

COMING MEETINGS.

AMERICAN WATERWORKS ASSOCIATION.—Thirty-fourth Annual Meeting to be held in Philadelphia, Pa., May 11-15, 1914. Secretary, J. M. Deven, 47 Slate Street, Troy, N.Y.

CANADIAN AND INTERNATIONAL GOOD ROADS CONGRESS.—To be held in Montreal, May 18th to 23rd, 1914. Mr. G. A. McNamee, 909 New Birks Building, Montreal, General Secretary.

AMERICAN SOCIETY FOR TESTING MATERIALS.—Seventeenth Annual Meeting to be held in Atlantic City, N.J., June 30 to July 4, 1914. Edgar Marburg, Secretary-Treasurer, University of Pennsylvania, Philadelphia, Pa.

AMERICAN PEAT SOCIETY.—Eighth Annual Meeting will be held in Duluth, Minn., on August 20, 21 and 22, 1914. Secretary-Treasurer, Julius Bordollo, 17 Battery Place, New York, N.Y.

AMERICAN HIGHWAYS ASSOCIATION.—Fourth American Road Congress to be held in Atlanta, Ga., November 9-13, 1914. J. E. Pennybacker, Secretary, Colorado Building, Washington, D.C.

OBITUARY.

The death occurred last week of E. B. Temple, of Toronto, in his 77th year. Mr. Temple's career was largely devoted to engineering, and his work is well known to men of the profession throughout the Dominion. He took an active part in the construction of the Grand Trunk Railway between Montreal and Quebec, and upon its completion he joined the staff of the Canadian Pacific Railway at Toronto. A few years later he was placed in charge, by the Government, of harbor development and general waterfront construction work at Toronto, and it was under his direction that the walls and cribwork at the Eastern Gap were built.

Previous to his retirement from active work a year ago Mr. Temple was for 9 years harbor master at Port Arthur.

He was a member of the Canadian Society of Civil Engineers and of the Institution of Civil Engineers of Great Britain.

GEO. H. STREVEL, for many years a prominent Canadian railway contractor, died last week at Portage la Prairie at the age of 79 years.

PERSONALS.

VERNON C. LUCKNOW, consulting engineer, Victoria, B.C., is in Toronto this week in connection with the construction of the new Hudson Bay store building in the former city.

CHAS. CAMSELL, of the Geological Surveys Branch, Ottawa, recently addressed the Ottawa Field Naturalists' Club on the magnitude and navigability water-powers of the Mackenzie River.

FRED M. OSBORN, of Samuel Osborn and Co., Limited, Clyde Steel Works, Sheffield, England, has just completed a trip through Eastern Canada as the guest of A. E. Myles, manager of Heap and Partners, who are the Canadian representatives of Samuel Osborn and Company.

H. D. JOHNSON has joined the engineering staff of the Eugene F. Phillips Electrical Works, Limited, Montreal, as assistant contracting manager. Mr. Johnson, who is an authority on underground distribution systems, was previously with the Canadian British Insulated Company, Limited.

NELSON P. LEWIS, Chief Engineer, Board of Estimate and Apportionment, New York City, on March 9th delivered an illustrated lecture on "The Administration of Municipal Public Works" before the Graduate Students in Highway Engineering at Columbia University.

ERNEST BELANGER, of the firm of Marion and Marion, Montreal, has received an appointment from the Government of the French Republic. Mr. Belanger was a graduate of L'Ecole Polytechnic and a member of the Canadian Society of Civil Engineers, and of the Engineers' Club of Montreal. In his new position he will hold the title, "Officer of Public Instruction."

L. C. FRITCH, chief engineer of the Chicago Great Western Railway, has been appointed assistant to the president of the Canadian Northern Railway. Mr. Fritch is a graduate of the University of Cincinnati, and entered railway service in 1884 on the Ohio and Mississippi Railway, of which he was later chief engineer. He was also with the Cincinnati and Deptford Railway as engineer in charge of construction, and division engineer of the Baltimore and Ohio South-Western. Later, he became assistant to the president of the Illinois Central.

Mr. Fritch will assume duties on April 1st. His headquarters will be in Toronto.

BACK COPIES WANTED.

Copies of *The Canadian Engineer* for July 21st, 1910; November 3rd, 1910, and November 17th, 1910, are needed by a subscriber in order to complete a volume. Any reader who has one or more of these copies, and who will dispose of them, will confer a favor by communicating with the Editor.

ECONOMY IN HIGHWAY CONSTRUCTION.

Some interesting figures on the economical way of building highways are furnished by a prominent contractor, operating a system of portable railway in the highway construction work at Lockport, New York. They have about four miles of portable track, 40 cars, 36 x 24, and two 5-ton dinky locomotives. Most of this equipment is that of the Orenstein-Arthur Koppel Company of Pittsburg, Pa. The cars are hauled in trains of 12 cars each by one 5-ton dinky locomotive with an arrangement such that there is always one train of loaded cars on the way, one train of empties returning and one train of cars being loaded at the crusher.

The cost of operation is as follows:—

2 drivers' wages per day each	\$2.75	\$ 5.50
2 brakemen (one for each train in transit)	\$1.75	3.50
Fuel and lubricating oil for two locomotives, and oil for all cars per day		8.00
2 brakemen for maintenance of track, one a foreman at \$3 per day, and one at \$1.75 per day, total		...	4.75
The above shows a total outlay for operation including a maintenance of track		\$21.75

The amount of crushed stone carried in these cars is problematical, but the amount of stone actually in place spread and rolled and furnished with the equipment is 80 cu. yd. per day. The haul is three miles from quarry to road and, at the cost of \$21.75 per day, equals 27 cents per cu. yd. for 3-mile haul—or 9 cents per cu. yd. mile.

The cost of laying portable track and grading up the shoulder of the road for this work will average between 2 and 3 cents per foot, this amount depending largely on the conditions of the road. If the road is of a clay substance, the cost will closely approximate the larger amount, but if the road is of a dry and sandy soil, the cost of laying the track, including grading, is not likely to exceed 2 cents per foot.