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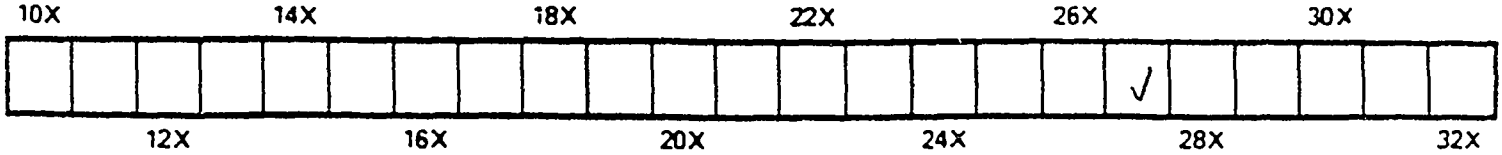

The Canadian Patent Office Record

Vol. IV.—No. 3. MARCH, 1876. Price in Canada $2.00 per An. United States - $2.50 "

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INVENTIONS PATENTED.

No. 5593. Process and Apparatus for Manufacturing Illuminating Gas.

(Procédé et appareil de fabrication du gaz d'éclairage.)

Thomas W. Lion, Brentsville, Va., U. S., 20th January, 1876, for 5 years.

Claim.—1st. Subjecting highly heated hydro-carbon vapour to the action of electricity, 2nd. Subjecting heated hydro-carbon vapour to the action of electricity to produce a fixed gas, and then subjecting said gas to the action of electricity. 3rd. Subjecting heated hydro-carbon vapour to the action of electricity and then passing the resultant gas through a carbureter; 4th. The mixing chamber *i*, containing the insulated electric battery *c*, and laminated charcoal or its equivalent, and supplied with superheated steam and carbon vapour inlets. 5th The cylindrical retort A, divided into the two chambers *b* and *c*, and provided with the central fire chamber *d*, containing the superheating coils; 6th. The cylindrical retort A, divided into the chamber *b* and *c*, in combination with the chamber *i*, communicating with the two chambers of the retort, and containing the electric battery and charcoal; 7th. The combination of the battery *c*, charged with salt, the gauge basket *x*, and hydro-carbon vapour chamber; 8th. The combination of the retort, containing two separate chambers, the mixing chamber *i* communicating with the chambers of the retort and containing the electric battery and the chamber I, communicating with the mixing chamber and containing a thermo battery. 9th. The combination of the retort A, provided with chamber *i*, perforated plate *k*, and bowl *m*.

No. 5594. Mop and Brush Holder.

(Manche de brosse et de balai.)

John O. Montignani, Albany, N. Y., U. S., 20th January, 1876, for 5 years.

Claim.—The detachable metallic clamping jaws C, C, each constructed with a socket *c*, and notches or serrations in combination with a handle A, having the elastic arms *a*, *a*, and carrying the sliding ring D.

No. 5595. Washing Machine. *(Machine à laver.)*

Russell S. Morse, Wilton, Me., U. S., 20th January, 1876, for 5 years.

Claim.—1st. The combination of the tub A, series of perforated radial rubbers C, spindle B, series of tangential rubbers *d*, perforated disc *a*1, standards *c*, and perforated cross bar E; 2nd. The combination of the adjustable dasher supporter G, with the dasher D, the tub A, its spindle B, and series of perforated rubbers C.

No. 5596. Improvements on Mowing Machine Frames.

(Perfectionnements aux bâtis de moissonneuses)

Newton Cossitt, Brockville, Ont., 20th January, 1876, for 5 years.

Claim.—The provision at the front end of a cast iron frame A, of a mowing machine of a journal box constructed of fixed section B and a movable C, to admit of taking up the wear of the bearing and shaft.

No. 5597. Improvements on Bridges.

(Perfectionnements aux ponts.)

John B. Winters, London, Ont., 20th January, 1876, for 5 years.

Claim.—1st. The combination of bolt G, shoe I, and the plate M, with the chord braces J, and cap B, 2nd. The combination of plate W, braces *a*, rod *z*, and plate M, with the chord A, 3rd. The cap F, plate C, and rod G, combined with the chord A; 4th. The plate C, having flanges D, and ribs E, combined with the cap and the chord; 5th. The plate M, having socket N, rib Q, and notched flanges P, S, in combination with the chord and braces J and *a*; 6th. The plate W, having flanges X, and notched flange Y, combined with the cap B, braces *a*, and rod *z*, 7th. The shoe I, having notch K, and grooves L, combined with parts H, and rod G; 8th. The arrangement of the chords A, with intervening spaces *b*.

No. 5598. Improvements in the Manufacture of Pipes.

(Perfectionnements dans la fabrication des tuyaux.)

George M. Fuller, Holyoke, Mass., U. S., 20th January, 1876, for 5 years.

Claim.—Tempering asphaltum while hot with clay, saw dust, or other suitable substance, to reduce it to a plastic state and applying such plastic, in a hot state, to a fabric or perforated material while being wound upon a roller, under frictional pressure from other rollers.

No. 5599. Recording Apparatus for Billiard Games. *(Compteur de billard.)*

Samuel Bretzfield and Friedman Sternheimer, New-York, U. S., 20th January, 1876, for 5 years.

Claim.—The rod J, with stops g_1, g_2, g_3, and *a*, tube E with slots *j* and *l*, sleeve *m*, spiral spring *n* in combination with the buttons K, the standards *b*, b_1, b_2, b_3, frame A, and dials P, and R.

No. 5600. Mechanism for Ornamenting Buttons. *(Machine à orner les boutons.)*

Robert H. Isbell, New-Milford, Ct., U. S., 20th January 1876, for 5 years.

Claim.—1st. The carriage B, provided with threads and constructed for the reception of the buttons, in combination with the spattering brush E, 2nd The combination with the spattering brush E and carriage B, of the check bar I, 3rd The combination with the check bar I, the spattering brush E, and the carriage carrying the threads *c*, of the trough *m*; 4th. The combination with the carriage B, carrying the threads *c*, of the button board C, 5th. The combination with the carriage B, carrying the system of threads *c*, and the button board C, of the lifting device, 6th. The combination with the carriage B, and the brush E, of the pulleys *g*, m^1, g_1, g_2, *h*, and the band *n*.

No. 5601. Improvements on Calendars.

(Perfectionnements aux calendriers.)

David J. Miller, Santa-Fé, Mexico, U. S., 20th January, 1876, for 5 years.

Claim.—The combination with the reciprocally transferable dating pegs, of adjustable supplementary date indicators *a*.

No. 5602. Hand Rest for Pianos.

(Appui-main pour les pianos.)

Wilhelm Bohrer, Montreal, Que., 20th January, 1876, for 5 years.

Claim.—1st. The combination of a bar arranged parallel to the front of a piano and supported therefrom and a round bar arranged above it and offering a yielding resistance to downward pressure; 2nd A hand rest arranged to afford the necessary support to the wrist of the player and at the same time allowing lateral forward or backward, and diagonal motion to be made simultaneously, 3rd. In combination with the bar *c*, the stand G, arranged so as to be moveable forward or backward or to the right or left. 4th. The combination with the stand G, of the rests I mounted upon spindles H, so as to be capable of horizontal rotary motion, 5th. In combination with the bar A, having notched upper surface A^1, the stands G, carrying rests I, and having rings F, running upon the bar *c*.

No. 5603. Improvements on Axles.

(Perfectionnements aux essieux.)

Adolphe Payette, Montreal, Que., 20th January, 1876, for 5 years.

Claim.—1st. In combination with any axle box D, the axle having a portion of its substance cut away, 2nd. The combination of the axle A, rounded end B, with portion cut away, chamber G, and channel H.

No. 5604. Manufacture of India Rubber Compounds. *(Fabrication des composés de caoutchouc.)*

George MacLellan, Glascow, Scot., 20th January, 1876, for 5 years.

Claim.— A vulcanized compound of India-Rubber or caoutchouc and textile fibres, with sulphur, and with or without colouring matter mixed therewith.

No. 5605. Improvements on Rotary Steam Engines.

(Perfectionnements aux machines à vapeur rotatoires.)

Orwin Adams, Battle-Creek, Mich., U. S., 20th January, 1876, for 5 years.

Claim.—1st. The combination of the cams *m*, *n*, and rollers *o*, *r*; 2nd. The metallic packing of a rectangular piston consisting of the combination of packing pieces *i* and *l*, the adjoining ends of which are bevelled to form close contact, and the springs *p*, 3rd. The combination of the steam chest *b*, formed as an interior frustum of a cone, with the valve B, shaped and channelled as described at *d* and *f*, and with the induction and exhaust passage *a*, and E, and the steam ports *c*; 4th. The steam cylinder C, contracted at the medium horizontal line abreast of the steam chest to the size of the piston churn D, and packed with horizontal packing *g*, in combination with the cylindrical drum D.

No. 5606. Apparatus for Cleaning Sinks, Cess-Pools, &c.

(Appareil à nettoyer les cloaques, puisards, &c.)

Reuben A. McCauley, Baltimore, Md., U. S., 20th January, 1876, for 5 years.

Claim.—1st. The hollow piston D, provided with the weighted hinged valve *b*, having the flexible packing a_{11}, upon its face and the flexible packing a_{11}, partially surrounding the front portion of the piston and extending therefrom; 2nd. The induction nozzle B, provided with the weighted hinged valve *a*, and flexible packing a_1, upon the face of said valve, and also provided with the flexible packing a_{11}, partially surrounding the inner end of the nozzle and extending therefrom in combination with the hollow piston D, hinged valve *b*, and flexible packing a_1, a_{11}, all arranged within the pump; 3rd. The screws or stems *e*, adapted to enter the pump chamber A, in combination with the weighted hinged valves *a*, a_1, and *b*, a^1.

No. 5607. Improvements on Sulky Harrows and Hay Rakes.

(Perfectionnements aux herses à siège et aux râteaux à foin.)

Melvin Wilson, Strathroy, Ont., 20th January, 1876, for 5 years.

Claim.—1st. The harrow A, A_1, A^2, constructed of the shape described, 2nd. The mode of attaching said harrow to the axle tree B, and wheel C, C_1, by means of the chains D, D_1, and controlling and operating devices as arms E, E_1, cross bar F, gear wheels G, and lever H, 3rd. The combination with the sulky harrow of a hay rake with movable bars K, I, connecting eyes J, J_1, L, and M; 4th. In combination with the tongue N, and double tree *o*, of a sulky harrow, the bar P, and supporting collar R.

No. 5608. Improvements on the Manufacture of Illuminating Gas.

(Perfectionnements dans la fabrication du gaz d'éclairage.)

Myron H. Strong, Brooklyn, N. Y., U. S., 20th January, 1876, for 5 years.

Claim.—The process of producing hydrogen gas by admitting petroleum or other fluid hydro-carbon into a retort among pieces of fire brick or other similar material in a heated condition and then reheating the retort for the next operation by the admission of atmospheric air for consuming the carbon deposited in such retort

No. 5609. Lamp Lighter. *(Allumoir de lampe.)*

James Chapman, St. John, N. B., 20th January, 1876, for 5 years.

