

No. 8976. Furniture Castor. (*Roulette de meuble.*)

Charles A. Parent, (Assignee of Joseph J. Adgate,) New York, U.S., 10th July, 1878, for 5 years.

Claim.—1st. The glass ball A and holder having the arms D, the swells or projections a, of solder or other soft metal attached to the inner sides of the arms; 2nd. A glass ball A and a metallic holder, an ivory tip or point b inserted in the holder for forming the top bearing for the ball; 3rd. The combination of the ball A, plate B, with stern C and ivory tip b, and the arms D with inner projections d.

No. 8877. Clothes Wringer. (*Essoreuse à linge.*)

Richard P. Street, Hamilton, Ont., (Assignee of Cornelius E. Haynes, Boston, Mass., U. S., 10th July, 1878, for 5 years.

Claim.—1st. In combination with a clothes wringer of the spring levers B B; 2nd. In combination with a wringer, of the rod G and eccentrics H H for securing the machine to a tub; 3rd. In combination with a wringer of the clothes guards F F; 4th. In combination with a wringer, of the springs E, constructed as shown, secured to the lower end of the lever B and lower end of frame A, and held by projections a a in lever and frame, and holes b b in springs.

No. 8978. Improved Shoe. (*Soulier perfectionné.*)

Jesse W. Hatch, Rochester, N. Y., U. S., 10th July, 1878, for 5 years.

Claim.—1st. The combination of a permanent inner sole, an upper and an outer sole extended beyond the toe of the upper far enough to serve as a protecting edge for the upper, the upper and the outer sole being united by stitches made therein within the toe of the shoe outside the end of the inner sole, whereby the toe of the upper is so held as not to be cut over the edge of the inner sole; 2nd. A permanent inner sole made narrower and shorter than the outer sole from its shank forward, in combination with an upper and outer sole sewed together by stitches passing only into the upper and outer sole, outside of the edge of the inner sole, in front of the shank; 3rd. A permanent inner sole, reduced in width and length in front of the shank in combination with an outer sole and an upper united together in front of the shank by stitches passing only into the upper and outside the edge of the inner sole and at the shank, and backwards by stitches passing through the outside, upper and inner sole; 4th. The described method of manufacturing an extension edge upper protecting shoe, provided with a permanent inner sole, consisting in stitching the upper to the outer sole outside the edge of the permanent inner sole forward of the shank.

No. 8979. Anti-Friction Devices. (*Machines à anti-friction.*)

William Tucker, East Brookfield, and John G. Avery, Spencer, Mass., U.S., 10th July, 1878, for 5 years.

Claim.—1st. The combination with a shaft or its equivalent, and a journal box or its equivalent, of equi-distant cylindrical facings of hardened metal, and one or more circumferential series of solid journalers, friction rollers of like hardened metal interposed between said facings, and in solid contact therewith, as a substitute for lubrication; 2nd. The combination with a cylindrical shaft of a sleeve of hardened steel or its equivalent, having conical enlargements in its ends a pair of split wedging rings fitted to said enlargements, and a pair of clamping nuts for driving and retaining said wedging rings for providing such shaft with a concentric hardened surface; 3rd. The combination of parallel or equi-distant surfaces, short journaler rollers in solid contact with both said surfaces, and a carrier having a socket or cell for each roller, and supported out of contact with said coating surfaces by said rollers; 4th. The combination of several parallel series of short journalers friction rollers, and a carrier having a socket or cell for each roller, said cells being so arranged that the axes of no two rollers are in line with each other longitudinally; 5th. The combination of several rings, each having separate sockets or cells, for a circumferential series of short journalers friction rollers, and forming together a carrier sleeve of any required dimension, containing parallel series of said rollers; 6th. The combination of several rings, each having separate sockets or cells for a circumferential series of short journalers friction rollers, and forming together a carrier sleeve, containing several parallel series of said rollers with the axes of no two rollers in line with each other longitudinally; 7th. The combination of a shaft, or its equivalent, and a bearing or its equivalent, having parallel or equi distant surfaces or facings of hardened metal, and an interposed carrier sleeve having separate sockets or cells for a large number of short journaler rollers of like hardened metal, arranged in several circumferential series with the axes of no two rollers in line with each other longitudinally.

