

mercial corporations by imposing upon companies carrying on an express or forwarding business in the province a tax of one-tenth of 1% upon the paid-up capital up to \$1,000,000, and \$25 for every \$100,000 of paid-up capital over that amount; and an additional tax of \$50 for each place of business in Montreal and Quebec, and \$25 for each place of business located elsewhere in the Province.

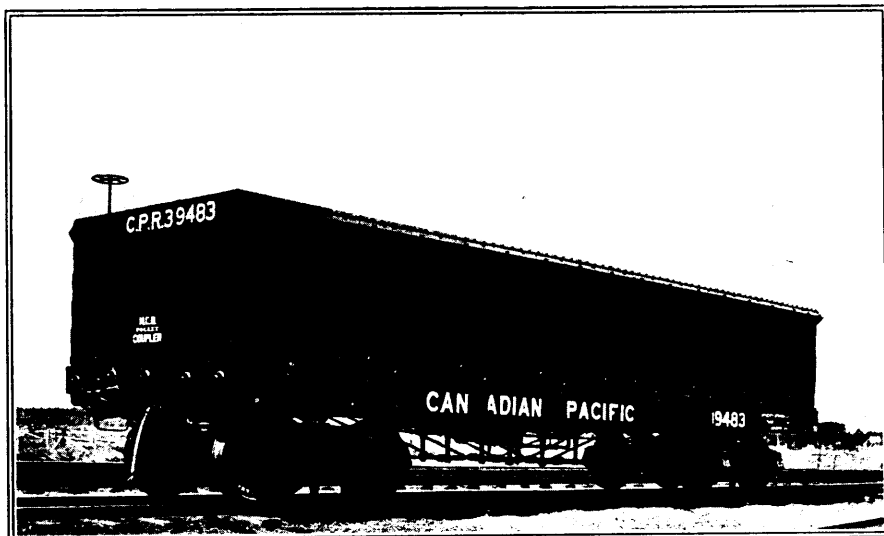
C.P.R. Coal Cars.

The C.P.R. side-door coal cars, which are illustrated on this page, were designed with a view to securing a vehicle for the carriage of coal which would retain its status as a coal car to the end and not degenerate into a sort of coal sack by sagging in the middle and bulging at the sides. The elimination of the chance of sagging and bulging which are the two evils which coal cars are heir to, was not rendered any easier by the fact that the car was required to have side doors, but the form of construction finally adopted has, it is said, given excellent results in service.

The outside sills are timber, 14 in. deep by 5 in. wide. The intermediate sills are really composed of two members each 9x5 in., spaced 1 in. apart, with packing piece between, and through these sills the long U-bolts, which pass around the stake pockets are bolted. In addition to this, from each stake, a rod runs right across the car through the floor; a bolt at the end of the stake passing through the side sill, secures the stakes very firmly to the outside sills. The double intermediate sills are placed within 5 in. of the center sills and 22 in. from the outside sills, so that the central portion of the car, which cannot receive any stiffening from the side walls, is carried on six timbers and is thus made quite rigid. The whole car floor is also supported by six through truss rods of extra depth below the needle beams, so that the chance of sagging is reduced to what may be called a negligible quantity.

The bulging propensity which coal cars evince, is also guarded against. Although the stakes are 4 ft. apart and contain a side door between each, the full width of the panel, the door itself is 3 ft. high, while the total height of the side is 5 ft. 1-2 in. Therefore the coal car side is solid all along the upper 2 ft. of its height, and is reinforced by a longitudinal timber of triangular section, resting on top of the stakes and capped by an angle iron, the full length of the car. This coping of wood and iron, together with the fact that the stakes are all outside the side planks, makes bulging a most difficult, if not impossible, feat for the load of coal inside to perform.

The ends of the car have no stakes, but the "coal box" is anchored down by flat iron straps which grip the top plank and are bolted through the end sills. Six flat corner plates unite end and side planks.



CANADIAN PACIFIC RAILWAY COAL CAR.

The side doors open flush with the floor, and when in position are held closed by two bolts in each, which drop into staples on the side sills and cannot shake out or let the doors open by accident. These doors are provided with permanent rods or latches which hold them open when required. Neither hinges, latches nor any door attachments extend beyond the line of the stakes, so that there is nothing along the sides of the car to catch on anything or be torn off.

