

THE CANADIAN MINING JOURNAL

VOL. XXXVII.

TORONTO, December 15, 1916.

No. 24

The Canadian Mining Journal

With which is incorporated the
"CANADIAN MINING REVIEW"

Devoted to Mining, Metallurgy and Allied Industries in Canada.

Published fortnightly by the

MINES PUBLISHING CO., LIMITED

Head Office - - - 263-5 Adelaide Street, West, Toronto
Branch Office - - - - - 600 Read Bldg., Montreal

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SUBSCRIPTIONS — Payable in advance, \$2.00 a year of 24 numbers, including postage in Canada. In all other countries, including postage, \$3.00 a year.

Advertising copy should reach the Toronto Office by the 8th, for issues of the 15th of each month, and by the 23rd for the issues of the first of the following month. If proof is required, the copy should be sent so that the accepted proof will reach the Toronto Office by the above dates.

CIRCULATION

"Entered as second-class matter April 23rd, 1908, at the post office at Buffalo, N.Y., under the Act of Congress of March 3rd 1879."

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SCIENTIFIC AND INDUSTRIAL RESEARCH

The impetus given to research by war time necessities has been frequently noted. An excellent example is furnished by the efforts of the Nipissing Mining Company to combat the increasing cost of supplies. In the November issue of the Bulletin of the Canadian Mining Institute, Mr. R. B. Watson says:

"Before the war, aluminum dust cost 33.82c. and caustic soda 2.11c. per pound, laid down at the mine. At the expiration of our contract for aluminum dust in May 1916, the lowest price at which dust could be bought was 90c. per lb. and caustic soda had risen to 5.77 per lb. At these prices, the increased cost for these two chemicals would have amounted to about \$33,000 per year. This was excessive and necessitated the finding of a substitute immediately. The utilization of sodium sulphide as a precipitant appeared to present the most promising solution of the difficulty, and the experiments carried out by J. J. Denny, in charge of the Company's research department, were so satisfactory, that in June, 1916, the process was adopted for the precipitation of all the mill solutions. It would appear, that even when prices of all chemicals used return to normal, sodium sulphide precipitation will be cheaper than the method formerly employed."

In the application of research to industry the Nipissing Mining Company has been signally successful. Mr. Watson and Mr. Denny are to be congratulated on their methods and results. They have made a valuable contribution to the metallurgy of silver and at the same time increased the profits of their company.

Another recent success to be credited to the Cobalt district, and particularly to Mr. Thos. Jones of the Buffalo Mining Company and Mr. A. A. Cole of the T. and N. O. Railway Commission, is the development of a pine oil industry. With the co-operation of the Forestry and Mines Departments a successful process for utilizing red pine stumps has been worked out. Pine oil, one of the chief products of distillation of red pine, is in great demand by those using oil flotation processes for concentrating ores. It is not unlikely that the Cobalt silver district will soon be able to obtain in Ontario all the pine oil required. In fact there is ground for believing that the industry may result in Ontario being an exporter of pine oil.

Another satisfactory development in Ontario is the promising results being obtained at the University of Toronto by Mr. Geo. Guess and his assistants, who are working on the problem of refining nickel. Mr. Guess is working for the Ontario Nickel Commission and is, we understand, meeting with considerable success.