

bars A, A₁, provided with the wire frames B, B, the socket pieces b secured to or upon the ends of the bars A, A₁, and having the pins c, the arms C having the claw arms C₁ and cap sockets f, the pins c extending through said sockets, and secured by burrs g and spiral springs on the pins c within the sockets, as set forth.

No. 29,820. Shingle Cutting Machine.

(Machine à débiter le bardeau.)

Francis J. Drake, Belleville, Ont., 5th September, 1888; 5 years.

Claim.—1st. The rocking shafts J, J₁, having arms I fixed thereon, the said arms hinged to links which are connected with the tilt frame, as and for the purpose set forth. 2nd. The rocking shafts J, J₁, one of which has a lever L, with a link and arm connection to the other, whereby each shaft may be simultaneously and alike rocked by moving the said lever, as and for the purpose set forth. 3rd. The combination, with the tilt frame, of the shafts J, J₁, provided with connections to the said frame, and means for rocking the said shafts, whereby the tilt frame may be raised or lowered to a desired height, as and for the purpose set forth. 4th. A quadrant K, mounted loosely upon one of the said shafts, alongside the said lever for locking and holding the latter at different desired points, as and for the purpose set forth. 5th. The combination, with the quadrant of a rod O pivoted to the said quadrant, and having a threaded end passing through a hand wheel, the latter being held to revolve in a box, whereby the said quadrant may be held rigid and swung upon its axes to various points, by turning the said hand wheel, as and for the purpose set forth. 6th. The tilts D, D₁, separately made and hinged to permit each of adjustment, one independent of the other, as and for the purpose set forth. 7th. The yokes G, having inclined planes upon which they rest at right angles to and upon the tilt frame, and provided as one of their ends with a set screw for adjusting their height under the tilts, as and for the purpose set forth. 8th. The adjustable yokes, in combination with and arranged to support the said tilts at various heights, as and for the purpose set forth. 9th. A spindle E₁, having two jam nuts, whereby the said spindle and arms can be adjusted under the tilts to lift the said tilts to various heights, as and for the purpose set forth. 10th. The combination of a rocking shaft S and torsion spring r, the latter being coiled around the said shaft, so as to turn it, whereby the door T is drawn back to release the said bolt, as and for the purpose set forth.

No. 29,821. Composition of Matter to be used in the Manufacture of Medicine for Piles. (Composition de matières pour la fabrication d'un médicament pour les hémorroïdes.)

Richard Crowther, Dundas, Ont., 5th September, 1888; 5 years.

Claim.—A compound, composed of rhubarb root, Columbian root, blood root, gentian root, snake root, gum aloes, epsom salts, whisky and water, substantially in the proportions and for the purposes set forth.

No. 29,822. Electric Switch.

(Commutateur électrique.)

Edward F. Bergman, Frankfort, N.Y., U.S., 5th September, 1888; 5 years.

Claim.—1st. In an electric switch, the combination, with the switch block formed with a slot in one side of the circuit, wires passed through the block and one of them broken, and a switch lever pivoted in the slot to make and break the circuit, substantially as and for the purpose set forth. 2nd. The combination, with the switch block formed in two parts, removably secured together, of the circuit wires b, b, one of which is broken within the block, and the pivoted switch lever c, provided with lateral wings c', substantially as and for the purpose set forth.

No. 29,823. Stove-Pipe Beading Machine.

(Machine à canneler les tuyaux de poêles.)

Isaac M. House, Gravenhurst, Ont., 5th September, 1888; 5 years.

Claim.—1st. In a stove-pipe beading machine, the combination, with the spindles B, B₁, of a pair of beading rolls F, F₁, having a double or O, G bead f, and having the inner edge of said rollers diverging or turned inwardly and outwardly respectively, to adapt the same for expanding and contracting the edges of the ends of the pipe, substantially as set forth. 2nd. In a stove pipe beading machine, the combination, with the spindles B, B₁, of collared extension necks G, internally threaded and screwed to the forward ends of said spindles, and adapted to carry the beading rolls, and the beading rolls F, F₁, having O, G, or double bead f and diverging rear ends f₁, substantially as set forth.

No. 29,824. Submerged Current Motor.

(Moteur hydraulique submergé.)

Thomas A. McDonald, Durham, N.S., 5th September, 1888; 5 years.

Claim.—A stationary submerged current motor, consisting of ballast boxes C, sunk or anchored to the bed of the stream in alignment with the direction of the current, standards B supported by said boxes, line shaft A journaled in or to said standards, and wheels D having spiral vanes keyed on said shaft at suitable distances apart, whereby each wheel will be submerged and have an axial rotation at right angles to the current, for the purpose set forth.

No. 29,825. Sulky Plough. (Charrue à siège.)

Charles Boulay, Saint Pie, Que., 5th September, 1888; 5 years.

