

fingers d_2, d_2 pivoted to said arm and provided with backward-projecting hooks, as set forth. 13th. The combination with the presser foot and its bar, of the lever A7 having a flexible extension or spring bearing on a projection on the presser bar, and forcing the latter downwardly with a yielding pressure, and means for operating said lever, as set forth. 14th. The combination, with the presser foot and its bar, of the lever F7 adapted to bear against a projection on the presser bar, and the lever A7 having a flexible extension or spring bearing against the said projections on the presser bar, and a projection as G7 arranged to act on the lever F7, as set forth. 15th. The combination, with the presser foot and its bar having the projection E7, of the lever F7 adapted to bear against the lower side of said projection, and the lever A7 having the spring D7 bearing on the upper side of said projection, and the adjustable stud or screw G7, whereby the lever F7 is operated to lift the presser foot a distance governed by the adjustment of said screw, as set forth. 16th. In a button-fastening machine, the combination of a work-support, button-fastening mechanism, substantially as described, a fixed arm above the work-support, a button reservoir and raceway, a joint or pivoted connection between said fixed arm and the reservoir and raceway over the fastening mechanism, substantially as described, whereby said reservoir and raceway are oscillated as set forth. 17th. In a button-fastening machine, the combination of a work-support button-fastening mechanism, substantially as described, a fixed arm above the work-support, a button reservoir and raceway connected to said arm by a double joint comprising two pivots at right angles to each other, the reservoir and raceway being adapted to oscillate in either or both pivots, and mechanism substantially as described, whereby said reservoir and raceway are oscillated, as set forth. 18th. The combination of the reservoir and raceway connected to a fixed support by a double joint, the jointed connecting rod secured to said raceway, means substantially as described, for reciprocating said rod and thus oscillating the raceway, and the two-armed lever pivoted to a fixed support, one arm of said lever bearing against a projection on the connecting rod, and the other on an attachment on the raceway, as set forth. 19th. The reservoir A provided with a slot formed to receive the heads of buttons, and the raceway having a slot A communicating with the slot of the reservoir, and a groove in one side of the raceway formed to receive the eyes of the buttons, as set forth. 20th. The reservoir and raceway composed of the body 2, and side-pieces 21 formed in one piece, said side-piece having a button eye-guiding slot 5, and the back-plate 3 and side-piece 31 formed in one piece and separated from the body 2 and side-piece 21 by a continuous slot or opening 4, 41, as set forth. 21st. The raceway having the button-head and eye-guiding slots combined with the rigid or inelastic gate 7, pivoted to the raceway and provided with a spring 8, whereby it is pressed against a rigid part of the raceway and caused to stand normally across the lower end of the button-head guiding slots, and with a socket 71 formed to fit a button-head, the arrangement being such that the heads of the buttons pass into the socket 71 and are positively held thereby in position to receive the needle, as set forth. 22nd. The combination of the reservoir and raceway mounted to oscillate as described, and provided with the slotted arm, the connecting rod adjustably secured to said slotted arm, and means, substantially as described, for operating said connecting rod, as set forth. 23rd. The combination of the raceway having the button-head and eye-guiding slots, the rigid or inelastic gate pivoted to the raceway and provided with the socket 71, and with the spring 8 which normally holds the gate with its socket in position to receive the button-heads as they pass down said slot, and the adjustable screw or rigid stop y which limits the closing movement of the gate and thereby enables the socket to receive buttons of different sizes without interference with the opening movement of the gate, as set forth. 24th. The combination of the reservoir and raceway mounted to oscillate as described, a connecting rod pivotally secured to said raceway mechanism, whereby said rod is reciprocated and the raceway thereby oscillated, and means substantially as described, whereby the distance between the raceway and the end of the connecting rod that is connected to the operating mechanism of said rod may be varied, as set forth.

No. 26,174. Hot Water Heating Apparatus.

(Calorifère à eau.)

William Britton and Joseph Brunet, Montreal, Que., 7th March, 1887; 5 years.

Réclame.—Un fourneau en enveloppe creuse c, avec des serpents g, g , en combinaison, avec les tuyaux k, k et le tuyau h , tout fonctionnement ensemble tel que décrit et pour les fins indiquées.

No. 26,175. Lamp Burner using Circular Wicks. (*Bec de lampe pour Mèches Circulaires.*)

William H. Harvey, Toronto, Ont., 9th March, 1887; 5 years.

Claim.—1st. The improvements in the burner described, whereby the stratum of air surrounding the perforations a is always kept cool, substantially as and for the purpose specified. 2nd. The improvements in the burner described, consisting of the peculiar form of perforated air-chamber in relation to the perforated disc, substantially as and for the purpose specified. 3rd. A corrugated ring G, inserted into the circular wick H to hold it in the wick-rack I, substantially as and for the purpose specified.

No. 26,176. Electrical Appliance for Body Wear. (*Bourrelet électrique hygiénique.*)

James Charles, Richmond, Ind., U.S., 9th March, 1887; 5 years.

