

tion of the smoke duct taper inwards to a width of 18 ins., similar to the Canadian Northern Ry's Winnipeg shed, and Central Rd. of New Jersey shed at Jersey City. This arrangement has several advantages. With the flat skylight, heavy snowfalls are more liable to cover the whole roof surface, the skylight becoming covered with snow so as to render the interior lighting poor. With the raised skylights, it is believed that the snow in drifting over the roof will deposit itself in the spaces between the skylights, leaving the latter clear, and free of snow. With the straight side smoke duct, the snow when drifting badly, has a greater tendency to drift down through into the shed interior. By reducing the upper opening of the slot by one-half, this tendency is reduced by the same amount. The snow holding capacity of this roof is considerably greater than with the usual design, but where it is deemed advisable, the surplus snow may be shovelled down from the roof through the slot, into flat cars on the tracks below.

The platform arrangement differs from the usual design, as already mentioned. The tracks under each arch are spaced at 20 ft. centres, with an intervening 10 ft. platform. This latter is used for baggage and express traffic, leaving clear the 16 ft. platform on the other side along the row of columns, clear for passenger traffic exclusively. This has already been found to be a great advantage in handling the traffic expeditiously, and while this arrangement requires a slightly wider span to allow for this extra platform, it is considered worth while. The platforms are of concrete, while the roadbed is of broken stone. In the building of the shed, it was found necessary to slightly lower the latter temporarily to allow for the smoke duct concrete moulds, thereby allowing the work to be carried forward after the erection of the steel work, without interruption to traffic.

A very important advantage in this type of shed is the manner in which it can be erected without interrupting the traffic seriously. From the very nature of its unit construction, it is possible to put up the shed over two tracks at a time, so that only these two tracks need be taken out of service at a time. Instead of requiring a great amount of false work to support the steel while being erected, as in the high arch type, in this scheme the whole span can be completed at the works, shipped to the shed on a flat car, and lifted into place by a wrecking crane. Thus, from an erection viewpoint, the design has marked advantages.

From the maintenance standpoint, it is decidedly better than the high arch type. In the latter, all the gases being exhausted into the shed, the steel, unless constantly painted, is attacked by the acids in the exhaust. Authorities place the life of such a shed at not more than 20 years. In the Bush shed, all the gases are taken outside clear of the shed, so that the interior steel work requires no more than usual attention. In addition, there are no dirty skylights, and the interior illumination is thus kept better, with less work. The accessibility of the skylights in the Bush type, make them easily cleaned when necessity arises, and this also applies to the painting of the steel work. The roof drainage is cared for by copper gutters from the shallow ridges of the roof, at every other column.

The photograph of the trainshed interior shows the artificial lighting arrangement, as supplied by the Northern Electric and Mfg. Co. Centrally in each section of the station, over each platform, there is a 60 watt tungsten lamp, at a height of 15 ft. from the platform to the base of the shade, and suspended 5½ ft. below the supporting beam. All the wiring is run in conduit, and the lighting is controlled from an 80 circuit

panel, located in the station master's office.

The design of these trainsheds was developed under the supervision of P. B. Mot-

ley, M. Can. Soc. C. E., Bridge Engineer, C. P. R., to whom we are indebted for the data on which this article is based.

Canadian Pacific Railway Construction, Betterments, Etc.

Atlantic Division.—Local press reports state that some negotiations have taken place between the C.P.R. and the Dominion Government, with a view to the purchase of the Windsor branch of the Intercolonial Ry., which extends from Windsor Jct. to Windsor, N.S., 32 miles, and is operated by the Dominion Atlantic Ry., on an agreement under which the Government maintains the line, for a fixed proportion of the receipts.

It was announced after an official inspection of the lines in the vicinity of Fredericton N.B., recently, that \$75,000 would be expended on the betterment of the roadbed of the Gibson branch during the year. It is said to be intended to bring the branch up to the standard of the recently completed Fredericton and Grand Lake Ry. and Coal Co.'s line.

Eastern Division.—The Board of Railway Commissioners has authorized the opening for traffic on the second track from Iberville to St. Johns, Que., mileage 19.2 to 20.02.

