December 28, 1911.

Powar-House.—The interior arrangement and equipment of the power-house can be seen by reference to Fig. 1. Electric power is to be furnished for operating the pumping machinery of the floating dry-dock, for compressing air and to operate machinery in the various shops, also for furnishing electric lighting for the plant.

The building is to contain both boilers and power plant under one roof with fireproof dividing walls, and is to be 104 feet wide by 148 feet long, having a covered area of 15,392 square feet. The building will be of modern steelframe construction, the walls and roof to be of reinforced concrete.

There will be installed six 400 horse-power water tube boilers, supplied with automatic stokers, chain-grate type, such as are known to give good satisfaction with Pacific Coast coals. Provision is made for adding two extra boilers. There is also a provision for the installation of an economizer, in case it it found that the load factor warrants the Main Engines.—There will be two main engines of 900 horse-power each and while vertical reciprocating compound engines are shown and specified, using steam at 175 pounds pressure and 258 revolutions per minute, turbine engines will be considered as an alternate.

Condensers.—Jet condensers are shown, but alternate figures will be taken for service condensers. The type to be used will depend upon local conditions as to the cost of water at the time of installation. Condensing water will be obtained through the rock cutting and shaft sunk within the power-house, the circulating water being handled by a vertical centrifugal pump operated by an electric motor.

Cenerators.—Electric generators are to have a capacity of 6oc kilowatts, 3-phase, 25-cycle, 550-volt alternating current. For these generators there will be provided two steamdriven exciters, one of 50 kilowatts and one of 25 kilowatts capacity. These machines are to be direct current, 220 volts. There is also to be a motor-driven exciter of 25 kilo-



Fig. 2.-20,000 Tons, Pontoon Floating Dry-Dock Sectional Type, Prince Rupert, B.C.

expense. Draught will be obtained by a steel or concrete chimney 175 feet high and 11 feet in diameter. An overhead trolley is provided for handling coal from storage to hoppers above the stokers and also for handling ashes.

Coal Handling and Storage.—Provision is made for receiving coal both by water and rail. Coal by water will be received at the outer end of the pier for the unloading cf which there is provided a standard grab-bucket installation, so arranged as to load cars beneath the hoppers, the cars to be handled by small yard locomotives to the coal pocket of 1,000 tons capacity, located adjacent to the boiler house. Coal received by rail will be delivered direct from the cars of the Grand Trunk Pacific Railway, which pass at the rear of the property to the coal pocket approached by an incline. watts capacity, the motor for this machine to be a 35 horsepower, 3-phase, 25-cycle, 550-volt alternating-current squirrel-cage-type motor.

Cranes.—There will be provided for the erection of this machinery in the power plant, a 15-ton overhead traveling crane. This will be operated by electricity and the current supplied will be from one of the steam-driven exciter sets.

Air Compressor.—For furnishing compressed air to the shops of the plant, there will be provided a compound Corliss air compressor having a displacement of 1,580 cubic feet of free air per minute when operating at 150 revolutions. This compressor is to be designed for a steam pressure of 175 pounds per square inch and for an air pressure of 100 pounds. The distribution of the air will be by means of underground piping through the yard.