The car may be considered as a partial automatic side dumper, and if all the doors were open perhaps about 25% of the load would be discharged, the rest would have to be shovelled out by hand. The car is 40 tons capacity, having about 1,488 cu. ft. volume, and weighs light about 37,000 lbs. The design shows much careful working out of details and the clever adaptation of means to an end, upon which the officials of the C.P.R. mechanical department may reasonably congratulate themselves. This description is adapted from Railway and Locomotive Engineering.

The Canadian Northern Ry., on June 15, inaugurates a daily steamboat express train between Port Arthur, Ont., and Winnipeg, 439 miles. Each train will consist of locomotive and five cars, and will be solid vestibuled, with dining and sleeping cars, and fitted with all the latest appliances. The rolling stock for these trains is new, and at the outset the service will be carried on by three trains. Additional trains will be added as occasion requires.

June Birthdays.

Many happy returns of the day to Harry Abbott, President Vancouver and Lulu Island Ry., ex-General Superintendent C.P.R. at Vancouver, B.C., born at Abbotsford, Que., June 14, 1829.

F. F. Backus, General Freight and Passenger Agent, Toronto, Hamilton and Buffalo Ry., at Hamilton, Ont., born at Rochester, N.Y., June 4, 1860.

Archer Baker, European Traffic Manager C.P.R., at London, Eng., born at York, Eng., June 21, 1845.

Edgar Berryman, C.E., Montreal, Assistant Engineer, Lake Superior Division, C.P.R., born at Queenston, Ont., June 27, 1839.

C. R. Boucher, Divisional Engineer Temiskaming and Northern Ontario Ry., North Bay, Ont., born at Southampton, Eng., June 4, 1847.

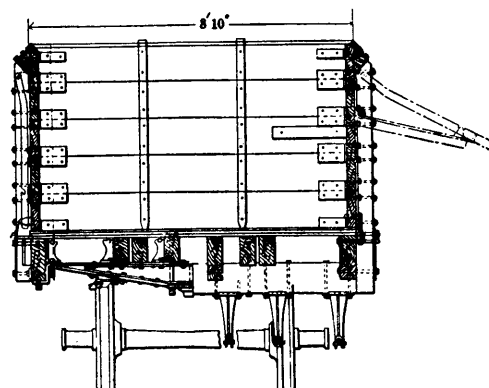
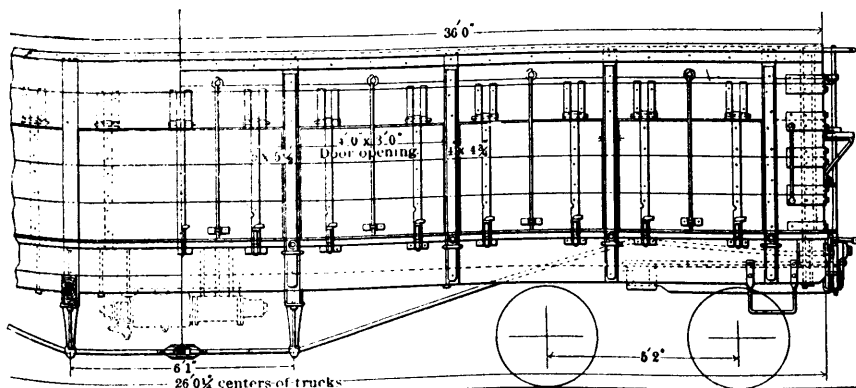
F. P. Brady, General Superintendent Central Division C.P.R. at Winnipeg, born at Haverhill, N.H., June 22, 1853.

J. E. Dalrymple, General Freight Agent, Central Vermont Ry., at St. Albans, Vt., born at Montreal, June 1, 1869.

W. H. D'Arcy, Claims Agent, C.P.R., at Winnipeg, Man., born at Manorhamilton, Leitrim, Ireland, June 23, 1859.

A. E. Doucet, Chief Engineer Quebec and Lake St. John Ry., born at Montreal, June 9, 1860.

W. F. Fitch, President and General Manager, Duluth, South Shore and Atlantic Ry., and Mineral Range Rd., at Marquette, Mich., born at Circleville, Ohio, June 28, 1839.



CANADIAN PACIFIC RAILWAY COAL CAR.