Claim.—The pole A, the frame B, the lamp C, swinging therein, and the key E.

No. 5610. Truck and Apparatus for Handling Bricks. *(Camion et apparcil à manier les briques.)*

Walter E. Gard, New-York, U. S., 20th January, 1876 for 5 years.

Claim.—1st. A truck G, for handling bricks in combination with the hack frames; 2nd. A truck G, for handling bricks provided with elevating and lowering lifters *m*, *m*, *m*, *m*; 3rd. The combination of the sliding lifters *m*, *m*, *m*, *m*, cords or chains *o*, *o*, and *p*, *p*, winding shaft *r*, and pulleys *s*, *s*; 4th. A hack frame B, provided with elevating timbers *d*, *d*; 5th. A transferring truck D, in combination with rollers *g*, *g*, and ways *h*, *h*, 6th. A brick handling apparatus composed essentially of a roller way A, hack frames B, B, and handling truck G.

No. 5611. Process for the Manufacture of Oakum. *(Procédé pour la fabrication de l'étoupe.)*

John Pike, Chicago, Ill., U. S., (assignee of J. R. Blaney,) 20th January, 1876 for 5 years.

Claim.—The process of making oakum from hemp or flax, tow, jute or similar fibres by saturating the fibre in a solution of asphaltum and pine tar using benzine, kerosene or other oil as the solvent, and the recovery of said oil by distillation from the saturated fibre.

No. 5612. Watchman Detector. *(Contrôleur de garde.)*

Henry A. E. Lefort and Godefroi Chapleau, Montreal, Que., 25th January, 1876, for 5 years.

Claim.—1st. In combination with any clock case the watchman detector arranged to revolve simultaneously with the hour hand and composed of two discs D, D_1, holding between them the slides F, drawn out by the draw bar G, and returned to their place by the stop H; 2nd. In combination with any detector having blades or slides thrust out beyond the periphery of the disc, the stop H, arranged as set forth.

No. 5613. Improvements on Heaters.

(Perfectionnements aux poëles-sourds.)

James L. Massie, Cowansville, Que., 27th January, 1876, (Extension of Patent No. 4237), for 5 years.

No. 5614. Improvements on Heaters.

(Perfectionnements aux poëles sourds.)

James L. Massie, Cowansville, Que, 28th January, 1876, (Extension of Patent No. 4237), for 5 years.

No. 5615. Apparatus for Illustrating Geography and Astronomy.

(Appareil démonstratif de géographie et d'astronomie.)

Malcolm MacVicar, Potsdam, N.Y., U. S., 28th January, 1876, for 15 years

Claim.—1st. The revolving equator B, and circle C, suspended on the equator by two points *a*, *a*, so that by its own motion on said points and the motion of the equator it can be made to represent any great circle on the globe; 2nd. The movable semi-meridian D, fastened to the circle C; 3rd A movable meridian E, attached by a clamp screw and flange to the circle C, in such a manner that it revolves on the axis of the ecliptic and can also be made stationary so as to answer the same purpose as the brass meridian E, of the ordinary globe; 4th. The circles of illumination and twilight H, and I, fastened to the movable meridian E, 5th. The ball T, fastened to the movable meridian E, at ninety degrees from the pole of its axis, so that when the meredian revolves on its axis the ball will describe the apparent path of the sun round the earth, 6th. The semi-prime vertical K, fastened to the movable semi-meridian D; 7th. An equator revolving independently of the globe either in a groove in the globe or on the axis of the globe dividing the globe into hemispheres; 8th. The combination with a globe A, of the movable equator B, pivoted circle C, meridians D, and E circles of illumination and twilight H, and I, semi-prime vertical K, pointer L, and the graduated ecliptic M, 9th. The combination of the globe A and its attachments with the arm W, wheel work N, J, N, and sun T

No. 5616. Apparatus for Thawing Water Pipes. *(Appareil à dégeler les tuyaux d'eau.)*

Thomas J. Sloan, New-York, U.S., 28th January, 1876, for 5 years.

Claim.—1st. A flexible tube strengthened by a spiral coil of wire fitted with a nozzle of rounded hemispherical or semi-spherical contour and provided with suitable means of rotation; 2nd. In combination with a boiler, a flexible tube constructed and adapted to follow the interior of a pipe when rotated therein and a suitable mechanical means of rotating said tube. 3rd The combination of the reel D, with the flexible tube C, furnished with a nozzle *m*, and the steam or hot water outlet pipe of a suitable boiler. 4th The combination of the hollow crank E, with the flexible tube C, 5th The combination of the three way cock *c*, with the flexible tube C, the water outlet pipe *d*, and the steam outlet *e*, of the boiler, 6th. The reel D, constructed in the form of a core pointing in the direction of the out winding of flexible tube C; 7th. The cage A^*, the reel D, and the flexible thawing tube C, in combination with a suitable steam or hot water supply and suitable means of rotating the thawing tube; 8th. The collar K, and the jaw J, constructed with the double inclines in combination with the slide I, sleeve G, cam lever *w*, and flexible tube C, the whole arranged for conjoint operation

No. 5617. Piston Packing. *(Garniture de piston.)*

William W. St. John, Philadelphia, Pa., U. S., 28th January, 1876, for 5 years.

Claim.—1st. A piston packing having the area of the under portion increased in about the proportion in the wear of that portion is increased by the weight of the piston and rod; 2nd. The inner face of the packing rounded up or curved to sharp edges D, to admit the steam for pressing it against the cylinder; 3rd. The area of the under surface subject to steam pressure graduated to correspond with the graduated wearing surface by the flange E and groove F; 4th. The head of the packing piece H, secured against the under side of the packing; 5th. The packing B, fitted to the piston head and the jointed piece H, by casting it in the groove of a piston as a mould

No. 5618. Improvements in Stakes.

(Perfectionnements aux piquets.)

Warren A. Durrin, Wilson, Wis., U. S., 28th January, 1876, for 5 years.

Claim.—A stake rod A, with ring *d*, when provided with the point *b*, and the flange shaped screw F.

No. 5619. Lock Nut. *(Noix de sûreté.)*

Charles P. Baghott and John W. Thomson, Hamilton, Ont., 28th January 1876, for 5 years.

Claim.—The construction and arrangement of the bolt A, with two flat sides D, D, in combination with a corresponding washer C, provided with openings E1, to fit the bolt.

No. 5620. Advertising Device. *(Système d'annonce.)*

Myron E. Dow, Manchester, N. H., U. S., 28th January, 1876, for 5 years.

Claim.—The combination of a hand bill with a medical plaster or adhesive paper.

No. 5621. Refrigerator. *(Réfrigérant.)*

James H. Wickes, New-York, U. S., 28th January, 1876, for 5 years.

Claim.—1st. The combination with a provision chamber of a self-feeding base melting ice reservoir provided with openings at or near its bottom and extending around its circumference, the air to be cooled to be brought in contact with the ice at or near the bottom of the ice reservoir. 2nd The combination with a self-feeding base melting ice reservoir of an air distributor situated within said ice reservoir and connected to an air forcing apparatus; 3rd. The combination with a hermetically closed provision chamber of an ice reservoir situated within said provision chamber, an air distributor situated within the ice reservoir, a system of pipes arranged within the provision chamber and an air forcing and suction apparatus connected to the air distributor and to the system of pipes.

No. 5622. Life-preserving Stool.

(Banc de sauvetage.)

Henry H. Nash, Baltimore, Md., U. S., 28th January, 1876, for 5 years.

Claim.—A life-preserving stool or chair having a seat made of disks of cork, confined between suitable boards.

No. 5623. Bed-bottom. *(Fond de lit.)*

Frederick Schorn and John Kulow, Petersburg, Ont., 28th January, 1876, for 5 years.

Claim.—1st. The frame A, A, A, A, pulleys B, B, B, also spring C, or springs or other elastic substance in combination with the rope D, D, 2nd. The winding apparatus.

No. 5624. Drum Heater. *(Poêle-sourd.)*

William P. Buckbee, Smithville, Ont., 28th January, 1876, for 5 years.

Claim.—A drum stove having the central pipe C, and heads A, B, the vertical pipes E, entering the periphery of the heads A, B, horizontally by a curve or elbow.

No. 5625. Boot and Shoe Nail.

(Clou de chaussures.)

Howard T. Marshall, Brockton, Mass., U. S., 28th January, for 5 years.

Claim.—1st. The nail having two opposite flat sides *a*, *b*, a corrugated or intended edge *c*, tapering and clinching end *f*; 2nd. A nail having two opposite flat sides *a*, *b* with an edge *c*, which tapers along the length of the nail and an edge *c*, which is corrugated and an enlarged head *g*; 3rd. A nail made from a flat metallic strip and having the tapering wedge-shaped head *g* edge corrugation *c*, and clinching point *f*.

No. 5626. Stove-pipe Elbow.

(Coude de tuyau de poele.)

Andreas Syversen, Chicago, Ill., U. S., 28th January, 1876, for 5 years.

Claim.—The curved stove-pipe elbow consisting of two curved pieces of pipe A, B, connected together by the joint C, so as to be adjustable upon each other.

No. 5627. Improvement on Hydrants.

(Perfectionnement des bornes-fontaines.)

Christian F. Rapp, Cincinnati, Ohio, U. S., 28th January, 1876, for 5 years.

Claim.—1st. In combination with water main A, the supply pipe B, governed by valve *b*, of any desired construction, and branch pipes B^1, B^2, 2nd. In combination with supply pipes B^1, B^2, the depressed elbows D, connected by joint waste cock; 3rd. The plug C, having apertures *c*, c^1, disc E, e^1, e^{11}, pinion *e*, and face plate F, *f*, f^1; 4th. In combination with disc E, e^1, e^{11}, e^{111}, of plug C, and pinion *e*, the spring stop f^{11}, of face plate F, 5th. In connection with disc E, e^1, e^2, of plug C, the double index hand G.

No. 5628. Improvement on Hydrants.

(Perfectionnement des bornes-fontaines.)

Christian F. Rapp, Cincinnati, Ohio, U. S., 28th January, 1876, for 5 years.

Claim.—As an improvement in hydrants for preventing the freezing up in winter, the combination of supply pipe B, with a three way cock C, and exit pipe B^2, and with a second three way cock D, and issuing pipe B^1, pump connecting pipe E, and pump E, the whole arrangement to admit of the forcing out of the water from the pipes exposed to freezing.

No. 5629. Bottle Stopper. *(Bouchon de bouteille.)*

Charles de Quillfeldt, New-York, U. S., 28th January, 1876, for 5 years.

Claim.—1st. The bottle stopping device composed of a pivoted lever frame applied to neck of bottle, with eccentrically hinged yoke carrying the elastic stopper and cap piece; 2nd. The elastic stopper hung by its perforated stem or shank to the upper part of hinged yoke in combination with the yoke and a sleeve shaped cap piece placed over the stopper below the yoke; 3rd. An elastic stopper made of a disk shaped base part and central stem or shank perforated near the upper end; 4th. A flanged and sleeve-shaped cap piece provided with projecting guard lugs at both sides of the projecting head or end of the shank of the stopper.

No. 5630. Improvements in Plastering.

(Perfectionnements dans le plâtrage.)