Claim.—1st. The combination, with two or more battery cells located at different parts of the body, and having one element in electric contact therewith, of a common electrode connected by a conductor with the other element, and located at a separate portion of the body, and means for holding the batteries and electrode in place, substantially as set forth. 2nd. An electrode to be applied to a portion of the body, the same consisting of two plates of similar

metal, separated by a material capable of absorbing liquids, the inner plate being perforated, substantially as and for the purpose set forth. 3rd. In an electric battery designed to be applied to the human body, a copper plate, a larger perforated zinc plate, and a piece of cloth or other absorbent material between the said plates, the piece of cloth or equivalent material extending outside the two plates, and being held between the edge of the copper plate and the bent-over edge of the zinc plate, substantially as set forth.

No. 26,177. Screw-Cutting Machine.

(Machine à fileter les Vis.)

Thomas B. Smith, West Brunswick, Eng., 9th March, 1887; 5 years.

Claim.—1st. The improvements in screw-cutting machines, of three, four or more moving cutters brought to bear simultaneously upon the screw-blank or material, as and for the purpose substantially as set forth. 2nd. In wood screw-cutting machinery, the face-plate, slides and cutter holders, in combination with the pivoted levers operated by a spring and wedge motion, substantially as herein set forth. 3rd. In wood screw-cutting machinery, a face-plate, and slide tool holders mounted thereon, in combination with and operated by an external wedge-piece or cap, substantially as herein set forth.

No. 26,178. Paper Punch.

(Emporte-pièce à papier.)

Samuel H. Fish, Hinsdale, Ill., U.S., 9th March, 1887; 5 years.

Claim.—1st. The combination, with the punches mounted upon the cross-bar carried by the plunger, of a spring for holding the plunger in its elevated position, and three guides, one in the standard of the frame, and one in each of the arms or lugs, whereby the punches are directed through the dies, as described. 2nd. The combination, with the cross-bar, and the plunger supported by its bearing in the standard of the frame, of the punches or cutters respectively at the different ends of the cross-bar, the cutting edges of said punches being of the form shown, one lip or point of each being longer than the other lip or point, the lugs with openings or guides surrounding the said cutting edges and the dies w in the plate below, substantially as described.

No. 26,179. Harrow. (*Herse.*)

Henry W. Alshouse, Custer, Ind., U.S., 9th March, 1887; 5 years.

Claim.—1st. In a harrow, the combination of the sections hinged together, and the spring-arms I secured at their lower ends to the meeting edges of the harrow-sections, and extending upwardly from the same, and the bolts K connecting the upper ends of the said spring-arms together, substantially as described. 2nd. In a harrow, the combination, with the flexible sectional harrow having its sections hinged together, of the spring-arms I fitted at their lower ends on one side of the hinge-point of the sections, and having their upper ends hinged or pivoted together.

No. 26,180. Hanger for Electric Lamps.

(Support de Lampe Electrique.)

The Royal Electric Company (assignee of Frederick Thomson), Montreal, Que., 9th March, 1887; 5 years.

Claim.—1st. A hanger for an electric lamp, consisting of a bracket fixed to a support, and an arm pivoted thereto, forming an extension thereof, and carrying the electrical lamp, all substantially as and for the purposes set forth. 2nd. The combination, in an electric lamp hanger, of a bracket fixed to a support, an extension bracket pivoted to same, and carrying on one end the electric lamp and on the other the counterpoise, all substantially as herein set forth. 3rd. In an electric lamp hanger, a fixed bracket carrying a pivoted extension, and formed of an upper straight arm and a lower bent arm, both forked, and having their ends curved so as to fit pole, all as herein set forth. 4th. The combination, in an electric lamp hanger, of a bracket arranged to support an extension holding an electric lamp, and catch on said bracket to hold extension in place, all substantially as described. 5th. In an electric lamp hanger, a fixed bracket carrying an extension pivoted to it, the upper arm of said fixed bracket having its inner end threaded and passed through post, and two sleeved clips on same and secured at any desired point by jam nuts, all substantially as herein described and for the purposes set forth.

No. 26,181. Elevator Draining Plough.

(Charrue de Drainage à Chaîne Sans fin.)

Rachel A. Mason (assignee of Allen Mason), Paisley, Ont., 9th March, 1887; 5 years.

Claim.—1st. A draining plough, provided with a chain elevator, and having the sole A formed in two or more parts fitting into one another, for the purpose herein set forth. 2nd. The combination, in a draining plough, of the sloping elevator carrying wheel, and top scraper herein specified and for the purpose set forth. 3rd. In a draining plough, provided with a chain or belt elevator, a carrying-wheel to support and operate said elevator, composed of the two disks c, d , the morticed ring e and moving cogs f , and journaled in the pivoted arm F, substantially as described. 4th. The stationary disk F1, placed inside the morticed ring e , held by the hand-lever l , and having formed in it the eccentric groove g by which the movement of the cogs f is controlled, substantially in the manner described. 5th. The combination, in a draining plough, of a sloping elevator composed of the pivoted arm B, chain C and pulleys a and a , with a top scraper composed of the grooved pulleys L and M, belt O provided with the spring or hinged hose b , scraper q , and the arm N pivoted to the plough beam, substantially as shown and described. 6th. The combination, in a draining plough, of the above described sloping elevator and top scraper, with the adjustable coulters R and R1, gauge wheel S, bar T, chain n , pulley v and ratchet-wheel w , substantially as shown and for the purpose set forth.