the Revolution, and that his book on the theory of the film is called *Man on the Screen*.

He began work on his first film at the time when Eisenstein's Potemkin was being hailed as a classic of the silent film by critics all over the world and when the prestige of David Wark Griffith was at its peak.

The problem he posed himself was whether to follow the track already beaten or to strike out in a new and untried direction. The answer was evident even in his early films. He abandoned the frozen masks which passed for screen characterization in the early 1920's. He was concerned with portraying the inner life of his heroes, the subtle psychological processes, the changing play of feelings and moods. Personality he conceived of as complex, frequently paradoxical, going through a tortuous and painful process of development. This is what he wished to show on the screen

His Peter in Golden Hills, a film which was judged one of 1932's best by the American National Board of Review, is such a character.

Continued on page 52



YUTKEVICH POSES BESIDE A DRAWING DONE OF HIM BY PABLO PICASSO, A GREAT ARTIST OF OUR TIME, IN HIS INIMITABLE STYLE.



Things which take up a director's time. Setting up for a close-up, cameras being arranged and measuring lights during filming of a scene from Othello.



It was a pleasant interlude last summer for Sergei Yutkevich when he visited the famous Pablo Picasso at his home in the south of France.



Yutkevich's set for the satirical play Bath. Persons undeserving of a visit into the future are spun off the "wheel of time" mounted on a bare stage.

another. It's something I learned from Meyerhold when Eisenstein and I were studying under him back in the 1920's at the School for Stage Directors. He also used to tell us to do a lot of walking. He had the idea that the rhythm of walking was a help in thinking through artistic problems."

Yutkevich's present program of activities would be enough to keep a half dozen lesser men busy. He is at work on a book to be called Shakespeare and the Cinema; another on the Group of Thirty, as it is called, the new school of French experimental film shorts. He is also editing the Russian translation of the six-volume General History of Cinema Art by Georges Sadoul and two or three other books.

This is besides the settings he has engaged to do for a new production of the Bolshoi Opera Theater—the ballet *Spartacus* by Aram Khachaturyan.

And then there is his film work, of course. "I have always been attracted by the figure of Lenin," he says. "In a film about the revolution that I did in 1938 I built the picture around him. For the fortieth anniversary of the October Revolution I'm working on another film around episodes from his life. It's to be called *Stories of Lenin*, a script written by Mikhail Volpin and Nikolai Erdman."

Of his work for the more distant future, all he would say was that it depended upon new scenarios, new ideas, new theater and film developments. That they will be forthcoming, he has no doubt. "These days," he adds, "life has a way of overshooting even the most daring and most extravagant of plans."

Sezgei Wikevich FILM DIRECTOR, WRITER, ARTIST

Continued from page 50

He portrayed others in Semyon Babchenko in Encounter, Matvei Bobylyev in The Miners, and Ivan Shadrin in The Man with the Gun. Similarly for his historical figures in the films Yakov Sverdlov, Przhevalsky and The Great Albanian Warrior Skanderberg.

A Very Busy Man

Yutkevich leads a busy life, this besides his directing. He has been painting since he was fifteen and he does a good deal of scene designing both for his films and for stage productions.

Although he is an exponent of realism in films, he is inclined to the grotesque in theater decoration, to odd and striking color effects and lighting and trick changes of settings. Bath and Bedbug, two plays by the Soviet poet Mayakovsky produced by the Moscow Theater of Satire, show his highly individual touch both as artist and director. Although these plays have been running for years, it is still difficult to get seats for them.

He also did the very original sets for *The Spilled Cup* by the thirteenth century Chinese poet Wang Shih-fu, a play that has long been part of the repertoire of the Theater of Satire.

In addition, he teaches and writes on stagecraft. His books on the art of acting and directing have been translated into several languages. He has done studies of Griffith and of the art of Charles Chaplin among other books on film theory and history. He is professor at the USSR State Institute of Cinematography and senior research worker of the Institute of the History of Arts of the USSR Academy of Science.

Add to that his participation in the USSR Society for Cultural Relations with Foreign Countries, his membership in the French Cinematographic Society and the Permanent Committee of the World Congress of Film Producers and the man seems a storehouse of energy.

A Lazy Man!

Of himself he says, "I'm dreadfully lazy and that's why I work so hard." And he adds, "That's no paradox, it's a system, and a very sensible one too, I feel. The trick is to switch from one job to



In the satirical play Bedbug, the narrow burgher Prisypkin wakes up to find himself in the zoo of the future. A stage set designed by Yutkevich.



Othello is becoming increasingly suspicious of his wife Desdemona. The film, with Sergei Bondarchuk in the title role, again proved Yutkevich a master at portraying the inner life of his screen heroes and the psychological factors behind their behavior.



Another Yutkevich characteristic is a willingness to gamble and win by using unknown actors and making them stars. Irina Skobtseva, recently graduated from a theatrical school, was picked for Desdemona. Today, she is internationally known.



The Spilled Cup. Sergei Yutkevich designed this set so as to shift from a Buddhist shrine, to an inn and then to a garden without lowering the curtain, not an easy task. The play was written by a thirteenth century Chinese poet.

