

## CONCRETE SHIP CONSTRUCTION

The new booklet, "Concrete Ships," just issued by the Portland Cement Association, Chicago, contains the following brief description of the concrete boat which was built at Montreal last summer:—

"There is now under construction at Montreal a 125-ft. single screw steamer having structural steel ribs and a keel and a hull of reinforced concrete. This vessel has a beam of 22 ft. and a depth of 13 ft. The concrete shell varies in thickness from 3 to 5 inches between the ribs, which are 27 inches apart. The boat is intended for service on the lakes and was launched November 14th. The boat is being built by the Atlas Construction Co., Limited, Montreal."

The booklet above mentioned also describes a concrete barge which is being built near New York by the Louis L. Brown Co., of New York. The barge is 112 ft. long, 33 ft. beam and 10 feet deep. When light it will have a draft of 3 ft. 4 ins. Its carrying capacity is 700 tons. The following information regarding the barge was supplied by the contracting company:—

"The frame consists of reinforced concrete members in which deformed rods are used as reinforcement. The shell is reinforced with wire mesh. The concrete is to be waterproof in itself by proper proportioning, mixing and placing. The rail, bulkheads and deckhouse are also of concrete, the wood used being that for the fender, wales and gunwales. This barge will have all the usual fittings common to floating structures of its kind, and is intended for use in the harbors and inland waters."

A large ocean-going cargo vessel built of reinforced concrete is under construction at Redwood City, California. Regarding this boat, the "Concrete Ships" booklet says:—

"Early in 1917 a group of San Francisco capitalists formed the San Francisco Shipbuilding Co., to undertake the construction of sea-going vessels of concrete. The company is now building an ocean-going cargo vessel of nearly 5,000 tons, that will be about 330 feet long and 46-foot beam. In constructing this vessel the reinforcement was welded together, thus reducing to a minimum the quantity of steel required, by avoiding laps that otherwise would have been necessary. Plans for this work were developed by Allan McDonald, of McDonald & Kahn, San Francisco. The original drawings indicated that the reinforcement used weighs less than the bolts needed in a wood ship of equal dimensions, and that the hull will weigh less than that of a wood ship. 2,500-horse-power turbine engines, equipped with reduction gears, will be used as motive power. Progress in the construction of this, the largest concrete vessel yet to be built, has recently been shown at motion picture theatres throughout the country. It is expected that work will be finished and the vessel launched early in 1918."

## TO ROLL PLATES IN HAMILTON

The Steel Company of Canada, Limited, are arranging to roll steel plates at their Hamilton plant. This will be the second rolling mill in Hamilton to manufacture plates, as the Dominion Steel Foundry Co., Limited, of Hamilton, began rolling plates in that city a couple months ago.

## CANADIAN SOCIETY OF CIVIL ENGINEERS REVISION OF BY-LAWS

**C**HANGES in the by-laws of the Canadian Society of Civil Engineers are now being submitted to the membership by the council of the society. The changes which are proposed to bring the by-laws quite up to date and also to tend toward improvement of the status of the society, are the result of the work of the Committee on Society Affairs, and they are summed up in the following report of the committee recently made to the council:

"As the proposed change in name involves a change in the charter, the committee has referred the matter to the society's legal adviser, who is preparing the necessary series of amendments. The change of name is really a separate and distinct matter from the proposed revision of the by-laws.

"The proposed revision of the by-laws is recommended by the Committee of Society Affairs as a rearrangement and rewording which co-ordinates the amendments made from time to time, and the committee considers it a desirable improvement on the present by-laws. It also includes several modifications which carry out the ideas developed in the committee's discussions for the promotion of the interests of the society.

"As the recommendations of the committee are unanimous, a statement of the changes proposed in the by-laws will also serve as a report of the committee as to the conclusions it has arrived at and the reasons therefor.

"The first subdivision was originally called 'Name and Objects.' The by-law stating the name of the society is omitted as it is superfluous. The question of the change of name is discussed in another portion of the report of this committee and these by-laws are so drafted that they may be readily changed if the new name is arranged for.

"By-law No. 1, 'Objects,' includes a clause 'to promote their professional interests' and the clause, as a whole, has been reworded to bring it more closely in line with what we consider to be the objects of the society. In subdivision 'Membership,' qualifications have been added for 'professional charge' and 'professional responsibility,' which will define the position of university professors more accurately.

"Under 'Titles,' an associate member will be designated 'A.M. Can. Soc. C.E.'

"By-law No. 5 is re-drafted to permit of the organization of a Montreal branch without further alteration.

"Under subdivision 'Officers,' a change in the number of councillors corresponds to the change which is made in the geographical districts, which it is proposed to call 'electoral districts'. The method of filling vacancies is changed and vacancies will only be filled until the next annual election.

"Under subdivision 'Management,' the secretary, who is now a salaried officer, will hold office at the will of the council and his duties are clearly defined, it being specified that his time shall be devoted solely to the interests of the society.

"The duties of the Publication and Papers Committee are more closely defined. Attention is called to the Papers Committee being composed of representatives from the branches; i.e., of men in touch with the membership as much as possible, who will endeavor to obtain papers, and the Publication Committee being composed of another set of men who will be selected on account of their competence as judges.

"It is hoped that the acceptance of papers for advance publication or for printing in the Transactions will be re-