Application is being made to the Board of Railway Commissioners for permission to build a branch in Longue Pointe from the main line west of Moreau St., Hochelaga Ward, Montreal, easterly and northerly through Maisonneuve, and Longue Pointe to Cadastral Lot 396, with a spur in connection therewith. The route of this projected line has been before the courts, in so far as it is located through Maisonneuve, and the matter is likely to go to appeal. The application, mentioned above is for the purpose of setting certain points in order, as required by one of the judgments.

Ontario Division.—It was understood that a regular train service would be put in operation on the newly completed Campbellford, Lake Ontario and Western Ry. June 29.

A Brampton, Ont., press report states that the citizens propose to build a line from there to a connection with the C.P.R. at Islington, and that the C.P.R. will operate a suburban train service over it from Toronto to Brampton, for 60% of the traffic receipts. Confirmation of this is lacking, but Brampton people have been doing their utmost during the last four or five years to get a better C.P.R. connection with Toronto than they have at present, or to get an electric railway.

The bridge over the Nottawasaga River at Baxter, Ont., on the Sudbury line, which collapsed May 15, has been restored, and the train service over it was resumed June 16.

Manitoba Division.—An arrangement has been made between the Winnipeg City Council and the company by which the latter will build a three mile spur to a gravel pit at Springfield, owned by the city.

The Board of Railway Commissioners has authorized the opening for traffic of the Snowflake west branch, just north of the International boundary, mileage 0 to 10.

Alberta Division.—The ratepayers of Medicine Hat, Alberta, have passed a by-law appropriating \$70,000 as its proportion of the cost of a subway under the C.P.R. tracks in the centre of the city.

George Bury, Vice President, visited Lethbridge, June 7, on a trip of inspection over the Weyburn-Lethbridge line. He is reported to have said that the line will be completed in 1915. Track is reported to

have been laid 60 miles westerly of Shaunavon, at which point divisional terminals are being built. The contract for the buildings is reported to have been let to C. W. Sharp & Son, Winnipeg, at an estimated cost of \$50,000.

A contract is also reported to have been let to C. W. Sharp & Son, for the erection of terminal buildings at Empress, on the Swift Current-Bassano extension, at an estimated cost of \$50,000.

Track laying is being proceeded with north west of Retlaw, towards the ore country. Local press reports state that a C.P.R. engineering party is in the field locating a line right through to the oil fields.

British Columbia Division.—The tunnel located at mileage 40.4 Boundary Subdivision is on a division of the line now under construction. The diversion will cross a gully at a point where it is possible to replace a wooden trestle by a fill. The tunnel is located on a 2% gradient on a tangent. It will be built according to C.P.R. standards. H. Rindal, Division Engineer, Vancouver, B.C.

The big bridge being built over the Harrison River at Chilliwack, B.C., has a total length of 950 ft. The superstructure is nearly completed, and it is expected it will be ready for traffic by July 31. The bridge over the Pitt River, at Coquitlam, 1,750 ft. long, is expected to be completed in Nov. Both these bridges are to carry double tracks. (June, pg. 261.)

Northern Consolidated Holdings Co.—Application was filed in the Ontario Courts, recently by G. Alexander, Montreal, asking for the winding up of the Northern Consolidated Holdings Co. The applicant asked for the appointment of a liquidator, alleging that the company is insolvent, and demands a full enquiry into its condition and its accounts. He claims to represent \$1,000,000 of stock in the company. The N. C. H. Co. was incorporated Dec. 8, 1913, with a capital stock of \$8,000,000, of which Mackenzie, Mann & Co., are stated to hold \$4,000,000, to acquire and hold the stock of the companies acquired and consolidated as the Canadian Northern Quebec Ry.

Fires near Right of Way.—In reference to the requirement of the Board of Railway Commissioners that railway companies submit monthly reports on fires originating within 300 ft. of the track and burning over an area of 100 sq. ft. or more outside the right of way, particulars of which were given in Canadian Railway and Marine World for June, the Board issued general order 126, dated May 28, that such reports shall be privileged and shall only be made public and given out upon application therefor by order of the Board.

Branch Lines for the Intercolonial Ry.—The Dominion Parliament has voted \$500,000 to acquire lines operating in connection with the I.R.C. Any line to be taken over is to be equal in standard to the I.R.C., and the purchase is to be subject to notification by Parliament. It is said that the line which it is desired to deal with at once is the New Brunswick and Prince Edward Island Ry., running from Sackville to Cape Tormentine, N.B., which would give the direct connection between the mainland terminal of the Prince Edward Island car ferry and the I.R.C.