

D, in an upward direction, the shoulder *e*, and the spring stop pawl *d*, all constructed, arranged and adapted to operate substantially as and for the purposes described. 20th. The combination of a series of pivoted and rotatable type arms, each carrying at its free end a plurality of type of different characters, a series of keys for vibrating said type arms, and means substantially as set forth, for imparting to all of said arms, a simultaneous movement about their axes.

No. 29,676. Whip. (*Fouet*.)

Henry S. Cushman, Milford, Mass., U.S., 14th August, 1888, 5 years.

Claim.—1st. A whip, having a core, composed of two pieces or strands of corrugated wire, laid side by side, one of said pieces or strands being extended beyond the other, to form a core for the tip portion of the whip, substantially as described. 2nd. A whip having a core composed of corrugated wires, laid side by side throughout the body of the whip, one strand extended into the tap of the whip, a wrapping to enclose said wires and single strand, a tapering portion *d* outside the wrapping and a cover *f*, applied to the body, substantially as described.

No. 29,677. Elevator in Connection with Fanning Mills and Thrashing Machines. (*Elevateur pour les tarareuses et machines à battre*.)

George Millen, Londresborough, Ont., 14th August, 1888, 5 years.

Claim.—1st. For a fanning mill elevator, the cup *J*, *K* and *L*, formed as described and shown, for the purpose hereinbefore set forth. 2nd. The bag fasteners *E*, *F* and *H*, in combination with the elevator, substantially as and for the purpose hereinbefore set forth.

No. 29,678. Finger Pull. (*Indicateur de la force*.)

William S. Reed, Leominster, (assignee of Frederick R. White, Boston), Mass., U.S., 17th August, 1888, 5 years.

Claim.—1st. A finger pull consisting of a frame or casing, a rod having bearings and longitudinally movable in said casing, said rod being provided with a finger hook or similar device extending beyond the casing, whereby said rod may be drawn outward, a spring to resist the drawing outward of said rod, a bar provided with ratchet teeth connected with said rod, a pawl to engage the ratchet teeth of said bar, a coin chute to guide a coin into position on said pawl to disengage it from said ratchet teeth, and a friction clip having a limited movement on said ratchet bar between said pawl and the teeth on said bar, as set forth. 2nd. The combination in a finger pull, of the longitudinally movable rod and its rack bar, with the friction clip *k* having a limited movement on said bar, a pawl to engage and be disengaged from said rack bar, and a coin chute to guide a coin into position on said pawl, substantially as hereinbefore set forth. 3rd. The combination in a finger pull of a longitudinally movable rod, an indicating or registering mechanism arranged at the end of said rod, said registering mechanism being provided with an operating lever arranged to be operated upon by said rod as the latter is moved, as set forth.

No. 29,679. Car-Coupling. (*Attelage de chars*.)

James Barry and Asher F. Nicholas, Kansas, Mo., U.S., 17th August, 1888, 5 years.

Claim.—1st. In a car-coupler, a draw-head pivoted at its rear end, and provided with a chain and levers, by means of which it is operated from either side of car, substantially as shown and described. 2nd. In a car-coupler, a draw-head provided with a reduced shank at its rear end, in combination with a draft timber having a vertical slot through which said shank is passed, substantially as described. 3rd. In a car-coupler, a draw-head supported by a yielding frame which is located beneath it, substantially as described. 4th. In a car-coupler, the spring-frame *D*, arranged to operate substantially as set forth. 5th. In a car-coupler, the pivoted draw-head *A*, in combination with chains which extend to either side of the car, substantially as shown and described. 6th. In a car-coupler, the combination, of a draw-head pivoted at its rear end, chains which are attached to said draw-head and extend to either side of the car, and operating levers attached to said chains, all arranged substantially as shown and described. 7th. In a car-coupler, the combination of the operating lever *7*, the slotted bracket *9*, and pawl or catch *8*, for the purpose substantially as set forth. 8th. In a car-coupler, the combination of a pivoted draw-head, chains attached to said draw-head, pulleys which support said chains, and suitable operating levers located at either side of the car, all arranged substantially as set forth. 9th. In a car-coupler, a draw-head pivoted at its rear end, and normally held in coupled position by means of springs which press against one of its sides, substantially as and for the purpose set forth. 10th. In a car-coupler, the bumper mounted on pins or studs, which pass therethrough and through the car timbers, and springs which are mounted on said pins intermediate of the bumper and end of car, arranged substantially as set forth. 11th. In a car-coupler, the draw-head provided with a reduced shank *c*, in combination with draft timber *C* having slot *d* through which said shank passes, and springs located on said shank on either side of said draft timber, arranged substantially as set forth.

No. 29,680. Fabric Boot. (*Botte de drap*.)

Mishawaka Woollen Manufacturing Co., (assignee of Martin V. Beiger), Mishawaka, Ind., U.S., 17th August, 1888, 5 years.

Claim.—1st. The process of forming and increasing the solidity and imperviousness of fabric boots, which consists essentially in first forming the boot of a size considerably larger than that finally desired, applying flock to the formed boot, and then working the flock into the fabric of the boot and reducing the latter to the required size, substantially as described. 2nd. A fabric boot whereof the natural interstices in the fibrous fabric are stuffed with flock, sub-

stantially as set forth. 3rd. A fabric boot having its inner surface porous and absorbent, and its outer surface stuffed with flock, and thereby rendered practically impervious, as set forth.

