

along down the shop to the position shown on the left in fig. 13, which also shows the final assembling frames. At this point, the completed trucks from the truck shop are brought into the shop through the side door, and turned into the assembling track, just back of the point from which this view was taken. The completed underframe is brought down the shop from the underframe assembling stand, and placed on the await-

the frame, before entering the latter, has the end frame at that end applied by the end jib cranes, and bolted into place. When run into the assembling frame, the side frames of the car are lifted into place by the overhead traveller, and bolted into position. The assembling frame is the length of two cars, and on the bolting together of the car frame, the car is moved down into the second section of the assembling frame,

The C. P. R. some time ago adopted the policy of replacing all wooden centre sills on wooden box cars, when the sills required replacement, with a special type of Z bar centre sill, which could be applied to the wooden car without a very great change in the underframe design. With the exception of the draft gear fittings, this centre sill consists of two Z bars, the length of the car. Fig. 14 shows the arrangement in the south-

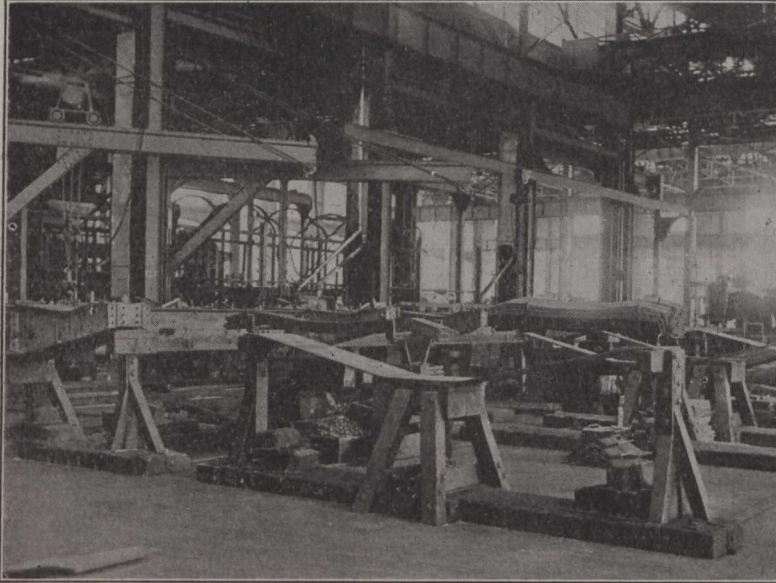


Fig. 9.—Assembling Underframe of Steel Freight Car.

ing trucks, the understructure of the car then being ready to pass into the final assembling frame, shown in this illustration. There are two of these frames, so that from the truck and underframe assembling point, the final assembling may be carried on along both tracks.

This assembling frame consists of a steel gantry, straddling the erecting track, carry-

and the carlines applied and the rivetting of the assembled members proceeded with. Practically all the rivetting is completed as the car leaves the frame, the balance being completed at the end of the shop. After the assembling of the draft gear, brake rigging, etc., in this final position, the car is ready to be hauled out by a tractor at the end of the shop, this tractor also being used for

east corner of the shop for handling this particular piece of work, and while included in the steel car shop section must be considered purely as a repair job.

The Z bars for the centre sills are stored in the pile adjoining the 2 ft. service track, which enters the front of the building along the south side. These sills are loaded on shop lorries on this track by the overhead

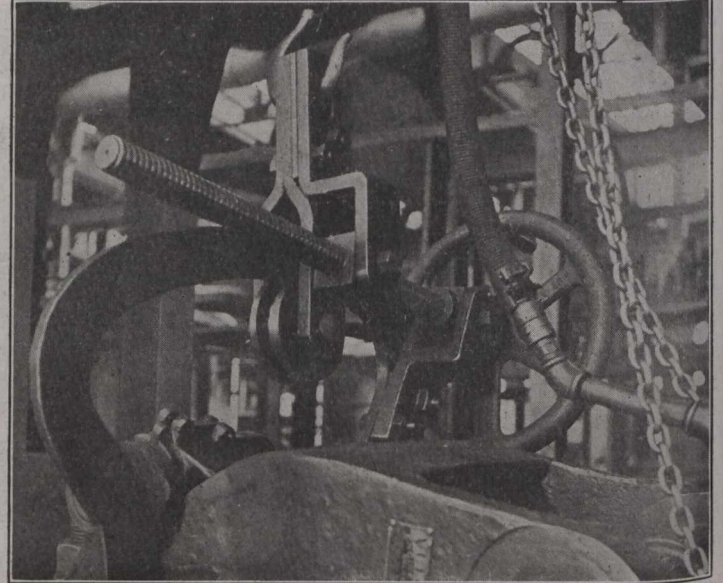


Fig. 10.—Suspending Mechanism for Bull Rivetters.

