

HAMILTON'S HARBOR.

The development of Hamilton harbor is probable. A delegation from the city waited on the Prime Minister and the Minister of Works, at Ottawa, requesting various improvements. The importance to the shipping business at Hamilton was emphasized by Mayor Lees, and the certainty that this business would increase in the near future. He stated that Hamilton's shipping business was now second only to that of Montreal among the inland ports of Canada. To the present, improvements to the harbor had largely been made by the city or by private firms which had to carry out work to provide themselves with shipping facilities. The Federal Government had given some aid and the time had come when there should be more. Hamilton was a great manufacturing centre, and destined to become greater. What was now required was a two thousand foot extension of the revetment wall, widening of the entrance to the harbor and dredging along the south shore of the harbor. It is estimated that the improvements asked for will involve an expenditure of \$400,000.

ENGINEERING NOTES.

In the course of an address given before the Engineering Society of the North Western University recently, Mr. H. G. Tyrell stated that most of the bridges in the United States are considered merely as objects of utility. Europe is much farther advanced on this score, for its bridge builders see in a bridge something that can be made to harmonize with beautiful surroundings or to beautify ugly ones. That such artistic forethought will add immeasurably to the beauty of the country is evident from the fact that we have now 80,000 iron bridges, not to mention thousands of wooden ones of every description.

Montreal, Que.—Principal Peterson, of McGill University, is reported to have stated at the closing exercises of the Technical School, that Canada is thirty years behind the world in technical education. He added that the governments at Quebec and Ottawa would have to come to the assistance of the people of Canada if they are to regain their place in technical and commercial education.

Province of Manitoba.—The financial statement of the province shows a balance of \$492,426 as a surplus. The estimates for the present year call for an expenditure of \$5,056,345, and of this amount \$2,207,000 is for public buildings.

Ottawa, Ont.—Chief Engineer Armstrong, of the Hudson Bay Railroad, with headquarters in Winnipeg, has been notified by Hon. Frank Cochrane, Minister of Railways, to send out at once a party of engineers to the Hudson Bay, one party to go to Port Nelson and one to Fort Churchill. They will remain at the ports for a couple of months taking observations and making surveys as to the suitability of the ports for terminals.

The German government are considering the state ownership of petroleum, spirits, potash and matches.

Galt, Ont.—The municipal authorities of this progressive little town have turned their attention in a very serious manner to the question of municipal milk supply. An inspector was appointed and visited the source of the supply in many instances. In such cases as conditions were found to be below standard he displayed the progressive spirit that has been evident on other occasions, and distributed instructive literature to the owners of cattle dealing with the proper care of cows and dairy matters. The result showed that the effort produced better milk and less hard feeling

than the older method of dealing with the offenders through the police court.

Fort William, Ont.—Mr. Farquharson, manager of the municipal electric light plant of this city, recently gave out some interesting facts regarding the meter and flat rate system of current sales. He stated that in Fort William there are now in use 1,648 meters. The meter is the strongest factor for holding down of the peak load, which without meters would have been close to 2,500 h.p. during 1911, and with no extra revenue. While we have flat rates on light that entitles the consumers to attach any load, either cooking utensil or heater, there will always be a large percentage of peak load consumed on prodigal use of light and stolen power, other than what is paid for. That there are a great many electric heaters in use by flat rate was noticed during the peak period, and whenever a cold spell would stop, approximately 75 h.p. would drop off from the peak load. The people now do not object to meters as formerly, as they are beginning to understand that the meter is the only intelligent and economical way to purchase current.

The municipal electric light department of Fort William, Ont., earned a net surplus of \$17,255.92 during the year 1911. The total working expense of distribution and operation per horse power purchased has been, interest and sinking fund included, \$51.23, as against \$50.70 in 1910, and \$47.04 in 1909. Against this the earnings per horse-power in 1911 were \$61.93, in 1910 \$59.18 and \$51.35 in 1909.

Montreal, P.Q.—The Ives foundry was the scene of a trial of the Uno-Rail system of car operation recently. The truck of this car is built so that the main load rests on the top rail, which is V shaped, and has two side rails of the same shape, for the purpose of preventing any derailment. One of the main features is the little space that it takes up, requiring a right of way of only eight feet. The facilities of climbing heavy hills are by means of the Roch rail and gear, which allows the truck to follow the contours of the ground very closely. The line can be built so as to cross, over or under railways, and across rivers and canals.

Work on the new high level bridge is well under way in Ottawa, Ont. The present swing bridge has been moved from the old stone pier sixty feet and has been placed upon a wooden pier, the stone piers being removed by blasting. To support the pier on the Driveway side of the bridge an immense concrete retaining wall will be built and upon this a great number of men are now working. The space between the bank and the wall will be filled in with earth and stone which has been taken from the bottom of the canal. This wall will be 200 feet long and will be finished before the water enters the canal in May.

The British Admiralty has now had complete plans drawn up for a specially built navy hospital ship, which is to be ready in June, 1913. The estimated cost is \$500,000.

PERSONAL.

Mr. H. G. Tyrrell gave a lecture before the Engineering Society of the North Western University on March 12th last.

Mr. Angus Smith, city engineer of the city of Victoria, B.C., has tendered his resignation to the Board of Control.

Mr. Myer J. Sturn is making an inspection of the schools in the city of Regina regarding the matter of ventilation.

Mr. Francis P. Smith, M. Am. Soc. C.E., chemical and consulting paving engineer, New York City, on March 8th delivered an illustrated lecture on "Mixing Plants for Bituminous Pavements" before the graduate students in highway engineering at Columbia University.