Smith Thomson, Malvern, Ont., 31st January, 1876, for 5 years.

Claim.—The tool D, for forming a dovetail groove to receive plaster therein.

No. 5631. Combined Fireman's Ladder and Fire-escape. *(Echelle de pompier et de sauvetage combinés.)*

David Sanford, Ashton, Ill., U. S., 31st January, 1876, for 5 years.

Claim.—1st. The combination of a coiled spring with the windlass of an extension ladder to counter-balance the weight of the ladder; 2nd. The swinging ladder S, sliding extension T, and ropes V, combined and arranged with an extension ladder; 3rd. The combination of braces C^1, ratchets D^1, and catch pawls E^1, with the ladder; 4th. The combination of the inclined bars J^1, of the wheeled frame, and the hollow ladder A, pivoted between the said bars and at the angle thereof by means of a gimbal coupling K^1, L^1; 5th. The combination of the chain M^1, spur wheel N^1, and crank shaft O^1, with the ladder A, gimbal K^1, L^1, and carriage frame I^1, J^1; 6th. The combination of the chains S^1, levers T^1, and ratchet bars U^1, with the ladder A, the gimbal K^1, L^1 and the carriage frame I^1, J^1; 7th. The combination of the swivelled brace V^1, and the chain W^1, with the carriage G^1, H^1, I^1, J^1, of the pivoted ladder A.

No. 5632. Fruit Gatherer. *(Cueilleuse de fruits.)*

Henry Varner, Montreal, Que., 31st January, 1876, for 5 years.

Claim.—The stem A, in combination with the base B, and the upright pins C.

No. 5633. Machine for Digging and Picking Potatoes. *(Machine à arracher et ramasser les patates.)*

Edward Bartlett, Renfrew, Ont., 31st January, 1876, for 5 years.

Claim.—1st. The disposition of the cylindrical screen behind the driving wheels, also the manner of supporting the cylindrical screen from the front or end next the draft by means of a bracket or support; 2nd. The supporting of the cylindrical screen from the front or end next the draft, independent of the outside frame R, or other support; 3rd. The construction of the picking boxes for holding the potatoes and stands P, P; 4th. The construction of the adjustable spout 4, 4, with lever J, and the combination of lever J, with swinging board Z; 5th. The combination of the adjustable spout with picking boxes S, S, and lever J, table P, P, and spokes or spindle T, and adjustable box *li*, with chain pulley *w*, and wheel *m*, and the combination of the whole picking apparatus.

No. 5634. Improvements on Breast Irons.

(Perfectionnements aux ferrures de reculement de harnais.)

Benjamin Hickox and Charles Hickox, Brantford, Ont., 31st January, 1876, for 5 years.

Claim.—The combination of the two snaps C, and D, tongues E, and F, and spring G, in the retaining groove H, to form the breast iron A.

No. 5635. Improvements on Hoyt's Waggon Body and Hay Rack.

(Perfectionnements à la voiture charriot a foin dit "de Hoyt.")

Porter Williams, Detroit, Mich., U. S., 31st January, 1876, for 5 year.

Claim.—1st. The centre board C, with its contrivances for being made fast and fitted between the bars designed for Hoyt's hay rack and used in combination therewith; 2nd. The end boards *m*, and m^1, made of a height corresponding to the hay rack sides used vertically or of any convenient height in combination with said sides and with the contrivances *o*, o_1, and *p*, p_1, for the purpose of locking the same together and making the whole fast, 3rd. The pivot or bolt *l*, used in combination with standard Q, Q_1, for the purpose of bringing the same to a horizontal position from a vertical, 4th. The contrivance *o*, o_1, socket and lugs *p*, *p*, acting together and used in combination with Hoyt's waggon body and hay rack.

No. 5636. Improvements on Wheel Harrows.

(Perfectionnements aux herses à disques.)

Frank Brainer, Little-Falls, N. Y., U. S., 31st January, 1876, for 5 years.

Claim.—In combination with a gang or series of rotating harrow-disks, the clearers or scrapers united to a reciprocating bar, adapting them to be operated simultaneously by means of a lever.

No. 5637. Machine for Rounding and Straightening Rods.

(Machine à arrondir et redresser les tiges.)

Francis S. Malloch, Brockville, Ont., (Assignee of J. S. Seaman), 2nd February, 1876, for 5 years.

Claim.—1st. A pair of grooved or collared rolls D, D^1, one inclined in combination with a rest roll D_2, 2nd. In combination with the several rolls D, D^1, D^2, the collars *a*, a^1, arranged opposite each other on the rounding and straightening rolls, and the collars *c*, on the rest roll, the collars last named being arranged opposite the groove of the main rolls, 3rd. A machine which rounds or straightens while the bar, rod or tube operated on moves along in the direction of the length of the roll surface, a roll slightly hollowed or dish-shaped in the direction of its length as an element in the combination of two rolls and a rest.

No. 5638. Combination and Burglar-Proof Lock. *(Serrure à combinaison et à l'epreuve des voleurs.)*

Lawrence Gaffney and James Gaffney, Osgoode, Ont., and Michael Laughlin, Mountain, Ont., 2nd February, 1876, for 5 years.

Claim.—1st. The combination of the bolts E and F, and their springs K, with the star wheel *w*, and its spring L; 2nd. The combination of the tumbler B, composed of the washers *a*, *d*, *i*, *l*, *n*, *r*, *u*, their cuts *e*, *j*, *k*, *o*, *p*, *v*, their openings *m*, *q*, *s*, *t*, and their countersunk *f*, *g*, *h*, and the star wheel *w* with a combination lock A; 3rd. With a combination-lock A, the combination of the gang R, and its dowel P, spring O, hammer Q, slot T, and pin S.

No. 5639. Shirt Front. *(Devant de chemise.)*

Alexander J. Millikin, Smith's Falls, Ont., 5th February, 1876, for 5 years.

Claim.—1st. A shirt front A, provided with the side pieces B, and having an elastic strap C, to connect therewith; 2nd A shirt front provided with the button piece D having connection with an elastic strap E, for attachment to a bottom on the drawers or pants of the wearer.

No. 5640. Side Plaiter. *(Plisseur de côté.)*

Calvin E. Carpenter Syracuse, N. Y., U. S., 5th February, 1876, for 5 years.

Claim.—In combination with a plaiting frame having spaced side bearings *a*, of the parallel plaiting needles *b*.

No. 5641. Improvements on Injectors and Ejectors.

(Perfectionnements aux injecteurs et ejecteurs.)

George H. Little, Peabody, Mass., U. S., 5th February, 1876, for 5 years.

Claim.—1st. The inner steam tube C, having the small outlet E, and the side outlets *c*, c_1, in combination with outer tube D, the one tube being adjustable relatively to the other and whereby when the tubes are seated together the letting on of steam will draft water without moving any of the parts, and the unseating of these tubes from each other will force the drafted water into the boiler; 2nd. In combination with the inner steam tube c, the outer tube D the regulating nut or nuts, the over flow-cock having a full sized opening, the over flow chamber straight or tapering and the outlet I, straight or of increasing size; 3rd. The combination with the outer case or shell of an injector of two inner tubes, one within the other.

No. 5642. Nail Cutting Machine.

(Machine à tailler le clou.)

Charles A. Shaw, Boston, Mass., U. S., (Assignee of W. Wickersham) 5th February, 1876, for 5 years.

Claim.—1st. The double cutter stock made of one single lasting having a space for the nails to fall through with one or more ribs connecting the two sides to each other and constructed to hold a series of cutters on each side; 2nd. The two single cutter stocks, each holding a series of cutters, In combination with the double cutter stock holding two series of cutters; 3rd. The combination of a single cutter stock and a series of cutters thereon, and a double cutter stock and two series of cutters thereon with mechanism for holding the single cutter stock in a state of rest while the cutting is done and to raise it out of the way at other times; 4th. A feed screw constructed to work in notches in the edge of the nail sheet with threads inclined part of the way round, and the other part of said threads straight to feed the sheet down by the inclined part of the threads while the sheet is disengaged from the cutters, and by the straight part of the threads to hold the sheet at rest while the cutters are doing their work, 5th. The cutters G, G1, having space e_3, and adjoining spur in combination with the feed screw S, by means of which the nail sheet can be, and is fed down to the operative cutting edges of the said cutter, thereby preventing waste at the last edge of the sheet; 6th. A feed screw constructed with teeth by means of which notches are cut in the edge of the nail sheet, the screw at the same time feeding the sheet towards the cutters by means of the notches thus cut; 7th. A supply rack b_1, having grooves in its sides and spaces through the bottom for the nail sheet to pass arranged on or support over the machine with a space or slot o_2, through which the nail sheets can pass from the rack to the cutters combined with mechanism by which said rack can be intermittently moved along successfully delivering the nail sheets therein contained to the cutters through the slot o_2; 8th the device for moving the rack in such manner as to deliver each sheet in it successively into the nail machine, as it is cut into nails, consisting of the hook x and the vibrating arm y_2, in combination with the spring z, so that the hook will be moved with a positive motion in the direction, the rack is to move but by a yielding motion in the opposite direction so that when a sheet is passing down it will limit the motion of said hook in the direction of the sheet and so that when the sheet has passed down out of the way said hook will pass back to another notch o_1, and at the next forward movement will move the rack far enough for the delivery of another sheet; 9th. The thimble screw M, in combination with the screw L, the wedge K, the cutters F, and the cutter stock B, therewith connected as set forth; 10th. The side cutter e_3, to trim the notched edges from the sheet in combination with the feed screw S.

No. 5643. Machine for Making Brush Handles.

(Machine à faire les manches des brosses.)

John L. Whiting, Boston, Mass., U. S., 5th February, 1876, for 5 years.

Claim.—1st. In combination with the rotary shaft b, with its circular saws c, c, c, the rotary shaft d, with its mills or cutters e, e, e, and a holding mechanism for the handle; 2nd. The clamping device consisting of the clamps g, g_1, fulcrums h, h^1, racks i, i_1, and the screw shaft l, with its right and left handed screws k, k_1; 3rd. In combination with the rotary saws c, c, c, the rotary mills or cutters e, e, e, the clamps g, g_1, head stock m, oscillating bed n, plate n_2, frame p, and guide g, with its regulating screw g_1.

No. 5644. Machine for Sewing Hosiery.

(Machine à coudre la bonneterie.)

William Pearson, Philadelphia, Pa., U. S., 5th February, 1876, for 5 years.

Claim.—1st. The cam G, combined with the looper and needle operating mechanism, 2nd. The rack bar N, combined with points N_5, and plates N_3, constructed to clamp said points; 3rd. The hooked or barbed looper P, with a latch P_1, in combination with the guide P_3, and needle K_2,; 4th. The compound adjustable cam O_2, lever O_1, pawl O, and rack N, combined with the double cam G, and adjustable screw H_1, to change and control the stitch; 5th. The bed plate adapted to guide through and discharge the rack bars N.

No. 5645. Lamp Holding Attachment for Sewing Machines.

(Appareil porte-lampe pour les machines à coudre.)

William Vassie, Hamilton, Ont., 5th February, 1876, for 5 years.

