

pivoted on the body of the pump in combination with an oblique brace, extending from or near the spidle, upon which the handle is pivoted, to a point outside the body of the pump, at which point the said brace is also pivoted. 4th. In a pump having a spout with ears or projecting pins on either side of its mouth, the combination of a bale pivoted to a hose coupling and having curved ends which, when fitted over the ears on the spout, and the bale rolled upon its pivot, draw the coupling against the mouth of the pump to form a water tight connection between them. 5th. In a pump provided with a spout for the discharge of the water, the combination of spurs or pins situated in either side of the mouth, for the purpose of connecting the hose coupling.

**No. 12,812. Improvements in Nut Locks.** (*Perfectionnements aux arrête-écrous.*)

William A. Ducker, Burgoyne, Ont., 14th May, 1881; for 5 years.

*Claim.*—1st. The mortise C with bevelled shoulder N to be used in combination with the key D and washer E. 2nd. The key D to be used in combination with the mortise C and washer E. 3rd. The washer E having holes K punched through it, and its edges turned down to prevent its turning with the nut, to be used in combination with the key D and mortise C.

**No. 12,813. Process and Compound Preparation of Groats.** (*Procédé et préparation composée à gruau.*)

Matthew Tindale, Saint Sophia, Que., 17th May, 1881, (Extension of Patent No. 6,140.)

**No. 12,814. Improvements on Joints for Sectional Boilers.** (*Perfectionnements aux joints des chaudières en sections.*)

John G. Smith, Montreal, Que., 17th May, 1881; for 5 years.

*Claim.*—1st. The combination of the sections A of a sectional boiler provided with grooves B and rib C and with a paste or granulated packing D. 2nd. The combination of the sections A of a sectional boiler provided with grooves B, and with a paste or granulated packing D.

**No. 12,815. Improvements in Fire Boxes for Cooking Ranges, Stoves, &c.** (*Perfectionnements aux boîtes à feu des lanterniers, poêles de cuisine, &c.*)

George R. Prowse, Montreal, Que., 17th May, 1881; for 5 years.

*Claim.*—1st. The combination of the grate D constructed to be moved backward and forward with the end inclines C. 2nd. The combination of the grate D provided with axis E E and hinged handle I, with the bolt K and inclined ends C.

**No. 12,816. Improvements on Felt Boots.** (*Perfectionnements aux bottes de feutre.*)

Abel S. Kennedy, Cobourg, Ont., 17th May, 1881; for 5 years.

*Claim.*—1st. The covering of the felt sock or boot, with a crimped leather front C and a leather back D. 2nd. The covering of the felt sock or boot with a leather vamp G having a tongue K which is stitched to the leather L which connected with the leather back D covers the felt leg in full or in part. 3rd. The covering of the felt sock or boot with leather fixings A A attached by a seam or stitched to the leather H H and elastic web N.

**No. 12,817. Flour and Grocery Bag.** (*Sac pour la farine et les épiceries.*)

Alfred Adams, Chagrin Falls, (Assignee of Thomas Phillips, Akeron), and Ulysses L. Marvin, (Administrator of the estate of the said Thomas Phillips,) Akeron, Ohio, U. S., 17th May, 1881; (Extension of Patent No. 6,240.)

**No. 12,818. Flour and Grocery Bag.** (*Sac pour la farine et les épiceries.*)

Alfred Adams, Chagrin Falls (Assignee of Thomas Phillips, Akeron), and Ulysses L. Marvin, (Administrator of the estate of the said Thomas Phillips,) Akeron, Ohio, U. S., 18th May, 1881; (Extension of Patent No. 6,240.)

**No. 12,819. Improvements on Stump Extractors.** (*Perfectionnements aux arrache-souches.*)

William Armstrong, De Pere, Wis., U. S., 18th May, 1881; (Extension of Patent No. 11,295)

**No. 12,820. Improvements on Stump Extractors.** (*Perfectionnements aux arrache-souches.*)

William Armstrong, De Pere, Wis., U. S., 19th May, 1881; (Extension of Patent No. 11,295.)

**No. 12,821. Improvements in the Treatment of Hair.** (*Perfectionnements dans le traitement du poil.*)

Gideon Hamilton, Brooklyn, N. Y., U. S., 10th May, 1881; for 5 years.

*Claim.*—1st. The process of treating animal hair with a solution of caustic soda or of caustic potash, or of caustic lime, and washing out such solution. 2nd. The process of treating animal hair with a solution of caustic soda, or of caustic potash or of caustic lime, washing out such solution in water, and then subjecting the washed fibre to an acidulated bath. 3rd. The process of treating animal hair, by boiling it in an acid solution, and then immersing it in an alkaline solution. 4th. A new product in animal hair possessing the properties requisite for felting, carding, spinning or weaving, and for forming into bats or wadding, and for mattresses and upholstery, these properties being imparted to the said raw material by treating it as described.

**No. 12,822. Improvements on Bronze Monuments.** (*Perfectionnements aux monuments en bronze.*)

Osborne J. Willard, Mayville, N. Y., U. S., 19th May, 1881; for 5 years.

