

*Privilege—Mr. Weaver*

"A copper concentrate is obtained as high as 15 per cent copper with a recovery of 85 per cent of the copper values in the ore. There is no reason to doubt, as far as the copper is concerned, that these results could be obtained in practice, and it is reasonable to assume that better results would be obtained with experience, and manipulation after operations have progressed for some time.

The results also show that a separation has been made of the chalcopyrite from the sphalerite, pyrite, and gangue, and of the sphalerite from the pyrite and gangue. A zinc concentrate, 40 per cent zinc, with a recovery of 50 per cent zinc values, has been obtained."

Copper concentrates containing 22.6 per cent copper, with a recovery of over 86 per cent were obtained from disseminated ore. (Report No. 608, page 103).

It must be added here that at that time the mines branch had only laboratory equipment and no large scale equipment to make pilot runs in order to confirm laboratory findings. However, the most important point to note is that the mines branch investigations showed that the economic minerals could be separated into good grade concentrates.

It was in 1925 that Whitney interests of New York came into the picture. In "History of Development and Organization at Flin Flon mines, Manitoba," C.I.M., Trans., Vol. XXXIII, page 214, W. A. Green says:

"Results of small experimental tests which we (Whitney interests) had made on the ore prior to the examination of the property (in June, 1925) led us to believe that a satisfactory treatment might be obtained."

W. A. Green says further:

"Having assured ourselves of the presence of the ore and available power, our next step was to prove, by more extensive laboratory tests, the correctness of our belief that a successful method of treatment for the ore could be worked out. Accordingly, 300 tons of ore was shipped from Flin Flon to Denver, Colorado, to the research laboratories of Metals Exploration Company, a company belonging to the Whitney interests."

S. P. Lowe carried on this experimental work in Denver.

In "concentration and cyanidation at Flin Flon pilot mill" (C.I.M., Trans., Vol. XXXIII, page 222) S. P. Lowe says:

"Flotation testing of Flin Flon ore was started in the Denver laboratory of Complex Ore Recoveries Co. in March, 1926. There had been a considerable amount of flotation testing previously which had shown possibilities of success, and it was felt that, with the increased knowledge of flotation and the comparatively new reagents then available, flotation held out the best prospects for a successful treatment of this ore."

The pilot plant runs, treating two tons a day, were completed on July 1, 1926, and on August 1, 1926, it was decided to instal a 25-ton pilot flotation plant at Flin Flon.

S. P. Lowe says:

"This (pilot) mill was operated until March 10, 1928, treating ore from various parts of the mine. The pilot plant was started again in July, 1928, and operated until February, 1929, when it was permanently shut down."

It was found that before an efficient separation of the economic minerals was obtained, the removal of talc was a necessity. This was in line with the recommendations made by the mines branch in 1922.

The above paper gives complete details of the results obtained by the Flin Flon pilot plant and they can be compared with the results obtained by the mines branch in 1921 and 1922. Since during

the operation of Flin Flon pilot plant, new reagents became available, these new reagents were introduced into flotation.

The 3,000 ton mill at Flin Flon went into operation probably some time in 1930. However, operating difficulties were encountered, and Mr. R. E. Phelan, then general manager of Hudson Bay Mining and Smelting Company, asked for a flotation engineer from the mines branch. Accordingly, Mr. A. K. Anderson was sent to the mine late in December, 1930, where Mr. Phelan explained the difficulties to Mr. Anderson.

The latter carried on research at the mill for about two months. At the completion of this research, Mr. Anderson returned and submitted his report. In his letter to Mr. John McLeish, director of mines branch, dated March 27, 1931, Mr. Phelan says in part:

"We all thought very highly of Mr. Anderson and he has brought out two things which may be very important; one is the use of sodium sulphide and the other, the use of an iron salt in the circuit."

On June 13, 1931, Mr. Phelan requested information from the mines branch in connection with the removal of some deleterious material, including talc, prior to flotation for valuable minerals. He was referred to mines branch reports of 1921 and 1922.

That is signed by the head of the mineral dressing section. I am quite satisfied to leave this on the record.

**Mr. Nicholson:** Mr. Speaker, further to that point of privilege, I wish to thank the hon. member for Churchill (Mr. Weaver) for having placed this on the record. Had I found the house in such good humour when I made my speech I would have asked permission to read the whole report yesterday.

**NATIONAL DEFENCE****INQUIRY AS TO CANADIAN RIFLES SENT TO FRENCH ARMY**

**Hon. R. O. Campney (Associate Minister of National Defence):** Mr. Speaker, yesterday on the orders of the day the hon. member for Calgary North (Mr. Harkness) asked me four questions regarding the 26,000 .30 calibre rifles sent by Canada to France. First, he asked as to the make of these rifles. The rifles are Springfield .30 M1917, used by the United States army during the first world war.

Second and third, he asked when and from whom they were acquired. The rifles were purchased by Canada from the United States in the early days of the second world war for the use of veterans' guards and similar organizations. Fourth, he asked why the rifles are being disposed of. The rifles, of course, are not of the type used by the Canadian army, and they are being sent to France as part of our mutual aid program.

**COMMUNISM****COMMUNIST AGENTS—MOTION FOR ADJOURNMENT UNDER STANDING ORDER 31**

**Mr. J. H. Blackmore (Lethbridge):** Mr. Speaker, I rise to ask for the adjournment of