Ancient Monuments In Old Samarkand

By Yevgeni Belov

Samarkand is an ancient city in Central Asia, once a great seat of Arabic civilization. The swift Zaravshan, flowing down from the Tian-Shan Mountains, waters its gardens and vineyards. Looming above the old winding streets and the newer broad squares are vividly beautiful buildings that date back many centuries.

The city has no marble or granite. Central Asian architects and

The city has no marble or granite. Central Asian architects and master builders of the fourteenth and fifteenth centuries worked with the native baked clay. Out of that friable material they built magnificent monuments to a people's art, ornamented with the most delicate detail. These were great artists, great craftsmen; the mosaic and glazed terracotta of the facings bear witness.

Time has not been gentle with these buildings. Invasion, earthquake and neglect by the old rulers of Samarkand and by the czar's official-dom have done much to deface and destroy these architectural treasures. It is only within the relatively recent period that restoration work was undertaken with funds contributed by the Uzbek government and the cooperation of experts of a number of Soviet Republics.

Work has been going on now for some years. Walls and facings have been reinforced and sections of buildings restored, the work preceded by careful research into the methods used by folk-craftsmen and handed down from generation to generation.

The Gur Emir, tomb of the Mongol conqueror Tamerlane built in the fifteenth century, was restored not long ago. Its ribbed cupola is sky-blue. Its walls are ornamented with blue mosaic. The portal is varicolored—white, green, blue, yellow, black and gold.

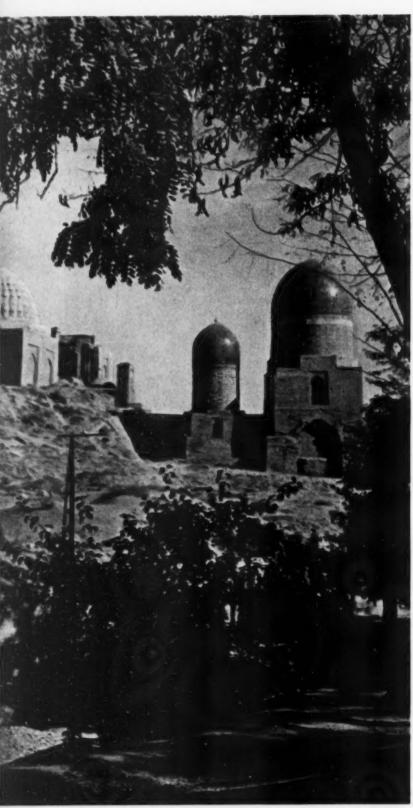
On a hill in Samarkand stands a building that was erected within the Soviet period. It too was faced with tile in many colors to harmonize with the older structures. This building stands on the site of the observatory of Ulugh-Beg, grandson of Tamerlane, which has been excavated and restored. Ulugh-Beg was known not only as a ruler of Samarkand but also as a great mathematician and astronomer. His observatory and school made Samarkand one of the most renowned centers of culture in the fifteenth century world.

Even the ruins of those monuments which can no longer be restored have elements of great beauty. One is the group of buildings called the Bibi-Khanum, the ruins of mosques, minarets, gateways and arches. The largest of the mosques can be glimpsed a long distance off from Samarkand. Seen through a veil of shimmering heat, one can almost envision the noble edifice as it once stood. The great vault has collapsed, and so have parts of the octahedral minarets, but the ruins still seem to reach up to the sky.

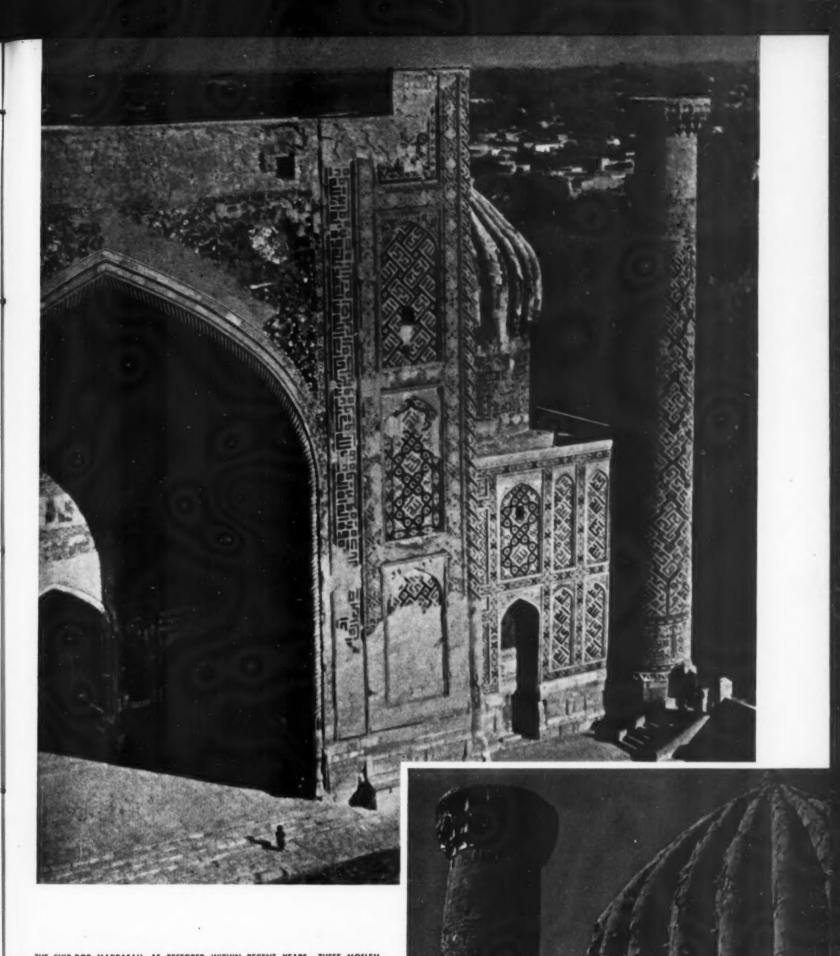
Many of the most beautiful of the buildings were built during the reign of Ulugh-Beg. A madrasah, Moslem school of theology, bearing his name, stands in the Registan, a square in the center of the city. It was model for two other madrasahs built in the seventeenth century in the same square, the Shir-dor and Tilla-kari. The many madrasahs built in other cities of Uzbekistan in the centuries following were also modeled on the one built by Ulugh-Beg, which is considered a master-piece of fifteenth century Moslem architecture.

