

# THE CANADIAN MINING JOURNAL

VOL. XXXII.

TORONTO, Sept. 1, 1911

No. 17

## 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 - - - 17-21-23 Manning Arcade Annex, Toronto  
Branch Offices - Montreal, Halifax, Victoria, and London, Eng.  
London Office - - - Walter R. Skinner, 11-12 Clement's Lane,  
London, E.C.

Editor:

J. C. MURRAY, B.A., B.Sc.

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 the 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."

#### CONTENTS.

Editorial .....	541
(a) The Use and Care of Mine-Rescue Apparatus .....	541
(b) The Penniac Reef Gold Mines .....	542
(c) The Eight Hours Act in Operation .....	542
(d) Flim-Flam .....	543
(e) Tin and Topaz in New Brunswick .....	544
(f) Editorial Notes .....	544
Correspondence .....	545
Reciprocity and the Mining Industry, by A. B. Willmott .....	546
Tin and Topaz in N. B., by R. W. Brock .....	549
Prospecting Three Centuries Ago, by J. C. M. ....	551
Auriferous Ferro-Dolomites of California, by William H. Storms .....	553
McIntyre-Porcupine Mines, Limited, by V. H. Emery .....	555
A Visit to the West, by W. E. H. Carter .....	558
Electro-thermic Smelting of Zinc Ores .....	558
Tentative Programme and Rules .....	559
Suggestion About Treatment of Porcupine Ores, by Phil. H. Moore .....	560
Canadian Mining Institute—Western Branch .....	562
Consolidated Mining and Smelting Company .....	564
Industrial Section .....	565
Special Correspondence, etc. ....	566

### THE USE AND CARE OF MINE-RESCUE APPARATUS.

The United States Bureau of Mines is attacking vigorously the problem of educating the coal miner in the use of mine-rescue breathing apparatus. In addition to distributing carefully written pamphlets, the Bureau has arranged to hold a National Safety Demonstration late in October of the present year. The Demonstration is to be held in Forbes' Field, Pittsburgh, under the joint auspices of the Bureau, the American Red Cross Society, and the Pittsburg Coal Operators' Association. The date selected is October 27th. Elsewhere in these columns the reader will find full details.

This is but one of the steps taken by the Bureau to give the movement right publicity. The most effective step is the distribution of educative literature.

The latest bulletin, Miners' Circular 4, compiled by Mr. James W. Paul, is most informing. After a general statement, in which reference is made to the fact that the Government of British Columbia requires breathing apparatus to be kept at coal mines, Mr. Paul proceeds to describe four types of apparatus — the Draeger, 1907 type; the Draeger No. 2, 1910 type; the Westphalia; and the Fleuss or Proto. He advocates the use of mouth-breathing types, in which the eyes are protected by detached goggles and the nose by clips. The helmet, he believes, is not necessary for safe and effective service in unbreathable gases. The chief disadvantages of the mouth-breathing types are that the wearer is forced to breathe through his mouth and is unable to carry on any conversation, although audible signals are used successfully.

The most important preliminary tests to be applied to any breathing apparatus before it is to be used are as follows:

The quantity of oxygen and air circulated is determined by attaching a measuring bag to the inhalation tube leading to the helmet or mouthpiece, opening the exhalation tube, turning on the oxygen, and then noting the time required to fill the bag. The pressure in the intake tube and vacuum in the return tube; the condition of connections and regenerators; the fit of helmet, and the condition of the complicated reducing valves, should all be determined. Simple directions are contained in Mr. Paul's pamphlet covering all these points.

Especially emphasis is placed upon the proper care of apparatus. Such items as the best lubricant to use are clearly stated. The method of disinfecting is given, and so on. These directions strike us as being thoroughly practical and sane.