

Railway Mechanical Methods and Devices.

Testing Air Valves in C.P.R. Passenger Car Shops.

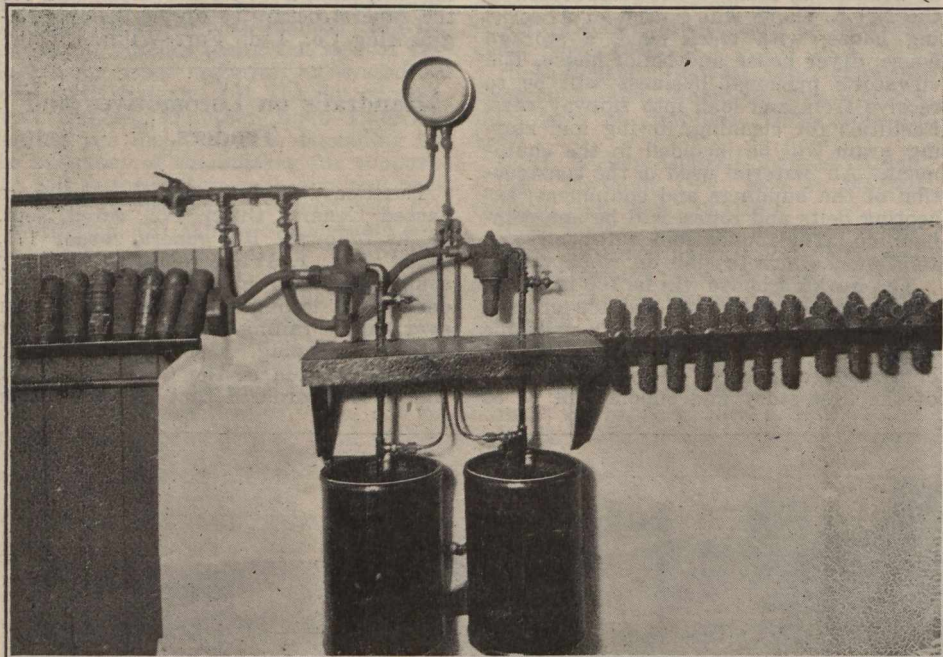
A device for testing air pressure governor valves and reducing valves in the C.P.R. passenger car shops, air brake department at Vancouver, is shown in the accompanying illustration. Prior to the

the car is applied and the reducing valve and air pressure governor on both are set to operate at a given pressure. This method eliminates a lot of adjusting in the passenger car yard and prevents a car leaving the yard with valves not properly adjusted. We are indebted to T. Spence, General Car Foreman, C.P.R., Vancouver, for the foregoing information

was designed to ensure strictly clean brass and copper scrap. It consists of half of an old G.E. 800 type motor case, fitted with a special shunt wound field coil, connected on 500 volt circuit with outside resistance.

The mixed clippings are shovelled into the upper hopper, which is made of wood with a slotted outlet about 1x4 in., situated directly above the centre of the magnet and about 2 in. out from the face so that clippings sifted through this opening fall directly past the magnet's field. The brass, not being attracted in falling, strikes a baffle, which throws it into the outer box. The steel and iron, being attracted by the magnet, are either drawn against its face or dropped through a 3 in. opening about 15 in. long into the rear box. The clippings which are held against the magnet face are dropped directly into the rear box when power is released from the magnet.

Mixed clippings are of little value and this device has paid for itself many times over owing to the high price obtained for clear brass and copper clippings. The cost of power to operate the magnet is negligible. We are indebted for the foregoing information and the photographs to Keith MacLeod, Engineer of Equipment, Montreal Tramways Co.



Device for Testing Air Pressure Governor and Reducing Valves.

installation of the device, valves were cleaned and ground in the shop, reassembled and put back into position in their respective places on the cars. As they have to be adjusted to a 15 and 60 lb. air pressure it was necessary to have the tank under air pressure to make the adjustment and this method very often caused delay.

