

### PROGRESS ON VANCOUVER SEWER TUNNELING.

Work is at present under way on the three remaining tunnels, in the vicinity of Hereward, Wilson and Beau Streets and Seaview Terrace of the city's northwest sewer system. The underground work is being carried on simultaneously from three shafts, one at the corner of Hereward and Wilson Streets, a second on Beau Street, and the third at Seaview Terrace. About 35 men are engaged at this work, averaging about seven feet of excavation per day per shaft, or about 120 feet per week for the three gangs. Up to date the cost has figured out at from \$12 to \$15 per foot, instead of \$20, as estimated for the tunnel work. In addition to the tunneling, a large proportion of the open trenching work has been done and concrete pipe laid. The rate of progress to date makes it certain that the whole work will be completed considerably in advance of the estimated time. Tunneling should be completed in about 4 months. Of the total length of the work from the Gorge waters near Verne Terrace, to the outfall at Macaulay Point the tunnel work constitutes approximately 7,000 feet.

### PERSONAL.

H. M. BURWELL, of Hermon and Burwell, consulting civil engineers, Vancouver, is leaving the firm to establish a consulting engineering office of his own in that city. He has been a member of the firm since 1887. From 1904 to 1906 he was engineer in charge of construction of the Coquitlam Lake hydro-electric development, and from 1906 to 1913 was engineer in charge of Vancouver waterworks extensions and of the Pitt Meadows reclamation work.

BEN. HUGHES, a prominent mining journalist of Northern Ontario, is editor of a new publication called "The Northern Miner," devoted to the mining interests of that district.

SIR WILLIAM PRICE has announced his retirement from the chairmanship of the Quebec Harbor Commission.

E. G. W. MONTGOMERY, whose interesting article on the design of reinforced concrete T-beams appears in this issue, was formerly district engineer for the Department of Public Works, India.

G. A. BUTLER succeeds C. S. Ogilvie as assistant engineer of the Belleville division of the Grand Trunk Railway. The appointment is announced to be of a temporary nature, Mr. Ogilvie having enlisted for active service.

### OBITUARY.

Word has been received of the death in Florida of Mr. W. J. McDonald, a well-known railway contractor of Eastern Canada. For many years he was a partner in the firm of Ryan and McDonald, who built part of the G.T.P. north and west of Quebec City, and parts of that road in New Brunswick. He also built part of the T.N.R. near Sudbury. He also had connection with the Saguenay Construction Company, which built the most difficult part of the Quebec and Saguenay Railway.

In the earth slide which demolished part of a mining camp at Britannia Beach, B.C., a few weeks ago, Mr. C. E. Copeland, a mining engineer, well known in

Western Canada, met his death. He was 25 years of age and was connected for several years with the Britannia Mining and Smelting Company.

On March 27th, Mr. John Bryden, mining engineer, died at Victoria, at the age of 84. In 1863 Mr. Bryden became superintendent of the Vancouver Coal Mining and Land Co., from which he resigned, after about fifteen years' service, to superintend the Wellington Collieries. In 1902 he was appointed to a commission to report upon the safeguarding of life and property in coal mine operations.

The death occurred in Oshawa, Ont., on April 8th of Mr. John Cowan, president of the Ontario Malleable Iron Company, which position he had held for 43 years.

### VANCOUVER BRANCH, CANADIAN SOCIETY OF CIVIL ENGINEERS.

On April 1st Mr. J. MacLaughlin, resident engineer for the Government at the harbor works, Victoria, read a most interesting paper to the members of the Vancouver Branch of the Canadian Society of Civil Engineers concerning the harbor improvements at that point. Mr. G. R. G. Conway presided.

The speaker described the design and construction of the \$5,000,000 breakwater and jetties, the former costing about \$2,700,000, and the latter about \$2,300,000.

A proceeding in the construction of both the breakwater and the wharves was the dumping of a quantity of fine gravel on the site to form a core for the larger base. Around this core was dumped rough gravel to a height of about 48 feet, making a triangular base. A sort of submarine plough, consisting of a rectangular piece of loose timber, was drawn along the top of this base to keep the top level. The use of the plough, which was weighted with about 16 tons of rock, under water obviated the necessity of employing divers.

In the case of the breakwater, one of the faces of the rough gravel base was beyond a certain height, composed of huge granite boulders, blocks weighing from six to sixteen tons.

The concrete breakwater and piers were to be erected on these bases, the two piers giving berthing facilities to a vessel of a maximum draft of about 37 feet.

### COMING MEETINGS.

TORONTO ELECTRICAL SHOW.—The second annual exhibition, to be held in the Arena, Toronto, April 12th to 17th. Secretary, Mr. E. M. Wilcox, 62 Temperance Street, Toronto.

AMERICAN WATERWORKS ASSOCIATION.—The 35th annual convention, to be held in Cincinnati, Ohio, May 10th to 14th, 1915. Secretary, J. M. Diven, 47 State Street, Troy, N.Y.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.—Annual meeting to be held at the Iowa State College, Ames, Iowa, June 22nd to 25th, 1915. Secretary, F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.

AMERICAN FORESTRY ASSOCIATION.—Special meeting to be held on October 20th at the Panama-Pacific International Exposition, San Francisco, Cal. Secretary, P. S. Ridsdale, Washington, D.C.