

recognized. Mr. Henry W. Edwards, in an article reproduced in this issue by special permission of The Engineering Magazine, outlines very usefully the uses of concrete underground.

We consider this article well worthy of reprinting. It brings before our readers a subject that will sooner or later obtrude itself in established mining camps. The utilization of concrete must command attention for several reasons. The supply of mine-timber gradually grows less. It is extremely difficult to conserve this supply. On the other hand, experience is proving that concrete may sometimes effectively replace timber, even where supplies of the latter are abundant. Concrete, moreover, can be utilized where timber cannot. Concrete is infinitely plastic and can be made to assume any desired shape. Its component materials can be assembled and mixed without excessive cost in almost any locality.

The whole question resolves itself into a problem of economics and of engineering skill. Only the fringe of the subject has been touched.

THE ANNUAL REPORT OF THE ONTARIO BUREAU OF MINES.

Part I., Vol. XVIII., of the Annual Report of the Ontario Bureau of Mines appears just as we are going to press. In a later issue we shall discuss it adequately. At present we wish to express our appreciation of the careful and masterly Statistical Review that takes up the first seventy pages of this volume. The Deputy Minister of Mines, Mr. T. W. Gibson, is personally responsible for this section, and it is notably workmanlike, comprehensive, and clear.

EDITORIAL NOTES.

The public will give thanks for the latest volume issued by the Geological Survey. "A Descriptive Sketch of the Geology and Economic Minerals of Canada," compiled by Dr. G. A. Young under the direction of the Survey. The book is a model of clean editing and intelligent selection. In both respects it is superior to any official Canadian publication. It gives a bird's-eye view of the economic geology of the Dominion. Extended notice is given on another page.

Western railroads have granted valuable concessions to the Los Angeles Chamber of Mines. The Chamber is endeavouring to assemble in Los Angeles a mining and oil exhibit. To aid this good work the railroad has consented to carry free of charge all ore and oil exhibits.

Shipments of 50,000 tons of Chinese pig iron are to be made to New York at prices that compare favourably with Pittsburg quotations for delivery on the

Atlantic seaboard. The chief iron works of the Chinese Empire are situated 750 miles inland on the Yangtze River, near Han Kow. Cheap labour, excellent ore and good coal all contribute to the low production costs. The possibility of such shipments being made re-adjusts our ideas of international commerce.

MEXICAN MINING COSTS.

Mexico Mines of El Oro, Limited, is a corporation subsidiary to the El Oro Mining and Railway Company, Limited. It operates the Mexico mine, near the town of El Oro, Mexico. The company's record is worth noting.

Organized in 1904, the company had its plant completed and running in October, 1907. The positive ore reserves in June of that year amounted to 178,240 tons, carrying \$11.53 gold and 6.9 ounces silver per ton. The equipment as completed in October, 1907, consisted of a 40-stamp mill, six-tube mill, and a cyanide plant.

It was expected at first that the stamp-mill would crush 200 tons per day. In two years that expectation has been nearly doubled. At present the 40 stamps crush 378 tons per day, a duty of 9.45 tons per day per stamp.

Last year, ending June 30, 1909, the ore averaged \$13.47 in gold per ton. The mill treated 110,105 tons, getting an average extraction of \$12.44 per ton, a recovery of 92.35 per cent.—94.46 of the gold and 87.35 of the silver. During the previous year the recovery was 89.6 per cent.

The total working cost was \$5.67 per ton, as compared with \$6.33 for the preceding year. Development and State and Federal taxes amounted to \$1.64 per ton in the past year, while in the previous year they averaged only \$1.27. Thus the reduction in working costs is 40 cents greater than would appear.

By increasing the duty of the tube-mills it is hoped to bring the costs down still further.

The present ore reserves amount to 191,655 tons, almost two years' supply at capacity of mill.

VOLCANIC GAS.

Through long years Mr. Eugene Coste has contended for the inorganic origin of natural gas and petroleum as opposed to the organic origin. Mr. Coste's papers on the subject in the publication of the Canadian Mining Institute have attracted much attention but his converts have been few. Of course most of us who have attended the annual meetings had to accept the theory (outwardly at least) and now it is receiving support from no less an authority than Dr. Becker, of the U. S. Geological Survey, "an unexpected source."

To Mr. Coste's long-continued, "vigorous, almost polemic, writing is mainly due the renewed interest in the long dormant theory of the inorganic origin of petroleum." Can we say to Mr. Coste "patience and perseverance made a bishop of his reverence"? Or is the conundrum sprung by that punster, Mr. Mickle, during one of the hot debates at a meeting of the Institute in Montreal some years ago appropriate: "What is the difference between a vegetarian and a man who believes in the organic origin of gas?" Give it up! "The one draws the line at meat while the other will swallow anything."