

roof, the latter being strongly reinforced with T iron and expanded metal to ensure the safe carrying of trackage above. Near the storage tank, and equidistant between the two tracks crossing the turntable, stands an 8,000 gal. circular steel service tank, supplied by pump from the storage tank, from which the oil proceeds by gravity to the auxiliary tank near the boiler house. Locomotives will also receive their supply of fuel here by means of two sway pipes which radiate from the bottom of the tank, one to each track. Close by is the water standpipe, so that when taking oil, locomotives can also receive their water supply without change of position. A sand plant has been built 20 ft. from the water standpipe along the same track. The erection is of timber construction and of standard C.P.R. design. Generally speaking, the whole plant as above described is of an up to date character, all buildings are lit throughout by electricity, and are also equipped with water hydrants for fire protection.

The buildings are located to the extreme northwest of the ground, being allotted for terminal purposes. The layout of the freight yards, sheds and passenger station has not been completed, but the accompanying plan indicates the general scheme, so far as the shop layout is concerned.

The work of erection commenced April, 1913, and has been carried out by the contractor, E. R. Doe, of Victoria, B.C., under the direction of R. A. Bainbridge, Division Engineer, with A. L. Kennedy as Engineer in Charge. We are indebted to H. E. Beasley, General Superintendent, for the foregoing information.

The Most Powerful Electric Locomotives.—The New York Central Rd. is having built for its terminal service six electric locomotives which will be the most powerful yet constructed. They will be capable of developing 2,000 horse power continuously or 2,600 horse power for one hour. The equivalent tractive effort is 14,000 lbs. at 54 miles an hour continuously, or 20,000 lbs.

Proposal for Appointment of Royal Commission on Transportation.

The Canadian Society of Civil Engineers has submitted the following memorial to the Dominion Government:—

The time is now opportune to appoint a Royal Commission on transportation and allied problems. The early opening of the Panama Canal and the great development in all lines of industry from one end of Canada to the other raise questions demanding the most careful solution.

The report of the Transportation Commission made in 1898 contains a great deal of valuable data, but is now largely obsolete.

Such a Commission should consist of seven members, viz.:—one railway engineer, one hydraulic engineer, one railway manager, a lawyer, a transportation manager familiar with lake and ocean navigation, two eminent business men, one from the east, one from the west, and a secretary. Such report should include and, whenever possible, make recommendation on the following matters:

Water Routes.—River improvement, lake and gulf, dealing with existing systems—proposed systems from the commercial and engineering sides, harbors, docks, graving docks, types of ships and barges for inland service.

Winter and other Ports.—National and local, required facilities and equipment having regard to the handling of grain, merchandise, manufactures, coal and the other heavy bulk products to the end that the most economical method be secured. There is a necessity for an even, steady movement of traffic throughout the year. How may this be accomplished at the least possible cost to the people of Canada? The water power possibilities, as an incident of navigation on the St. Lawrence, Ottawa, and other important rivers. It is believed by competent men that the St. Lawrence may be converted into slack water navigation from Montreal to Lake Ontario by the building of about five dams and five ship several million horse power of energy may

