

end. The steel shoes for the six concrete caissons to be sunk in False Creek are expected to arrive soon, and plans have been devised for sinking the large cylinder down to hard pan. All of the thirty-six footings in Harris Street, from Main Street to False Creek are in place. Some of the footings have been sunk to a depth of fifteen feet and the steel for the remainder of the footings has been delivered on the job. The excavation has begun for the retaining wall at the foot of Georgia Street, and for the various piers through the Canadian Pacific Railroad property. The sinking of the cylindrical caissons, 12 feet in diameter and 40 feet long, will be started as soon as the steel shoes now in transit arrive. The concrete cylinders will be eight inches thick. The steel ties and tracks will be laid in the concrete as it is poured for the various sections. The viaduct, of concrete construction of the Turner mushroom system, will be 2,880 feet long, sixty-six feet wide, and will carry a 53-foot roadway having double tracks in the centre. Various electrical conduits will cross the structure which will be erected along the outer edge, which will be provided with six-foot walks. Massive concrete railings will be erected along the outer edges, which will be provided with 54 ornamental lamp standards of fluted columns made of concrete.

**Victoria, B.C.**—"Battleships versus Good Roads" would be a good topic for debate among certain enthusiasts for improved highways in the United States, according to George E. Daniels, the well-known authority on automobiles, who has some very decided views on the comparative advantages of well-constructed highways over huge navies, and it is his opinion that greater benefit to the country at large can be obtained through a good roads movement than through a plan to increase the equipment of the navy. "I am perfectly sincere," says Mr. Daniels, "in declaring my preference for the good roads propaganda over the agitation for more vessels of war. I believe that the American Congress, instead of increasing the naval appropriation for the sake of building up a large navy, should spend these millions on national turnpikes. It seems to me there is sound reason for this preference. There is no greater factor in the creation of progress and prosperity affecting our people at large than good roads. It would be silly to assert that good roads are merely to increase the pleasure of a favored few. There is nothing that has a greater economic significance than roads well maintained, for they open up the country so that its fullest commercial development is possible. Moreover, they are the arteries of civilization and without them whole districts stagnate. In this connection they have a distinct ethical value. In general they promote the peace, prosperity and happiness of a country and should therefore receive consideration long before we consider increasing our naval prestige. It is rather humiliating to think that the old countries of Europe, so far behind us in many ways, have learned this and appreciate good roads. When it comes to highways, we are sadly behind Europe, as anyone who has travelled abroad and also through our own states knows full well. It seems curious that we who are such a practical people and presumably so keen for progress and material success should so flagrantly neglect this great factor. Therefore, I say, the time is at hand to boost the good roads movement."

**Winnipeg, Man.**—Providing the engineering problem is feasible and the cost not too great, Shoal Lake will be the source of supply of the Greater Winnipeg water district. A large majority of the members of the city council attended a meeting of the fire, water and light committee held recently, and after hearing a very satisfactory report on Shoal Lake water from the three consulting engineers, it was unanimously decided that the consulting experts should not be asked to go to Winnipeg River, but that if it is found advis-

able, they may later be asked to make a supplementary report on the Winnipeg River from data contained in existing reports. The question of filtration of Shoal Lake water was raised by all three of the experts who explained that while it was by no means necessary it might be regarded by the citizens as advisable. They made it plain that Shoal Lake water is pure and soft, and from the hygienic standpoint absolutely clean, but they explained that suspended vegetable matter might cause a slight taste or smell. Engineer Fuertes declared that Shoal Lake water is better than New York has used for 20 years. The members of council lost no time in deciding that there would be no filtration in the meantime and that Shoal lake water is quite good enough as it is. The formal motion, put forward by Controller Midwinter, read: "That the board of consulting engineers be instructed to report on the best means of supplying the Greater Winnipeg water district with Shoal Lake water, with estimate of cost and general plan of work." At the same time it was agreed that should the report not prove as favorable as is anticipated, the engineers should later make a supplementary statement on the feasibility and cost of a supply from the Winnipeg River. Mr. J. H. Fuertes, New York; Frederick P. Stearns, of Boston, and Mr. Hering, are the consulting engineers.

## PERSONAL.

R. HUNTER, assistant engineer of the Beach pumping station, at Hamilton, Ont., has resigned to take up a position at Welland, Ont.

DR. JAMES DOUGLAS, of New York, graduate of Queen's, has sent Dean Goodwin a cheque for \$25,000 for the establishment of tutorship in the School of Mining.

W. H. RANDALL, superintendent of the waterworks maintenance and distribution of Toronto, will attend the annual meeting of the American Waterworks Association, which meets in Minneapolis, Minnesota, from June 23 to 26.

MR. H. A. DONOVAN, who has been connected with the electrical department of the Winnipeg Electric Railway Company, of Winnipeg, Canada, has been appointed assistant electrical engineer of the company, succeeding Mr. E. A. Graham, resigned.

MR. D. R. KENNEDY, electrical superintendent of the British Columbia Electric Railway Company, of Vancouver, B.C., has resigned his position, and Mr. W. H. Fraser, who has been connected with the electrical staff of the company, has been appointed in his place. Mr. Kennedy will spend the next few months travelling through the States and the Dominion, inspecting various electrical plants.

MR. D. McD. CAMPBELL, city engineer of Sydney, N.S., has resigned. Mr. Campbell entered the service of the city as a member of the city engineer's department in 1900, and was appointed to the position of city engineer in 1908. It is understood that Mr. Campbell is to engage in private practice as a consulting engineer. The board of works of the city of Sydney accepted his resignation with a good deal of regret and so expressed themselves.

ARCHIBALD CURRIE, C.E., graduate of Glasgow University, and member of the Institute of Civil Engineers of London, Eng., at present city engineer of Westmount, Que., has been appointed city engineer of Ottawa. Mr. Currie has had a wide experience, holding positions in Scotland, England, China (during the Boxer trouble), and South Africa. He has been city engineer of Westmount since 1911, and has given general satisfaction since his appointment. He will commence his duties at Ottawa on June 20.

CAPTAIN A. W. GRAY, assistant highways commissioner of Ontario, has been appointed highways commissioner