

and then the casting is turned on the plane and the space between the grooves is planed out.

The phosphor bronze plates were shipped loose and were put in place just before the girder was lowered into position. Some time would be saved in the field if a couple

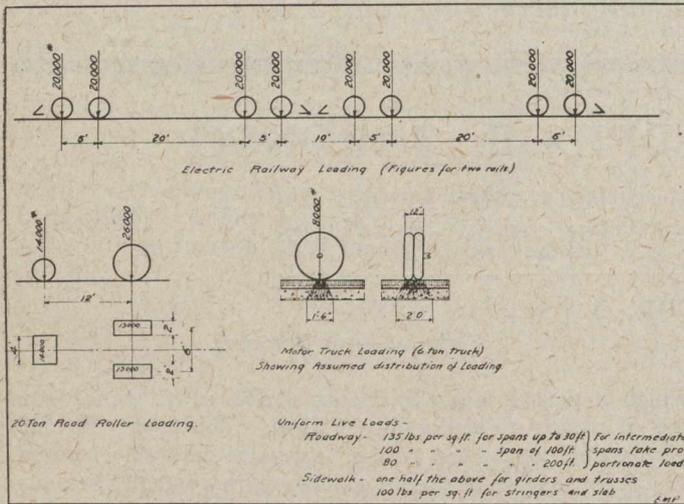


Fig. 2.—Standard Loading Specification, City of Toronto.

of field countersunk tap screws were put in each plate in order to hold them in place during erection.

Fig. 6 shows the method used in the erection of the girders. A gallows frame was erected over one of the tracks and the girders were lifted from the flat cars and then swung into place. By reason of the fact that it was impossible to place the gallows frame in the centre of the span on account of the layout of the railroad tracks, some means had to be adopted to properly balance the girders as they were being lifted. For the first girder, two boxes of steel punchings were used as a counterweight (Fig. 6) but in the other two girders the locomotive crane was

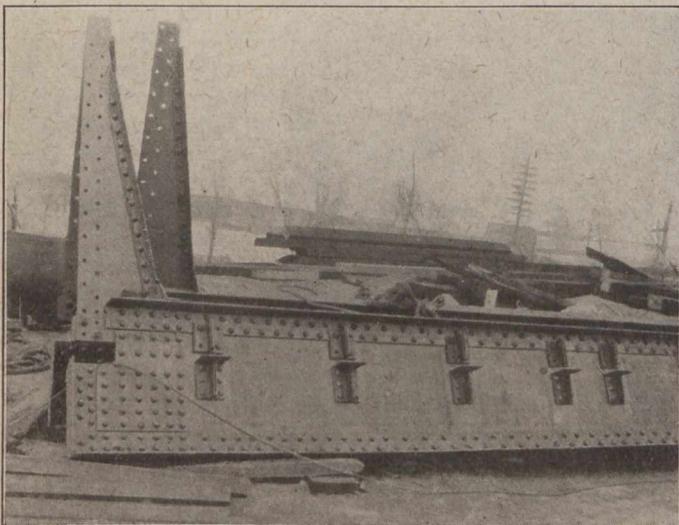


Fig. 3.—Floor Beam.

used to keep the balance by taking a lift on the long end of the girder. This was found to be a much quicker method. The hoisting power was supplied by a steam hoisting engine and a locomotive. The erection was carried out without interrupting traffic on the railroad.

The steel encased in concrete was not painted; the other steel was given a shop coat of paint, made up of 25 lbs. pure red lead to one gallon pure boiled oil. Two

coats of paint were applied in the field, the specifications for their composition being as follows: 220 lbs. of pure lampblack ground in pure raw linseed oil (the proportion of lamp black by weight shall be not less than 25 per cent. nor more than 30 per cent. of the mixture); 49 gallons

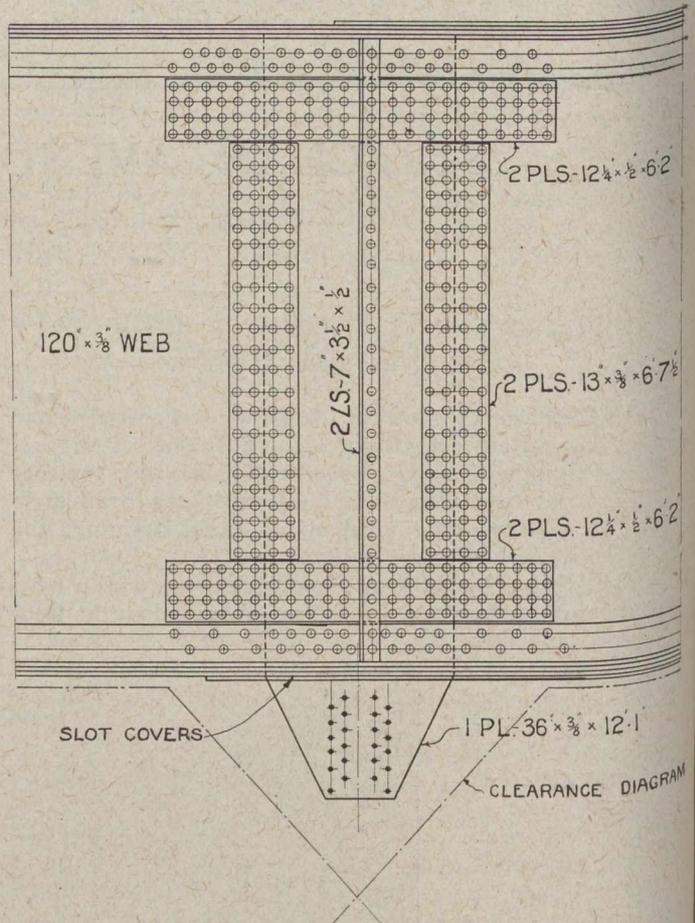


Fig. 4.—Detail of Web Splice and Web Hanger Plate.

asphaltum varnish; 15 gallons pure raw linseed oil; 15 gallons turpentine-japan drier. The paint shall weigh 8 lbs. 2 oz. per gallon. The various ingredients of the

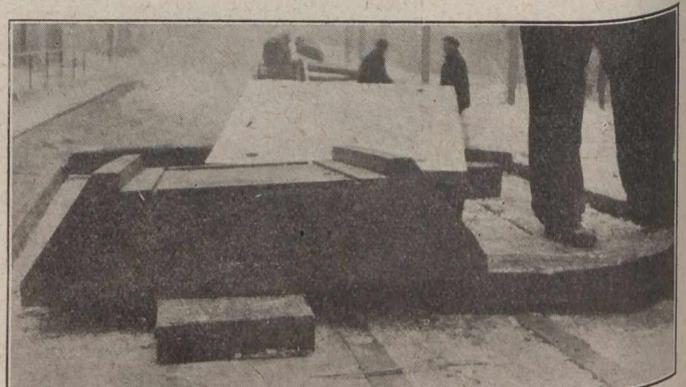


Fig. 5.—Cast Steel Bed Plate, Showing Inset for Bronze Plate.

asphaltum varnish and turpentine-japan drier were carefully specified.

The floor of the bridge is supported on a 7-inch reinforced concrete slab. The pavement is 4-inch creosoted wood block laid on a 1/2-inch mortar bed. The slab is waterproofed as follows: First, the surface of the concrete slab was thoroughly cleaned and given a coating of hot