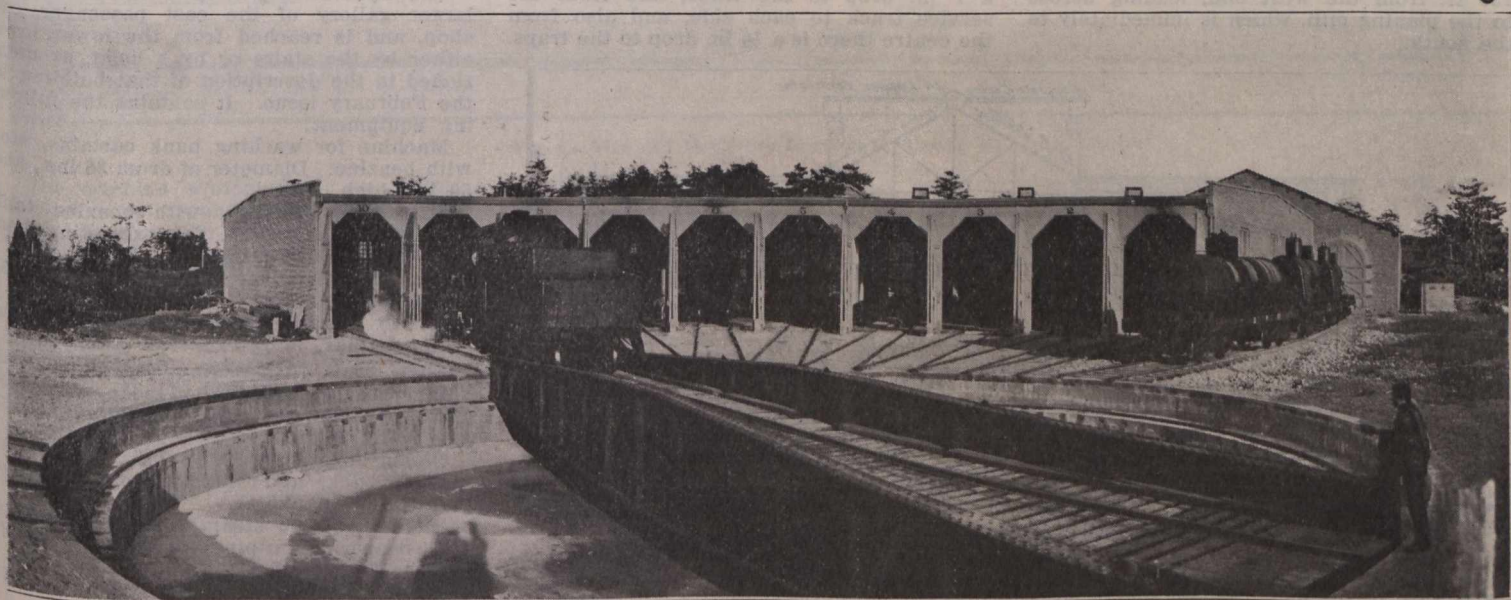
respects.

Railways.—In what respect is it possible to improve, having regard to terminals, receiving and delivering freight in large cities and at other important points? How may transportation be rendered more economical? What should be the policy of the country regarding new railways? What conditions should be made on behalf of the public? A reasonable definition of what earnings and expenses should be. To what extent should regulation extend in order that capital may be secured for the continued requirements of the country and the public be sufficiently protected?

Routes and Outlets.—The Atlantic seaboard. The Pacific seaboard. The Hudson Bay. The Great Lakes.

The Canadian Society of Civil Engineers represents practically every qualified engineer in Canada. It is with a knowledge of the importance of the subject and of how easily great mistakes, causing enormous waste of money, can be made, that your memorialists have approached the subject, in the hope that you may see fit to grant such a Royal Commission to the end that our common country may be benefited.

The Blacksod Bay Atlantic Route.—Discussing the proposed short route across the Atlantic via Blacksod Bay, Ireland, the Shipping World draws attention to the fact that passengers dislike very much the trouble and annoyance of any transshipment, and American and Canadian travellers are not likely to take kindly to a railway journey across Ireland, a steamer passage across the Channel, and another railway journey to their destination. Further, on the reverse journey, passengers will prefer to embark either at Liverpool or Southampton to being subjected to the inconvenience of going direct to Blacksod Bay by train and a coasting steamer. Such a service could not be a success without handling a large amount of cargo, and as Blacksod Bay is so far removed from the large industrial centres, this class of traffic is not likely to be attracted.



Panoramic View Esquimalt and Nanaimo Railway Mechanical Terminal. See opposite page.

at 49 miles an hour at the one hour rating. Each locomotive will haul, if necessary, a 1,200 ton train on level track, continuously, at 60 miles an hour. They are insulated for 1,200 volts to enable them in the future, should it be desired, to operate on this voltage. They have a higher efficiency than any other high speed electric locomotives yet built.

be had at very low cost. Such a possibility suggests a development in manufacturing of incalculable value to the country and would seem worthy of special report. The existing canal system on the St. Lawrence is expensive to maintain and operate. The suggested system would seem to offer an canal locks, and that as an incident thereto, opportunity for large savings in both

Experimental Fireproof Trains.—The Great Western Railway of England has put in service two experimental fireproof trains, each consisting of four cars. The cars are built entirely of steel, and are lighted throughout electrically. Wood has been practically eliminated from these trains. The only wooden construction is the foot-board on the outside.