Claim.—1st. In a sulky plough, the device for raising the mould board, consisting of the bracket F and guide H, lever Q and links G, and the curved beam c₁ arranged to slide upward against the guide

H, substantially as shown and described. 2nd. The device for raising the inner mould board, consisting of the dotted bracket F, lever Q and links G, guide H and link K, substantially as herein shown and described. 3rd. In a sulky plough, the body A supported with the lever Q, and are J provided with lugs for holding said lever, substantially as herein shown and described.

No. 29,826. Milling Machine.

(Machine à ébarber.)

John A. Gregg, West Bay, Mich., U.S., 7th September, 1888; 5 years.

Claim.—1st. In a milling machine, the combination, with cutter arbor journaled upon a suitable carriage, and provided with a worm wheel, of a cylindrical nut secured below the said arbor, and having through the centre of its length a threaded opening, and provided on its periphery with worm gear teeth engaging with the thread of the said worm wheel, and a feeding screw passed through the said threaded opening of the nut, and journaled by its ends to supporting pieces extending from the machine bed-piece, substantially as and for the purpose set forth. 2nd. In a milling machine, the combination of the base plate provided with a longitudinal groove, having overhanging edges, a carriage fitted into the groove and provided with a raised box lying at right angles with the groove, a cutter arbor journaled in the said box and carrying a rotary cutter, and a worm wheel and a feeding screw placed at right angles with the said cutter arbor and journaled at its ends in supporting brackets, of a cylindrical nut provided with a central longitudinal opening having a screw thread and passed upon the said screw and having on its periphery worm gear teeth engaging with the said worm wheel upon the arbor, and retained in position by brackets, as and projecting from the carriage, substantially as and for the purpose set forth. 3rd. In a milling machine, in combination, the base plate a suitably supported and provided with a groove c, a carriage d fitted into the groove, an arbor f journaled upon the said carriage and carrying a rotary cutter and a worm wheel h, the nut q provided with a central opening having a screw thread, and having on its periphery worm gear teeth engaging with the worm wheel h, the brackets k, upon each side of the nut and secured to the carriage, and a feeding screw j passed through the said opening in the nut, the brackets k and l secured to opposite ends of the bed plate and carrying the screw, and devices, as cap piece o and screw p, for retaining the said feeding screw against revolution, substantially as and for the purpose set forth. 4th. In a milling machine, the combination, with a base plate a provided with a groove c, the carriage d fitted into the groove and carrying a cutter arbor and a rotary cutter, a worm wheel h upon the arbor, a cylindrical nut provided with a threaded central opening, a feeding screw j passed through and engaging with the nut q, and journaled to supporting brackets, of a tail v provided with a vertical apron u, having vertical slots v, and secured to the column by the bolts r passed through the said slots and into the column, and the lugs x projecting outwardly from the column and provided with the adjusting screws y, and the set screws z passed through threaded openings in the apron and against the column, substantially as and for the purpose set forth.

No. 29,827. Hot Air Wool Burning Furnace for Heating Buildings. (Calorifère à air consommant le bois.)

William S. Harland, Clinton, Ont., 7th September, 1888; 5 years.

Claim.—1st. The combination, in an air heating furnace, having steel plate body A, A, and cast iron ends C and D, with the fire box B, B, and the back flue L, L, with damper V, V, and connected thereto the damper lever U, U, worked by damper rod H, H, and having expansion bands N, N, N, and a feed door E, with inside plate F and draft regulator at top I, I, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, in an air heating furnace, of steel plate body A, A, and cast iron ends C and D, with the fire box B, B, and the back flue L, L, with damper V, V, and connected thereto the damper lever U, U, worked by damper rod H, H, and having expansion bands N, N, N, and a feed door E with inside plate F, and draft regulator at top I, I, with a steel plate radiator having cast iron ends O, O, O, outside plate P, P, P, and inside plate R, R, and partition S, S, substantially as and for the purpose hereinbefore set forth.

No. 29,828. Composition of Matter to be used in Primary Galvanic Batteries. (Composition de matières pour servir dans les piles galvaniques primaires.)

Bloomfield J. Wheelock, New York, N.Y., U.S., 7th September, 1888; 5 years.

Claim.—1st. The herein described composition of matter to be used in primary batteries, consisting of sulphuric acid, nitric acid, bichromate of potash, or bichromate of soda, salamoniac, sulphate of iron, and pure water, dissolved together and in the proportions substantially as and for the purpose set forth. 2nd. The combination of carbon and zinc elements, with a composition of matter consisting of sulphuric acid, nitric acid, bichromate of potash, or bichromate of soda, salamoniac, sulphate of iron and pure water, dissolved together and in the proportions substantially as described and for the purpose set forth.

No. 29,829. Gate. (Barrière.)

Judson N. Hatcher, Americus, Mo., U.S., 7th September, 1888; 5 years.

Claim.—A gate, comprising longitudinal rails, the upper rail being notched, secured uprights between which the rails are pivoted, a notched bar pivoted between the upper ends of the inner uprights and extending along the upper rail between the middle uprights, a stirrup pivoted to the lower ends of the outer uprights and engaging the notched bar, and a stirrup pivoted near the centre of the gate and