

The steamer White Star, the upper works of which were destroyed by fire at Toronto last summer, has been purchased by the Montreal and Cornwall Navigation Company. She was towed to Cornwall and will be rebuilt there.

The Dominion Government has decided to place two ice-breaking steamers on the St. Lawrence between Quebec and Montreal. There will be one big steamer to keep the channel at Cap Rouge, the most dangerous spot in the river, clear of ice during the entire winter, and a smaller steamer between Sorel and Montreal. While nothing has been decided upon definitely, it is thought that a vessel measuring 200 feet long, 43 feet beam, and drawing 18 feet of water will about fill the bill. Armstrong, Whitworth & Co., of Newcastle-on-Tyne, will probably be the builders, as they have had more experience than any other company, they being the builders of the Russian ice-breaker Ermak and other large vessels. The Ermak is 305 feet in length, 71 feet beam, and 42 feet 6 inches deep, so that the vessel proposed for the St. Lawrence is considerably smaller. The ice-breaker will be utilized during the summer for light-house and buoy work, and possibly for wrecking. The sum of \$300,000 has been placed in the estimates for the vessel. It is expected she will be ready for next fall. The Armstrong & Whitworth Co. state that the experience with these ice-breakers has been very satisfactory.

At the first session of the Merchant Marine Commission, authorized by the United States Congress to consider and recommend legislation for the development of the American merchant marine, C. B. Orcutt, president of the Newport News Shipbuilding Company, told the commission that ships can be built in England at from 50 to 75 per cent. less than they can be built in the United States. A ship costing \$400,000 there can be built in England for \$100,000, he said. The cause of this great difference was that 75 per cent. more is paid for labor in the yards of the United States than in Great Britain, and at the same time there is 40 per cent. in the cost of material in favor of English builders. He said that the protective tariff was responsible for the difference in cost of material. Lewis Nixon, the shipbuilder, said builders in the United States had been constructing too good ships for American use. "Suppose you should take the duty off all shipbuilding materials, do you think that would be any benefit?" asked Senator Lodge. "You would have to take the tariff off everything, because everything goes into a ship. If we had free material and free ships we should have to have free labor, too, because you recognize that labor is paid as well."

LITERARY NOTES.

The following publications have been received at the office of the Canadian Engineer:

"Modern Air-brake Practice: Its Use and Abuse," with questions and answers for locomotive engineers and electric motormen. By Frank H. Dukessmith, inventor of the Dukessmith air-brake release signal. F. J. Drake & Co., Chicago; \$1.50. A useful book for railway men and mechanics.

"Easy Lessons; or the Stepping-stone to Architecture." A series of questions and answers explaining the principles and progress of architecture. By Thos. Mitchell. The Industrial Publication Co., New York; 50 cents. A handy book of reference and information for architects and others.

"Transactions of the Engineering Society of the School of Practical Science, Toronto." This is Vol. XVII. of the issue of these transactions, and contains papers covering a wide field read before the society; 50 cents. P. M. Sauder is corresponding secretary of the society.

"The Currents on the South-eastern Coasts of Newfoundland." Compiled from tidal and current surveys, and published by the Department of Marine and Fisheries, Ottawa.

"The Iron Age Directory, 1904." Classified index of goods manufactured by advertisers in the Iron Age.

"Martin's Up-to-Date Tables, for Use Throughout the Empire: Weights, Measures, Coinage." Compiled by Alfred J. Martin, F.S.I.; published by T. Fisher Unwin, London, E.C. Also, Martin's "Up-to-Date Beginners' Table Book for Schools and Home Teaching" A supplement to above. Price, 1d. Very useful little books.

"The Cement Age: The Many New Uses and Increasing Demand for Plastic Materials." By R. W. Lesley. A paper read before the Engineers' Club of Philadelphia, November, 1903.

"Clarkson Bulletin, April, 1904." Information respecting the Thomas S. Clarkson Memorial School of Technology, Potsdam, N.Y.



CANADIAN ELECTRICAL ASSOCIATION.

Arrangements are well in hand for the annual convention of the Canadian Electrical Association, to be held on the 15th, 16th and 17th inst. at the Royal Hotel, Hamilton. The following are the main items of the programme:

June 15th.—a.m.—Meeting of Executive Committee.

Welcome by Mayor on behalf of citizens of Hamilton.

Opening session.

p.m.—Business, Papers and Question Box.

Evening.—Papers.

June 16th.—a.m.—Visit to sub-stations, Deering Works and Westinghouse Works, Papers.

p.m.—Papers, Question Box, election of officers and unfinished business.

Evening.—Annual banquet.

June 17th.—a.m.—Visit to St. Catharines, DeCew Falls (luncheon) and Niagara Falls by courtesy of Hamilton Cataract Power, Light and Traction Co.

The following papers will be presented:

"Origin and Development of Storage Batteries," E. B. Walker.

"The Curtis Steam Turbine," Frank C. Smallpiece.

"Statistics of Canadian Progress in Electrical Application," George Johnson.

"Heavy Electric Traction by Alternating Currents," P. M. Lincoln.

"The Toronto and Niagara Power Development," with lantern illustration, K. L. Aitken.



A recent accident in Nova Scotia has drawn attention to the danger of the old plan of hoisting men from the pit in tubs or buckets. In many cases there are no indicators in the engine room, and it is understood that the mines department will make the provision of indicators compulsory.



The Industrial Advocate says the old time arrastra is being introduced in the gold mines of Nova Scotia, one being in use at Clam Harbor. It has the very great merit of cheapness, being nothing more than a circular stone of granite revolving in a cast iron pan and its weight is sufficient to break up ordinary ore. Many mining men claim that for free gold milling the arrastra gives results that cannot be approached by modern stamp mills, and refer to the absence of slimes and flouring of the gold. It is much used in the older Spanish mines in Mexico and other places.



R. C. Coutlee, Aylmer, Que., has been appointed good roads instructor by the Nova Scotia Government.

Stollmeyer, the Pitch Lake king, who made a fortune out of asphalt, is dead, at the age of 91. He came to America as a penniless German immigrant.

—The Canadian Association of Stationary Engineers, Toronto, No. 1, will hold their annual meeting in Toronto on June 15th for the election of officers, delegates to the annual convention, to be held in Hamilton, Ont., in August, and other business.