

a spike is drawn, except where the tie is to be renewed that season, and, when possible respiked safely last into the plug and not weaken tie by making a new hole. If three ties are to be renewed, the Roadmaster should mark them with a pick.

100. In moving new ties with a pick, the pick should be struck into the side of the tie and not into the face. No ties are to be moved that are marked for renewal.

101. When new rails are laid and the joint subsequently changed, the ties must be spaced to suit the new joints. 104. Section Foremen should mark ties for renewal in the autumn.

102. There is probably no item in track work where Roadmasters and Foremen can waste or save so much money as in selecting ties which are to be renewed. The tie renewals in the track should be marked with a pick.

During the autumn of each year the Roadmaster, accompanied by the respective Section Foremen, must walk over each section on his territory and make careful inspection of each tie in the track, studying the local conditions, also the condition of the ties on either side of the tie under inspection, the amount and character of the traffic, and whether on straight or curved track. An estimate must be made of the number of ties which will require renewal during the following season. 105. The Section Foremen should make an early inspection of the ties in the track and ballast. 106. Roadmasters should see that the ties are removed from the track and replaced with new ties. 107. The Section Foremen should see that the ties are replaced with new ties.

103. During the following Spring special inspectors must thoroughly inspect all ties in track and support, on mark on the face with a spot of red paint those which compete to be removed. Care must be taken not to disturb good ties when testing. Renewals should not exceed six ties per rail length in one track if cut 1 season, excepting in exceptional cases on curves, and no tie should be removed, which in the judgment of the old tie-