No. 29,681. Spring Tooth Cultivator.

(*Scarificateur à dents élastiques*.)

J. O. Wisner, Son & Co., (assignees of Wareham S. Wisner), Brantford, Ont., 17th August, 1888, 5 years.

Claim.—1st. In a spring-tooth cultivator in which the doubletree is connected to the frame of the cultivator at a point behind the front of frame, the combination of a plate connected to the doubletree and extending below the front end of frame of the cultivator, substantially as and for the purpose specified. 2nd. In a spring tooth cultivator in which the doubletree is connected to the frame of the cultivator at a point behind the front of frame, the combination of a plate connected to the doubletree and extending below the frame of the cultivator where its end is curved upwardly between the sides of frame, substantially as and for the purpose specified.

No. 29,682. Fire-Escape. (*Sauveteur d'incendie*.)

Asa B. Dowell, Vinton, Iowa, (assignee of John A. Falgatter, Huron, Dak.), 17th August, 1888, 5 years.

Claim.—1st. The combination of the brackets *6* provided with the steps *12*, the braces *10* pivoted midway in the said brackets and adapted to engage the steps *12*, and the slide bar *8* secured to the upper ends of the said braces, substantially as shown and described. 2nd. The combination of the brackets *6* adapted to be secured to a house and provided with the steps *12*, the braces *10* pivoted in the brackets and adapted to engage the steps *12*, the slide bar *8* secured to the upper ends of the said braces, the ladder *7* provided with hooks *9* adapted to engage the slide bar *8*, the ladder *13* secured to the ladder *7* with a sliding fit, and the lodge *18* fixed to the house in position to support the ladders, substantially as shown and described. 3rd. The combination of the brackets *6* secured to a house, the braces *10* pivoted and stepped in the brackets, the slide bar *8* secured upon the said braces, the two ladders *7* and *13* fitted to slide together, and provided with hooks *9* adapted to slide upon the bar *8*, the staples *16* secured to the house beside windows thereof, and the short hook *15* and the long hook *17*, both adapted to engage any one of the staples *16* at the proper time, substantially as shown and described. 4th. The combination of the brackets *6*, secured to a house, the braces *10* pivoted and stepped in the brackets, the slide bar *8* secured upon the said braces, the pulleys *20* secured on the slide bar near its ends, a ladder hung upon the slide bar by means of hooks, pins *21* projecting from the face of the house, and a wire rope *19* secured midway to the said ladder, thence passing over the said pulleys *20*, and hanging in position to be done up on the pins *21*, substantially as shown and described. 5th. The combination of the brackets *6*, having steps *12*, the braces *10* pivoted in said brackets, and the bar *8* supported on said braces, as and for the purpose described.

No. 29,683. Veneered Tongued and Grooved Lumber. (*Bois plaqué en boudet*.)

William E. Brock, Plainfield, N.J., U.S., 2th August, 1888, 5 years.

Claim.—The combination of tongued and grooved boards, each having one surface veneered, and each board having its groove of sufficient width to receive the tongue of the contiguous board and two thicknesses of veneers, so that when said boards are joined together the edges of the veneers are concealed within the groove, and protected from moisture or other atmospheric influences, and prevented from warping or separating from the boards, substantially as herein described.

No. 29,684. Napkin Supporter. (*Porte-serviette*.)

Fmma J. Gooch, Washington, D.C., U.S., 20th August, 1888, 5 years.

Claim.—1st. An improved napkin supporter consisting of the curved strip or plate *A* having the clasps *B* secured thereto, said clasps being formed in two parts or sections, one fixed and the other movable, and connected to each other by means of pins *b* at their upper ends, and having stop *c* at their lower ends against which the lower end of the movable section of clasp *B*, contacts or snaps, substantially as described. 2nd. The combination, with the plate or strip *A*, and depending curved bars *D*, of the clasp *B*, constructed substantially as described, whereby the napkin inclosed between the clasp *B* is held or released therefrom, as and for the purpose specified.

No. 29,685. Power Mechanism for Reciprocating Plungers. (*Mécanisme de plongeur alternatif*.)

George McCarn, Goodland, Ind., U.S., 20th August, 1888, 5 years.

Claim.—1st. The combination, with a plunger, of a pitman connected thereto, a disk or drum carrying stops that are arranged to bear against the pitman-head, guides that are concentric with the axis of the drum or disk, a pin or stop carried by the pitman and arranged to bear against the guides, a means for revolving the drum or disk, a spring and a link connecting the spring and the pitman, substantially as described. 2nd. The combination, with a plunger *14* carrying a knife *2*, of a plunger-case *20* provided with a knife *3*, a pitman *13* connected to the plunger, a disk or drum *10* provided with bosses *11*, guides *15* through which the pitman-head passes, a pin *16* carried by the plunger and arranged to bear against the guides, a sweep *12* connected to the drum or disk *10*, a spring *17*, and a link *18* connecting the spring and the pitman, substantially as described.

No. 29,686. Curling Iron. (*Fer à friser*.)

Charles H. Bissell, Chicago, Ill., U.S., 20th August, 1888, 5 years.

Claim.—1st. In a curling-iron or hair-crimper, the combination of