Impressions of Soviet Russia

By Charles Will Wright
Foreign Mineral Specialist, U. S. Bureau of Mines; Member, A.I.M.E.

THOSE that attended the seventeenth International Geological Congress held in Russia last summer had an excellent opportunity to gather data and to form impressions on the progress made in the industrialization of the country, particularly with regard to the mineral industries. Several trips to places of interest were arranged, supplementary to the technical sessions held in Moscow, the one to the Ural region being that which I selected as being most likely to be of interest.

The accomplishments of the last decade in opening up new mines and building new metallurgical plants in the Soviet Union have been outstanding. This could only be accomplished by a central government ready to employ the best technical talent, which was found principally in America, first to draw up plans and then to push them to completion without much regard to the final cost. Billions were spent, but the Soviet Union quickly became an independent industrial power.

In 1936 iron ore production was boosted to nineteen million tons, and coal output to 70 million tons, more than sufficient to supply its iron and steel plants, and most of the machinery required was manufactured in Russia, thus reducing imports to a minimum. As in the past, there was a large surplus of manganese ore for export, but exports of chromite were stopped. Aluminum output in the same year was 36,000 tons, zinc 63,700 tons, and lead 50,000 tons. Zinc and aluminum imports have been eliminated, but 30,000 tons of lead was necessary in 1936. Eighty-six thousand tons of copper were produced and 45,000 tons imported. Output of nickel, tungsten, tin, and antimony has thus far been unimportant, but new deposits of these minerals are being developed and some plants have already started to produce.

Statistics of gold and platinum production are not published and, although gold production has made rapid strides in recent years, there appears to have been a setback in 1937. The 1936 output is estimated at about 165,000 kilos, or about one-half that of the Union of South Africa. No estimates of the platinum output are given but it is believed to be less than in former years.

Russia has abundant supplies of magnesite, asbestos, and phosphates, of which it exports large quantities, and it produces its domestic requirements of mica, potash, and about enough sulphur, only 3,000 tons of sulphur having been imported in 1936. Petroleum production in 1936 was 27
million tons; 2½ million tons of which was exported, 40 per cent as refined products.

During the first half of 1937, the production of both iron ore and pig iron was somewhat less than the average for 1936, and the output of petroleum shows a notable recession.

Social Conditions at the Mines

But little opportunity was given to see the workmen's houses or the way they actually lived. Conditions are probably better than they were twenty years ago, but they are still bad. At each mine there was a club-house, churches in some instances being used for this purpose. Usually when the party approached one of these clubhouses, jazz phonograph music was so highly amplified through loud-speakers that it was difficult to talk or even think. Amplification is a typical feature in Russian life today. Chess and checker boards are to be seen in these clubs, but rarely any books or newspapers. Besides the big clubs, small rest rooms were seen in some of the plants, and small eating places, which were usually dingy, dirty, and high-priced; soup was one ruble and meals three to five rubles. Washrooms, wherever these were seen in the clubs or hotels, were unsanitary and inadequate. Many workmen live in poorly ventilated rooms without sanitary facilities. The average American workman would refuse to live in such a house, but in Russia it is an improvement, in former conditions. The houses at many of the mines were poorly constructed and in a bad state of repair—both those of the workmen and of the management—although at Magnitogorsk the superintendents and engineers had large, modern, comfortable homes with attractive flower gardens.

The workmen, including the women, seem healthy and interested in their work, and most of the children were healthy-looking youngsters. Apparently the State is making a special effort in all communities to take good care of the health and particularly of the education of its youth.

Work and Wages

Most of the work at the mines and plants is rated and norms for a day's work established under the Stakhanovite system. If a workman or group of men exceeds this norm there is naturally an increase in pay, which, in many instances, amounts to over twice the normal wages. Photographs of the best workers are placed on the walls of the club room with the praiseworthy records inscribed below for all to admire. Thus, by playing upon the workman's vanity and his pocketbook this system makes him do more work and increases the output per man shift, but often the grade of the ore mined or the final product suffers, and dissatisfaction and jealousies arise among the workmen. Such difficulties are also said to be due to a lack of efficient supervision and to favoritism. Every few months, a week or more is set aside for a Stakhanovite "push" so as to give the workmen a chance to establish new records and have their photographs published.

