

pipe to the brake cylinder, substantially as set forth. 2nd. The combination, in an air brake apparatus upon a car and having an auxiliary reservoir brake cylinder and triple valve, of a piston connected to the triple valve, and a cylinder for such piston and connections to admit air under pressure from the brake cylinder to act at both sides of the piston and regulate the movement of the triple valve, a separate valve automatically controlled by the relative pressures in the auxiliary reservoir, brake cylinder and train pipe for allowing the escape of train pipe air to the external atmosphere, substantially as set forth. 3rd. The combination, in an air brake apparatus upon a car and having an auxiliary reservoir, brake cylinder and triple valve, of a separate valve automatically controlled by the relative air pressures in the train pipe and in the auxiliary reservoir and acting to allow air to escape to the external atmosphere from the train pipe, and also to open and close an additional port between the auxiliary reservoir and the brake cylinder, substantially as set forth. 4th. The combination, in an air brake apparatus upon a car and having an auxiliary reservoir, brake cylinder and triple valve, of a separate valve automatically controlled by the relative air pressures in the train pipe and in the auxiliary reservoir and acting to allow air to escape to the external atmosphere from the train pipe, and also to open and close an additional port between the auxiliary reservoir and the brake cylinder, and an automatic valve that allows air to pass from the train pipe to the reservoir when the pressure in the train pipe exceeds the pressure in the reservoir sufficiently to open the said valve when applying the brakes, substantially as set forth. 5th. The combination, with the train pipe and auxiliary reservoir in an automatic air brake, of an air discharge and auxiliary brake valve, consisting of a cylinder having different inside diameters, into which are fitted differential pistons connected by a stem, the offset in the cylinder forming a seat for the larger piston, a port for admitting air from the auxiliary reservoir to act on one side of the smaller piston, a port for admitting air from the train pipe to act on the larger piston, a port leading from the cylinder between the connected pistons to the open air, an independent regulating piston within the cylinder and a stem acting as a stop for the differential pistons, a knob or stop being provided at the opposite side of the regulating piston, a port for admitting air from the brake cylinder to act on top of the regulating piston, the air from the train pipe acting on the under side of the regulating piston and simultaneously on top of the larger differential piston, and a port for admitting air under pressure from the auxiliary reservoir to the brake cylinder covered by the smaller differential piston when in its normal position, substantially as set forth. 6th. In a car brake apparatus, the combination, with an automatic air brake, of the cylinder C¹ attached to the triple valve and having different inside diameters, the offset in the cylinder forming a seat, the differential pistons 23 and 25, connected by a stem 24, a piston 17, having a stem 18 attached to it with a smaller end fitting into a hole in the piston 25, and the stem 24 within the cylinder C¹, there being ports or ways a¹ and b¹ leading from the cylinder C¹, to the auxiliary reservoir and the brake cylinder through similar ports in the flange A¹ of the triple valve, a branch port f¹ leading from the brake cylinder to the cylinder C¹, a chamber E¹ leaving a connection for the train pipe, a port e¹, leading from the chamber E¹ to the triple valve, a port d¹, from the chamber E¹, into the cylinder C¹, a port e¹, from the cylinder C¹ to the atmosphere, the lower end of the cylinder C¹, being closed by a cap D¹, an air-tight joint being secured by the use of a gasket G, between the flanges A¹, of the triple valve and B¹, on the cylinder C¹, which are held together by the bolts V, U for uniformly and quickly applying the brakes, substantially as set forth.

No. 47,129. Artificial Fuel. (Combustible artificiel.)

Jean B. Oligny, Montreal, Daniel O. Frye, Machine Tools, both in Quebec, and Louis G. Harris, Toronto, Ontario, all in Canada, 2nd October, 1894; 6 years.

Claim.—1st. An artificial fuel composed of garbage, refuse, pent or other materials in such quantity as will completely absorb a composition consisting of one hundred gallons of sodium oil, ten pounds of chloride of calcium, three hundred and thirty-three grammes of caustic soda and one hundred and fifty grammes of powdered soap or in about the proportions named, the whole yielding about four tons of fuel, substantially as set forth. 2nd. A composition for the preparation of artificial fuel, consisting of one hundred gallons of sodium oil, ten pounds of chloride of calcium, three hundred and thirty-three grammes of caustic soda and one hundred and fifty grammes of powdered soap, or thereabouts, substantially as set forth.

