Railway Mechanical Methods and Devices.

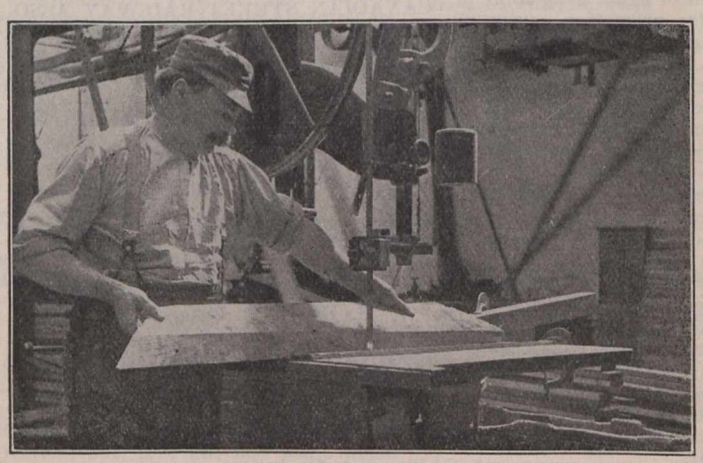
Sawing Pilot Slats at Grand Trunk Railway London Shops.

A very simple method of forming the horizontal slats that compose the body of the standard G.T.R. pilot is in use at the company's shops at London, Ont., in the woodworking department. The slats of wood are finished first on all sides, and the ends trimmed off at an angle to fit the backing and the central ridge of the pilot. The difficult part of machining the slats lies in the forming of the front bevel edges.

In these shops, this part of the work is performed on the band saw in the manner illustrated. Across the table to the right of and parallel to the saw, there is clamped a guiding strip of wood. A few inches to the left of the saw, there is clamped another piece, this latter being tapered from the front to the rear. The point of this wedge piece is in a line across the table at right angles to the saw, so that when the end of the slat is laid on the table the end will be level, and just ready to ascend the slope of the wedge. The cut of the saw thus enters at right angles to the face of the slat.

As the cut is pushed forward, the front end of the slat, which continues to rest on the wedge piece, is gradually raised, tipping the slat up on edge against the guiding strip. This tipping effect increases to the end. Experiment determines how far off to the left the outer end of the wedge should be located to give the right amount of tipping effect. Each one of the slats in the height of the pilot has a different amount of edge cut off to give the smooth sloping surface to the face of the pilot, each of the slopes being a matter of experiment. The slats for one side of the pilot are made this way, and the corresponding slats for the other side are made by reversing the positions of the guiding strip and wedge.

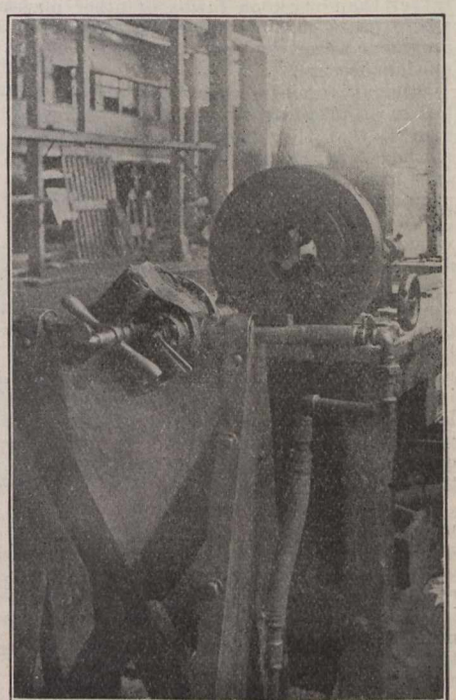
It is customary to make up several pilots at a time, so that the operator can make up that number of slats of each size at a setting, the location of the wedge for each size being known.



Sawing Pilot Slats to Shape on the Band Saw.

Motor Driven Pipe Threader at Grand Trunk Railway Port Huron Shops.