Claim.—The clamp b, adjusted by the screw d, in combination with the sliding hollow pillar a, and thumb screw e, for adjusting and holding a bracket and clamp for [illegible]ing machines.

No. 5646. Wire Baling Tie.

(Cercle d'emballage en fil métallique.)

Peter K. Dederick, Albany, N. Y., U. S., 5th February, 1876, for 5 years.

Claim.—1st. A wire band or tie constructed with a loop or eye at one end and a double point or locking end at the other; 2nd. The combination of the double locking end B, and loop C, with the lock or fastening.

No. 5647. Road Scraper. *(Eboucur de chemin.)*

William J. Nichols, Maywood, Ill., U. S., 5th February, 1876, for 5 years.

Claim.—1st. The combination of the draft bate D, and the scraper-bed attached together by a hinged or pivotal joint, 2nd. The chain or other like connection m, applied between the draft pole C, and the rear part of the hinged scraper bed; 3rd. The lever F, in combination with the chain m, whereby the gathered load of earth may be allowed to depress the rear of the scraper and throw the working blade d, out of the ground, 4th. A root cutter K, in combination with the scraping blade d.

No. 5648. Mica Lamp Chimney.

(Cheminée de lampe en mica.)

Edward D. Wright and Charles H. Kenney, Springfield, Vt., U. S., 5th February, 1876, for 5 years.

Claim.—1st. The novel combination of the base a, the guides or keepers b, b_1, and the separate sheets of mica e, e_1, 2nd The oblong opening d, in the base a, the guides or keepers b, b^1, and the oblong mica light transmitter.

No. 5649. Glove Fastener. *(Agrafe de gant.)*

Frank G. Farnham, Hawley, Pa., U. S., 5th February, 1876, for 5 years.

Claim. The combination of the double spring key D, having the middle depression K, with a hasp A, and staple B.

No. 5650. Nut Lock and Washer.

(Ecrou et rondelle à bride.)

Cady Corby, London, Ont., 5th February, 1876, for 5 years.

Claim.—A combined nut lock and washer consisting of the plate A, locking device D, and joint or sleeve E.

No. 5651. Chair Base. *(Pied de chaise.)*

William T. Doremus, New-York, U. S., 5th February, 1876 for 5 years

Claim.—1st. The socket A, provided with a plate or flange B, cast solid therewith and having angular recesses formed upon its under side to receive the angular upper sides of the legs C, 2nd. The combination of the bottom flange or plate D, with the socket A, the top plate or flange B, and the legs C, whether the said plate D, be made solid with or separate from the said socket A, and flange B; 3rd. The ribs or braces b_1, placed [illegible] the angle between the socket A, and the flange or plate B, and cast solid therewith

No. 5652. Grain-Drill and Seeding Machine.

(Semoir-traceur à grain.)

Charles E. Patric, Springfield, Ohio, U. S., 5th February, 1876, for 5 years.

Claim.—1st. The lifting roller-lever F, provided with the tipper foot in combination with latch or pawl d^1, 2nd. Eccentric lifting roller arm e in combination with the pivoted cam-hook g, for throwing the distributor wheel shaft into and out of action, 3rd. The pivoted cam-hook g, and link h^1 in combination with the lever h_2, to which the intermediate transmitting gear wheel H_1, is secured; 4th. The lifting roller E, connected with the eccentric arms e, e^1, in advance of their pivoted centre whereby a backward thrust is given to the lifting-lever in raising the drill teeth, 5th. The forked lever G in combination with the changeable grass seed hopper for actuating the grass seed agitator slide, either in front or rear of the grain box. 6th The stirrers r, made in staple or stirrup form, and combined in pairs with the reciprocating agitator slide, 7th. The slide S, provided with the series of perforations s for discharging the grass seed and with the indicator perforations s_2, arranged outside of the hopper; 8th. The eccentrically pivoted bars L, L1, to which the drag bars D, are connected in combination with the hook braces l and perforated retaining plate l_1; 9th. A pivoted gauge or valve arranged to operate within the channel of a vertically distributing wheel and made adjustable to regulate the size and capacity of the measuring-channel, 10th. The pivoted plates I, arranged within the channels of the vertical distributing wheels and made adjustable toward and away from the flanges periphery of said wheels for varying the size and capacity of the measuring channels; 12th The several adjusting plates I, arranged within the measuring channels and connected with the single rock shaft by means of crank arms, whereby their simultaneous adjustment is effected.

No. 5653. Cider Mill. *(Moulin à cidre.)*

Enos Curtis, Findley, Ohio, U. S., 5th February, 1876, for 5 years.

Claim.—1st. The inclined rollers E, geared together so as to revolve toward each other, and forming a trough, down which the cider runs to the receiver, 2nd. The inclined rollers E, in combination with the shafts D cog wheels M, handle P, and spout H; 3rd. The combination of the inclined rollers E, and their shafts D, with the frame A, toothed drum F, hopper I pinion B, driving wheel K, handle P, cog wheels M, scraper N, and spout H

No. 5654. Hand Blower. *(Soufflet à main.)*

Herménégilde Préfontaine, Montreal, Que., 5th February, 1876, for 5 years.

Claim.—1st. In combination with the shell of any fan blowers, the standard B, either made in one with one half of the shell or mounted upon it, and serving as bearings for the spindles of the mechanism, 2nd. In any fan blower the arrangement on the hub of the shaft and made in one with it, of an annular disc or web P, carrying the fans N, mounted or not on concentric ring P_1.

No. 5655. Machine for Cutting Boiler Plate.

(Machine à couper la tôle forte.)

Ebenezer Fisher, Kincardine, Ont., 5th February, 1876, for 5 years.

Claim.—1st. The combination of the movable cutter A, to the stationary cutter B for cutter Boiler Plate bevel edge by allowing it to lay horizontally 2nd. The combination of the figure F, and stay yard G, for tilting up the machine behind and adjusting screw I, for adjusting plate.

No. 5656. Improvements on Steam Engines.

(Perfectionnements aux machines à vapeur.)

Samuel Warrick, Montreal, Que., 5th February, 1876, for 5 years.

Claim.—1st. The combination of the eccentric disc A, the steam piston and the vibrating cylinder or steam box F, 2nd. The combination of the slot S, in the eccentric disc A, the arm Q, and pin R, 3rd The combination of the shifting eccentric O, cranked lever V, fulcrum W, sliding sleeve Y loose collar and projecting pins Z, Z^1, 4th. The combination of the cut off eccentric yoke e, and the yoked valve spindle f_1; 5th. The combination of the steam chest j, hollow trunnion I, and faucet m.

No. 5657. Hydro-carbon Burner and Gas Generator.

(Appareil consumant les hydro-carbures et utilisant les gaz.)

Alvah J. Griffin, Lowell, Mass., U. S., 5th February, 1876, for 5 years

Claim.—1st. The retort having the transverse partitions b, b^2, b_4, of its chambers arranged relatively to the longitudinal partitions a b 2nd The combination of the retort A, and its pipe I, with the tuyaninous steam pipe

H, and the vapour and gas pipes K, coiled around the sides and ends of the retort so as to be exposed to the flame of the combined jets of steam and vaporized or gasified hydro-carbon when the apparatus may be in operation; 3rd. The apparatus composed of the partitioned and chambered retort, its induction and eduction pipes and burner.

No. 5658. Improvement on Lubricators.

(Perfectionnements aux graisseurs.)

Nicholas Seibert, San Francisco, Cal., U. S., 5th February, 1876, for 5 years.

Claim — In combination with a lubricator, the auxiliary pipe E.

No. 5659. Carpet Sweeper. (*Balayeur de tapis.*)

Joseph J. Hathinger, Hyde Park, Mass., U. S., 5th February, 1876, for 5 years.

Claim.—1st. The caps or bushings *k*, having the projections *l*, flanges k_1, and orifices for the reception of the journals *e*, *f*, in combination with the brush B, 2nd. In combination with the rotary brush B, the journal *f*, threaded at its inner end and having the pulley *j*; 3rd. The combination of the rotary brush B, and the removable journals *e*, *f*; 4th The bent rod or bail c having the socket *n*, and arm *s*, s^1, in combination with the handle *m*, shaft *g*, and box or casing A.

No. 5660. Apparatus for making Brushes.

(Appareil pour faire les brosses.)

John L. Whiting, Boston, Mass., U. S., 5th. February, 1876, for 5 years.

Claim.—1st. The combination of the clamps *a*, a_1, with one or more grooves *b*, b_1, having projections *c*, *c*, and recesses *d*, *d*, on each side; 2nd. In combination with the grooved clamps *a*, a_1, the adjustable perforated plate *e*, 3rd. In combination with the brush handle *l*, and its annular shoulder *m*, the hollow driving tool *o*.

No. 5661. Improvements on Hand-saws.

(Perfectionnements aux égohines.)

Henry Disston, Philadelphia, Pa., U. S., 5th February, 1876, for 5 years.

Claim.—1st. A hand saw in which a portion of the butt of the blade is made in the arc of a circle corresponding or nearly so with a slot of similar form made in the handle; 2nd. The termination *x*, of the slot in the handle adapted to a shoulder on the saw. 3rd. The combination of the segmental end of the blade and the segmental slot in the handle with the tapering bolts *a*, for wedging the blade to the handle.

No. 5662. Self-acting Car-Coupler.

(Attelage automatique de wagons.)

William Dunn, St Marys, Ont., 8th February, 1876, for 5 years.

Claim.—1st. The combination of the rods H, and H_1, chains G, G_1 and G_2, friction pulley E, and bracket F, crank arm D_1, shaft D_2, and wiper D, with the pivoted hook bar C; 2nd. The spring friction blocks I, I, in combination with the pivoted hook bar C, 3rd The shoulders a^2, cast at the end of the link chamber for the purpose of preventing the link passing too far into the draw-head; 4th. The pivoted hook bar C, finished with the square front face C^1, above the hook C^2, and provided with the projecting lip *c*, in combination with the draw head A, having the front end of the slot A, finished with a perpendicular face and recess to correspond to the end of the hook bar.

No. 5663. Hoisting Apparatus. (*Elevateur.*)

Andrew Leitch, Hamilton, Ont., 8th February, 1876, for 5 years.

Claim.—1st. In combination with a hoisting apparatus the sliding bar H, and provided with slots *a*, *a* friction sheaves I, I, to act in combination with the pulleys G, G, G_1, G_2, and rope C, said pulleys being connected with a cross belt or gearing for the purpose of gripping the rope C, between pulleys or sheaves I, I, and G_2, G_2, alternately on raising or lowering the cage, and also to operate the brake S; 2nd In combination with the sliding bar H, the double sheave J, with crank C, and pin C_1, through the slot *y*, of the lever K operated by the chain O, through the medium rod L_1 for moving the said sliding bar H, and sheaves I, I, and removing the brake S, off the wheel D, also the T-shaped lever K, provided with a slot *y*, and chain *e*, attached to the brake rod e^1, 3rd. In combination with a hoisting apparatus the pawl levers R, R, pivoted at *f*, *f*, provided with slots *as*, for the bolt *h*, to pass through the springs *g*, *g*, attached to said lever, and placed in the recesses C_3 of the cross head Q, to press the outer ends of the levers R, into the ratchets in event of the breaking of the rope J, 4th. In combination with a hoisting apparatus the waived groove S, in the wheel D, and the waived groove x^1, in the wheel U, to grip the ropes without wear; 5th. In combination with a hoisting apparatus the internal gear wheel and sheave U, combined with waived groove x_1, and friction rollers *w*, in the hub of said wheel; 6th. In combination with the internal gear U, the pinion u_1, on the shaft T_2, and the cog wheel u^{11}, on the shaft V_2; 7th. In combination with a hoisting apparatus the recess a^{11}, in the casting F, for holding the sliding bar H.