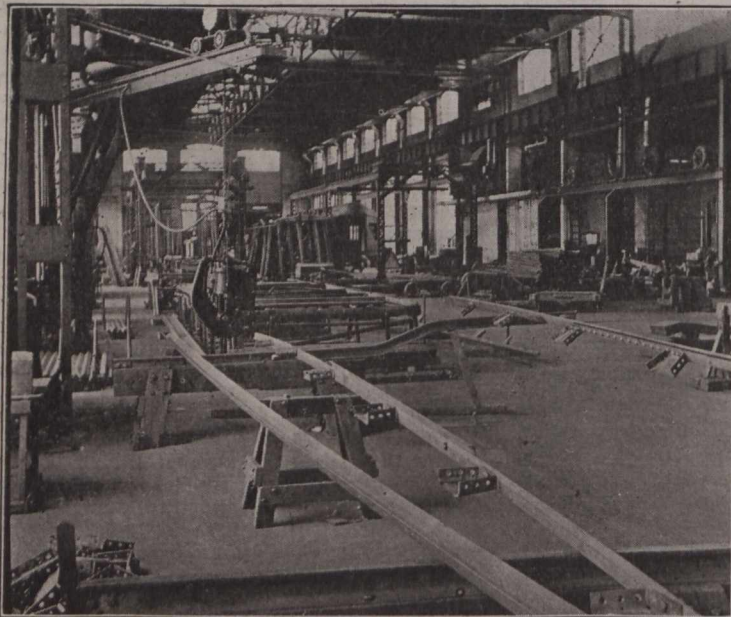


Fig. 11.—Assembling Parts for Steel Freight Car Side Rails.

ing on the frame columns at the near end, jib cranes. On the top of the frame, there is a travelling crane, of novel design, the upper part having drops, to the lower end of which there is a cross track attached, consisting of an I beam member, the ends of which project beyond the sides of the assembling frame, so that it can pick up the side frames and swing them into position on the car. The car as it stands at the end of

moving the string of cars in their several stages of completion, from point to point in their process of erection. The cars, on removal from the steel car shop, are taken to the wood freight car shop for sheathing in the conventional manner, which has previously been outlined in these columns.

The southeast corner of the steel car shop is reserved for the handling of Z bar centre sill work, of which there is a great deal.

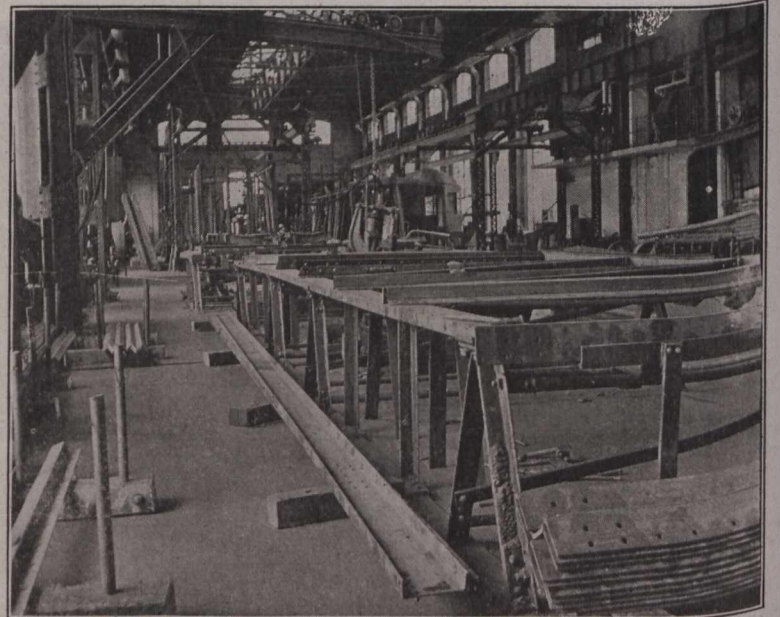


Fig. 12.—Assembling Steel Freight Car Side and End Frames.

yard crane. The track leads into the shop at the point shown in the foreground in fig. 14, the view being taken from the door at that corner of the building. The lorries are run along this track to the far side of the punch shown in the view for passage through the punch coming this way. Overhead of this position on the far side of the punch, there is an overhead I beam traveller, at right angle to the service track, and sus-