A new use for the air motor is shown in the accompanying illustration of an air-operated pipe threading machine at the G.T.R. shops at Port Huron, Mich. The pipe threading machine is of a standard make, of the small kind designed for hand operation on a supporting bench, conveniently located to the job. In this case the motor is mounted on a bench in the pipe fitting department.



Motor Operated Pipe Threading Machine.

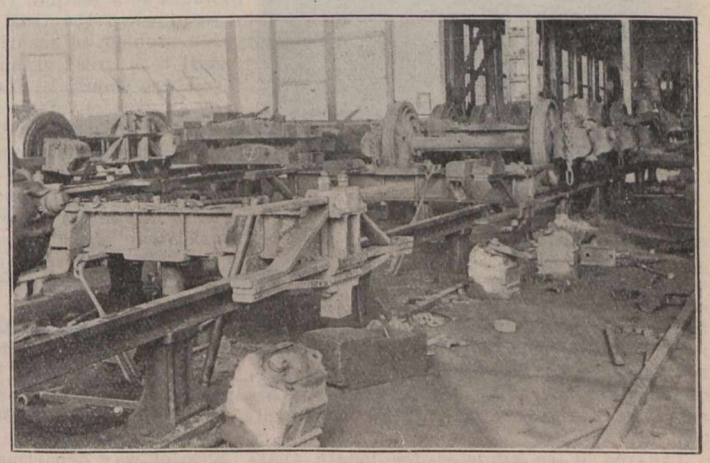
The air motor, connected to the driving pinion of the pipe cutter, is mounted on a supporting carriage in front of the table end, in a permanent location. This supporting frame is built up of wooden scantling, meeting at the top, in which there is a recess on both sides for the reception of the handles. There is a permanent air connection to the end of the handle, the intake of the motor, controlled in the usual manner with the handle valve. This has been found to be a most useful appliance around the shop for cutting the threads on pipe, and is naturally much more rapid than operation by hand.

Tender Truck Repairs at the Grand Trunk Railway Stratford Shops.

In the G.T.R.'s locomotive repair shops at Stratford, Ont., R. Patterson, Master Mechanic, the tender department is in a wing of the large locomotive shop. The various repair tracks in the tender department are entered from a travelling table down one side of the shop. The tracks at the end from the locomotive shop are for the tender tanks while under repair, the tracks at the other end being set aside for the truck repairs incidental thereto. The two tracks set aside for this purpose are shown in the accompanying illustration, where it will be noted that instead of having the tracks on the level of the floor, as in the usual repair shop, they are raised about a foot or so above the ground in order to make the tracks easier of access for the mechanics, requiring no bending over.

The trucks, as they come from under the tenders at the end of the shop to the left in the illustration, are carried along to the two tracks shown, which are located in the end of the locomotive shop, being handled by a 25 ton electric travelling crane, which picks them up and places them on the elevated tracks, where they are easy of access by the workman.

The tracks are raised on short cast iron standards, ribbed at the four corners for rigidity. The rail base fits in the recessed top, into which it is secured. The truck can be dismembered on these elevated tracks, and the bolster is even then, resting as it will be on the elevated tracks, in a convenient working position.



Elevated Tracks for the Repair of Tender Trucks.

The British Columbia Government has resumed possession of some 4,000,000 acres of land, which had been granted in aid of the British Columbia Southern Ry. and the Columbia and Western Ry. The lands have been acquired from the C.P.R., which took over the rights and properties of the two companies named at 40 cents an acre.

The Canadian Northern Prairie Lands Co. sold 320 acres during August, realizing $4,960, or $15.50 an acre. There remain 68,600 acres unsold.

During August, 25 employes were killed, and 53 were injured, in the course of their work in connection with the operation of steam railways in Canada. Of the fatalities, 10 were due to collisions, six to being run over, two each to being crushed by cars and to being struck by trains, and one each, to jumping from a locomotive, to a fall, to falling material, to being buried under coal in the tender presumably while same was being filled, and to electrocution.