

D<sub>1</sub> adapted for operation in connection with the burners B A and a suitable motive power, 11th. The combination of a clock with mechanism for winding the same by the motion of a gas motor actuated by the flow of gas to a burner or burners, 12th. The clock dial N, clock hands M<sub>1</sub> M<sub>2</sub> and actuating spring L, in combination with means H<sub>1</sub> I for winding the same by the motion of gas, a provision for slipping to avoid over winding, one or more gas burners C, a provision as for allowing a continuous small flow of gas, and a shield D for protecting the flame when reduced; 13th. A motor actuated by the motion of gas, a clock wound up thereby means for contracting the volume of the flame at a certain period of time for enlarging at another period of time, both determined by the clock, and means for adjusting one or both periods at will; 14th. In combination with a clock actuated by the motion of gas and serving to enlarge and contract the flame at adjustable periods, the dial N, ordinary clock hands M<sub>1</sub> M<sub>2</sub>, adjusting handles V W and pinching nut X, the latter being adapted to hold the adjustable parts rigidly, 15th. A clock mechanism, with suitable impelling means and connections for lighting and extinguishing the main flame in combination with a small continuous flame adapted to impart heat and avoid an extreme low temperature under any conditions.

**No. 9563. Improvement on Farm Gates.**  
(*Perfectionnement aux barrières.*)

William A. Carpenter and Billow Walratu, Townsend, Ont., 21st January, 1879, for 5 years.

Claim.—The combination of the pivot post c supporting the horizontal bar F, with weighted end G attached to it, and supporting the upright E attached to gate frame K, which is fastened by the sliding bar I worked with handle H.

**No. 9564. Improvements on Belt Fasteners.**  
(*Perfectionnements aux joints des courroies.*)

William W. Glover, Aurora, Ill., U. S., 21st January, 1879, for 5 years.

Claim.—1st. A bed or plate provided with straight teeth C made oblong in cross section, disposed with the longer part of their bases in the direction or line of pull of the belt and having linear entering ends or tips. 2nd. The bed or plate provided with the straight teeth C made oblong in cross section, the longer part of their bases being in the direction or pull of the belt and having sharp entering ends or tips, and provided also with the central transverse bar or projections.

**No. 9565. Process of Refining and Packing Catechu.**  
(*Procédé pour raffiner et envelopper le cachou.*)

Edward Wells, Albert E. Richardson, William J. Van Patten and Henry Wells, Burlington, Vt., U. S., 21st January, 1879, for 5 years.

Claim.—1st. Placing the catechu in a vessel containing a sufficient quantity of water then subjecting it to the action of steam heat, at the same time introducing into the mass steam of a high temperature, thereby liquifying the catechu and forcing the lighter substances to the surface, then skimming, straining and settling and finally placing the catechu, while still liquid, in boxes holding certain specified quantities, 2nd. Re-bined and concentrated catechu incased in a tight integument or envelope.

**No. 9566. Improvements on Horse Blankets.**  
(*Perfectionnements aux couvertures de cheval.*)

Israel H. Hodgson and William Beatty, Gray, Me., U. S., 21st January, 1879, for 5 years.

A blanket having a cord firmly attached entirely around it near its edges, and formed into loops, which project through suitably faced holes in the corners thereof.

**No. 9567. Improvement on Plough Attachment.**  
(*Perfectionnement aux trains des charrues.*)

John McBride, Des Moines, Iowa, U. S., 21st January, 1879, for 5 years.

