

The Intercolonial Ry. at the recent session of the Dominion Parliament was voted \$308,000, of which \$34,000 was a revote, for rolling stock, and \$8,000 to change couplers on passenger cars (revote). It is intended to remove the Miller and the ordinary type of drawhead couplers, and to substitute the M.C.B. standard type of vertical plane couplers.

The Record of Recent Construction of the Baldwin Locomotive Works, no. 33, gives details of the commemoration of the completion of the 20,000th locomotive built at the works in the 70th year of continuous operation; and no. 34 gives illustrations and general dimensions of 14 engines of varying types, for Chilean and Indian, as well as U.S. railways.

The Simplex Railway Appliance Co., of Hammond, Ind., is establishing a factory at St. Henri, Montreal, for the manufacture of Simplex bolsters and Susemihl roller side bearings, and other railway specialties for its Canadian trade. W. W. Butler, 2nd Vice-President, has been in Montreal for some time making arrangements. The Canadian business will be in charge of J. A. Lamont.

The Canadian Northern Ry. has received from the Canadian Locomotive Co., Kingston, the five 10-wheel locomotives, ordered for June delivery, also freight locomotives, completing the order placed there. It has also received 6 out of an order for 8 freight locomotives built at the Brooks works of the American Locomotive Co. It has on order 1 dining car to be built in the U.S.; 3 combination baggage, mail and express cars, and 100 flat cars to be built in Canada.

The Lake Erie and Detroit River Ry. has recently purchased 3 locomotives having the following general dimensions: type, road engines; wheels, 4 driving and 4 truck; cylinders, 18 by 26 in.; diameter of driving wheels, 5 ft.; length of engine, 43 ft.; length of engine and tender, 55½ ft.; weight, 55 tons. It has also purchased 100 34-ft. flat cars, 60,000 lbs. capacity, of which 60 have been converted into gondola cars and delivered, and the remaining 40 will be delivered as soon as they are altered into gondolas.

The Lake Erie and Detroit River Ry. Co. at a recent meeting decided to organize a car trust company, and on that account an order for 300 gondola cars will be placed, 200 of which have been provided for. They are to be used in the coal trade between the Bessemer and Lake Erie Rd. Co., and the L.E. and D.R. Ry. via the car ferry Shenango no. 1, operating across Lake Erie. It is expected that an order for the other 100 flat cars will be placed shortly. The cars will all be 34 ft., 60,000 lbs., gondola cars, equipped with automatic couplers and Westinghouse air brakes.

The Dominion Coal Co.'s annual report states that arrangements were made with the Dominion Rolling Stock Co. to supply rolling stock for the Sydney and Louisburg Ry., the expenditure being provided for by terminable debentures to be retired by equal monthly payments extending over 10 years, in which capital and interest at a reasonable rate are included. These payments are to be met by the earnings of the property, and at the end of the period the rolling stock will become the actual property of the Coal Co., free from every incumbrance. The rolling stock comprises 19 locomotives, 1,355 flat coal cars, and 12 passenger and service coaches.

The Minneapolis, St. Paul and Sault Ste. Marie Ry., a subsidiary of the C.P.R., has received from the Baldwin Locomotive Works 3 locomotives, to be used in fast passenger service on its line, where many grades occur, and as a consequence they have smaller driving wheels than would otherwise be necessary. The total weight of the engine in working order is 156,000 lbs., of which 116,000 rest on the driving wheels. The driving-wheel

base is 14 ft. 10 in., the total wheel base of engine and tender, 55 ft. 4½ ins. long. The cylinders are 20 ins. diameter by 20 ins. stroke, and are of the balance slide valve type. The working steam pressure is 200 lbs., and the driving wheels are 69 ins. diameter. The engines exert a tractive power of 25,623 lbs. The boiler is of the radial stay extended wagon-top type, 62 in. diameter at its smallest ring. It contains 312 iron tubes 2 ins. in diameter and 15 ft. long. The fire-box is 120 ins. long by 41 1-8 ins. wide. The main driving journals are 9½ ins. in diameter by 11 in. long, the others being 8½ ins. diameter by 11 ins. long. The forward truck has wheels 33 ins. in diameter, and journals 6½ ins. diameter by 11 ins. long. The tender is of 60,000 gals. water capacity, and is carried on two 4-wheel diamond type trucks, having wheels 33 ins. diameter, and journals 5½ ins. diameter by 10 ins. long.—Railway Age.

