

PAVEMENT WORK IN ST. JOHN, N.B.

DETAILS OF SPECIAL DESIGN AND CONSTRUCTION—ADAPTED RAIL SECTIONS, TRACK BASINS, ETC.—NOTES ON EQUIPMENT AND METHODS EMPLOYED.

THE following is a general description of pavements laid and paving methods employed in the City of St. John, N.B., during 1913.

At the outset of the season the Public Works Department had mapped out a programme of about 30,000 sq. yds. of pavement to be laid under the Local Improvement Act. When the time had arrived to call for tenders, however, the yardage was reduced to about 5,000 yds. This is accounted for by the fact that the owners of one-third of the total abutting frontage had the necessary power to petition and stop the laying of any pavement under the Act which provided that the abutters should pay one-half and the city the other half of the total cost of the pavement. It may here be stated that the present Commissioner of Public Works has had framed a new Act in which it is provided that sixty per cent. of the abutting frontage shall be necessary to stop the laying of any pavement. Even this Act does not give the city the necessary authority to force a single yard of pavement where it might be absolutely needed.

With the small yardage above noted as being left it was decided that it would be useless to call for bids on sheet asphalt as recommended for these streets. So, a split was made and tenders asked for the concrete base, brick and granite track sections, there being local contractors in this line of work. It was decided the asphalt surface could be laid by city forces by day labor.

Contracts were accordingly let for concrete and setts. Shortly afterwards some other streets asked for pavements, which brought the quantity up to approximately 12,000 yds. As these streets were all suitable for a smooth pavement, a 2-inch bitulithic surface was contracted for, and in one case both surface and base was laid by the contractors for this material.

The general design of pavement laid during the past year is about the same as that adopted in most places where bitulithic pavement has been laid. It will, therefore, not be necessary to elaborate upon the design with the exception of the few following points. In the specifications, Mr. G. N. Hatfield, the City Road Engineer, has defined the results to be obtained leaving as far as possible to the contractor the methods to be employed. At the present time there is no local contractor equipped with any modern street paving machinery except a concrete mixer. The only road rollers available are the property of the city, which are necessarily

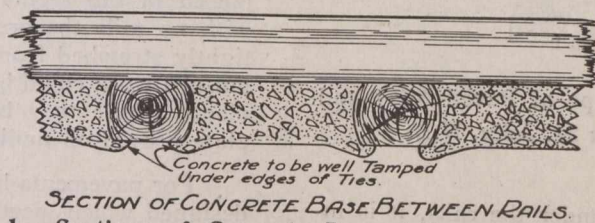
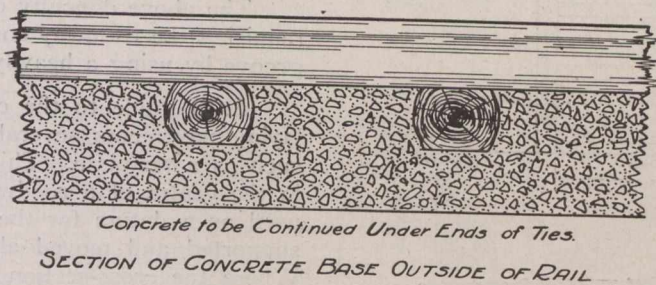


Fig. 1.—Sections of Concrete Base Adjacent to Rails.

hired out to enable the local contractors to bid upon the work.

Perhaps the only real departure from the general line of construction has been performed in the track section of some of the streets paved. To this work the accompanying illustrations chiefly allude. The concrete, as shown in Fig. 1, is not carried continuously under the ties between the rails, the specifications calling for the ties to be thoroughly tamped with concrete. But from

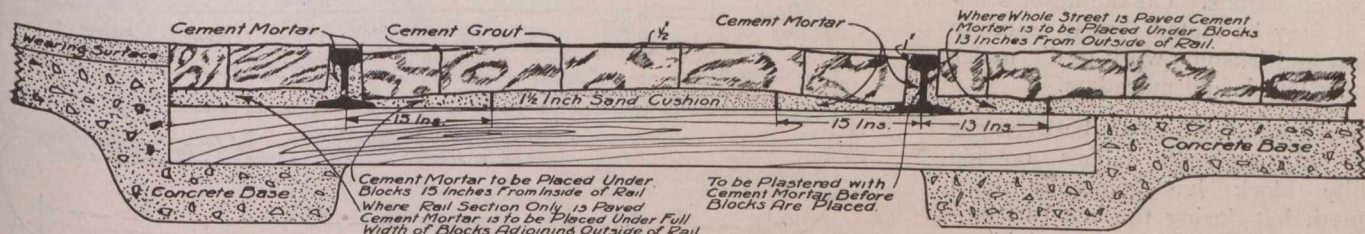


Fig. 2.—Detail of Rail Section for Granite Block Pavement.

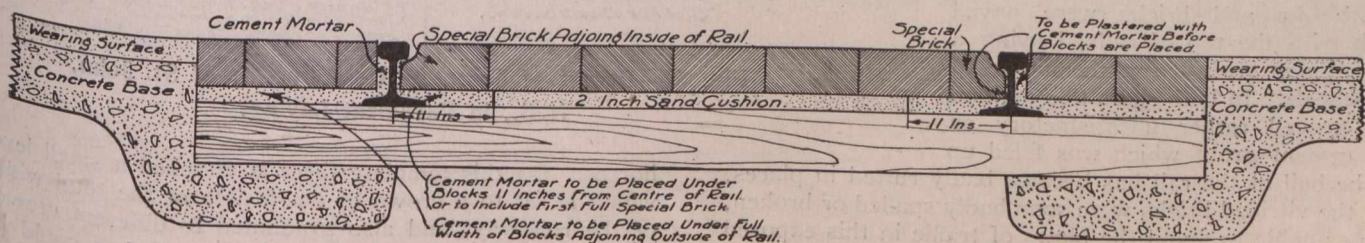


Fig. 3.—Detail of Rail Section for Vitrified Brick or Scoria Block Pavements.