No. 5664. Automatic Nail Assorter.

(Assortisseur automatique du clou.)

John Coyne, Pittsburgh, Pa., U. S., 8th February, 1876, for 15 years.

Claim—1st. A nail assorting spout having both of its inclined side plates adjustable upon their braces; 2nd. The longitudinal brace *c*, having a turned up end c_1, and guard *h*, in combination with the brace a^2, to protect the assorter; 3rd. The rod *d*, in combination with the crook m_1, and assorter *a*; 4th The spring *m*, crook m_1, and arm *p*, in combination with the heading lever *q*, of the nail machine; 5th. Communicating to an inclined slotted nail assorter, a vibratory or tremulous agitation; 6th The combination of the screw *r*, and the assorter, for regulating the vibration; 7th. An inclined slotted nail assorter adjustably attached to the nail machine; 8th. In combination with a nail assorter, a receiver interposed between the nail machine and assorter.

No. 5665. Stone and Stump Extractor.

(Extracteur pour les pierres et les souches.)

Thomas Jones, Frost-Village, Que., 8th February, 1876, for 5 years.

Claim.—1st. The combination of the double bar *a*, rod b_1, rack teeth k, k_1, and pawl c, 2nd The rod b_1, having lever k, with pins i, i_1, attached thereto, and pawl *c*, attached thereto, in combination with rack bar *a*, 3rd. The combination of the pins i, i_1, with rack teeth k, k_1, and pawl *c*.

No. 5666. Wood Bending Machine.

(Machine à plier les bois.)

Edward A. Gillett, Boston, Mass., and Oscar S. Gillett, Buffalo, N.Y., U. S., (Assignees of S. R. Bailey), 8th February, 1876, for 5 years.

Claim.—1st. A central former about one or both sides of which the body of a shaft is bent, and in connection with one or both sides of such former a lesser former against or about which the ends of the shaft are bent, means being provided for confining the shaft or shafts to the apparatus until set, 2nd. Means for clamping the ends of the shafts, one means for effecting the same being seen in the cars D, and adjustable plate *f*, 3rd In combination with the central former A, and each flexible strap *b*, a latch or lock of suitable character for retaining the wood in close contact with the said former until set, 4th. In combination with the central former A, end formers G and straps *b*, a suitable means for expanding the said straps bending the wood about said formers and retaining them in this position until the wood is set, 5th. A means of expanding the strap *b*, and bending the wood about the former G, in the screw rod F, and cross heads E, or E_1 operating with the ears D, 6th. A means of confining the body of the shaft to the former A, in the toggle jointed levers I, operating in connection with the adjustable stops *n*.

No. 5667. Hat and Coat Hook.

(Crochet de por manteau.)

Cyrus Kinney, Ingersoll, Ont., 8th February, 1876, for 5 years.

Claim.—1st. The rod A, holder B, and foot C, 2nd. In combination with the rod A, and holder B, one or more hooks D, D_1, cast with the rod A, or otherwise rigidly attached thereto, 3rd The combination with the rod A, and holder B, of one or more movable hooks D, D_1, with collar E, and back-plate F.

No. 5668. Improvements on Neck-ties.

(Perfectionnements aux cravates.)

George G Struhar, Philadelphia, Pa., U. S., 8th February, 1876, for 5 years

Claim.—1st. A neck tie formed of strips or straps of textile material united and secured to each other, and to the supporting shield at points top and bottom by means of a single metallic clasp at each point, and common to the fabric and shield; 2nd. A neck-tie or bow formed by cementing its folds to each other by interposing between them a strip or quantity of india rubber, gutta percha or any other adhesive material and then subjecting them to the action of heat or pressure in combination with clasps for holding together the several parts of the body and the shield or supporting plate.

No. 5669. Improvements on Harrows.

(Perfectionnements aux herses.)

Henry Meili, Yellow Stone, Wis., U. S., 8th February, 1876, for 5 years.

Claim.—1st. The combination of the lock and guard bars E, E, with the central beams A, A, toothed pivoted bars C, and connecting bars D, D, said bars E, E, being pivoted to the beam A, A, near their front or draft ends, and connected with the bars C, 2nd. A folding harrow constructed of hinged central bars A, with curved draft pieces B, parallel swinging toothed bars C, connecting pivoted top and bottom bars D, and adjustable front lock bars E.

No. 5670. A Floating Draw-bridge.

(Un pont-volant.)

Henry H. Gorringe, Washington, D. C., U. S., 8th February, 1876, for 5 years.

Claim. — 1st. A number of floats of suitable dimensions and construction secured in pairs or singly to pivots screwed or driven into the river bed and moved to anchors placed in suitable positions in the river bed so that they will form a continuous roadway across a river or other navigable water, and open at any or all points to permit the free passage of vessels without confining them to one draw-opening, or any particular channel or locality; 2nd. The floating approach or hull X_1, provided with an inclined or angular bottom K and an inclined or angular end I, either or both; 3rd. In combination with the crutch or bearing E, C, the chain W, secured to the pivot P, and eyebolt F, or reeved through a sheave and secured on the deck of the float X; 4th. In combination with the float X, pivots P, anchors A, chains C, the end float X_2, and the bearing and chain E, C, and W.

No. 5671. Machine for Jointing and Dressing Circular Saws.

(Machine à ajuster et affûter les scies circulaires.)

William Potter, Boonville, N. Y., U. S., 8th. February, 1876, for 5 years.

Claim.—The slotted frame A, having the two arms provided with clamps and openings to receive and hold the saw shaft in combination with the moving frame E, and the screw F.

No. 5672. Churn Power. (*Moteur de baratte.*)

Mathew Hantley and George Oliver, London, Ont., 8th February, 1876, for 5 years.

Claim.—The arrangement of driving wheel B, band or chain E, pulley wheel F, rod H, beam J, frame A, and uprights K, K, in combination with the dash-stick L, and churn M.

No. 5673. Process for the Manufacture of Steel. (*Procédé de fabrication de l'acier.*)

John W. Hoxie, Florence, Mass., U. S., 8th February, 1876, for 5 years.

Claim.—In the process of converting iron castings into steel, the use of pulverised waste, containing a large proportion of magnetic oxide of iron, obtained from the ore of emery or other mineral veins as a packing for imbedding the iron in a heated retort during conversion.

No. 5674. Manufacture of Brooms and Whisks out of Broom Corn.

(Fabrication des balais et époussettes de houque.)

John Ewing, Burlington, and Jackson Forde, Brantford, Ont., 8th February, 1876, for 5 years.

Claim.—1st. The adjustable metallic or iron head on the wood handle; 2nd. The metallic or iron band for holding the broom corn or brush; 3rd. The application of grooves or slots on the metallic or iron band in which the head A, is adjusted and held by stops or shoulders C, C, for the purpose of holding the two parts of said broom or whisk together by the aid of said stops and shoulders C, C; 4th. The wedge glue and cement or any one or more of these for fastening or holding the said broom corn or brush in the said band E.

No. 5675. Steam Candy Heater.

(Etuve à candi.)

Bernhard Stern and Herman Stern, Chattanooga, Ten., U. S., 8th February, 1876, for 5 years.

Claim.—The combination of the furnace *f*, the reservoir *g*, on top of the same, the heating plate *a*, end plate *h*, curved plate *b*, and the pipes *c*, *d*, *e*.

No. 5676. Threshing Machine Cylinder.

(Cylindre de machine à battre.)

John Brown and Robert Muir, (Assignees of D. Smith), Woodbridge, Ont., 10th February, 1876, for 5 years.

Claim.—A threshing machine cylinder in which the teeth E, are affixed into spirally arranged bars D.

No. 5677. Horse-shoe Nail Finishing Machine.

(Machine à finir le clou à cheval.)

John B. Wells, Keeseville, N. Y., U. S., 10th February, 1876, for 5 years.

Claim.—1st. The dies t^1, having cutting edges w^1, arranged to act obliquely upon the blank nail whereby a bevelled edge is given to the point end of the nail, and the extreme point also bevelled off in combination with the bed die *t*; 2nd. The die g^2, pivoted as at d^2, at a considerable angle above the end of the die whereby the die g^2, not only compresses the point but draws it also, in combination with the die *u*; 3rd. The combination of the dies t^1, and bed die *t*, arranged to act obliquely with the dies g^2, and *u*, whereby the bevelled cut of the former compensates for the widening or enlargement caused by the latter; 4th. The revolving plate f^1, having openings or slots *i*, in combination with the fingers m^1, having lips p^1; 5th. The combination of the revolving plate f^1, and fingers m^1, for holding the nail blank throughout a portion of its circumference, with the three sets of dies *s*, s^1, *t*, t^1, and *u*, g^2; 6th. The combination of the plate f^1, fingers m^1, and cam q^1; 7th. The combination of revolving projection *i*, staple *x*, provided with openings x^1, whereby the dies t^1, are not only drawn up, tight upon the projection *i*, but are also drawn together, and dies t^1.

No. 5678. Railway-car for Transporting Live Cattle.

(Wagon de railroute pour le transport des bestiaux.)

Kennard Knott and Edward P. Bridges, London, Ont., 10th February, 1876, for 5 years.

Claim.—1st. The arrangement of sliding pannels A, A^1, barriers B, fixed partitions C, bales D, tye bar E, ropes or chains F, pulleys *f*, G, shaft G^1, and wheel H, 2nd. The arrangement of troughs I, spouts *m*, lever N, and quadrant O, 3rd. The arrangement of the bins J, and tank K, traps and covers L^1, with spring catches *l*, and points *p*, sloping bottom M, pipes P, P^1, couplings P^2, and flaps Q, 4th. The arrangement of slats R, R^1; 5th The arrangement of shaft S, and S^4, pulley S^1 and S^2, and band S^3, 6th. In combination with the above, the mixing wheel T, platforms T^1, and T^2, tanks U^1, and U^2, and pipe U^3, 7th. The arrangement in combination with the above of an elevator U, and receptacle or bin V, 8th. The arrangement on cars and tender of a tramway W^1, having the rails joined by alternate open ends W^3, and keys or bars W^2, 9th. In combination with the above trams, the truck W, having traction wheels W^4, flange rail and guide wheels W^5, hinged arm X, slide Y^1 and lever Y^2.

No. 5679. Improvements on Horse Rakes.

(Perfectionnements aux râteaux à cheval.)

Peter Patterson (Assignee of J. W. Fenwick), Patterson, Ont., 10th February, 1876, for 5 years.

