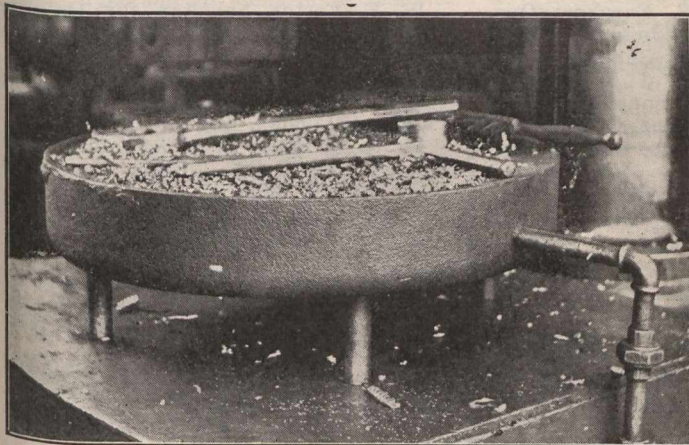


Railway Mechanical Methods and Devices.

Drip Pans for Drill Presses in Grand Trunk Shops.

Where cutting compound is used on drill presses, the surrounding floor area is usually very soggy from the escaping liquid flowing over the floor. This is not only disagreeable from the aesthetic standpoint, but is also most wasteful of the cutting compound, which under these cir-



Drip Pans for Catching Drilling Compound Under Drill Presses.

stances can only be used once, barring what is often saved in small pans placed directly under the work, and which must be emptied from time to time. This latter process is not usually very economical.

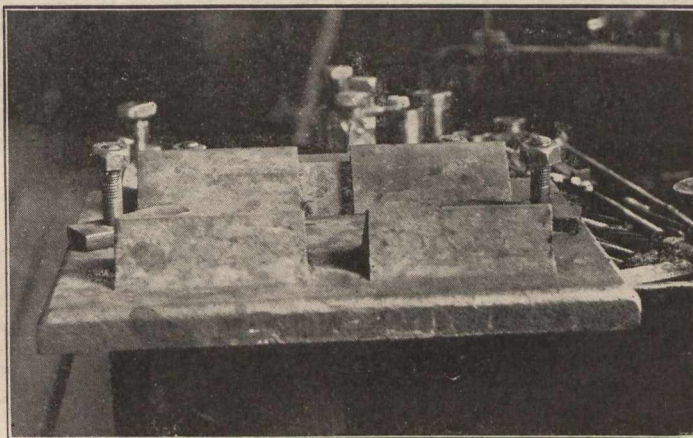
The G.T.R. shops at Stratford, Ont., have in use a complete system in the drill press section for catching this compound and reclaiming it, which is so simple in character as to appeal to practical shop men. A typical installation is shown in the accompanying illustration. On the bed of each drill press there is a small cast iron pan, let into the face of which is a sheet iron grating. On this latter all the cuttings, and liquid from the table drop, the cuttings draining the compound through the grating to the pan below. This drainage also carries through small cuttings and dirt, and in consequence, in order to make the latter a settling basin as well as a catch, an outlet pipe is let into the side as shown, about 1 1/2 ins. above the bottom. Through this pipe, the clarified liquid, after the settling, drains off to a catch basin under the floor, several such pans draining to the one basin. From this central basin, the liquid is pumped up again to the main system for further use, only a very small amount being wasted, such as that which is carried off on the work and by evaporation.

The Railway Signal Association held its regular meetings at New York, May 24 and 25, when the general committee reports were dealt with, and also the report of a special committee on the harmonization of specifications for electrical requirements. A preliminary report on standard marking or numbering of relay posts was also considered, on presentation by a special committee on electrical testing.

Japanese laborers and minor mechanics from the Pacific Division have been moved east by the C.P.R., to work in shops and locomotive houses, owing to the scarcity of men.

Straddle Milling Tender Axle Boxes in Grand Trunk Shops.

