

blank is fed to the dies simultaneously with contraction of one of the female dies, as set forth. 5th. The process of forming crimped stove-pipe elbows by impressing the blank successively with tapering corrugation into triangular form in cross section, and finally flattening the surplus metal on both sides of them seam, as set forth.

No. 22,340. Reversible Plough.

(*Charrue Reversible.*)

Alfred H. Fitch, Santa Cruz, Cal., U.S., 1st September, 1885; 5 years.

Claim.—1st. The reversible ploughs K, connected with boxes or hubs which turn upon the horizontal beam A, the landsides having the angular bend Q, and the stationary landside O, fixed to the beam by standards; so that the movable ones will fit and be supported by it, as herein described. 2nd. The ploughs K, connected with boxes or hubs, which turn upon a horizontal beam, by standards N, N₁, one of which serves as a fulcrum, while the other is screw threaded or made to be lengthened or shortened to raise or lower the point of the plough, substantially as herein described. 3rd. The ploughs K, connected with boxes or hubs, which turn upon a horizontal beam, by standards N N₁, so that one of the standards may be lengthened or shortened to raise or lower the plough-point and the fixed landside O, against which the movable one is supported, substantially as herein described. 4th. The right and left ploughs K, connected by removable standards with a horizontal beam, about which they may move to reverse, them, and having landsides with an angular bend Q, together with a fixed landside O, to which either of the ploughs may be fixed or supported to plough a right or left furrow, substantially as herein described. 5th. The right and left ploughs connected by standards with a horizontal beam, about which they may turn to reverse them, and having landsides L, as shown, together with the stationary landside O, against which either of the landsides L, may be supported from opposite sides, an angular bend on said landside, and a shoe R, projecting upon each side of the stationary landside, substantially as herein described.

No. 22,341. Process of Reclaiming Rubber from Waste Scraps. (*Procédé à Reclamer le Caoutchouc des Rebutés.*)

Mallery Palmer, Montreal, Que., 1st September, 1885; 5 years.

Claim.—1st. The method or process of removing fibre from rubber scraps, which consists essentially in subjecting them to the action of a solution of vitriol, of substantially the strength specified, then drying, milling and washing the mass, substantially in the manner set forth. 2nd. The method or process of reclaiming rubber from vulcanized fibrous scraps, which consists in first grinding or comminuting same, and destroying the fibre with a solution of vitriol, then adding linseed or equivalent oil, and resin in about the proportions specified, then rolling same into an adhesive mass, then subjecting the mass to the action of heat, and then milling and washing the same, substantially as described.

No. 22,342. Sewing Machine.

(*Machine à Coudre.*)

Charlotte Leuz, Cleveland, Ohio, U.S., 1st September, 1885; 5 years.

Claim.—The combination, with a sewing machine attachment adapted to be attached to the pressure-bar by means of a collar and set screws, of the plate H, provided with slots J and K, and the set-screw I, whereby said plate is adjustably secured to the collar of the attachment, for the purpose set forth.

No. 22,343. Farm Gate. (*Barrière.*)

Leune J. Johnston, Petaluma, Cal., U.S., 1st September, 1885; 5 years.

Claim.—The combination, with a gate and its post of the lower or loose hinge D having the upper end of its pintle, provided with a friction roller H, a bearing plate T having shoulders J, J₁ and having its lower end pivoted in a split arm E the bell-crank lever G and a tip-bar K and tripping crank N, substantially in the manner and for the purpose herein set forth and specified.

No. 22,344. Heating Stove. (*Poêle.*)

Ole Pederson, Joliet, Ill., U.S., 1st September, 1885; 5 years.

Claim.—1st. In a heating-stove, the fire-pot provided with lugs *c*, and the cold air pipes passing through the base of the stove, in combination with a horizontal segmental tubular chamber composed of two sections bolted together and formed within an opening between their ends, substantially as described. 2nd. In a heating-stove, the fire-pot, in combination with a horizontal tubular chamber formed in two section *f*, *f*, the section *f* having three short depending tubes *e* and the section *f* having a less number of short tubes *e* and pipes E and H, substantially as described. 3rd. In a heating-stove, the fire-pot and two-part horizontal and tubular chamber, in combination with cold-air pipes protruding through the base of the stove and engaging the lower section *f* and a less number of hot-air pipes extending from the upper section *f* through the top of the stove, substantially as described. 4th. In a heating-stove provided with a perforated plate M, the combination with a fire-pot and horizontal chamber, as described, of a register consisting of a sliding plate N, having openings front and rear concentric slots engaging the pipes, and a means such as a knob for operating the plate to open or close the register, substantially as described.

No. 22,345. Washing Machine.

(*Laveuse Mécanique.*)

Charles Pelnuider, James H. Ballagh and Joseph G. Palmer, Rockwell City, Iowa, U.S., 1st September, 1885; 5 years.

Claim.—In a washing machine, the combination of the main frame,

the endless rubber passed around suitable rollers and provided with means whereby to carry the clothing, the frame D provided with the bar Dr, pivoted at one end *d* to the main frame, a spring D₂ connecting the opposite end of the frame D to the main frame, the back-board E pivoted in the frame D and having one end supported by the cross-bar D₁ of said frame, and a spring D₁ mounted upon the main frame and supporting the back-board at the end thereof opposite that supported by the bar Dr, all substantially as described and shown and for the purposes specified.