Claim.—1st. Placing upon the inside of the hubs of the wheels I, I, which revolve upon the axle J, the clutches H, H, which are made to act as described for the purpose of dumping the rake. 2nd The tooth bar K, connected by the rods or chains *b*, *b*, to the levers E, E, or their equivalent, in combination with the spindles F, F, levers G, G, and clutches H, H; 3rd. The foot lever A, connected by the rod B, to the T-crank C, in combination with the push rods D, D, 4th. The lever L, connected to the quadrant N, by the toggle joint M, in combination with the tooth bar K, 5th The toe *a*, upon the foot lever A, in combination with the shoulder *k*, upon the hand lever L.

No. 5680. Improvements on Skates.

(Perfectionnements aux patins.)

Charles Brewster, Montreal, Que., 10th February, 1876, for 5 years,

Claim.—1st. The combination of the clasp *h* the screwed spindle *k*, plate *l*, having inclined slots *n*, and clasps *p*, 2nd The combination of the clasps *p*, plate *d* having slots *o*, bolts *s*, and *q*, and plate *l*, 3rd The combination of the spindle *k*, with clasp *h*, 4th. The combination of the spindle *k*, nut *m*, links *b*, and pivoted clasps *p*.

No. 5681. Machine for Catching and Killing Potato Bugs. *(Machine à capturer et tuer le doriphore.)*

Daniel Snider, Edgely, Ont., 10th February, 1876, for 5 years.

Claim.—The combination of the reel K, with the finger board B, projections A, and rollers C, C, arranged in combination with the frame E, and other parts connected therewith.

No. 5682. Fare Register. *(Régistre de billets de places.)*

Charles A. Shaw, Salem, Mass., U. S., (Assignee of W. Miller,) 11th February, 1876, for 5 years.

Claim.—1st. An alarm mechanism; 2nd. An alarm mechanism and a cash index mechanism, 3rd. An alarm mechanism, a cash index mechanism and a ticket index mechanism.

No. 5683. Liquid Meter. *(Hydromètre.)*

Alfred A. Post, New-York, U. S., (Assignee of H. S. Maxim) 12th February 1876, for 5 years.

Claim.—1st. A hollow shaft made lighter than the surrounding liquid and protected from filling with water, 2nd. A meter screw working with a square or other angular trunk; 3rd. The combination of the meter screw *p*, *q*, the square trunk *b*, and the wings *k*, to prevent a rotary movement of the water; 4th. The combination of the meter screw *p*, *q*, surrounding trunk *b*, and oblique perforation *c*, to cause jets upon the screw blades in any required lines; 5th. The combination of the meter screws *p*, *q*, trunk *b*, oblique perforations *c*, and a valve *e*, in a box or extension *d*, of the said trunk, 6th. The combination of the two part casing *a*, a^1, the trunk *b*, the horizontal partition flange b^2, and the induction and eduction ports *n*, *o*; 7th. The combination of the gear plate *i*, the downwardly projecting cylinder *j* and the radial wings *l*, with the trunk *b*, and meter screw *p*, *q*. 8th The combination and arrangement of the gearing frames or brackets *f*, *g*, *h*, with the transmitting gear; 9th. The combination of the shafts w^1, y^1, and arms *x*, *y*, for communicating motion from the transmitting gear to the registers. 10th. The combination of the shaft y^1, conical collar y^2, and spiral spring y^3, to exclude water from the dry bonnet *r*, 11th The screen plate *s* and a register gearing and dial mounted thereon in combination with the driving and transmitting apparatus of the meter.

No. 5684. Apparatus for the Ventilation of Railway Cars.

(Appareil de ventilation des voitures de railroutes.)

William J. M. Jones and John B. Burland, Montreal, Que., (Assignees of I. H. Winchell), 12th February, 1876, for 5 years.

Claim.—1st. In combination with the roof of any railway car and extending its whole length, the air chamber B, of any depth and width opened at both ends, and arranged in, under or over the roof, 2nd. The combination with the windows of any railway car of leaves or deflectors *E*, all moved upon simultaneously by a sliding rod F, and arranged so that when the forward deflector of each sash stands out at the proper angle, the rear one lies flat against the sash; 3rd. In combination with the window sash of any railway-car, the drop or ledge L, hinged to the lower bar of the sash; 4th. The device for operating the sliding rod F, consisting of lever K, working on pin fulcrum K^1, and moving collar I, 5th. The combination of the air chamber B, open at both ends, with the deflectors at the windows

No. 5685. Railway Switch. *(Aiguille de railroute.)*

Richard Dickson and James Worthington, Montreal, Que., 15th February 1876, for 5 years.

Claim.—1st. The combination of the moveable portion of the rails *a*, spring *e*, bell crank *h*, connections *s*, s^1, and *n*, levers *k*, and *l*, with moveable arms C^1; 2nd. The combination of the moveable portions of the rails *a*, catch *q*, stop *r*, levers *u*, and *y*; 3rd. The combination of the moveable portions of the rails *a*, spring *e*, catch *q*, stops *r*, and *g*.

No. 5686. Heel Trimming Machine.

(Machine à finir les talons.)

Alexander McDowell, Lawrence, Mass, U.S., 15th February, 1876, for 5 years.

Claim.—1st. The combination of the trimming knife and its support and the gauge or guard with the pattern plate of the machine to the contour of which the tread of the heel is to be reduced under such an arrangement that the guard automatically changes its position with respect to such plate and adapts itself to the changeable width of the heel edge, and a knife is provided whose cutting edge is always equal to or appropriate for such edge, 2nd. The combination of the guard or depth gauge and its support with the trimming knife under the arrangement shown, whereby the relative positions of the two are automatically changed as the knife describes its sweep about the heel edge, 3rd. The combination of the knife I stock or support E, and movable or adjustable carrier K, under the arrangement shown, that is with the carrier adjustable to and fro of the standard of such stock and of the knife, and embracing the upper end of the latter, and with the lower end of the knife, pivoted in a suitable manner to the base of such stock; 4th. Pivoting the stock E, to the carriage B, by means of the ears or cheeks F, F, or their equivalents, and the employment of a spring between the stock and carriage; 5th. The combination of the base plate A, and carriage B, under the arrangement described whereby the movement or adjustment of the latter upon the former is a double one that is the distance due to the spring H, and the bodily adjustment due to the screw rod D 6th. The combination of the stock E, carrier K, and set screw *f*, whereby interchangeable knifes of various forms may be employed, 7th. The combination with the stock E, and carrier K, of a series of interchangeable guards 8th. A guard or depth gauge adapted to serve as a guard or gauge and as a clamp plate to hold the trimming knife, in combination with a suitable support for the lower end of the knife, 9th. The method of applying the guard *o*, to the carrier K, and stock E, in the bar P, attached to the carrier by the pin and slot connection d^1, and the swivelling of the head of the bar to the carrier by the forked stud *n*, whereby the position of such guard with respect to the stock and carrier is automatically changed to accommodate the sliding movements of the guard upon the stock, 10th The combination with the base of the knife stock E, of a series of interchangeable clamp plate or abutments for securing the lower end of knives of various forms; 11th. The combination of the stock E, carriage B, and base plate A whereby a vertical and horizontal play or adjustability of the knife with respect to the heel plate is obtained; 12th. The knife stock consisting of the two plates A^2, C^2, clamped together by bolt K^2, and adjustable horizontally and vertically with respect to one another; 13th. The combination with plates A^2, C^2, and clamping bolt K^2, of the slotted bar D^2, feed screw G^2, and adjusting screw J^2; 14th. As a means of effecting the lateral adjustment of the knife blade in the block e^2, engaging the lower edge of such blade, and fed forward and back by the screws h^2, h^2, or their substitutes, 15th The means shown for adjusting the gauge or guard o^2, the same consisting of the block R^2, pivoted to the guard, and playing within a pocket in the clamp plate C^2

No. 5687. Improvements on Lubricating Compounds. (*Perfectionnements aux composés lubréfiants.*)

Henry Von P. Draper, Annibal, Mo., U. S., 15th February, 1876, for 5 years.

Claim.—1st. A lubricating compound composed of petroleum and lime water; 2nd. A lubricating compound composed of petroleum, lime-water and animal fat.

No. 5688. Improvements on Gang Ploughs.

(*Perfectionnements aux charrues à socs multiples.*)

Brooks W. Walton, Fergus, Ont., 15th February, 1876, for 5 years.

Claim—1st The plough standard C, having connection with the frame A, removably and adjustably to allow of an interchange of various sized ploughs and of any desired number; 2nd. The three sided frame A, constructed of L angle iron, and having plough standards bolted to the horizontal web; 3rd. The quadrant bar D, secured to the frame A, in combination with the lever F, arm G, bar I, and crank axle K; 4th. The concavo-convex steel mould boards L.

No. 5689. Tire Heating Apparatus.

(*Appareil de chauffage des bandages de roues.*)

Samuel G Reed and Albert H. Watkins, Wellesley, Mass., U. S., 15th February, 1876 for 5 years.

Claim.—1st. The novel combination of the hub *a*, a_1, telescopic gas pipes e, e_1, support *f*, gas jets *g*, g_1, and tire *h*; 2nd. The telescopic tubes *e*, e_1 with or without the packing *f*, in combination with the hub *a*; 3rd. The cluster of gas jets *g*, g_1, in combination with the telescopic tubes *e*, e_1, for the purpose of heating the internal surface of the tire, 4th. The cluster of gas jets *g*, g_1, in combination with the telescopic tubes *e*, e_1, for the purpose of externally applying heat to the tire.

No. 5690. Milking Stool. (*Banc pour traire le lait.*)

Benj A. Stearns, Pantucket, R. I., U. S., 15th February, 1876, for 5 years.

Claim—1st. The combination with the folding camp stool *a*, of the adjustable arm E adapted to support the milking pail, 2nd. The combination of the adjustable arm E provided with the slit and secured to the round C, by a cramp screw, of the support *g*, provided with the guard *f*, and the stool *a*.

No. 5691. Caster Wheel. (*Roulette de meuble.*)

William A. Perkins, Salem, Mass., U. S., 15th February, 1876, for 5 years.

Claim.—1st. The bevelled disks C, and J, having interposed between them the cone-shaped friction rollers H; 2nd. The loose guard frame E, interposed between the bevelled disks C and J, and rotating upon the centre pin D, independently of said disks, 3rd. The cone-shaped rollers H; 4th. A caster supported by the revolving disk C, in combination with the cone-shaped friction rollers H, the loose guard frame E, bevelled disk J, screw K, and the central pin D.

No. 5692. Clothes Line Stretching Roller.

(*Rouleau étendeur de corde à linge.*)

François Guénette, Montreal, Que., 15th February, 1876, for 5 years.

Résumé.—1o. La combinaison du rouleau A, posé libre sur son axe B, aussi libre dans la monture C; 2o. La combinaison de la monture C, avec charnière D, ayant une vis E, pour le gros bois ou une patte F, avec dents G, G, laquelle est posée avec vis H, pour le bois mince.

Claim.—1st The combination of roller A, adjusted so as to play easily on its axis as well as in the frame C, 2nd. The combination of the frame C, with hinge D, having a screw E, for thick boards or a cramp F, with teeth G, G which is secured with screws H, for thin boards.

