

SOVIET EXHIBITION

Features

WITH the news that Frol R. Kozlov, First Deputy Chairman of the USSR Council of Ministers, was to open the Soviet Exhibition in New York's Coliseum on June 30th, we hied ourselves to that massive exposition palace . . . for Mr. Kozlov is a metallurgist, and we travel miles to see metallurgists!

T'was a lovely day for such an expedition . . . as we dashed through the subways—air-cooled at 96°—we thought of glaciers, ice factories, and the air-conditioned Coliseum. Whatever else the exhibit had to offer, at least a few hours of comfort were assured.

We found things in a state of confusion. . . President Eisenhower was expected momentarily and Mr. Kozlov was nowhere to be found. We determined to return another day.

Two days later. . . starting with an hour long telephone barrage we thought that we had things set up. "Go to the 60th street entrance" we were told. . . and to that entrance we went. "Go to the Coliseum office building on 58th street" we were told at the 60th street entrance. Arriving exhausted at the press office in the bowels of the Coliseum, we learned, "The gentleman from the Academy of Science whom you wish to see is on the phone to Moscow." "A-ha," we thought, "getting the straight word before talking to the JOURNAL OF METALS". Noses held high, we wandered off into the maze of exhibits to find our man, Mr. Ademski. "Metallurgist? I am a petroleum engineer," was his response to our first query. "Ah yes," said an interpreter, "you should see Mr. Nikanov, who is with the Institute of Metallurgy of the Academy of Science".

We located Mr. Nikanov, who was adjusting a machine for the continuous casting of micron diameter wire. Deciding we had better look about until all was working well, we spied a beautifully constructed model of a new Soviet blast furnace and open-hearth furnace plant, and a little further on a model of a continuous casting line for slabs. At the fashion show, there were several more beautifully constructed models.

The first piece of testing equipment that we noticed was Kornilov's centrifuge for creep, rupture, and bend tests which was described in the March 1958 issue of JOURNAL OF METALS. We learned that the model on display was an early one and that today's are much more automatic.

We ran onto a spectrograph, labeled the DFS-12 fast spectrograph for reading in the range of 2000 to 6500 Å. We also located an electron microscope labeled the UMEB 100 which reminded us a good deal of the IRSID model.

We found a model of a vacuum degassing apparatus designed by Samarin. Twenty-five ton ladles are placed in the vacuum chamber. Pressures as low as 1 mm Hg are used for degassing on a 12 to 15 min operation.

Other testing equipment shown included a general purpose resonance testing machine for bending or torsion fatigue tests. Adjusting the programming device, the operator got the machine off to a flying start—very impressive. We also inspected a plastic deformation machine which appeared like many we had seen previously.

Oh yes. . . Mr. Nikanov. . . we found him breathing a sigh of relief as his micron wire machine began producing. "Mr. Nikanov, would you explain to us something about this machine," we said. A smile. . . an outpouring of Russian. . . and a blank look on our part, as our Russian is weak. Nikanov had an idea: "Können sie Deutsch sprechen?" . . . "Ja, Ja," we replied and we were soon roaring on toward an explanation of the equipment. We learned that the machine is designed to produce micron diameter wire continuously from fused metals, such as copper, cast iron, tin, germanium, silver, and gold. Diameters from 2 to 100 μ are possible. The wire is used for windings in small transformers and various electrical relays.

Mr. Nikanov first explained, then demonstrated the equipment that we have already mentioned and which is illustrated on these pages.

He paused at the last piece of equipment, wiping dust from the exhibit, "Viel Staub in New York." (Much dust in New York.) We couldn't disagree, "But there are many nice residential areas around New York," we explained. "I don't think that I care for New York very much. We came all this way to show you what we have, and now you must come to Moscow." With that we said "Aufwiedersehen" and went home to see if there was enough loose change in petty cash to finance the trip. F.W.S.

Below, general purpose resonance testing machine for bending or torsion fatigue tests, with programming: frequency 25 cps, max bending moment 300 kg-m, max amplitude of travel 28 mm, max amplitude angular oscillation + or- 5°, and max torque 1000 kg-m.