Years of restoration work have been put into the northeast minaret of the Ulugh-Beg madrasah. As a result of earthquakes it had cracked and listed so heavily that it threatened to collapse. Complex machinery had to be used to restore the minaret to its original position.

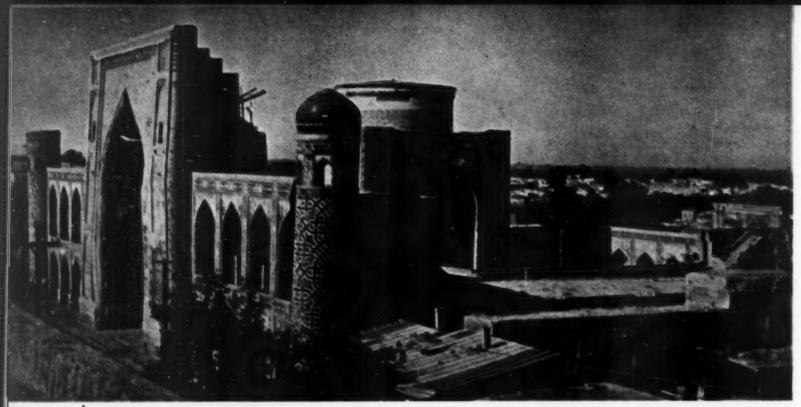
The Registan was Samarkand's religious center. Followers of Islam thought it holy ground. The secluded inner courtyards of the venerable buildings, the simplicity and severity of the architecture, the ornamen
Continued on page 57



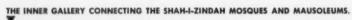
SHAH-I-ZINDAH GROUP OF MOSQUES BUILT IN 14TH AND EARLY 15TH CENTURIES.



THE SHIR-DOR MADRASAH, AS RESTORED WITHIN RECENT YEARS. THESE MOSLEM COLLEGES TAUGHT HISTORY, GEOGRAPHY AND ASTRONOMY AS WELL AS THEOLOGY.



TILLA-KARI, ONE OF THREE MADRASAHS IN THE REGISTAN, A SQUARE IN THE MIDDLE OF SAMARKAND WHICH WAS THE RELIGIOUS CENTER FOR FOLLOWERS OF ISLAM.







THE PORTAL OF THE SHAH-I-ZINDAH WITH CHARACTERISTIC DECORATION, CONTAINS A GEOMETRIC PATTERN AND AN ABSTRACT FLORAL DESIGN OF DELICATE BEAUTY.

THIS VAULT OF A MAUSOLEUM IN THE SHAH-I-ZINDAH IS FACED IN TURQUOISE AND BLUE MOSAIC. THE DETAIL WORK SHOWN HERE IS SUPERLATIVE ARTISTRY.



Ancient Monuments In Old Samarkand

Continued from page 54

tation of geometrical designs and abstract floral forms, the walls with their tiny grated windows, all give a feeling of remoteness from the bustling worldly city that surrounds the square.