Claim.—1st. In combination with a plough beam A and a hinged axle C, the lever B having the combined rack and feeder y, and lever B<sub>2</sub> provided with the spring latch z; 2nd. The adjustable extensible and jointed fulcrum C adapted to support the lever B<sub>2</sub> and to clamp the coulters w z to the plough beam; 3rd. The vertical lever B having the combined rack and feeder y and the gravitating latch h, the hinged axle C carrying the wheel D and rack g; the jointed fulcrum C clamping the coulters w z, the horizontal lever B<sub>2</sub> having a spring latch at its rear end and carrying a castor wheel at its front end, the hinged and adjustable brace m; 4th. The revolving block s<sub>2</sub> having trunnions at its sides and an opening through its centre, in combination with a plough beam and the shaft s of an adjustable and revolving castor wheel beater to form a flexible connection between the castor wheel and the governing lever B<sub>2</sub>; 5th. The curved beater b carrying the shaft friction roller a, in combination with a plough beam A and vertical lever B. 6th. The combination of the beater b carrying a wheel or roller a, the pivoted brace c having a hook or fastening device at its free end, and a plough standard. 7th. The combination of the gravitating scraper d, beater b and roller a.

**No. 9568. Improvements on Pressing Machines.**  
(*Perfectionnements aux machines à presser.*)

Joshua W. Jones, Harrisburgh, Pa., U. S., 22nd January, 1879, for 5 years.

Claim.—1st. A press proper for compressing laminated material, as paper into packages, at a high degree of compactness and solidity by a hydraulic power pressing machine, in combination with an automatic electric pressure indicator to secure the parts under strain against breaks, 2nd. The hydraulic cylinder head J, provided with the annular seat n about ram B to readily insert packing U<sub>2</sub> in combination with the foot H of the press frame. 3rd. The follower C, in combination with the guides H<sub>1</sub> H<sub>2</sub> W<sub>1</sub> in trough B<sub>1</sub>. 4th. The end board C<sub>3</sub> provided with central counter-sink or recess C<sub>2</sub>. 5th. End boards for bundles of sheets tied under pressure, provided with rounded outer edges and with or without set metal chips. 6th. The peculiar combination and arrangement of two reciprocating force pumps Q Q<sub>1</sub>, alternately drawing liquid from a common reservoir R<sub>2</sub>, connected by a ram with the ram chamber O by a main A<sub>4</sub> into which the pumps discharge alternately to secure the continuous travel of the ram B. 7th. In a pressing machine and sheet tie, the compressing heads D<sub>1</sub> constructed with cross way D<sub>2</sub> centrally

arranged through them. 8th. The inclined press bed or trough B<sub>1</sub> provided with longitudinal slots B<sub>4</sub> in its sides, in combination with the press heads D<sub>1</sub> having through them the cross ways D<sub>2</sub> correspondingly arranged with said slots. 9th. The press head D<sub>1</sub> connected by pedestals D<sub>1</sub> with the follower C and made to travel as a plunger, in combination with bed B<sub>1</sub>. 10th. In combination with the press bed B<sub>1</sub> the device of a set of removable ledges H<sub>1</sub> H<sub>2</sub> W<sub>3</sub> or a set of adjustable guide rolls 195. 11th. The process described for treating folded printed sheets of paper in dry pressing, the same consisting of subjecting a collection of such sheets to pressure without the use of fuel or press boards, and while under such pressure, tying them into compact bundles with end boards, then removing them immediately from the press and allowing them to remain tied sufficiently long to complete dry pressing and attain the desired state of surface.

**No. 9569. Improvements on Spring Carriages.**  
(*Perfectionnements aux voitures à ressorts.*)

Charles W. Schultz, Sheeldon, Ont., 22nd January, 1879, for 5 years.

Claim.—1st. The mode of interposing side springs B having curved ends b by securing their terminations to the axles or to the axle and head block, for superposing the body A of the bars H H, 2nd. The mode of interposing end springs B having curved ends b<sub>1</sub> by securing their terminations to bars H, or their equivalent on which the buggy body A is superposed and centrally to the axle or head block.

**No. 9570. Improvements on Buckle Clasps.**  
(*Perfectionnements aux agrafes des boucles.*)

Mary A. C. Holmes, Boston, (Assignee of Francis D. Ballou, Marlboro,) Mass., U. S., 22nd January, 1879 for 5 years.

