

of contracts for the Government, among them being the timber works at Sault Ste. Marie new locks, and the C.P.R. trestles on the north shore of Red Sucker Cove. He built piers at Port Colborne and many other places, also many bridges throughout Ontario.

The death occurred on April 19th of Alfred Noble, C.E., a very prominent member of the engineering profession in New York. His career was a most interesting one, and typical of that of many great men of the profession who rank as nation-builders. Among his many activities in engineering work were the following: From 1868 to 1870 he was assistant engineer on river and harbor work on the Great Lakes. From 1870 to 1872 he was in charge of improvements on St. Mary's Falls canal and St. Mary's river. During this time the first great masonry lock at the Sault, then by far the largest canal lock in the world, was built. On completion of this work he became resident engineer on the construction of an important bridge at Shreveport, La., over the Red River. From 1883 to 1886 he was general assistant engineer, Northern Pacific R.R. From 1886 to 1887 he was resident engineer on the construction of the Washington bridge over the Harlem River; at that time the largest arch bridge in existence. From 1887 to 1894 he was resident engineer on the construction of several bridges over the Mississippi at Memphis and Alton, over the Missouri at Bellfonton and Leavenworth, over the Ohio at Cairo. He was appointed a member of the Nicaragua Canal Board, which visited Central America and examined the route of the Nicaragua Canal, and also the Panama Canal.

In 1899 he became a member of the Isthmian Canal Commission, which was charged with the selection of the best canal route across the isthmus, and it has been substantially on the route selected by this Commission that the Panama Canal has been constructed.

In 1905 he was appointed a member of the International Board of Engineers to recommend whether the Panama Canal should be constructed as a sea-level or a lock canal. This Board consisted of thirteen members, of whom five were nominated by foreign countries. Mr. Noble was one of the minority of five Americans who recommended the adoption of the lock-level plan. Their views were adopted by the Government and the Canal has been built in accordance with their recommendations.

In March, 1907, he was one of the three to visit the Panama Canal to investigate the conditions regarding the foundations of some of the principal structures. Mr. Noble was continuously identified with the Canal project and deserves much credit for the solution of its engineering problems.

In July, 1897, he was appointed a member of the United States Board of Engineers on Deep Waterways, which made surveys and estimates of cost for a ship canal from the Great Lakes to deep water in the Hudson River. In November, 1901, the city of Galveston, Texas, appointed Alfred Noble, along with Henry C. Ripley and General Robert, as a Board of Engineers to devise a plan for protecting the city and suburbs from future inundation. From 1902 to 1909 Mr. Noble was chief engineer of the East River Division of the New York extension of the Pennsylvania R.R., and was in entire charge. Since 1909 he engaged in general practice as a consulting engineer. Probably the most important work dealt with was in relation to the dry docks built for the United States Government near Honolulu. He was also for a time consulting engineer to the Quebec Bridge Board, to the Board of Water Supply, New York City, and to the Public Service Commission of the State of New York.

He has been Past President of the Western Society of Engineers, American Society of Civil Engineers, and American Institute of Consulting Engineers, and an Honorary Member of the Institution of Civil Engineers of Great Britain.

## Coast to Coast

**Regina, Sask.**—A considerable reduction in power rates will probably go into force in Regina within the near future, the civic utilities committee having decided to grant various concessions in the interests of the power user.

**Toronto, Ont.**—It is reported that an agreement has been effected between the G.T.R. and C.P.R. companies in connection with plans for the Toronto Union Station. These will be submitted to the Dominion Railway Board about May 15. The matter of the viaduct construction has not been finally decided, and will be given later consideration. The cost of the Union Station is estimated at between \$12,000,000 and \$15,000,000, and that of the viaduct at \$3,000,000.

**Ottawa, Ont.**—The Railway Commission has considered the proposition of the building of the proposed "All Red Line Railway" with a total projected length of 3,270 miles, and has cut it down to a line of but 1,000 miles in length to run from Cape St. Charles on the Labrador coast, to the city of Quebec. The name of the railway was changed to "The Labrador, Quebec and Southern Railway," and the capital stock was reduced from one hundred millions to ten millions. The line, as now authorized, will run west from Cape St. Charles to the Peribonka River, 600 miles; then through the valley of the Peribonka River to a point on Lake St. John, 200 miles further, and then on to the city of Quebec.

**Montreal, Que.**—The Montreal board of control for the present fiscal year has voted sums amounting to \$2,789,907 for public works which have been recommended by Chief Engineer Janin. Of this amount \$1,500,722 is to be expended on pavements, \$915,545 on sewers and \$373,640 on waterworks. The sewer allowance is divided as follows: \$31,345 for the East division, \$639,500 for the West division, and \$244,700 for the North division. The amount for paving is divided as follows: \$387,410 for the North division, \$621,254 for the West division, and \$492,057 for the East division, and the appropriation for the waterworks department is to be used as follows: main pipe \$125,000, new services in all sections of the city \$65,000, hydrants \$27,000, meters \$30,000, pipes to relieve strain on present pipes \$86,175, and \$40,465 for the cost of installing pipes.

**Winnipeg, Man.**—The season's programme of railway construction in Manitoba, Alberta and Saskatchewan has been definitely decided. The C.P.R. will proceed with the grading which is being done on the 15-mile extension of the Moose Jaw south-west branch beyond Expanse, and will also lay steel upon the same. Also grading will be done on a further 25-mile extension of the line proceeding from Sterling East, though steel may not be laid this year. The C.P.R. will also proceed with grading operations as follows: 72 miles on the Monitor-Kerr Robert line, 25 miles Suffield south westerly, 87 miles on the line running west of Weyburn, 25 miles on a line running north westerly from Coronation, and 126 miles on the line from Bassano easterly. The G.T.P. operations will be largely confined to the branch into Prince Albert from Young, Sask., and the track laying on the Brandon branch in Manitoba. The main line in British Columbia will be completed. On the C.N.R., construction work will be done on the Peace River line from Onoway on the main line north-westerly; also on a line on the north side of the Saskatchewan River extending from Oliver to meet the branch running west from North Battleford. Work will be in progress on the Calgary-Lethbridge branch, on the Elrose to Alsack branch on the Gravelbourg-Swift Current line, on the extension of the Thunder Hill branch, and on the branch from Wroxtton to Yorkton.