*Claim.*—1st. The method of securing adjoining metal plates together, consisting in providing such plates, near their meeting edges, with alternate hooks *d d* and rectangular projections *e e*, or projections of either of the shapes *h k l m n o* over and around which the molten metal *f* is poured. 2nd. In combination with a shaft or double front monument, the movable tablet *p* secured to the monument plate *g* by means of screw bolts *q q* having the heads *q' q'* cast on their outer ends, and having their inner ends screwed into metal nuts *r r*, which are cast into the metal plates *g g* on their insides. 3rd. In a shaft or double front metal monument the inwardly projecting base flanges *s s*.

**No. 12,823. Improvements on Washing Machines.** (*Perfectionnements aux machines à laver.*)

Anthony W. Burke, Stayner, Ont., 19th May, 1881, for 5 years.

*Claim.*—1st. A washing machine in which a convex rubber is pivoted within an open chamber, having a concave corrugated bottom, the combination of a flattened surface centrally located on the bottom of the box, and projecting above or below the corrugations for the purpose of causing the clothes to turn over when acted upon by the action of the rubber. 2nd. An open chamber having a concave corrugated bottom, the combination of a rubber having transverse bars longitudinally grooved and bevelled on their edges to form projecting angles. 3rd. A convex rubber pivoted within an open chamber, having a concave corrugated bottom, the combination of dash boards located at either end of the chamber, and separated from the corrugations by an inclined board. 4th. An open chamber having a concave corrugated bottom, a convex rubber composed of transverse bars connected together at their ends by a plate provided with a pivot, in combination with vertical metallic guides, provided with grooved wooden caps, for the purpose of permitting the free vertical movement of the rubber, without allowing it to jump out of place.

**No. 12,824. Improvement on Hand Ratchet Drills.** (*Perfectionnement des drilles à levier.*)

Isaac N. Cherry and Robert N. Cherry, Jersey, N. J., U. S., 19th May, 1881; for 5 years.

*Claim.*—1st. The combination, with a hand ratchet drill stock, of the feed works, consisting of the eccentric sleeve, the sleeve *h z* carrying the disk E with the pawls *o o*, the ratchet wheel D and the screw C. 2nd. The combination, with a ratchet drill stock, of the eccentric sleeve *h z*, the eccentric sleeve *h z* to which are pivoted the pawls *o o*, one or both, the ratchet wheel D with which said pawls engage, and the screw C. 3rd. The combination, with a ratchet drill stock, of the eccentric sleeves *h h*, the eccentric sleeve *h z* to which are pivoted pawls *o o*, one or both, the ratchet wheel D with which said pawls engage, and the screw C. 4th. The combination, with a hand ratchet drill stock, of the screw C, the ratchet wheel D, the eccentric sleeve, sleeve *h z*, the disk E, carrying pawls *o o*, springs *p p* and the cap F having the recesses *g g* constructed and arranged so that the shifting of the said cap on its seat will put on or take off the feed. 5th. The combination, with a hand ratchet drill stock, of the handle E, a suitable ratchet wheel or wheels, the swinging pawls *e e*, the spring *f f*, made of a single piece of metal, and the abutments *g g* between the plates *c d*.

**No. 12,825. Improvements in Show Boxes.** (*Perfectionnements aux montres.*)

Morris H. Pulaski, Philadelphia, Pa., U. S., 19th May, 1881; for 5 years.

*Claim.*—A box for packing laces, having a lid, a portion of which is adapted to exhibit an uncut sample of the contents upon the outside of the box and provided with a supplemental lid.

**No. 12,826. Improvements in Dynamo Magneto-Electric Machines.** (*Perfectionnements aux machines magneto-électriques.*)

Paget Higgs, New York, U. S., 19th May, 1881; for 15 years.

*Claim.*—1st. A ring armature composed of movable sections. 2nd. The removable sections or spools E with their projecting ends *e* mounted on the shaft C. 3rd. A rotating armature, having its coils of two or more wires of different qualities. 4th. A ring-shaped armature having its coils in removable sections of two or more wires of the same quality, but connected to separate commutators, or collectors, so arranged as to constitute two or more distinct circuits. 5th. The ring-shaped armature, composed of removable sections insulated electrically from each other for the purpose of preventing secondary currents in the armatures. 6th. The arrangement of multiple exciting magnets, that is to say, magnets having two or more cores and helices, provided with a common pole piece, when arranged to be worked wholly or partially by a shunt circuit. 7th. The arrangement of the pole pieces at right angles to the cores or connecting pieces, whereby each pole is brought to bear on two armatures. 8th. Machines having ring armatures, the construction of the inducing semi-tubular pole pieces, so as to surround or nearly surround, the entire circumference of the ring in the deduction normal to the plane in which it rotates. 9th. A commutator provided with the adjustable connecting pieces *l l* and set screws L. 10th. The arrangement of the two circuits or section of wire upon an armature connected with the two separate commutators, or collectors, one arranged to deliver a constant current, and the other an alternating current. 11th. A magneto-electric machine, in which the coils of the series of magnets are arranged and constructed, so as to be connected up in different ways for intensity or quantity. 12th. The arrangement of parallel multiple exciting magnets, wound with relatively fine or long wire. 13th. The coils of the exciting magnets, when made of finer wires than those of the armature. 14th. The arrangement of the circuits of a magneto-electric machine for converting mechanical power into an electric current, whereby a contrary electric force of the outer circuit, is caused to aid in magnetizing the exciting magnets by the shunt circuit. 15th. The division of the exciting