The sides and faces of tender axle boxes are straddle milled at one pass in the G.T.R. shops at Stratford, Ont., the jig in which this is performed being shown in the accompanying illustration. The jig consists of a cast iron base, with projecting tapered blocks on the upper



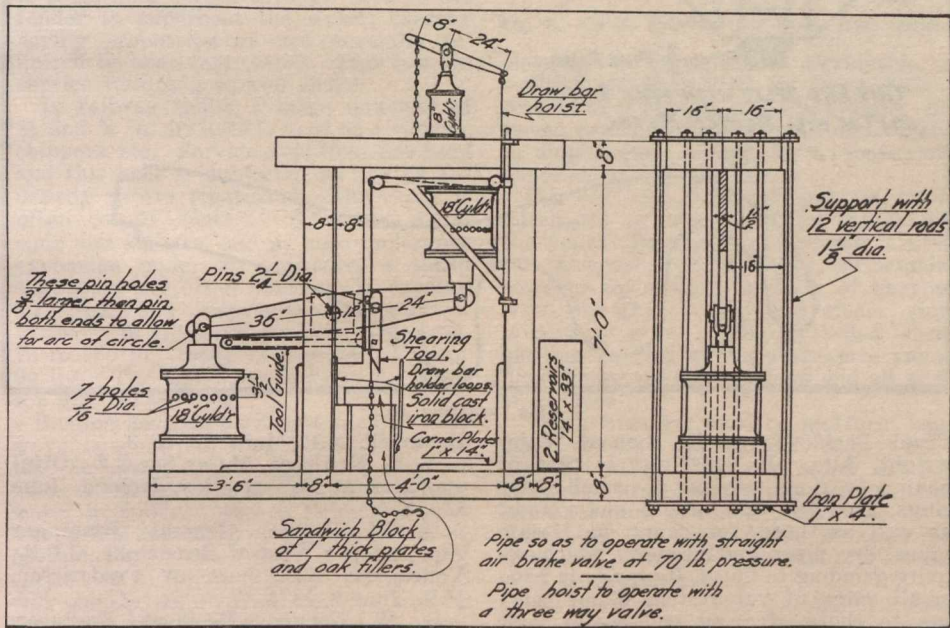
Jig for Straddle Milling Tender Axle Boxes.

surface, machined to the outside shape of the axle boxes. The under face of the jig is ribbed to fit the milling machine table, to which it is attached by two bolts. Each jig will take two boxes, these being held in place by clamp strips. A

Drawbar Rivet Shearing Machine on Canadian Northern.

A very useful device for separating drawbars and thimbles from tailstraps is used by the Canadian Northern Ry. and consists primarily of a stirrup frame with anvil block and air cylinders connected through multiplying levers to the shears as shown by the accompanying illustra-

tion. Two main cylinders one 16 in. and the other 18 in. in diameter operate the shear levers and develop an approximate force of 36,000 lbs. at the point of contact with the levers, and 110,000 lbs. at the shears, this with an extreme travel of 4



Drawbar Rivet Shearing Machine.

combination milling cutter is used on the horizontal milling machine.

Railway Lands Patented. — Letters patent were issued during March in respect of Dominion railway lands in Manitoba, Saskatchewan, Alberta and British Columbia, as follows:—

	Acres.
Calgary & Edmonton Ry.	2,080.00
Canadian Northern Ry.	9,692.26
Grand Trunk Pacific Ry.	505.30
Grand Trunk Pacific Branch Lines Co.	59.97
Qu'Appelle, Long Lake & Saskatchewan Rd. & Steamboat Co.	3,204.00
Total	15,541.53

ins. The air pressure is regulated by a locomotive feed valve at 80 lbs. pressure per square in. On top of the frame is placed an 8 in. cylinder forming a lifting medium for use in placing drawbars. A solid cast iron base block is used and all drawbars are securely fastened in place for the shearing operation. The operating cylinders are cushioned when passing on the up stroke, so that there may be no possibility of pistons striking the heads violently. This is accomplished by drilling a row of 7/16 in. diameter holes 3 1/2 ins. from the non pressure head, so as to rapidly release the air when the piston