No. 8980. Machine for Cutting Nails. (*Machine à couper le clou.*)

William N. Severance, Lima, Ohio, U. S. 10th July, 1878, for 5 years.

Claim.—1st. The cutter stocks H and K, each carrying two series of cutters which are brought alternately into action on the nail plate in lines at, or nearly at right angles to the plane of the sheet; 2nd. The cutter stock H, having an oscillating and also a reciprocating vertical movement by which latter it is brought down upon the sheet in making the cut; 3rd. In combination with the cutter stock H, supported in sliding boxes, the stationary ways adapted to guide the outer stock in its vertical movements; 4th. In combination with the cutter stock H, the yoke l and 2, and the sliding boxes in which said cutter stock rests; 5th. The combination of the cutter stock H, the toggle levers G G, connecting rod F, walking beam E and mechanism for moving the same; 6th. In combination with the cutter stock A, the intermediate feed mechanism; 7th. In combination with the frame and cutter stocks H and K, the stationary guides V, arranged in relation thereto; 8th. In combination with the stationary guides N N, the adjustable gibs; 9th. In combination with stationary guides and recesses therein, the reciprocating cutter stock and adjustable guides O O; 10th. In combination with the cutter stocks having inclined recesses, the guides O O, set screws and wedges for adjusting said guides at an inclination to the radial line; 11th. In combination with the adjustable cutters and set screws, the metallic packing strips interposed between them, for the purpose of preserving a space between the cutter and at the same time holding them rigidly in place; 12th. In combination with the reciprocating cutter stock H, and feed rollers, the lever Q, pawl Q₂, and ratchet C₂, for communicating motion to the feed rollers with the rise and fall of the cutter stock; 13th. In combination with the oscillating cutter stock K, the oscillating and reciprocating cutter stock H and interlocking guides O O, for preserving the

relations of the cutters; 14th. In combination with the outer stock feed lever Q and jaws Q₃ for regulating the movement of the feed; 15th. The combination of the cutter stocks, and the opposite interlocking guides O O₂ and O₃; 16th. The connecting rod I, having upon the inner surfaces of the end thereof, upon which the cams work, blocks of metal and elastic cushions, the blocks being held in place and made adjustable with set screws.

No. 8981. Improvements on Pianos and Organs. (*Perfectionnements aux pianos et aux orgues.*)

Edward K. Millikin, Portland, Me., U.S., 10th July, 1878, for 5 years.

Claim.—1st. The method of transposition of the scale on musical instruments having key boards, which consists in the movement of the key board up and down the trackers, or the supplementary trackers of the same, and so guiding the said keys into fixed relations to the valves or hammers that any given key may be made to play in different scales; 2nd. The joint and section between the keys and ordinary trackers; 3rd. The sliding bed a, in combination with the k-y's and trackers; 4th. The sliding bed a, keys and pins, and the joint and section; 5th. The sliding bed a, when so constructed as to be capable of being lifted and depressed, or moved inwardly or outwardly; 6th. The combination of the keys, supplemental trackers c, and the arrangement of the pivots w.

No. 8982. Spring Bed Bottom. (*Fond de lit à ressorts.*)

Susan B. Walker, (Administratrix of the goods of G. S. Walker,) Erie, Pa., U.S., 10th July, 1878, for 5 years.

Claim.—1st. The combination within a bed bottom of the slats B B B, &c., elastic separating pieces K K K, &c., and the binding cord I; 2nd. An improved device for sustaining and suspending a slatted bed bottom in the eye bolts F, rods H D and springs E; 3rd. The combination within a bed bottom of the slats B, separating pieces K, cords I, eye bolts F, rods H and D, and springs G.