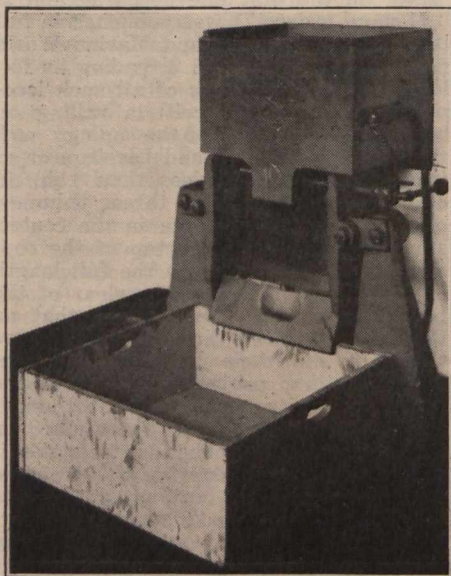
and photograph from which the illustration was made.

Magnetic Separator for Brass Turnings, Montreal Tramways Co.

The device illustrated herewith is used for separating steel and iron chips from

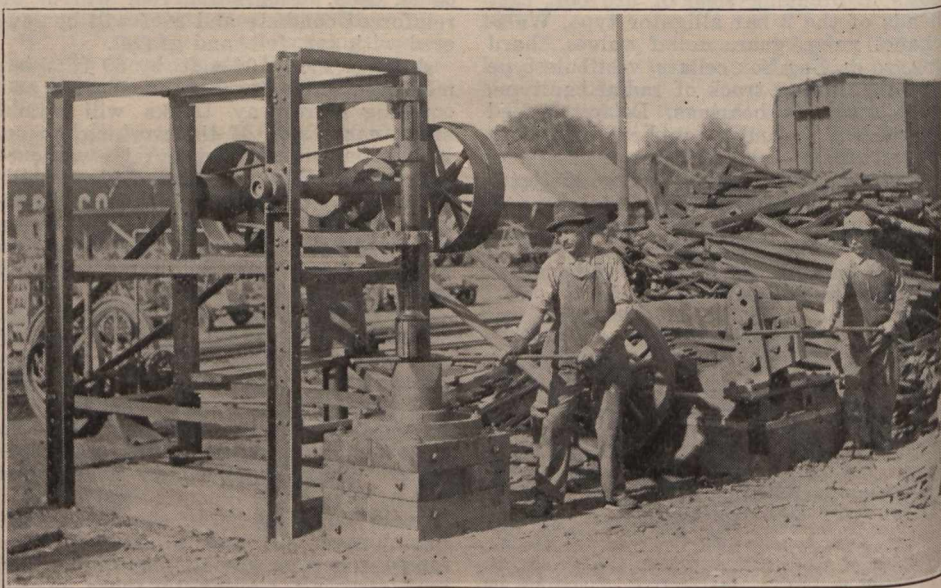
Salvaging Shears and Hammer, Michigan Central Shops.

The accompanying illustration shows a machine used in salvaging reclaimed iron, etc., and separating cast and wrought iron. It was built from scrap material under the direction of N. Marple, General Car Foreman, M.C.R. Shops, St. Thomas, Ont., and consists of cutting shears and striking hammer. The hammer is made from an old car axle and is held in position by steel wheel centre. The frame is made from old channel iron, the gasoline engine is the remains of a discarded cement mixer, the shears crank shaft is



Magnetic Separator for Brass Turnings.

The testing device is made up of two air chambers connected to air pressure through a 3-way valve with double hand gauge above, so that the same condition that occurs in the air brake system on



Salvaging Shears and Hammer.

brass and copper turnings. Although precautions are taken to keep turnings from each job separate, it is impossible to entirely prevent foreign chips from getting into the pans, and the separator

made from an old engine, the bed of the shears, from an old engine bed, the shear rims from two passenger truck equalizers, and the fly wheel and pulleys from scrap. The shears make 52 cuts a