Wages vary from 170 to 350 paper rubles per month for common labor; the skilled worker gets from 400 to 1000 rubles, the foremen from 800 to 2000 rubles, the engineer from 1500 to 3000 rubles, and the plant superintendent from 2500 to 5000 rubles a month. (One gold ruble, $0.50, is equal to 11.09 paper rubles, each worth 4.54c.) Thus there is a wage difference of 1 to 15, from the common laborer who averages 250 rubles to that of the superintendent who averages 3750 rubles a month. The salary or wage spread at American mines or plants is, say, from $100 a month for common labor to $500 a month for the mine or plant superintendent, or 1 to 5.

Social life in Russia seems to be discouraged among the masses, except at community clubs, although those in power have elaborate homes and do some entertaining among themselves. Family life is far from satisfactory, and many are longing for a small home which they can call their own instead of being herded in apartments. Real friendships among the Russians are rare and with foreigners impossible.

The Uralian Excursion

Eighty members, representing 22 nations and colonies, went on the excursion to the Ural region. The trip was made in a special train with seven sleepers, two diners, and coaches for servants and baggage. Everything had been well prepared in advance; good guide books describing the geology and mineral deposits, geological hammers, bags, wrapping paper, and packing boxes for rock specimens were distributed to all. The dining car service was good, with plenty of mineral water, and hot tea could be had at any time from a samovar in each car. Two Russian geologists were in charge, with an Intourist leader and four competent interpreters. The geologists spoke English and were polite, but it was impossible to get much information of economic value from them.

Members of the party included twenty Americans, of whom four were women; eighteen Briti shers, from England, Canada, South Africa, Gold Coast, Tanganyika, Rhodesia, and India; three Swedes, three Frenchmen, two Rumanians, a Czechoslovak, a Swiss, an Austrian, two Japanese, and two Spaniards, the rest being Russian. German and Italian geologists were absent. Next to Russian, English was the language most used, followed by French. However, in our conversations with the older Russians we found that they understood German better than French or English.

This Uralian excursion was fortunate in having intelligent interpreters with whom one could discuss social conditions in Russia. One of these interpreters had spent several years in England as a governess. Her family had been well off before the war. She is now happily married and lives in a four-room apartment formerly owned by her mother. In this apartment she and her husband, a doctor, have one room; her mother another, and two others a third, the fourth being a general living room. Her mother works in a hospital and she at an office, getting 350 rubles a month. There is little home life, but she works all day and when not at the office does the cooking. She said that their apartment was attractive, like an English home, but that it was an exception. Due to the lack of living quarters, most of the people in Moscow, including the more educated class, live in cramped apartments, often with people of lower education and lower interests in life. They have but little social life, as all are working for the State and making sacrifices for the benefit of future generations. Many Russians, however, are given opportunities to increase their incomes by extra work and are saving to buy a radio, an automobile, or grand piano, and some to buy a small home, which may be purchased from the State for 60,000 rubles upward.

I asked another of the interpreters about her earnings and whether it was possible for anyone in Russia to build up a savings account or to make any
sort of investment for old age or for children. She is getting 350 rubles a month for five hours' office work a day, but has outside work which brings her monthly income up to about 800 rubles. Her husband also works as a newspaper reporter and makes about the same amount. Savings could be deposited in the bank at interest, but she said there was really no sense in saving, as all are assured of being taken care of when old and incapacitated, and children will be provided for by the State. All must work, however, as anyone who is not a worker is looked down upon. Personal property may be willed to children or relatives, and real estate, such as a country home, may be inherited, but not sold, as it is the property of the State. No young Soviet, she said, would express the wish to be rich. He wants to be an engineer, a technician, or a teacher. In Russia wealth does not mean comfort, security, or social respect, but causes those who may have it to worry about the jealousy of their neighbors and the possibility of being classed as a "kulak" or a "bourgeois." On the other hand, a high position, such as plant manager, permits one to enjoy all the comforts of a higher official in other countries, including a comfortable home, an automobile, and a vacation at the best summer resorts. But here too, the man that has acquired a good position in industry, the army, or politics, lives in fear that some day he may be accused of being unfaithful to the party, possibly by those that may want his job or for reasons beyond his control.