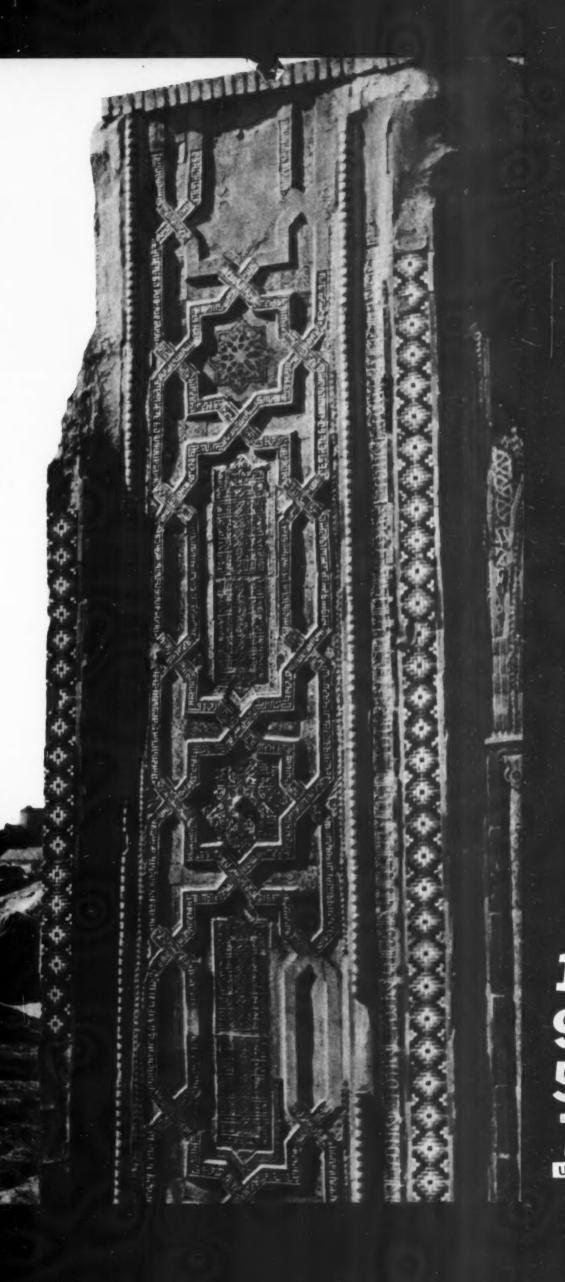
The Shah-i-Zindah group of mosques and mausoleums is set on the slope of a hill on the outskirts of Samarkand. The buildings are not as large nor as impressive as those of either the Bibi-Khanum or the Registan but they have an intimacy and charm of their own and a richness of detail.

As with all of Samarkand's ancient buildings, the dominant colors of the Shah-i-Zindah are turquoise and a dark blue that almost verges on black. Variety is provided by skillfull use of white or varicolored raised characters.

All the structures are joined by an open gallery with arches across it. As a consequence, the eye moves from the picturesque play of clear color sparkling in the sun, to color softened by shade from the arches and the small trees growing in the gallery.

The unique monuments of Samarkand each year attract visitors from all over the world to marvel at the inspired artistry of these craftsmen of the middle ages.

Beyond this portal are the ruins of the Bibi-Khanum Mosque. Arabic poets of the time wrote of it: "Its cupola would be unparalleled if not for the sky, and its arch—if not for the Milky Way."





A five-year-old tamer of the range's wildest horses reigns in his fiery steed to avoid photographer's legs.



Merchandise of this confectionery factory is being produced at a fast clip and in the widest, though not very edible, assortment of sandy varieties.

On the Boulevards of MOSCOW

New boulevards and walks are being built all over the city, giving every community green, shady places for children to play and adults to rest.



Moscow's many boulevards seem to flow through the city of millions like vast green rivers in the warmth of summer, caressing the hearts of all with the fresh aroma of their leaves and flowers. There are patches of sun-drenched open spaces and then wondrous shady nooks where sparrows twitter and the sand whispers softly underfoot.

Life never ceases here from dawn to dark. It begins with the scurrying of the children, whose voices ring out as they race out earlier, as a rule, than anyone else. Indeed, they turn up almost on the heels of the gardeners and caretakers dressing up the boulevards for the day. The best spots are reserved for the children: hillocks of golden sand, playgrounds filled with games no tot worthy of the name could resist. It is not surprising that Moscow mothers have a real problem trying to take a child home to dinner without torrents of tears.

This problem is of no concern now to mothers whose children lie peacefully in their baby-carriages contentedly working over a rubber nipple. But these mothers find it difficult to hurry away from the pleasant company they find to exchange gossip with and the never-ending talk of child-raising.

Among the constant frequenters of the boulevards are the oldsters who have come to spend their leisure there. Once workers, bookkeepers, engineers or sales people, they now have retired on their pensions. Some come with chessboards under their arms and easily find opponents worthy of their mettle; others are "sitters" for grandchildren, while still another group enjoys taking the sun while swapping opinions on current affairs with neighbors.

Nearly always there are girls and young men about the benches, engrossed in their books or themselves. Graduation time is forgotten, but the entrance examinations for the higher schools are drawing near.

Busy-looking, rather severe men and women bearing brief cases or folders are found frequently during the day. Their entire appearance

Pick any time of any sunny day and any one of Moscow's innumerable walks and you'll find a doting grandfather watching over a young charge.





College entrance examinations do demand some sacrifices, but a sunny spot in the open air makes cramming much easier for these two students.

A quorum is present and mothers always seem to have plenty to talk about when they congregate at boulevard benches while airing their charges.





