set forth.

# No. 32,222. Brake for Locomotives, etc.

(Frein pour les locomotives, etc.)

Frank Lansberg, St. Louis, Mo., U.S., 9th September, 1889; 5 years. Frank Lansberg, St. Louis, Mo., U.S., 9th September, 1839; 5 years. \*\*Claim.\*\*—Ist. In a brake for locomotives, etc., the combination of a fixed piston, a movable of linder, and connection between the cylinder and brake-shoes, substantially as and for the purpose set forth. 2nd. In a brake for locomotives, etc., the combination of a fixed piston, a movable of linker, brake-shoes, and connection between the brake-shoes and cylinder, consisting of a strap or yoke and links, substantially as and for the purpose set forth. 3rd. In a brake for locomotives, etc., the combination of a fixed piston, a movable cylinder brake shoes, a strap or yoke connected to the cylinder, the cross-head, and links coun-ctina the shoes to the link of the crosshead, substantially as and for the purpose set forth. 4th. In a brake for locomotives, etc., the combination, of a bracket 2 secured to the frame of the locomotive, and having a flange or table 5, the piston secured to the fininge, an air or steam-pine extending up through the piston, a movable cylinder fitting over the piston, a strap or yoke sepiston, a movable cylinder fitting over the piston, a strap or yoke se-cured to the cylinder by means of a pin 19, and a cap 20, a cross-bead secured to the lower end of the strap, brake-shoes and links connecting the shoes to the cross-head, substantially as and for the purpose

# No. 32,223. Barrel Head Sawing Machine.

(hachine à scier les fonds des barils,

Joseph A. Mumford, Hantsport, N.S., 9th September, 1889; 5 years. Claim.—1st. The combination with the saw N, of the substantially horizontal clamps for the head movable toward and from the saw, and consisting of the upper rotating clamp K, and the free lower elamp K; on which the head is placed, and means for bringing said clamps to together, substantially as described. 2nd. The combination, with the saw arbor shaft B, and the casting A in which it is mounted, of the trame E adjustably connected to said casting, and carrying the head clamps K, oustantially as described. 3rd. The combination, with the saw arbor shaft B, and the pivoted head clamps K, of the supporting bar or post D, and the casting A carrying said clamps adjustably mounted on said post, s ostantially as described. 4th. The combination, with the casting A, the saw N mounted therein, the shaft H, and connections between said saw and shaft, of the frame I pivotally hung on said shaft, and having arms i, it, the clamps K journalled in arm i, and driven from shaft H, and to lamps K journalled in arm i, substantially as and for the purpose specified. 5th. The combination with the substantially vertical saw N, of the substantially horizontal clamps K and K for the head, mounted in frame I, and swinging below the level of the saw, substantially as and for the purpose specified. Joseph A. Mumford, Hantsport, N.S., 9th September, 1889; 5 years.

### No. 32,224. Rabbet and Carpet Tacker.

(Machine à clouer les feuillures et les tapse.)

Elizabeth A. Rogers, Toronto, Ont., 9th September, 1889; 5 years.

Claim.—1st. In a carpet tacker, the falling cover D, as shown and described for the p-rpose set forth. 2nd. In a carpet tacker, the parts A, B and C, combined as described for the purpose set forth. 3rd. In a carpet tacker, the parts A and B, in combination with the cover D, all arranged as shown and described for the purpose set forth.

# No. 32,225. Air Valve. (Soupape atmosphérique.)

George M. Davis, Chicago, Ill., U.S., 9th September, 1889; 5 years.

George M. Davis, Chicago, Ill., U.S., 9th September, 1889; 5 years. \*\*(laim.—lst. The combination, with a steam-radiator, of an automatically operating air-valve baying the ex, ansion-tube thereof projecting into the steam-chamber of said radiator, substantially as and for the purpose set forth. 2nd. In an air-valve, the combination, with a radiator, of the valve-tube projecting inside of the steam-space, and provided in the inner end with an inlet opening, and exteriorly with an e-cape-opening, and the expansion-stem inserted in said tube, and closing said inlet-opening by expansion after the cold air is expeled and uncovering the same whethe steam is shut off, substantially as and for the purpose set forth. 3rd. In an air-valve, the combination, with the expansion-tube projecting inside of the radiator, and having the outer enlarged mouth-end a threaded inserted in said tube, and provided with the threaded head a engaging with the correspondingly threaded mouth-part, substantially as and for the purpose set forth. All na nair-valve, the combination, with the vented expansion-tube provided extending inside of the steam-space of a radiator, and the expansion-tube provided ingitudinally with a number of grooves and inserted in said tube, substantially as and for the purposee set forth.

# No. 32,226. Furniture Drawer.

(Tiroir de meuble.)

Joseph H. Knaus, Fayette, Mo., U.S., 9th September, 1889; 5 years. Joseph H. Knaus, Eayette, Mo., U.S., 9th September, 1839; 5 years. Claim.—1st. The combination, with the case and drawer, of the bar K pivotally connected at one end to a fixed point in the case, and having the pin or screw N at its free end, the bar H secured to the drawer, and having the slot I at one end engaged by the pin or screw N, and the link rod connecting the opposite end of the bar H, with the centre of the bar K, substantially as described. 2nd. The combination, with the case and the drawer, of the cleats F secured to the latter, the bar H rabetted in recesses in the upper edges of said cleats, and h ving the slot I at one end to a fixed point in the case and thaving the pin or screw N at its outer end working in the slot I, and the link rod connected to the end of bar H opposite said slot, and also connected to the centre of bar K, substantially as described. 3rd. The combination, with the care and drawer, of the loosely connected rod 0, and the bar K, the latter baving a pin or screw at its free and working in a slot formed in a part secured to the drawer, and at its other end having a spring held pivot L, whereby the drawer is adapted to be removed, substantially as and for the purpose set forth. 4th. In devices for equalizing the pressure on the sides of drawers, when they are moved in wys or in a case, the pivoted levers or bars, and the slotted bar provided with pins, screws or bolts, in combination with the drawer provided with recesses or notches to receive said pins, substantially as described. said pins, substantially as described.

