KRUPP CRUOSONWERK ORE TESTING PLANT, MAGDEBURG, GERMANY.

Ore dressing generally involves two distinct processes: preparatory crushing of the ore and subsequent separation of the various components of the disintegrated material. Owing to the great variety, both of the physical qualities and the chemical composition of ores, a great number of possibilities of treatment offer themselves in crushing and still more so in the concentration of ores. In many cases it is not easy to decide which of these possible ways is the most profitable one for the treatment of the ore. For the miner himself it would hardly be possible and certainly not advisable to erect an experimental plant of his own; this would be a costly and inadequate undertaking.

Owing to this fact and in order to assist the Canadian mining industry, the Canadian Department of Mines has of late a Central Testing Station in full operation at Ottawa. This testing station has been laid out in such a way that it allows of making all kinds of tests with ore, which is found within the boundaries of the Dominion. The station will no doubt help a great deal in the development of the rich mineral resources of Canada.

In connection herewith it may be interesting to the Canadian mining companies and owners of mining properties to learn that the Krupp Engineering Works maintain a similar full-sized ore-testing station at their branch works in Magdeburg, Germany.

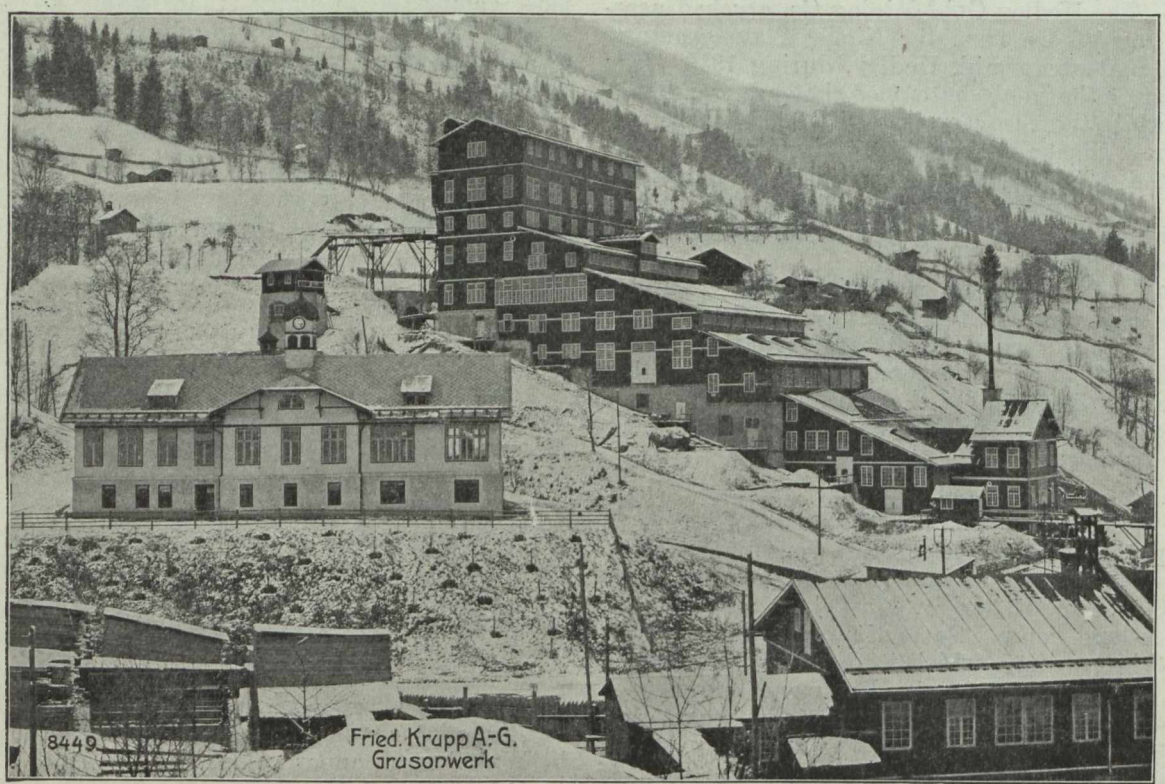
This testing station has been in full operation for more than 15 years, and is equipped with the most up-to-date machinery applied for ore dressing.

The more important machines in this plant, all of full size, are the following:

Ore crushers, slow and high speed roller mills, dry and wet grinding ball mills, Chilian mills, dry and wet grinding tube mills, several other systems of grinding machines, revolving and shaking screens, hydraulic classifiers, coarse and fine jigs, concentrating tables, round buddles, a light 3-head stamp battery and a heavy 5-head stamp battery (either of which may be used with or without different amalgamating tables), washing trommels, pumps, tanks, elevators, roasting and distilling furnaces, etc., etc.

A separate department of this large testing station is exclusively devoted to electromagnetic separation with various machines for treating any kind of strongly or feebly magnetic ores and minerals by means of the dry or wet process.

As regards the size of pieces which are fed into the separators, these may vary according to their magnetic and other special characteristics, between about 2½ inches across down to 250 mesh.



The Mitterberg (Austria) Copper Concentrating Plant. Ullrich Magnetic Separators Eliminate the Ferrous Ingredients of the Middlings. The Whole of the Installation, Mechanical and Magnetic was Supplied by the Krupp Works, of Magdeburg.

To the ore testing station is attached a special chemical laboratory.

With this plant the Krupp Works are in a position to make any kind of test on a full working scale. The engineers and metallurgists, under whose supervision all tests are carried out, are specially trained men, who, by their practice have acquired an intimate knowledge of most of the mining camps of the world and thus have thorough experience of the conditions prevailing there.

The tests already made on ores from all parts of the world amount to over 2,500 and many a difficult problem has been solved.

The expenses of maintaining an establishment like this are naturally very high. Nevertheless the Krupp