One can almost see an imaginary sign saying "Quiet Please" within the area of this reader's spot on a boulevard's by-path. The shaded arbors and the flower beds make seats here something to be prized.

suggests they have no time for boulevard-idling—that they are just passing along—but it actually isn't so. On a particularly fine day, it seems, their important affairs are obliged to wait—and sometimes it's a long time, indeed.

On the by-paths and lanes of the boulevard are the inevitable couples—boy and girl—and the whispered words, the shy glances and sparkling eyes tell the world that its oldest story is being retold. We also find the young married couples here, returning to the bench on which they once quarreled so bitterly and to the one nearby on which they soon made up.

Muscovites are really fond of their well-kept boulevards, and the city fathers, obeying the will of the electorate, allocate a good deal of money to make them larger and more beautiful. During this spring alone more than 95,000 trees were planted in Moscow. Among them were some excellent types including 20- to 25-year-old lindens, elms, maples and ash trees in addition to millions of flowers and 835,000 shrubs.

You won't want to miss the boulevards when you visit Moscow!

From all the signs, this young suitor has not yet popped the big question, but his companion seems somehow to anticipate what he is likely to say.



Many Muscovites like to walk at least part of the way home from work. It often becomes a real outing when the family meets father at the station.







BY LEV SERGEYEV

"...Then an amazing thing happened. The whirling, blurring mix-up suddenly ceased. Rivera stood alone. Danny, the redoubtable Danny, lay on his back. His body quivered as consciousness strove to return to it.

"He had not staggered and sunk down, nor had he gone over in a long slumping fall. The right hook of Rivera had dropped him in mid-air with the abruptness of death. . ."

Gennadi closed the book and sighed enviously. How he wished he could be like Jack London's heroes—as strong, agile and fearless as Pat Glendon, Smoke Bellew and the Mexican Rivera.

He jumped off the couch and ran to the mirror to get a close-up view of himself. He saw a skinny-looking youngster with a mop of unruly hair, two ears showing a tendency to droop, and a big mouth. Hmm . . . with a face like that it's no easy job becoming a hero, he thought. But he soon consoled himself with the thought that the main thing was to build up will power.

The sunbeams dropped below the horizon. Lashing gusts of wind stirred up waves two feet high and drove them down river. Bobbing up and down in those waves was a fair-haired 11-year-old swimmer. He still had over a hundred yards to go to shore and his strength was ebbing. Gennadi felt himself grow numb as he saw the boat with his playmates moving farther and farther away. And they were supposed to help him if he found he could not make it! There is nothing worse than feeling alone and deserted, especially with that fathomless river under you. The very thought was paralyzing.

But suddenly this feeling of fear had the opposite effect and imparted new strength. He puffed and spumed but continued swimming. He finally crawled to the bank exhausted. His cronies tumbled out of the boat moored nearby and ran up to him, joyfully gesticulating.

The first to come up to him was a lanky youngster with peeling nose and brows burned white by the sun. "At-a-boy, Genka," he shouted enthusiastically, thumping Gennadi on the back. "You're not yellow, you did it! And Petka wanted to bet. . ."

Later that evening Gennadi's will power was put to the supreme test. He took a terrific scolding from his father.

A few years later at the dinner table Gennadi announced for all to hear. "I've decided to become a boxer."

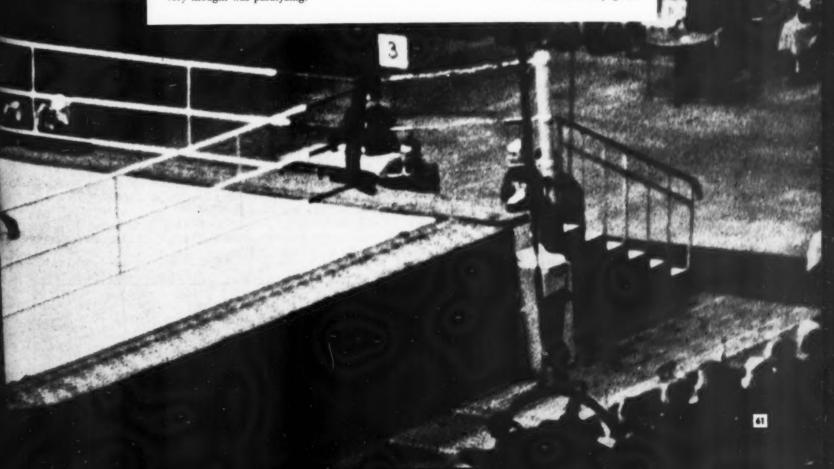
His mother almost had a fit but his father just smiled over his paper. "Well, you're a man already—you're almost 16. If you want to become a prize fighter, go ahead."

But his mother did not take it so lightly. The words tumbled out in a torrent: "Gennadi is studying music, he likes poetry—and all of a sudden—boxing. I won't stand for it."

Gennadi crossed glances with his father, with the expression of "it's so much easier between us men."