### No. 32,227. Self-Closing Water Tap.

(Robinet deau automatique)

Francis H. Hyde, Toronto, Ont., 9th September, 1889; 5 years.

Claim. - A self-closing tap constructed with a valve seat u6 in the lower part of the water chamber A, and provided with a special chamber A: having an inner chamber B, the combination of the stem ar constructed with a plunger c having a groove for soft packing ct, and a valve face as on the upper face of said plunger, a seat washer at, a stuffing box as and a piral spring are, the whole constructed and arranged and operating as set forth.

#### No. 32,228. Clasp for Bands for Securing Papers, Envelopes and the like in Bundles. (Agrafe pour les bandes à empaqueter les papiers, enveloppes et les objets semblables.)

Edward J. Hall and Harrison I. Norton, Bennington, Vt., U.S., 9th September, 1889; 5 years.

Claim. The combination, with a file-band clasp comprising upper and lower frames a, at, adapted by their rear portions to be secured to one end of a file-band, of a litter or ha idle attached to said upper rame, substantially as and for the purpose described.

#### No. 32,229. Suspender End and Clasp Button. (Ganse de bretelle et bouton agrafe.)

William L. Doran, Niagara Falls, Ont., 9th September, 1889; 5 years.

William L. Doran, Niagara Falls, Ont., 9th September. 1889; 5 years. Claim—let. In a suspender end, the combination, of two doubled cords A, each forming a button hole loop  $a_1$  and twisted over each other at the point  $a_1$  and connected by stitching the leather A1 to which the cords A are secured, and the ring A11 held in said leather, substantially as set forth. 2nd. The combination, of the suspender en t A a a, and the plates B and C hinged together, and the swivel D pivoted to the relate B, and carrying the button D1, and locking the two plates, substantially as set forth. 3rd. In a clasp button, the combination of a plate B having teeth b, notches b11 and b111 forming lugs b4, the plate C having teeth c5, notches b11 and b111 forming lugs b4, the plate C having teeth c5, and the swivel D pivotally secured upon the plate B by rivet d11, and having bend d5, indentation d7, and carrying a button D1, with shank d1, substantially as set forth. 4th. In a clasp button, the combination, with a back plate C having a shoulder c11, perforation a11, a11 m a2, and slots a3 for a tront plate B having notches a11, and lugs a4 pivotally interiocked by the notches a11, a mark or device a5, and the swivel D pivotally secured to said plate, substantially as set forth. cured to said plate, substantially as set forth.

#### No. 32,230. Vulcanizer. (Vulcanisateur.)

Edward B. Crane, California, Mo., U.S., 9th September, 1889; 5 years.

years.

Claim.—1st. In a vulcanizer, the combination, of a suitable casing adapted to hold the flasks, a disk adapted to rest on the flasks, a sleeve to which the disk is secured, a shaft secured to the sleeve, a button on said shaft, and a spring located within the sleeve and bearing against said button, substantially as and for the purpo-e set orth. 2nd. In a vulcanizer, the combination, of a suitable casing adapted to hold the flasks, a disk, a sleeve fitting in the hollow neck of the casing and to which the disk is secured by a ball-and-socket joint, a shaft having threaded connection with the said neck, and to which the sleeve is connected by a button or flange 17, and a spring 18 located within the sleeve, substantially as and for the purpose set forth. 3rl. In a vulcanizer, the combination, of the casing adapted to hold the flasks, and provided with a hollow neck, a sleeve fitting within the neck, a disk secured to the lower end of the sleeve, and adapted to rest on the flasks with a spring pressure, a shaft having threaded connection with the neck, and a ball-and-socket joint between the sleeve and the shaft, substantially as and for the purpose set forth. 4th. In a vulcanizer, the combination, of a suitable casing adapted to hold the flasks, a disk, a sleeve, a nut securing the disk to the sleeve, a spring within the sleeve, and an operating shaft, said nut being provided with perforations, substantially as and for the purpose set forth. set forth.

#### No. 32,231. Shoe for Horses and other (Fer pour les che-Hooted Animals. vaux et autres animaux à sabots )

Charles J. Judson and Frederick A. Poupard, London, Eng., 9th September, 1889; 5 years.

tember, 1889; 5 years.

Claim.—1st. A nailless horse shoe, consisting of a shoe and toe pillar solid therewith, and provided with a spring at the inner base of the pillar, in combination with bands, as described, engaging on stamped hooks at rear of shoe, and with a stud or stude, or equivalently projecting ridge or ridges upon the tread of the shoe and recessed in the under tace of the hoof, one or more being immediately behind the toe pillar, one on each flank of the shoe converging radially, and two or more placed diagonally on the rear face of the tread, the angle of the isses of these rear stude or ridges converging