No. 5693. Water Wheel. (*Roue Hydrulique.*)

Thomas Tait, Rochester, N. Y., U. S., 15th February, 1876, for 5 years.

Claim—1st The trapezium or lozenge shaped guides or cut offs C, constructed with the fixed plates *d*, swinging plates *f*, and jointed angle plates *g g* whereby the water ways *m*, are of regular wedge-shape under all degrees of opening, the narrow end of the wedge resting against the periphery of the wheel, so that the water under varying heads or under different degrees of opening, will be discharged directly in contact with the buckets and nearly at right angles thereto, 2d. The flange *p*, projecting from the periphery of the wheel B, at a point between the top and bottom of the wheel in combination with the ring M, set into the edge of the curbing on a line with the floor of the water way and projecting over the flange; 3rd. The combination with the cut off C, of the socket *h*, projecting up and resting in the curved slot *u*, and the pin *w*, resting in the socket.

No. 5694. Improvements in Skate Fastenings.

(*Perfectionnements dans l'ajustage des patins.*)

Edward L. Fenerty, Halifax, N. S., 15th Febauary, 1876, for 5 years.

Claim.—1st. The combination of the sole plate D^1, and heel plate E, with the rear standard H, and front standards K, fastening screw T, and skate iron M, M, 2nd. The combination of the lever A, having the disk L, on its rear upper surface to turn in the circular opening in the lower heel plate E, and the pivot screw P, screwing into the upper heel plate D, for moving and locking the front heel jaw C, lower heel-plate E, and skate iron M, M, in connection the upper heel plate D, E^1, E^2; 3rd. The combination of the lower heel plate E, and front heel jaw C, suitably file-cut with adjusting screw end, adjusting lever B, and upper heel plate D; 4th. The combination of the sole plate D_1, binding plate S^2, sole clamps D^2, and binding lever A^2.

No. 5695. Railroad Grain Car Door.

(*Porte de wagon à grain de railroute.*)

Robert Brydon, Newbury, Ont., 15th February, 1876, for 5 years.

Claim.—1st. The door E, placed within a frame formed by the bars D, D_1, horizontal bar G, block H, and top bar I, in combination with the side C of the car, 2nd. The hooks *e*, *e*, attached to the door E, in combination with the bar G.

No. 5696. Needle Machine. (*Machine à aiguilles.*)

Francis W. Mallett, New-Haven, Ct., U. S., 19th February, 1876, for 15 years.

Claim.—1st. The feeding device for needle and other machines consisting of the notched detachable plates combined with mechanism to impart a progressive movement to said plates; 2nd. In combination with the notched carrying plates, and a grinding cylinder, a pair of plates F, and C, one (or both of which) has a reciprocating movement; 3rd. The combination of the notched carrying plates, a grinding cylinder, a pair of plates F, and C, one (or both of which) has a reciprocating movement, and the adjustaly guide G; 4th. In combination with a pair of reciprocating plates F, and C, and a grinding cylinder, the transversing notched carrying plates and the adjustable pressure bar P.

No. 5697. Electro-magnetic Engine.

(*Machine électrique.*)

Charles A. Hussey, New York, U. S., 19th February, [illegible]6, for 15 years.

Claim.—1st. An electro-magnetic engine composed of outer stationary electro-magnets with radial arms and T-shaped ends, having alternately reversed polarities, and of a central revolving electro-magnet of correspond ing shape and double T shaped ends having a current of constant polarity; 2nd. The combination of the stationary electro-magnets with the revolving commutator and the adjustable insulated contact wheels for reversing the direction of the current and polarity of the outer magnets; 3rd. A commutator for reversing the current in the stationary magnets, being divided by a thin curved or angular insulating layer of hard into sections of alternating polarity; 4th. The stationary magnets having radial arms with T-shaped ends being arranged in alternating position so that the pole ends of one face the intermediate space between the pole ends of the other; 5th. The outer stationary magnets having widening pole ends of T-shaped at right angles to the arms; 6th. The central revolving magnet provided with widening pole ends of double T- shape at right angles to the radial arms of the same; 7th. The stationary and revolving magnets, having radial arms and widening pole ends whose face width is somewhat larger than the distance between two following pole extremities so as to lap over the pole ends across the intermediate space; 8th. The combination of the outer stationary electro-magnets with the central revolving magnet in such a manner that their pole ends face each other and pass parallel along side of each other in the same magnetic field.

No. 5698. Process for Fining and Cooling Lard in Cask for Transportation.

(*Procédé pour clarifier et refroidir le saindou en baril pour le transport.*)

Richard Bullymore, Buffalo, N.Y., U. S., 19th February, 1876, for 5 years.

Claim.—The manufacture of lard, the process of forcing a current of cold air through the liquid lard after it is filled into the barrel or cask for shipping or storing whereby the lard is thoroughly agitated while cooling and congealing thereby producing lard of fine and even grain.

No. 5699. Improvements in Scales.

(*Perfectionnements dans les balances.*)

Leonidas G. Woolley, Mendon, Mich., U. S., 19th February, 1876, for 5 years.

Claim.—1st. The weight W, arranged to act automatically upon the beam of a scale with regularly increasing leverage by removing its centre of gravity from the vertical line of its support as weight is added to the load platform; 2nd. The combination and arrangement of the load platform C, lever B, rock shaft D, and automatic weight W; 3rd. The tare weight *w*, arranged upon the beam B, so as to balance the scale either with or without tare upon the load platform, 4th. The segmental rack D^2, attached to and actuated by the rock shaft D, in combination with the cogged pinion E, shaft E_1, and indicating fingers F, F; 5th. The protecting shoe and stop H, *h*, 6th. The guide I, and its link J, for the purpose of steadying the load platform; 7th. The spring *d*, in combination with the gearing D_2, and E, for the purpose of preventing loss of motion.

No. 5700. Fire-escape.

(*Appareil de sauvetage en cas d'incendie.*)

Thimothé Jingras, Fall River, Mass., U. S., 19th February, 1876, for 5 years.

Claim.—1st. The swinging crane C, basket F, reel G, and chain *l*, in combination with a throwing out mecha[illegible], actuated by a chain *h*, accessible from the various floor, or bottom of the building, 2nd. The drum H, with its brake S, in combination with the crane C, basket F, reel G, and chain *l*.

No. 5701. Method of Heating and Filtering Water for Steam-engine Boilers.

(*Mode de chauffage et de filtration de l'eau pour les chaudières à vapeur.*)

Hiram Walker, Detroit, Mich., U. S., 19th February, 1876, for 5 years.

Claim.—1st. The pans A, and B, for the purpose of heating water, when acting together and by means of steam; 2nd. The pans A, and B, acting in combination with rods C, C, &c., and pipes I, I, &c., and strainer H, for the purpose of heating water, and of purifying the same by means of steam infused through or between them or in any other manner.

No. 5702. Solar-chronometer.

(*Chronomètre-solaire.*)

Marshal Wheeler, Big-Rapids, Mich., U. S., 19th February, 1876, for 5 years.

Claim.—1st. The combination of a graduated adjustable semi-circle A, solar plate B, horizon plate C; 2nd. The combination of the bed plate C, adjustable semi-circle A, with solar plate B, connecting-rod D, clamp E, and latitude bar G.

No. 5703. Improvements in Conductor pipes and Holdfasts.

(Perfectionnements aux tuyaux de conduite et aux crampons.)

Thomas Linklater, Belleville, Ont., 19th February, 1876, for 5 years.

Claim—1st The combination of the groove F, and openings G, with the conductor E; 2nd. The combination of the holdfast B, and C, bevelled ears D, and metal band H.

No. 5704. Improvements on Well Pumps.

(Perfectionnements aux pompes de puits.)

Peter A. Garner, Thamesford, Ont., 19th February, 1876, for 5 years.

Claim.—1st. The arrangement of cylinder A, pipe B, plunger C, rod D, valves E, F, weight box G, and bearing rods H, H; 2nd. In combination with the above the windlass J, ratchet K, crank L, dog M, raising and lowering ropes *a*, *b*, and pulley *s*, and bar *c*, *d*, *e*, *f*, *g*, *h*.

No. 5705. Self-corking and must Preventing Apparatus.

(Appareil de bouchage automatique et empêchant de moisir.)

Henry B. Dyer, Toronto, Ont., 19th February, 1876, for 5 years.

Claim.—1st. The combination with a barrel of the pipe A, the mouth of which may be either plain or threaded, and having a flange *a*, its inner end *b*, screwed and the perforated bottom B, the valve and packing C, the star grate E, and the spiral spring F, around the rod D, of the valve C; 2nd. the combination of the strainer G, with the self-corking apparatus A; 3rd. The combination of the pipe A, having its mouth I, threaded with a screwed tap H, to allow said tap H, to be kept in the barrel if used.

No. 5706. Waggon Tongue Support.

(Support de timon de voiture.)

James McCarter, Frankfort, Ind., U. S., 19th February, 1876, for 5 years.

Claim.—A tongue bearing front pulley in combination with a spring attached thereto, bent spirally around side pulleys of the tongue pivot and having its rear end fitted to the front axle.

No. 5707. Musical Instrument Mouth Piece.

(Embouchure d'instrument de musique.)

Charles G. Conn, Elkhart, Ind., U. S., 19th February, 1876, for 5 years.

Claim.—1st. The cushion C, of elastic material, 2nd. The cup B, having annular groove *b*, for the reception of a cushion C, of elastic material.

No. 5708. School Seat and Desk.

(Banc et pupitre d'école.)

Francis C. Charterand, Billings's Bridge, 19th February, 1876, for 5 years.

Claim.—1st. In combination with the seat B, supported by ends A, having a fixed back C, the flap E, and brackets G, hinged or pivoted thereto, whereby the flap E, can be fixed at any angle of adjustment by the brackets G, for use as a desk; 2nd. The covered recess or chamber J, formed by the back C, the shelf boards D, and H, and flap E, as a receptacle for books, &c.

No. 5709. Steam Boiler Injector.

(Injecteur de chaudière à vapeur.)

William T. Messinger, Boston, Mass., U. S., 19th February, 1876, for 5 years.

Claim.—1st. The combination of a steam boiler A, and a force pump applied thereto and to the water induction pipe of said injector; 2nd. The combination of a steam boiler injector A, and a force pump applied to it and its induction pipe G, with a cock M, arranged between the pump barrel H, and its valve case B, and in their connecting conduit K; 3rd. The combination of the pump barrel H, and valve case B, connecting conduit K, and the stop cock M, all arranged in manner and for application to a steam boiler injector and its induction pipe; 4th. The combination of the partition R, the lifting valve T, the double chambered valve case S, and the passages *g*, *h*, leading therefrom with the internal and external nozzles N, O, 5th. The combination of the curved gate X, and its seat Y, with nozzles N, O, partition R, the lifting valve T, the double chambered valve case S, and the passages *g*, *h*, leading from the said valve case.

No. 5710. Improvements on Furnaces.

(Perfectionnements aux fourneaux.)

Charles Thonger, Courtridge, Ont., 19th February, 1876, for 5 years.