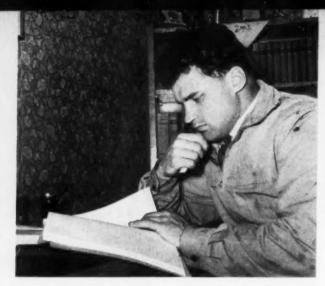
"All right, Ma. If you don't like boxing, let's just forget it. But I hope you won't mind my joining the chess club?"

There were no objections to chess and from that day on Gennadi rushed off "to play chess" after school in the boxing gym of a Continued on page 62





Shatkov's will-to-win helped him to get a law degree and boxing titles.



After completing law school, Gennadi took postgraduate work and wrote a thesis on legal questions of international sports.



"Gena, be careful—Alyonka is so tiny," wife warns husband when he plays with his daughter.

HOW A BOXER IS MADE

Continued from page 61

Leningrad youth recreation center. But he did play chess of an evening with his father.

The conspiracy was disclosed half a year later when Gennadi won the Leningrad junior crown. He was in no hurry to break the good news at home—his left eye was all colors of the rainbow and his nose resembled a big over-ripe pear.

His mother opened the door for him-one look and her heart turned cold.

"Aw, there's nothing to cry about, Ma." Gennadi hugged her. "Today's the happiest day of my life—I'm the Leningrad champ."

From that day on his mother accepted the inevitable.

The years that followed brought Shatkov further luck in boxing, studies and personal life. To begin with he won the junior title three years running. And in 1951 he won the Leningrad senior title. That same year he finished school and entered Leningrad University.

In 1954 he was entered in the big boxing tournament in Kharkov in which the country's best pugilists took part. Gennadi Shatkov, a law school junior at Leningrad University, had just won his bout and was rushing gleefully to the locker. But as luck would have it, he slipped and his towel fell off his shoulder. He looked up to see a dark-haired girl holding out his towel to him. He thanked her, she smiled and he . . . suddenly changed his mind about the locker room. They spoke a while . . . and one year later they were man and wife. After that Gennadi won the USSR title twice, and in 1955 he became the European champ.

He won the crown in Berlin with the strongest boxers of the continent competing. In the quarter-final Shatkov sent Hope, his tall long-armed British opponent, into the rosin twice. And Hope had a reputation for dynamite punches and a sense of timing.

Dietrich Wemhener of Germany, the 1953 European champion, was a match for Shatkov when it came to technique and stamina, but lacked the Russian's cool-headedness, and Shatkov won on points.

The final turned out to be a surprising walkover for Shatkov. In the second round he floored Stig Schelin twice and in the third round the Swede did not bother to put up any real resistance. This bout earned Shatkov the gold medal of European champion and fame as one of the continent's strongest boxers.

Melbourne. The huge boxing gym was packed to the rafters. Australians and British, Frenchmen and Germans, Americans and Russians were noisily rooting for their favorites.

Shatkov won his first bout against the Canadian southpaw Hosack, a boxer of merit, and then qualified for the semi-final without a fight. His opponent Rinaldi (Italy) tipped the scales a bit too far at the weighing-in and was disqualified.

Five thousand fans came down for the semi-finals. The bouts advertised were Shat-kov vs. Chapron and Tapia vs. Zalazar. Bets were made on all sides. Which of these four would be the middleweight champion?

The hall waited tensely for things to happen. Suddenly the referee announced that Chapron would not appear because of illness. Another victory for Shatkov entirely undeserved? No, not this time. The Olympic rules provided that no fighter may win two bouts in succession by default.

And so all three boxers came into the ring to draw lots. Actually, however, it was a toss-up between Zalazar (Argentina) and Tapia (Chile). When it was all over Shatkov learned he was to face Zalazar, who had already defeated two European ex-champions.

Zalazar rushed to the attack at the gong. He drove smashing lefts to the head. The crowd howled encouragement. Shatkov kept cool, soon sized up the situation, and turned to the attack himself. His jabs from left and right connected in rapid succession. The crowd was highly partisan, with one-half shouting "Shat-kov, Shat-kov" and the other no less vociferously—"Za-la-zar!"

At the second round's gong Zalazar rushed over to Shatkov's corner, to the encouraging roar of his boosters. He evidently intended to get it over with immediately, while Shatkov was slowly getting to his feet. But before anyone realized what had actually happened Zalazar was stretched out on the canvas. Only the boxers' seconds noticed that lightning right, the lethal Shatkov punch.

The hall became as quiet as a morgue. All that could be heard was the monotonous count of the referee . . . 6, 7, . . . 8. Zalazar struggled to his feet, but it was clear that he was still groggy. Shatkov attacked again—another smashing right and again Zalazar was stretched out. That settled it. Zalazar's second threw in the towel.

In the final Shatkov faced Tapia, a strong and aggressive boxer. Tapia decided to make it short and aimed a powerful left to the head. Shatkov retaliated with that deadly right of his to send Tapia to the floor. The Chilean made a Herculean effort to rise and again rushed his foe, but in a few seconds Shatkov's right connected and sent him down for keeps.

While the referees were completing their pencil work and the attendants were dragging the stand of honor into position, Tapia walked up to Shatkov and gave him a hug of admiration for a victory well-deserved.