The Uralian excursion included the principal iron-ore mines, notably Magnitogorsk with its large steel works, the chromite mine of Saranovskaya, the magnesite deposits at Satka, the asbestos mines at Asbest, the coal mines near Chelabinsk, the platinum mines near Nighi Taghil, and the gold mines of the Beregovsk district. Although only a few of the mining districts of the Soviet Union were visited, it is doubtful if the general impressions of the members would have been changed much had they seen more.

It was impossible not to get the impression that the Russians felt they were being watched and that their actions might be misinterpreted. Their conversations with us were always guarded. They gave praise to progress in Russia and asked what others thought of it, but rarely inquired about what was being done in other countries. At the mineralogical museums, the local clubhouses, the pioneer palaces, etc., there was always a book in which one was asked to write comments or impressions. As a group, the Russians want to be friendly and sociable, but there seems to be some intangible fear that prevents them. One also got the impression that among those in charge of industrial operations and the State organizations there are climbers ready to discredit the man higher up in case they can do so to their advantage. The fear complex is increasing and healthy constructive criticism of conditions is decreasing.

A few of our party were ready to praise all they saw or heard in Russia, and one could not help admiring much that has been done to build up this new nation in such a short time particularly so when the raw material they have to build with is considered.

At our farewell get-together the last night in the dining cars, the members of the party presented to those responsible for the success of the trip a letter of commendation which all signed. The Intourist leader in his reply said that he wanted us to tell our friends on our return home about how happy everyone was in Russia, about their efficient organization, and particularly about their enormous mineral reserves.

Russian geologists are to be admired for what they have done during the last decade in discovering new sources of mineral supply, in geological mapping, and in the way they are training young geologists for field work. The Government, with the foresight to make large appropriations for such work, is also to be complimented. It is largely due to the expansion of geological field work that the known mineral wealth of Russia has so largely increased.

However, some of the less experienced geologists are over-optimistic in their estimates of mineral reserves, because of the urge to find new mineral deposits and for personal credit. Such optimistic estimates have in some instances been the cause of unwise capital expenditures before making the necessary detailed investigations, and will eventually have their reaction on industry in general. In one instance, at Khalilovo, near Orsk, a branch railway line of considerable length was built to an open-pit iron mine. According to one of the Russian engineers, small ore shipments were made to the blast furnaces, but on account of the refractory nature of the ore the smelters refused to take more and operations had to be suspended.

At the nickel mines of Aktubinsk and Novo-Akkerman, extensive developments are in progress and a large new mining camp is in construction, but the low-grade deposits of nickel seem extensive but quite superficial. It was stated that a pilot plant was testing out the method of recovering the nickel from these ores at Orsk. Possibly here, too, the large capital outlay is unwarranted.

At platinum and gold mines, where information was withheld, some of the members felt that the mines must be operating at a loss. They also suspected that permits were not given to see some of the plants because of inefficient operation rather than out of fear that one might become acquainted with any secret process. As in Germany, the present government policy in attempting to supply the demand for mineral commodities is to produce them from domestic sources regardless of cost.

Calendar of Coming Meetings

Dec. 6-10. American Society of Mechanical Engineers, New York City.
Dec. 20. Annual meeting, American Association for the Advancement of Science, Indianapolis. The Section on Geology and Geography, meeting jointly with the Geological Society of America, will concentrate its sessions into the last two days. G. E. Mansfield will make an address on Dec. 31, and there will be the annual meeting of the petroleum geology of the Illinois-Indiana basin.
March 16-18. 25th annual meeting, American Association of Petroleum Geologists, Roosevelt Hotel, New Orleans.
Mar. 27-Apr. 2. 46th annual meeting, American Ceramic Society, New Orleans.
May 5-6. 15th annual coal congress and exposition, American Mining Congress, Music Hall, Cincinnati.
June 3-5. Annual meeting, Mine Inspectors' Institute, Springfield, Ill.
Aug. 31-Sept. 3. A.I.E.E. Pacific Coast convention, Spokane, Wash.