

structing destroyers and cruisers for the Canadian Navy.

The city of Vancouver is applying, under the Navigable Waters Protection Act, for approval of the plan showing the site, mode of construction and description of its proposed wharf on the foreshore of Burrard Inlet, at the mouth of Seymour Creek and the Second Narrows, in connection with the Seymour Creek water works system.

The keel of the Dominion Government's steam tug, contract for which was recently awarded to McDougall and Jenkins, has been laid at North Vancouver, and it is expected that she will be in operation by July. She will be 91½ ft. long, beam 20 ft., depth 12¾ ft.

The harbor engineer has submitted plans to the New Westminster city council for general improvements in the harbor. They cover the extension of the present wharves farther into the river, and the building of additional piers where desirable. Eventually it is hoped

to have a port, including the area from the lower end of Annacis island to the Pitt River.

The s.s. Staffa, one of the first vessels operated by Mackenzie Bros., but recently being operated in freight business on the Fraser River, has been condemned. She was built in 1893 at Vancouver, her dimensions being: length, 81.5; breadth, 15.3 ft.; depth, 6 ft.; tonnage, 51 gross, 35 register, and she is equipped with engine of 6 n.h.p., driving a screw.

The steam tug, contract for which was placed by the Dominion Government, in North Vancouver, recently, will cost about \$45,000. She is intended for use in Victoria harbor, and it is anticipated that she will be ready for operation by July, when she will act as a tender for the new dredge, now on the way from Great Britain. The tug will be of steel throughout, except the pilot house, and will be classed 100 A1 at Lloyds. Her dimensions will be: length,

91½ ft. overall, 78½ ft. between perpendiculars; breadth, 20½ ft.; depth, molded 12¾ ft. She will be equipped with five water tight bulkheads, extending from the floor plates to the deck. The machinery will consist of an inverted fore and aft compound surface condensing engine, with a high pressure cylinder of 15 ins. diar., and a low pressure cylinder of 34 ins. diar. by 24 ins. stroke, developing about 500 h.p. Steam will be supplied by a Scotch marine single ended boiler, 12 ft. diar., at a pressure of 150 lbs. The air pumps, 12 ins. by 12 ins. stroke, of the latest design, will be driven from the low pressure cross head. The circulating pump will be independent, direct connected and steam driven, the main feed pump direct acting, and the engine feed pump, driven by the air pump cross head, as also will be the engine bilge pump. Steam steering gear is being installed, with steam winches, and complete electric lighting equipment.

The Purchasing Agents' Guide

To the Manufacturers of and Dealers in Steam and Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' Supplies, &c.

Acetylene
Commercial Acetylene Co.....Toronto.
Aerated Waters
E. L. DrewryWinnipeg.
Air Brakes and Fittings
Allis-Chalmers-Bullock Ltd.Montreal.
Canadian Westinghouse Co. Hamilton, Ont.
E. L. DrewryWinnipeg.
Alloys
American Vanadium Co....Pittsburg, Pa.
Angle Bars
Montreal Rolling Mills Co.....Montreal.
Nova Scotia S. & C. Co., New Glasgow, N.S.
Steel Co. of Canada, Ltd., Hamilton, Ont.
Anti Rail Creepers
The Holden Co., Ltd.....Montreal.
Automobiles
Preston Car & Coach Co...Preston, Ont.
Axes
James Smart Mfg. Co....Brockville, Ont.
Axe
Canadian Car & Foundry Co....Montreal.
Nova Scotia S. & C. Co., New Glasgow, N.S.
Jas. W. Pyke & Co.....Montreal.
Steel Co. of Canada, Ltd., Hamilton, Ont.
Babbit Metal
Ballman Brass & Metal Co., Hamilton, Ont.
Bacon
International Marine Signal Co....Ottawa.
Bearings, Side
Canadian Car & Foundry Co....Montreal.
Chicago Railway Equipment Co..Chicago.
Benches and Bedding
The Hudson's Bay Co.
Belt Checks
Nathan Manufacturing Co.....New York.
Belts
Babcock & Wilcox, Ltd.....Montreal.
Polson Iron Works, Ltd.....Toronto.
Belts, Engineering Co., Ltd..Amherst, N.S.
Belts, Portable
Babcock & Wilcox, Ltd.....Montreal.
Polson Iron Works, Ltd.....Toronto.
Belts, Stationary and Marine
John Inglis Co., Ltd.....Montreal.
Polson Iron Works, Ltd.....Toronto.
Belt Engineering Co., Ltd..Amherst, N.S.
Belt Staybolt Iron or Steel Bars
Hollow Staybolt Co..Cuyahoga Falls.
Belts, Steam
Babcock & Wilcox, Ltd.....Montreal.
Polson Iron Works, Ltd.....Toronto.
Belts, Engineering Co., Ltd..Amherst, N.S.
Belts, Water Tube
Babcock & Wilcox, Ltd.....Montreal.
Polson Iron Works, Ltd.....Toronto.
Belts, Engineering Co., Ltd..Amherst, N.S.
Belts
Canadian Car & Foundry Co....Montreal.
Canadian Ry. Equipment Co., Welland, Ont.
Belts, Bridge
Montreal Rolling Mills Co.....Montreal.

