

rections. There will be two gasolene engines, of eight horse-power each, and two special high frequency generators. These travel at a speed of 200 revolutions a minute. Mr. Edwin E. Robinson of the technical engineering staff of the company reports the situation at Barriefield as ideal, and expects to send one of the first messages to Midland, about 100 miles north of Toronto. The Barriefield station will give out a musical note when messages are being transmitted, probably about middle "C" on the piano. This is accomplished by a disc which has a number of points passing very close to two fixed points at a very high rate of speed. There will be in the neighborhood of 100,000 volts on the aerial. Around the outside of the operating house is buried a quantity of copper netting and zinc plates. This is to act as a return circuit to another station, the air being used in place of wire.

Toronto, Ont.—This year Toronto has acquired four continuous stretches of good roadway, which the city has not known before. Since Yonge Street has been repaired, there is a splendid straight road from Toronto Bay to York Mills, a distance of seven miles at least. Since University Avenue has been newly paved, a splendid connection of about six miles of roadway has been afforded along that avenue to College Street, west on College to St. George Street, north throughout the length of St. George to Dupont Street, west on Dupont to Spadina Road, north on Spadina to Davenport Road, west on Davenport to Walmer Road, north on Walmer to Theodore Road, west on Theodore to Bathurst Street, north on Bathurst to St. Clair Avenue, and thence along St. Clair to Prospect Cemetery and West Toronto. The third roadway connection, which is about seven or eight miles long, follows University Avenue to Anderson Street, west along St. Patrick Street to Bathurst Street, and thence west on Arthur and Dundas Streets through West Toronto to Lambton. The fourth follows east along Wilton Avenue, crossing the Wilton Avenue bridge, and along the Wilton Avenue extension beyond Broadview Avenue to Bolton, north on Bolton to Gerrard Street, along Gerrard to Logan Avenue, north on Logan to Danforth Road, and finally along Danforth to East Toronto and the Kingston Road.

PERSONAL.

CLARENCE W. NOBLE, contracting structural engineer, Toronto, who has been on a trip throughout the Canadian West during the past five weeks, is expected to return next week.

J. E. GRIFFITH of the British Columbia Civil Service, and previously associated with the construction department of the Canadian Pacific Railway west of Winnipeg, will, it is announced, succeed W. W. Foster, resigned, as Deputy Minister of Public Works for British Columbia.

R. H. CUNNINGHAM, B.A.Sc., has been appointed manager of Canadian Hoskins, Limited, Walkerville, Ont. For several years Mr. Cunningham was connected with the Hoskins Manufacturing Company of Detroit, and received the above appointment upon the opening of the Canadian branch factory.

J. W. STEWART, of Foley, Welch and Stewart, railway contractors, has assumed the managing directorship of the construction of the Pacific Great Eastern Railway, now under construction from Vancouver to Fort George. This change was necessitated by the illness of Mr. Welch. The firm is striving to have about 1,100 miles of the road completed by next August, giving direct connection between Vancouver and Lillooet.

COPIES WANTED.

About six copies each of *The Canadian Engineer*, issues of July 31st and September 4th, 1913, are desired. We would be glad to advance by one month the date of expiration of subscription of any subscriber who may care to forward a copy of either of these dates from his own file.

VICTORIA BRANCH, CANADIAN SOCIETY OF CIVIL ENGINEERS.

The annual meeting of the Victoria branch, Can. Soc. C.E., was held on Thursday, December 11th, at the branch club rooms, 534 Broughton Street, when the following officers were elected for 1914—viz. :—

Executive—F. C. Gamble, chairman; D. O. Lewis, vice-chairman; A. E. Foreman, treasurer; R. W. Macintyre, secretary; E. H. Harrison and Lewis W. Toms. The auditors are H. A. Icke and F. A. Richardson.

The chairman gave a brief review of the work accomplished by the branch during the past year, and whilst advocating a change of officers from year to year, at the same time expressed his appreciation of being elected by acclamation to a third term in the chair.

Mr. J. B. Holdcroft, A.M., read an interesting paper, illustrated with diagrams, on the "Cellular design of vibrated concrete construction, with especial reference to its use in sub-aqueous work," which evoked an animated discussion between the members present.

STEAM TURBINES.

At the first regular meeting for the season, on December 19th 1913, Mr. J. A. MacMurchy of the Westinghouse Machine Company, Pittsburg, Pa., addressed the Toronto section of the American Institute of Electrical Engineers, on "Steam Turbines." The address was illustrated, and created much interest.

THE CENTRAL RAILWAY AND ENGINEERING CLUB.

The regular monthly meeting of the Central Railway and Engineering Club of Canada was held in the Temple Building, Toronto, on Tuesday, December 23rd. A very interesting paper was read on "Scientific Illumination," illustrated by lantern views, by Mr. J. W. Helps, late Industrial Engineer, Toronto Hydro-Electric System. Mr. C. L. Worth, Toronto, is Secretary.

COMING MEETINGS.

AMERICAN SOCIETY OF AGRICULTURAL ENGINEERS.—Seventh Annual Convention will be held at Great Northern Hotel, Chicago, December 29th to 31st. Secretary, I. W. Dickerson, Urbana, Ill.

MINING AND METALLURGICAL SOCIETY OF AMERICA.—Annual Meeting will be held in New York City, January 13th, 1914. Secretary, W. R. Ingalls, 505 Pearl Street, New York.

AMERICAN CONCRETE INSTITUTE.—Tenth Annual Convention to be held in Chicago, February 16th to 20th, 1914. Secretary, E. E. Krauss, Harrison Building, Philadelphia, Pa.