No. 8983. Process of Curing and Packing Meats. (*Procédé de salage et d'empaquetage des viandes.*)

Thomas Wallace, Hamilton, Ont., 10th July, 1878, for 5 years.

Claim.—1st. In curing the meat in a brine made of salt, saltpetre, sugar, Jamaica rum and the essence of Jamaica pepper, in or about the proportions specified; 2nd. Curing meats and packing in a wooden box lined with tin, hermetically sealed, and provided with or without an exhaust air tube.

No. 8984. Device for Ventilating Millstones. (*Appareil pour rafraichir les meules.*)

George Moech, Rushville, Ill., U. S., 10th July, 1878, for 5 years.

Claim.—1st. The combination with a grinding mill and its casing, of an exhaust pipe communicating with the interior of the casing for the purpose of carrying off hot and damp air; 2nd. The exhaust pipe C communicating with the interior of the hoops or casing of a grinding mill and provided at its upper end with a sack distended by a suitable frame; 3rd. The combination with the casing of a mill stone of the ventilating pipe C, extending below said casing and communicating directly or indirectly therewith, and the sack D upon the upper end of the said pipe, and distended by a suitable frame.

No. 8985. Improvement in Knitting Machines. (*Perfectionnement dans les machines à tricoter.*)

William T. Lemon, Detroit, Mich., U. S., 10th July, 1878, for 5 years.

Claim.—1st. In a registering attachment, the bifurcated arm N, the pivoted lever M and pawl O in combination with the ratchet wheel H, and pawl P provided with the spring Q; 2nd. The bifurcated arm N, carrying the pawl O, in combination with the pivoted lever M and ratchet wheel H; 3rd. The bifurcated arm N, the pawl O, the pivoted lever M, and the ratchet wheel H, in combination with pivot screw d; 4th. In a registering attachment, the bifurcated arm N, pivoted lever M, pawls O and P, and ratchet wheel H, in combination with the double pawl T; 5th. In a registering attachment the main plate H provided with the rim G and slots F, in combination with the bed C, provided with the adjusting screws D; 6th. The double pawl T, provided with the arms a a and a diamond pointed head, in combination with the plate U, guide rod V and spring W; 7th. The ratchet wheel H, with its knob K and operating mechanism, in combination with the toothed wheel L; 8th. The ratchet wheel H, with its knob K and operating mechanism, in combination with the wheel L and stop e.

No. 8986. Process of Treating Vegetable Oils. (*Procédé de traitement des huiles végétales.*)

Henry A. Clark, Boston, Mass., U.S., 10th July, 1878, for 5 years.

Claim.—Heating the oil, in contact with sulphur to that degree at which the sulphur is vaporized, in which condition the sulphur reacts upon the oil to vulcanise it, and then treating it with benzine and benzole or their equivalents; 2nd. The treatment of vegetable oils which have been reduced to a gummy condition, first with benzine for extracting grease, and then with benzole.

No. 8987. Carpet Stretcher. (*Étireur de tapisserie.*)

Daniel W. Beadle, (Assignee of Theodore H. Brumfield,) Geddes, N. Y., U.S., 10th July, 1878, for 5 years.

Claim.—1st. The combination of the toothed head A, ratchet bar B, with slotted projections t, and the screw cams or eccentrics h h; 2nd. The slotted bar C, with spike c, pawl D and bail E, in combination with the ratchet bar B, toothed and perforated head A, with notch and operating lever.

No. 8988. Process for Treating Feathers for Dusters. (*Procédé de traitement des plumes à plumeeux.*)

Clarence W. Nicholls, Chicago, Ill., U.S., 10th July, 1878, for 5 years.

Claim.—1st. In passing the feathers between heated surfaces; 2nd. In passing the feathers between rollers corrugated or fluted; 3rd. In removing