Bolt Cutters
London Machine Tool Co., Ltd., Hamilton.
Bolts, Track
Montreal Rolling Mills Co.....Montreal.
Nova Scotia S. & C. Co., New Glasgow, N.S.
Borers, Car Wheel
John Bertram & Sons Co....Dundas, Ont.
Boring Mills
London Machine Tool Co., Ltd., Hamilton.
Braces, Cross Arm
Montreal Rolling Mills Co.....Montreal.
Brake Beams
Canadian Car & Foundry Co....Montreal.
Chicago Railway Equipment Co..Chicago.
Brake Shoes
Am. Brake Shoe & Fdry Co., Mahwah, N.J.
Canada Iron Corporation, Ltd..Montreal.
The Holden Co., Ltd.....Montreal.
Brake Shoes, Locomotive Driver
Am. Brake Shoe & Fdry Co., Mahwah, N.J.
Canada Iron Corporation, Ltd..Montreal.
Railway Materials Co.New York.
Brasses, Car
T. McAvity & SonsSt. John, N.B.
Bridge Numbers
Acton Burrows, LimitedToronto.
Bridges
Canadian Bridge Co....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Bronze
American Vanadium Co....Pittsburg, Pa.
Buckets, Coal, Ore and Concrete
M. Beatty & Sons, Ltd....Welland, Ont.
Brown Hoisting Machinery Co., Cleveland.
Williams & Wilson, LtdMontreal.
Buildings, Steel
Canadian Bridge Co....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Bumping Posts
Dominion Equip. & Supply Co., Winnipeg.
The Holden Co., Ltd.....Montreal.
McCord & Co.Chicago, Ill.
Whyte Railway Signal Co.Toronto.
Buoys
International Marine Signal Co....Ottawa.
Cables, Electric and Feeder
Chapman & Walker, Ltd.....Toronto.
E. F. Phillips Electrical Works.Montreal.
The Wire and Cable Co.....Montreal.
Caps, Uniform
W. H. CoddingtonHamilton, Ont.
Car Furnishings
Guillford S. Wood.....Chicago, Ill.
Car Loaders, Box
Mussens, Ltd.Montreal.
Car Movers
F. H. Hopkins & Co.....Montreal.
Mussens, Ltd.Montreal.
Cars
Crossen Car Mfg. Co.....Cobourg, Ont.
Canadian Car & Foundry Co....Montreal.
J. T. GardnerChicago, Ill.
Hart-Otis Car Co., Ltd.....Montreal.
The Males Co.Cincinnati, O.
Ottawa Car Co., Ltd.....Ottawa.
Pay-As-You-Enter Car Co....New York.
Preston Car and Coach Co., Ltd..Preston.
Russel Wheel & Fdry Co..Detroit, Mich.
Silliker Car Co., Ltd.....Halifax, N.S.

Cars, Logging
Peteler Car Co.Minneapolis, Minn.
Russel Wheel & Fdry Co..Detroit, Mich.
Castings
American Vanadium Co....Pittsburg, Pa.
Canadian Car & Foundry Co....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
John Inglis Co., Ltd.Toronto.
Lumen Bearing Co....West Toronto, Ont.
Russel Wheel & Fdry Co..Detroit, Mich.
Standard Steel Works Co..Philadelphia, Pa.
Castings, Brass
Canadian Bronze Co.Montreal.
Canada Iron Corporation, Ltd..Montreal.
Kerr Engine Co.Walkerville, Ont.
Lumen Bearing Co....West Toronto, Ont.
Tallman Brass & Metal Co., Ltd.Hamilton.
Castings, Car
Am. Brake Shoe & Fdry Co., Mahwah, N.J.
Canada Iron Corporation, Ltd..Montreal.
Russel Wheel & Fdry Co..Detroit, Mich.
Castings, Iron
Allis-Chalmers-Bullock Ltd.Montreal.
Canada Iron Corporation, Ltd..Montreal.
Kerr Engine Co.Walkerville, Ont.
Russel Wheel & Fdry Co..Detroit, Mich.
Castings, Iron and Steel
Am. Brake Shoe & Fdry Co., Mahwah, N.J.
Castings, Malleable
Galt Malleable Iron Co.....Galt, Ont.
Taylor & ArnoldMontreal.
Castings, Manganese Steel
Lumen Bearing Co....West Toronto, Ont.
Montreal Steel Works, Ltd.....Montreal.
Castings, Steel
American Vanadium Co....Pittsburg, Pa.
Canada Iron Corporation, Ltd..Montreal.
W. Kennedy & Sons, Ltd., Owen So'd, Ont.
Montreal Steel WorksMontreal.
Chains
E. J. Coghlin & Co.....Montreal.
Chisels for Pneumatic Chipping Hammers
Edgar Allen & Co., Ltd.Montreal.
Cleveland Punch & Shear Wks., Cleveland.
Closets, Car
Duner Co.Chicago, Ill.
Coal
Nova Scotia S. & C. Co., New Glasgow, N.S.
Compressors, Air
Allis-Chalmers-Bullock Ltd.Montreal.
The American Well Works..Aurora, Ill.
Canadian Rand Co.Montreal.
The Holden Co., Ltd.....Montreal.
John Inglis Co., Ltd.Toronto.
Concrete Mixers and Rock Crushers
F. H. Hopkins & Co.....Montreal.
Mussens, LimitedMontreal.
Contractors' Supplies
F. H. Hopkins & Co.....Montreal.
Rice Lewis & SonToronto.
Peteler Car Co.Minneapolis, Minn.
Russel Wheel & Fdry Co..Detroit, Mich.
Williams & Wilson, LtdMontreal.
Conveyors, Coal and Ash
Babcock & Wilcox, Ltd.....Montreal.
Williams & Wilson, LtdMontreal.
Copying Presses
James Smart Mfg. Co....Brockville, Ont.