That is my last impression of the boxing Olympics—loser and winner both smiling in the ring as a symbol of fair play and sportsmanship.

In the evening Shatkov won his second award to add to his gold medal: the best boxer prize.





NEW SOVIET CHESS CHAMPION MIKHAIL THAL (RIGHT) AND GRANDMASTER ALEXANDER TOLUSH ANALYZE THE PLAYS WHICH WON YOUNG THAL THE TITLE OF GRANDMASTER

YOUNG CHESS GRANDMASTER

Mikhail Thal Wins the 1957 National Chess Title

Twenty-year-old Mikhail Thal is the 1957 USSR chess champion and the newest of the nineteen Soviet grandmasters of that ancient sport. This new luminary on the Soviet chess horizon who plays with such original and daring style is bound, sooner rather than later, to cross swords with Vasili Smyslov, who recently won the world chess crown.

The 1957 contest for the USSR chess championship had one of those surprises which seems to mark every big tournament. In the nineteenth round David Bronstein, who had won both first place and the title of Grandmaster at the Stockholm tournament in 1948, lost to B. Gurgenidze, a young chess master. This was a totally unexpected upset, both to Bronstein and the excited spectators. Gurgenidze up to that point had held last place in the points table.

The situation became even more complicated in the next-to-last round. Alexander Tolush, Mikhail Thal, David Bronstein and Paul Keres were the four challengers for the gold medal. In the Tolush-Aronson game, the battle was over in ten moves! It needed only fifteen minutes by Aronson and seven by Tolush to end this unusual combat in miniature.

But the battle between young Thal and veteran Tolush was of quite another order, daring and youthful initiative pitted against sagacity and experience.

Thousands of Moscow chess fans tried to crowd into the hall for the final round, with all its anticipation and excitement. A big demonstration board had to be set up outside for those who could not pack into the jammed hall. Thal took his place at the chessboard. He was calmer than most of the spectators. Tolush sat down. He lit one cigarette after another. Thal attacked. He played strongly and with almost reckless force. The hall was silent, following the moves with almost breathless intensity.

In the anteroom the telephone rang at five-minute intervals. Riga, Thal's home town, wanted to know what was happening. Tolush moved slowly, very slowly. And then, almost with a shock, although everyone had seen it coming for a matter of minutes—Tolush resigned. There was minor pandemonium in the hall, and applause as Bronstein, Keres and the others came up to congratulate the young master.

And then, five minutes later, Bronstein conceded that he could not break down Kholmov's defense and agreed to a draw. The audience stood up to hail Mikhail Thal, the new Soviet chess champion for 1957.

Mikhail Thal, like other youthful chess masters, carries his talents over into other areas. When he was graduated from secondary school, Riga University had to make an exception to its entrance requirements to permit him to enter at fifteen. He is now in his fifth and last year at the University where he majors in history and philology.

He is a member of the Young Communist League and, like many of the USSR's great chessmen, he learned the game in the chess clubs of the Young Pioneers.

Last year he traveled with the Soviet team to Upsala, Sweden, to successfully defend its world team title. Grandmaster Kotov, leader of the delegation, paid marked attention to Thal's progress. Kotov was the only one to predict a victory for Thal on the eve of the twenty-fourth USSR championship tournament. As a matter of fact, Thal himself did not believe he stood a chance to win.

With present day competition and chess development, Thal's is a remarkable achievement. To go the marathon of twenty-one rounds and to surpass eight grandmasters is a chess feat of no small proportions. It is no simple matter to win grandmaster's title in the Soviet Union, particularly for a player as young as Thal and with relatively limited experience in tournament play. There seems little doubt that in Mikhail Thal Soviet chess has another grandmaster of world class.

THE BIRTH OF A NEW CHAMPION

By Grandmaster Salo Flohr

The chess world has forty-six international grandmasters, several dozen international masters and millions of people devoted to this fascinating game which has come down to us from ancient times. But only six chess players in all succeeded in capturing the world chess crown: Wilhelm Steinitz, Emanuel Lasker, Jose Raoul Capablanca, Alexander Alekhine, Max Euwe and Mikhail Botvinnik. Now another figure is to be added to this sextet—Vasili Smyslov, the seventh world champion in the annals of chess.

After the twenty-second game, which wound up the keen and grueling two-month duel for the world crown between defending Champion Mikhail Botvinnik and Challenger Vasili Smyslov, the packed auditorium filling the Tchaikovsky Concert Hall in Moscow saw Dr. Botvinnik congratulate his rival. This handshake of the world's two top chess players signified the birth of a new champion.

For more than twenty years Botvinnik has performed brilliantly in international tournaments, and for the last nine years he successfully defended the coveted world title. Vasili Smyslov is ten years younger than Botvinnik both in age and in chess experience.

They are old rivals at the chessboard. Three years ago their "conflict" ended in a 12 to 12 tie. Considered after that the world No. 2 chess player, Smyslov dreamed of meeting Botvinnik again. His victory in the 1956 Challengers' Tournament in Amsterdam offered him an opportunity to continue his duel with Botvinnik. By that time they had played a total of forty-six games. The score then read 14 wins, 10 defeats and 22 drawn games in Botvinnik's favor.