The Quebec and Lake St. John Ry. recently received a mogul freight locomotive from the Baldwin Locomotive Works. Following are the general dimensions:—

|                                                |                                 |
|------------------------------------------------|---------------------------------|
| Cylinder.....                                  | 14 and 24x26                    |
| Valve.....                                     | balanced piston                 |
| Boiler, type.....                              | straight                        |
| " diameter.....                                | 64 ins.                         |
| " thickness of sheets.....                     | 11-16 in.                       |
| " working pressure.....                        | 200 lbs.                        |
| " fuel.....                                    | soft coal                       |
| " staying.....                                 | radial                          |
| Firebox, material.....                         | steel                           |
| " length.....                                  | 108 3-16 ins., width, 42½ ins.  |
| " depth.....                                   | front, 67½ ins., back, 65½ ins. |
| " thickness of sheets, sides, 5-16 in.;        |                                 |
| crown, 3-8 in.; tube, ½ in.                    |                                 |
| " water space.....                             | front, 4; sides, 3; back, 3     |
| Tubes, material iron.....                      | wire gauge no. 12               |
| " number, 263; diameter, 2 ft.; length, 12 ft. | 6 ins.                          |
| Heating surface, firebox.....                  | 166.6 sq. ft.                   |
| " tubes.....                                   | 1700.8 sq. ft.                  |
| " total.....                                   | 1867.4 sq. ft.                  |
| " grate area.....                              | 31.6 sq. ft.                    |
| Driving Wheels, diameter outside.....          | 57                              |
| " diameter of centre.....                      | 50                              |
| " journals.....                                | main, 9x11 others, 8x11         |
| Engine Truck Wheels (front).....               | diameter 30 ins.                |
| " journals.....                                | 5½x10                           |
| Wheel Base, driving.....                       | 14 ft. 0 ins.                   |
| " rigid.....                                   | 14 ft. 0 ins.                   |
| " total engine.....                            | 22 ft. 2 ins.                   |
| " total engine and tender, about.....          | 52 ft. 0 ins.                   |
| Weight on driving wheels.....                  | 120,010 lbs.                    |
| " on truck, front.....                         | 25,220 lbs.                     |
| " total engine.....                            | 145,230 lbs.                    |
| " total engine and tender, about.....          | 245,000 lbs.                    |
| Tank capacity.....                             | 5,000 gal.                      |
| Tender, wheels, No. 8.....                     | diameter, 33                    |
| " journals.....                                | 4½ ins. x 8 ins.                |
| Service.....                                   | freight                         |

The Duluth, South Shore and Atlantic Ry., which extends some 400 miles along the south shore of Lake Superior, having its eastern terminus at Sault Ste. Marie and the Straits of Mackinac and its western terminus at Duluth, Minn., has followed the example of the C.P.R., by which it is controlled, by inaugurating its own sleeping car system. It has had five sleepers built. The Railway Age says they have 10 sections, stateroom and smoking compartment, and are 64 ft. 9 ins. long over end sills, 10 ft. wide over side sills and are about 4 ins. higher than the standard U.S. sleeping car. This allows 2 ins. more head room for lower and upper berths, a feature which will be appreciated by the travelling public. The cars are equipped with all modern improvements for safety and comfort. The ends are fitted with wide vestibule, standard steel platforms and anti-telescoping device, which consists of sandwiched iron plates on the end frame and sills on the under frame, making a very rigid piece of construction practically indestructible in case of collision. The style of architecture is of the Empire period, modernized to meet the demand for sanitary conditions. In place of using the heavy relief carving and ornaments of brass used with the original Empire style, the designers have employed marquetry or inlaid work for the ornamentation of the woodwork. This feature gives a smooth surface, besides adding color to the ornamentation made possible by the use of rare woods in their natural color, which, by a careful study in their selec-