Claim.—1st. The combination of a plate provided with slots and ridge as formed by E, with a hinged leaf whose edges enter into the slots and the means of fastening the same in place. 2nd. The combination of a plate provided with a slot or slots, a strip or strips fastened to the same to rough the slot or slots, a hinged leaf and means for fastening the same. 3rd. The combination of a plate having a ridge angular in cross section, a hinged leaf corresponding thereto in shape and means for fastening the same in place. 4th. A buckle clasp composed of a plate having a rigid leaf to shut over the same, a sliding catch provided with a spring end for holding the leaf.

**No. 9571. Improvements on Belt Gearing.**  
(*Perfectionnements de la communication du mouvement par courroie.*)

John T. Hawkins, Brooklyn, James H. Covel and Gibbons L. Kelly, New York N. Y., U. S., 22nd January, 1879 for 5 years.

Claim.—1st. The art of transmitting power, for operating driving shafts of machines or lines of machinery, by means of toothed pulleys upon said shaft connected by an endless gearing of teeth or cogs secured by rivets, bolts or equivalent fastenings, to a belt of one or more continuous strips of material without blinged joints, preferably metal sufficiently thin or tempered to conform to the curves of said pulleys without permanent set; 2nd. A system of endless gearing a pulley or pulleys having upon the face or faces thereof non-rolling, non-sliding and frictionless teeth or cogs of the involute form described gearing with or interlocking corresponding teeth upon an enveloping belt.

**No. 9572. Improvements in Threshing Machines.**  
(*Perfectionnements aux machines à battre.*)

Thomas Quilivian, Coghill's Creek, Victoria, Australia, 22nd January, 1879, for 5 years.

Claim.—1st. The addition to threshing machines of a carrier A for conveying the sheaves from the stack to the machine; 2nd. The combination and arrangement of the endless travelling platform E with the endless rake F and slotted shield G.

**No. 9573. Improvements on Floating Docks.**  
(*Perfectionnements aux bassins de radoub.*)

Josiah L. Clark and John Standfield, Westminster, England, 22nd January, 1879, for 5 years.

Claim.—1st. Constructing a floating dock with the buoyant sides or portions of the sides A attached to the body C of the dock by vertical grooves or slides, or by hinges so that these portions can be raised or lowered independently. 2nd. Constructing a floating dock with a body C, fixed buoyant portions of sides B and sliding or hinged buoyant portions A.

**No. 9574. Moulds for Casting Cast Steel.**  
(*Moules pour couler l'acier.*)

Aaron J. Nellis, Pittsburgh, Pa., U. S., 22nd January, 1879, for 5 years.

Claim.—1st. A mould composed of metallic sections and intermediate separate and detachable sections formed of core material. 2nd. A mould composed of metallic sections and intermediate separate and detachable sections formed of core material, with suitable means for at once connecting the metallic and supporting the core sections.

**No. 9575. Moulds for Casting Cast Steel.**  
(*Moules pour couler l'acier.*)

Aaron J. Nellis, Pittsburgh, Pa., U. S., 22nd January, 1879, for 5 years.

Claim.—Sand moulds cores and matrices for casting metal composed of sand with or without binding or adhesive materials, and of benzine, or its equivalent, highly combustible and readily ignitable liquid.

**No. 9576. Improvements in Canal Boats.**  
(*Perfectionnements aux bateaux pour les canaux.*)

William Hewitt, Hamilton, Ont., 22nd January, 1879, for 5 years.

Claim.—1st. In combination with a track B, of an elevated rack rail K constructed thereon and with movable segments opposite crossings and bridges, &c. 2nd. In combination with the rack of the elevated rail K of the cog wheel J meshing into the same for steadying the engine. 3rd. In combination with the main D of the elastic clutch I, notch e and lever Q. 4th. In combination with the elevated rail, of the grooved pulley T for running on the bevelled top of the rack; 5th. In combination with the shaft D, of the cog wheels H & J, 6th. In combination with the main shaft D, of the journal