No. 22,346. Spring Motors. (*Moteur a Ressort.*)

Joseph A. Fournier and William H. Broadhead, Ottawa, Ont., 1st September, 1885; 5 years.

Claim.—1st. A spring motor consisting of a series of spiral springs disposed cylindrically around a common centre, each end secured upon a rotary spindle journaled in a frame end forming one end of the cylinder, the spring extending longitudinally from one frame end to the other and each coiled in a tube, said spindles carrying pinions gearing in a central wheel to which at one end motion is transmitted from an adjacent winding shaft for winding up the springs and which are retained by ratchets and from which central wheel at the other end motion communicated by the springs is transmitted by intermediate speed gear to the driving wheel. 2nd. The combination of the frame ends A, A₁, bolt A₁₁, bed-plate B, spindle C, springs S, S₁, pinions D, Dr, wheels E, E₁, F, F₁, G, G₁, H, H₁, H₁₁, H₁₁₁, I, shaft W, pinion E₁₁, and friction gear I₁, I₁₁, I₁₁₁, lever L and strap K. 3rd. The combination of the frame ends A, A₁, central bolt and stud A₁₁, bed-plate B, spindles C, springs S and tubes S₁. 4th. The combination of the frame ends A, A₁, central bolt and stud A₁₁, bed-plate B, spindles C, springs S, tubes S₁, pinions D and D₁, and wheels E and E₁. 5th. The combination of the frame ends A, A₁, bolt A₁₁, bed-plate B, spring S, tubes S₁, spindles C, pinions D, wheels E, E₁, shaft W and pinion E₁₁. 6th. The combination of the frame ends A, A₁, bolt A₁₁, bed-plate B, springs S, tubes S₁, spindles C, pinions D, Dr, wheels E, F, shaft W, intermediate speed gear and driving wheel H, H₁, H₁₁, H₁₁₁. 7th. The combination of the frame-work A, A₁, A₁₁, tubes S₁, springs S, spindles C, wheels D, F, F₁, shaft W, intermediate speed gear driving wheel H, H₁, H₁₁, A₁₁₁, wheel I, friction gear I₁, I₁₁, I₁₁₁, brake lever L and strap K. 8th. The combination of the frame end A, spindles C, pinion D, and ratchet d, d₁, d₁₁, d₁₁₁. 9th. The combination of the governor wheels H₁₁₁ and I₁, friction gear I₁, I₁₁ and I₁₁₁, shaft W and the driving wheel H, H₁, H₁₁. 10th. The combination of a spring S, tube S₁, pair of spindles C and ratcheted pinion D. 11th. The combination of the winding shaft W, pinion E₁₁, wheel E₁, segment spur rim E and ratcheted pinion D, all substantially as shown and described and for the purpose set forth.

No. 22,347. Apparatus for Exercising the Fingers, Hand and Wrist. (*Appareil à exercer les doigts, la Main et le Poignet.*)

James Brotherhood, Stratford, Ont., 2nd September, 1885; 5 years.

Claim.—1st. The part B, provided with the lever C pivoted to the uprights *b*, *b*, acted upon at one end by the adjustable springs, and having the pad D projecting upwardly from its opposite end, substantially as and for the purpose described. 2nd. The combination of the spring-actuated pivotally-supported lever C, and the finger loop adjustably secured thereto, substantially as and for the purpose described. 3rd. The part E provided with the converging ribs formed of or faced with leather, or specified equivalent material, substantially as and for the purpose described. 4th. The part F, provided with the series of spring levers resting upon the adjustable posts, substantially as and for the purpose described. 5th. The combination of the spring levers, the base G, with which they are connected at one end, the rest H, and the base A with which the base G is adjustably connected, substantially as and for the purpose described. 6th. The part J provided with the pivotally supported lever K acted upon at one end by the spring or springs, or in the equivalent way described, (by the adjustable weight,) and having the downwardly-projecting pad at its opposite end, substantially as and for the purpose described. 7th. The combination of the lever K, the posts to which it is pivoted, the spring or specified equivalent thereof, the pad *f* on the underside of the lever, substantially as and for the purpose described. 8th. The parts B, E, F, and J, arranged upon the base A, all constructed and operating substantially as described.

No. 22,348. Process of Scouring Wool.

(*Procédé à dégraisser la Laine.*)

Charles Toppan, Salem, Mass., U.S., 2nd September, 1885; 5 years.

Claim.—1st. In the process of scouring wool, immersing the same in a warm solution of expressed oil of mustard-seed, petroleum products, and alkali, as described, and in the proportions mentioned. 2nd. In the art or process of scouring wool immersing the same in a warm solution, of expressed oil of mustard-seed, paraffine oil, vacuum oil, and alkali, as described, and in the proportion mentioned.

No. 22,349. Machine for Loading Cartridge Shells. (*Machine à charger les Cartouches.*)

Orlando F. Belcher, Winthrop, Mass., U.S., 2nd September, 1885; 5 years.

Claim.—1st. In a cartridge-loading machine, the combination with suitable measuring and loading devices of the hoppers composed of some transparent medium arranged and operated, substantially as stated. 2nd. A hopper, in combination with a disk J, which is movable on its axis and provided with a tubular valve or passage registering with the hopper outlets, a sleeve adapted to slide on said valve, and a vertically-adjustable shelf, which closes the bottom of said valve, when the latter is being filled, and also regulates the size of the charge, substantially as set forth. 3rd. In combination with the