tion, produce a highly artistic effect. The main room, corridors and toilet rooms are of St. Jago mahogany and the state-room in prima vera, or white mahogany. There are many new features used in connection with these cars, the most notable being the curved end of the seats, which adds to the comfort as well as the general effect of the main room. Special care has been given to the formation of the ceiling. The deck windows are treated very artistically, being half elliptical in form, with tapering arches beautifully inlaid with marquetry and supported by corbels. The glass in the windows is rich colored cathedral set in metal frames. To make this handsome design prominent, the ornamentation usually used on ceilings has been omitted and a soft green color has been used, making a rich background and effecting an unusually handsome, plain appearance. Wilton carpets, frieze plush window shades and draperies are of a delicate green color, harmonizing with and complementing the rich shade of the St. Jago mahogany. The cars are mounted on 6-wheel trucks, having 33-in. steel-tired wheels, and are equipped with steam heat and lighted by combination oil and electric lights. Each seat has a special electric light for reading purposes.

The Mineral Range division of the Duluth, South Shore and Atlantic Ry., a subsidiary of the C.P.R., has recently received 4 single consolidation locomotives, which rank well up in the list of powerful and heavy freight locomotives. The design is compact and appearance graceful. The straight top type of boiler with narrow firebox and "D" slide valve is adhered to. The total weight of the engines is 193,000 lbs., of which 17,000 are on the truck wheels and 176,000 on the drivers. A working boiler pressure of 200 lbs. is utilized, and with driving wheels of 55-in. diameter together with cylinders of 22-in. diameter by 30-in. stroke, a tractive power of 44,880 lbs. is developed. The adhesive force, based on 25% of the weight on drivers, is 44,000 lbs., so that there is a surplus tractive effort of practically 1,000 lbs. which may be utilized on grades and at starting by means of increasing adhesion through sanding the rails. The weight on driving wheels to each sq. ft. of heating surface is 60.6 lbs., and the total weight to each sq. ft. 66.4 lbs. The driving wheel centres are of cast steel and the tires O.H. steel, all flanged, 3½ by 5¼ ins. The material of the axles is steel and the dimensions of the journals 9 by 12 ins. Spoke-centre engine truck wheels 33 ins. in diameter are fitted. The driving wheel base is 16 ft. and the total wheel base of engine, 24 ft. 2 ins. Steel is the material used in the construction of the boiler, the thickness of sheets in barrel and dome course being ¾ in., and the crown, tube and side sheets of the firebox, 7-16 in., ¾ in., and ¾ in., respectively. The outside diameter of the front of boiler is 78 ins. The engines are designed to burn bituminous coal, and some further particulars of the boiler are as follows:

|                             |                  |
|-----------------------------|------------------|
| Heating surface, tubes..... | 2,904 sq. ft.    |
| " firebox.....              | 218 "            |
| " total.....                | 3,122 "          |
| Grate area.....             | 35.87 "          |
| Tubes, diameter.....        | 2 ins.           |
| " length.....               | 13 ft. 11 1-16 " |
| " thickness.....            | No. 11           |
| " number.....               | 308              |
| " material.....             | C.C. iron        |
| Grate, length.....          | About 126 ins.   |
| " width.....                | 41 "             |

The water capacity of the tender is 5,000 gals., and the underframing is steel, the members being 10-in. channel sections. The trucks are of the diamond arch-bar type with double plate chilled cast iron wheels 33 ins. in diameter. The brake beams are of "I" section. The engines are equipped with two 3-in. safety valves, one muffled and one plain; two no. 10 injectors; triple sight feed lubricators; 18-in. round case headlight; Westinghouse-American brakes; sectional lagging;