In the very first game of the 1957 title match Smyslov broadly hinted that this time he meant business; he emerged victorious. Only a short time ago chess experts were unanimous in pointing out that Smyslov was much weaker with the Black pieces than with the White. That the challenger had made definite progress in overcoming this weakness was strikingly illustrated in the initial victory. Chess players consider loss of the first game a bad omen. For instance, thirty years ago Capablanca lost his first game in his match with Alekhine in Buenos Aires, and then ceded to him the world chess title. In the fourth game Botvinnik came abreast of Smyslov, and in the next one he managed to capture the lead but not for long. The sixth encounter gave Smyslov a chance to take over the initiative, which he kept to the last.

It seems to me that this time Botvinnik was not as well prepared from the theoretical standpoint: he failed to "surprise" Smyslov even once with any novelty. Botvinnik played Black more weakly than usual, ceding four such games to his rival. Getting into an inferior position. Smyslov put up a tenacious

resistance, thereby sapping the energy of his older colleague. In the ninth and fifteenth games Botvinnik was close to victory; he had several chances to overtake his rival but Smyslov saved himself by a "miracle." The defending champion's defeat in the seventeenth game increased the gap between them to two points. The outcome was practically a foregone conclusion after this encounter.

It was noticeable that the world champion lacked self-confidence. In his brilliant tournament play Botvinnik was noted for his ability to attain victory at the most decisive moment against any opponent. This did not happen, however, in the home stretch of this match; it seemed as though he were already reconciled to defeat. Otherwise the draws agreed upon by his offer after eleven to fifteen moves in the nineteenth through the twenty-first games are inexplicable. The physical strain also had a telling effect.

This is the first match that Botvinnik lost in his entire career. Now he is an ex-world champion. But he handed over his coveted title to a worthy opponent. I do not believe that the defeated Botvinnik will want to go on "a chess pension" just yet. According to the rules of the International Chess Federation, the defeated champion has a right to a return match a year later.

The score is 12.5 to 9.5. This is a brilliant and impressive victory for Vasili Smyslov! It is well deserved, for he has accomplished a great deal in the past two years. He has built up his confidence, played with great accuracy and never once through the match experienced time trouble. I wouldn't recommend anyone to fall under a Smyslov attack: his "bites" are dangerous, his blows dynamic and his combinations irresistible. It also doesn't pay to go into the end-game with Smyslov: he conducts it with exceptionally careful figuring and finesse. The challenger showed himself superior in analyzing adjourned positions. He spotted opportunities in these positions which Botvinnik failed to find. Often when the games were adjourned with Botvinnik having the advantage, the world champion, on resumption of play, could not break through Smyslov's defense.

Smyslov's chess "engine" works superbly, precisely and faultlessly. It's a rare person who can play all three phases of the game with equal strength. He is probably one of the coolest maestros, a chess player with nerves of steel. In any case, nobody has ever noticed him get nervous during play. When all these attributes are in evidence, we have before us a chess player of tremendous potential power—a world champion.

At the height of the match in March, Smyslov marked his thirty-sixth birthday. His



VASILI SMYSLOV, SEVENTH WORLD CHESS CHAMPION

start in chess began at the age of seven, his first teacher being his father, an engineer in a Moscow factory. Smyslov was fourteen when he began participating in schoolboy tournaments in Moscow. He first faced chess masters in 1938 when he won the City Title. This victory brought him the title of Chess Master. Brilliant performances in the USSR Championships led to the title of Grandmaster being conferred on him in 1941. Grandmaster Smyslov has been a participant and winner in many international and Soviet tournaments since 1945.

Vasili Smyslov is an exceptionally popular grandmaster. During the contest he received numerous letters from well-wishers both in the Soviet Union and abroad. And what jubilation reigned when he became world champion! His telephone was busy all the time. His apartment was converted into a garden, filled with bouquets sent by his admirers. Every hour reams of congratulatory cables were delivered. This gala day in the life of Smyslov was capped by the award of a high government decoration, the Order of Lenin. The same order was bestowed on Botvinnik.

Vasili Smyslov is well known beyond the borders of his own country, too. He is well known in many European countries. In 1954 he visited the United States, where he met his old rival Samuel Reshevsky, the leading American chess player. These two stars had played a total of fourteen games in all their encounters. Smyslov won four, lost only one, while all the rest were draws. In the 1955 USSR vs USA match in Moscow, Arthur Bisguier lost all four games to Smyslov.

Besides being a gifted chess player, Smyslov also has other talents which absorb him. Just like Reshevsky, Smyslov is fond of music in general and singing in particular. After the USSR-USA match in New York, Smyslov appeared in a small recital of Russian songs and operatic numbers. I suppose that now the singing chess champion is in a cheerful and joyous mood and sings especially gaily.

Botvinnik's twenty-year reign as the king of world chess has been terminated by the youthful Smyslov. Perhaps it would not be out of order to call for three cheers for the new chess king.