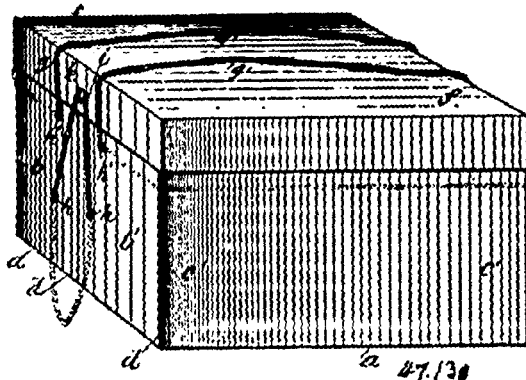
No. 47,130. Folding Box. (Boîte pliante.)

The Folding Box Manufacturing Company, London, assignees of William Sanders and Walter Selley, both of Manchester, all in England, 2nd October, 1894; 6 years.

Claim.—1st. Forming the bottom a, of flexible material or in sections, and the ends or sides in two parts hinged together in a vertical sense, in combination with a stretcher or frame c, placed inside on the bottom a, of the box, substantially as and for the purposes set forth. 2nd. In combination with a folding box, as specified in the preceding claim, a combined lid fastening and handle,

consisting of a cord, tape or their equivalent g, passed in loop fashion through holes h, h¹, formed in the ends or sides of the box

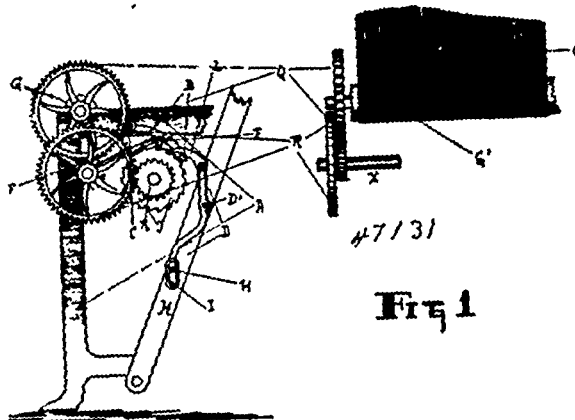
Fig. 1.



in combination with studs or buttons k, on the box lid f, adapted to receive the loop portions i, the lid f, and the handle portion g¹, substantially as and for the purpose set forth.

No. 47,131. Stop Motion for Looms.

(Arrêt-navette de métier.)

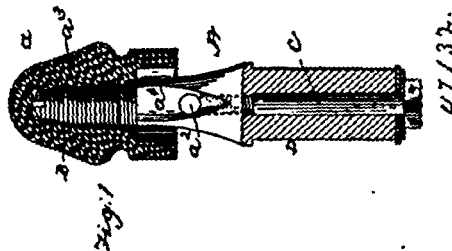


James Jordan, St. Henry, Quebec, Canada, 2nd October, 1894; 6 years.

Claim.—1st. The combination with the ratchet-wheel J, of a loom, of the arm B, having the head M, to lift the pawl L, substantially as and for the purposes set forth. 2nd. The combination of the arm B, having the head M, with the arm F, having the slide E, the adjustable stop S, and pin W, substantially as and for the purposes set forth. 3rd. A stop motion for looms consisting of the arms B and F, and an operating mechanism combined with the contiguous parts of a loom, substantially as and for the purposes set forth.

No. 47,132. Supporting-Insulator for Electric Wires.

(Support d'isolair pour fils électriques.)



Lauren S. Beardsley, Naugatuck, Connecticut, U.S.A., 2nd October, 1894; 6 years.

Claim. A holder for insulators consisting of a pin provided with screw threads designed to engage the screw threads in the interior of a glass insulator, the pin having projecting therefrom a bolt, a bolster for the bolt, and means for securing the bolt in position, substantially as described.