

taking hold of the work. In the initial layout, the office faced on the midway, but the present arrangement of shop buildings was considered to be preferable to the former, even at the cost of moving the office back from the midway.

It is a brick structure with steel interior frame, 60 by 68 ft., consisting of two stories and basement. The basement contains the storage and lavatory accommodation. The ground floor has offices for the department's officials and clerks, and on the first floor is the draughting room, file room and blue-

tion of the necessary equipment and the Intercolonial to undertake, without charge, such deadhead movements as may be necessary to properly care for the traffic; it being agreed that the C.P.R. will not be asked to hold its cars in Halifax more than seven days at any one time. The I.R.C. will assume the cost to transfer of baggage between cars and shed floor. The I.R.C. will pay the same rental and other charges on cars in this service as at present paid on C.P.R. equipment handled over the line between St. John and Halifax. The C.P.R.

Fuel Consumption on Steam Railways in 1912-1913.

The statistics of fuel consumed on the steam railways for the year ended June 30, 1913, are given in a little more detail than in former years, and show some interesting developments.

The total weight of fuel consumed was 9,263,984 tons, the cost of the same being \$28,426,355, against 7,783,736 tons, costing \$24,180,823 in the previous year. Distributed among the different classes of locomotives the consumption was:

	1912-13. Tons.	1911-12. Tons.
Freight	5,361,839	4,480,042
Passenger	2,249,320	1,983,238
Mixed trains	502,631	407,970
Switching	1,138,531	890,650
Construction	11,663	21,150
Total	9,263,984	7,783,736

The cost of fuel for road locomotives was \$25,089,445, and for yard locomotives, \$3,336,910. The average cost of fuel was \$3.07 a ton, against \$3.15 a ton in 1911-12. This calculation, however, is subject to qualification. In 1912-13 there were 31,078,252 gallons of oil used, against 1,729,577 gallons in 1911-12. The coal equivalent for oil has not been definitely determined, and there is a slight confusion in the returns for that reason. The bringing of oil into use as a fuel on a relatively large scale within recent years will inevitably lead to an early re-casting of the fuel accounts. The following table gives the quantities of each class of fuel used by the different classes of locomotives, and the mileage run:

	Consumption. Tons.	Cost. \$ c.
Freight	8.31	25 51
Passenger	4.89	15 01
Mixed trains	5.59	17 16
Switching	4.47	13 72
Construction	5.46	16 76

The average weight of fuel used by each class of locomotive, and the cost of the same per 100 miles run are given in the following table:

shall pay the same charges for cleaning, supplies, etc., as now paid by the I.R.C.

The following rates will govern the transportation of freight:—All classes, in either direction, 75c. a ton of 2,000 lbs., with the exception of flour and grain, which will be carried at 60c. a ton of 2,000 lbs.; the maximum earnings for this traffic on any train to be \$300. The C.P.R. will assume the cost of transferring freight between ships and cars at Halifax. All grain handled

Class of Locomotives	COAL.		WOOD.		OTHER FUEL.		Total.	Miles Run.
	Anthracite.	Bituminous	Hard.	Soft.	Oil.	Charcoal.		
	Tons.	Tons.	Cords.	Cords.	Gallons.	Bushels.		
Freight	1,208	5,223,973	463	21,057	20,153,877	70,562	5,361,839	64,541,731
Passenger	754	2,186,069	470	10,758	9,103,495	55,120	2,249,320	40,926,357
Mixed train	1,465	494,547	68	3,208	489,720	4,597	502,631	8,981,330
Switching	1,235	1,124,857	.....	5,591	1,320,382	27,070	1,138,531	25,456,533
Special .....	.....	11,517	.....	83	19,778	179	11,663	213,770
Total	4,662	9,040,963	1,001	40,647	31,087,252	157,528	9,263,984	145,119,721

NOTE: One and one half cords hard wood equal one ton. Two cords soft wood equal one ton.

through the Halifax elevator shall pay the usual elevator charge current at other points. The C.P.R. will assume the clerical work, the checking, waybilling and accounting. The I.R.C. will pay the usual per diem, or other charge on freight car equipment engaged in this business and also all loss or damage which may occur to the freight while in transit between Halifax and St. John.

The I.R.C. will provide the necessary berthing accommodation for the C.P.R. and Allan Line ships and will make no greater charge for wharfage and dockage dues than is charged other steamship lines. This arrangement will remain in effect from Nov. 15, 1913, to May 15, 1914.

To drill chilled cast iron, a contemporary states that the piece should be laid on a forge, the spot to be drilled covered with sulphur and the blast applied slowly until the sulphur is burned off. The chill will then be drawn and the piece can be drilled.

The Intercolonial and Canadian Pacific Traffic Agreement.

The agreement in reference to the transportation of C.P.R. passengers and freight over the I.R.C. between Halifax and St. John, in connection with the four C.P.R. and Allan Line steamships carrying British mails and making Halifax the winter port, about which there has been some discussion in Parliament, was entered into Sept. 30, 1913, between F. P. Gutelius, General Manager, Canadian Government Railways, and G. M. Bosworth, Vice President, C.P.R. We are officially advised that it is for the present winter season of navigation only and has to do with one steamship each week. It does not supersede the traffic agreement which has been in force between the I.R.C. and the C.P.R. for some years in regard to traffic between Halifax and St. John. Following is the text of the agreement:—

The following rates will govern the transportation of passengers:—Passengers and their baggage between Halifax and St. John in either direction on special or regular trains, \$2 first class and \$1.50 second class for each adult passenger, with a maximum earning on this traffic on any one train of \$300. When special trains are run they shall handle, if necessary, up to 12 cars, making same time as regular through trains. The C.P.R. to supply a reasonable propor-