Claim.—1st. The furnace A, of the steam-boiler, in combination with a chamber J, or its equivalent, heated by the gases produced by combustion within the said furnace, 2nd. The aperture F, (or its equivalent) leading to the chamber J, in combination with the channel G, leading to the ash-pit of the furnace A.

No. 5711. Lightning Conductor. *(Paratonnerre.)*

Henry W. Spang, Reading, Pa., U. S., 19th February, 1876, for 5 years.

Claim.—The combination of metallic rain-pipe A, with perforated metal a pipe D, all electrically connected, and forming a lightning conductor, 2nd metallic pipe D, having perforations or openings E, 3rd. The combination of pipe A, with drain or gutter B, and perforated pipe D, all electrically connected and forming a lightning conductor.

No. 5712. Shaking Sieve for Millet Seed Cleaning. *(Crible oscillant pour nettoyer la graine de mil.)*

François Savoie, St. Barthélemi, Que., 19th February, 1876, for 5 years

Claim.—The combination of the hopper B, the cogged-fly wheel E, the pinion F, the shafts G, having two rectangular-bends K, and a crank H the pitman I, and the dividing board J, with the sieve C, to make a shaking sieve for the purpose of commencing the cleaning of millet seed therewith.

No. 5713. Improvements in Wooden Pumps.

(Perfectionnements aux pompes en bois.)

Joshua W. Frazee, Toronto, Ont., 19th February, 1876, for 5 years.

Claim.—A cast iron porcelain lined cylinder A, provided with flaring ends B, in combination with wooden tubing C.

No. 5714. Ice Breaking Vessel.

(Vaisseau brise glace.)

Erich J. Weederman, Copenhagen, Den., 19th February, 1876, for 5 years.

Claim.—An ice breaking vessel constructed with suitable water reservoir or forward extending bow portion and sharp bow placed below or at some distance back of the stem post at one or both ends for the purpose of producing an inclined position of the vessel and the simultaneous breaking and cutting of the ice.

No. 5715. Knife Polishing Powder.

(Poudre pour nettoyer la coutellerie.)

George T. Stickells, Toronto, Ont., 19th February, 1876, for 5 years.

Claim.—A polishing powder prepared from the material specified.

No. 5716. Door-strip. *(Bourrelet de porte.)*

Watson P. Widdifield, Siloam, Ont., 19th February, 1876, for 5 years.

Claim.—1st. The folded metal strip D, in combination with the apron B, and door A; 2nd. The sheet metal strip E, in combination with the bar C, and apron B; 3rd. The pring F, formed with the bent ends *f*, and *f*, in combination with the apron B, bar G, and door A.

No. 5717. Bungs and Vents. *(Bondons et bondes.)*

Harry R. Cornish, River Falls, Wis., U. S., 19th February, 1876, for 10 years.

Claim.—The combination of grooved screw-bolt C, placed in the middle of the bung with recessed ring plate *h*, having subjacent pins, the washer *g*, and the bottom plate C', all having holes separated from or made to communicate with each other by turning the bottom plate.

No. 5718. Mode of Attaching and Shifting Sleigh Shafts.

(Mode d'ajustage et de déplacement des limonières des traîneaux.)

William Fairweather, Sussex, N. B., 21st February, 1876, for 5 years.

Claim.—The combination of the stationary wood or metal bar *a*, with the slotted wood or metal bar *c*, together with the position of the bolts *b* *b*, and the position of the thumb screw *f*, *f*.

List of Patents issued up to 24th March, 1876, but not yet Officially published in the Patent Office Record.

No. 5719. J. S. Wallace, Bretland, Ohio, U S A "Improvement on Valve Indicators," 21st Feb., 1876.

No. 5720. J. W. Bradshaw & J. A. Carnrike, Trenton, Ont., "Machine for Stretching and Tacking Carpets," 21st Feb., 1876.

No. 5721. A. H. Whiteside & M. S. Whiteside, Onarga, Ill., U. S. A., "Improvement in Harrows," 21st Feb., 1876.

No. 5722. J. W. Gamble, Aylmer, Ont., "Improvements on Seed and Plaster Sowers," 21st Feb., 1876.

No. 5723. J. G. Miller, Fredericksburg, Virg., U. S. A., "Improvements on Plough Clevises," 21st Feb., 1876.

No. 5724. H. Woodward, Toronto, Ont., "Improvement on Bosom Boards," 21st Feb., 1876.

No. 5725. T. D. Crumner, Detroit, Mich., U. S. A., "Steam Engines' Condensers and Heaters," 21st Feb., 1876.

No. 5726. T. Northrup & R. A. Little, Detroit, Mich., U. S. A., "Cheese Safes," 21st Feb., 1876.

No. 5727. C. S. Watson & J Rose, (Assignees of J. Robertson, Montreal, Que.,) "Improved Plumbers' Traps," 21st Feb., 1876.

No. 5728. E. L. Piper, Toronto, Ont.. "Improvement on Bedsteads for Invalids," 21st Feb., 1876.

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No. 5732. W. Hartt, (Assignee of B. W. Stanton, Almena, Mich., U. S. A.,) "Waggon-Jack," 26th Feb., 1876.

No. 5733. E. S. Piper, Toronto, Ont. "Refrigerator," 26th Feb., 1876.

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No. 5794. J. Forbes, Halifax, N. S., "Rail Joint Scabbard Machine," (Extension of No. 869), 16th March, 1876.

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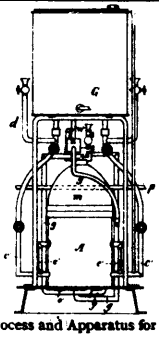

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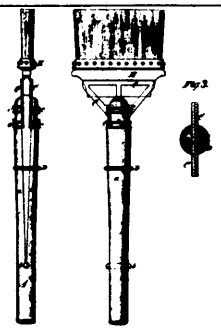

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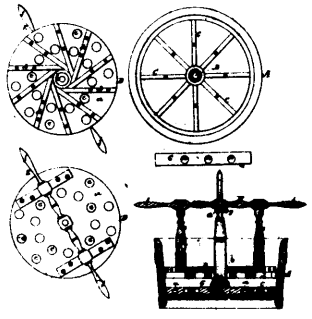

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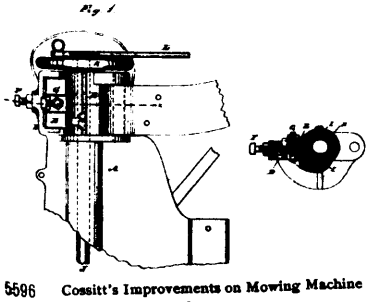

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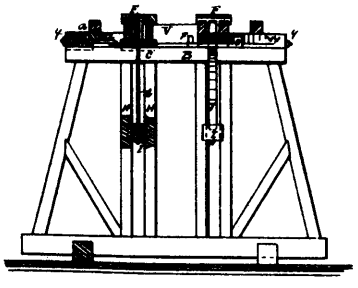

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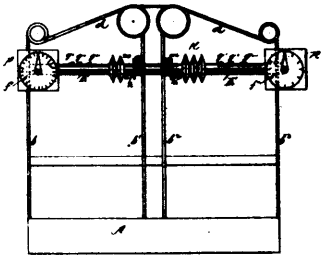

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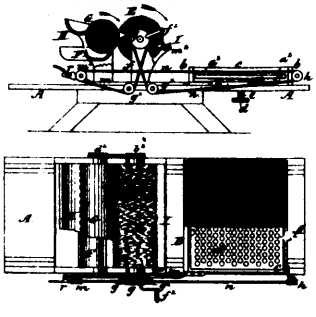

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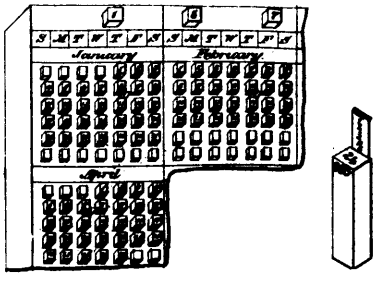

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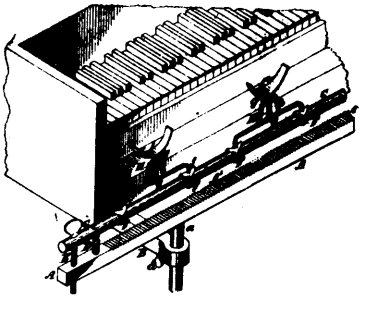

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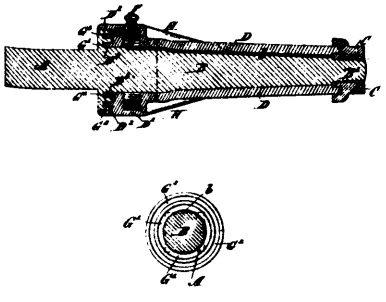

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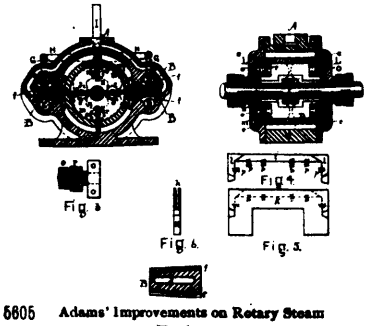

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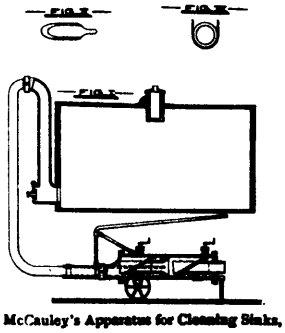

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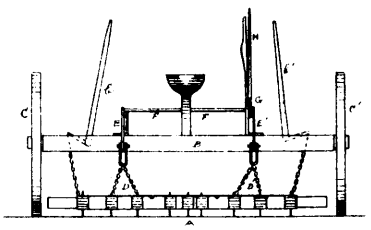

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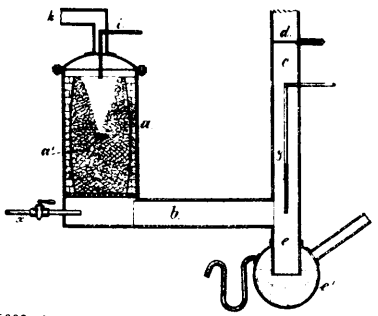
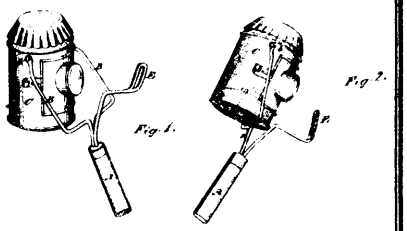
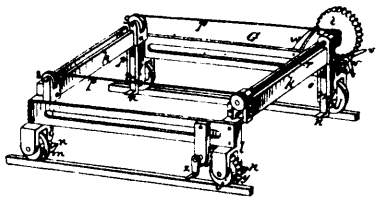


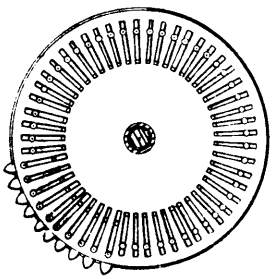
5608 Strong's Improvements on the Manufacture of Illuminating Gas.



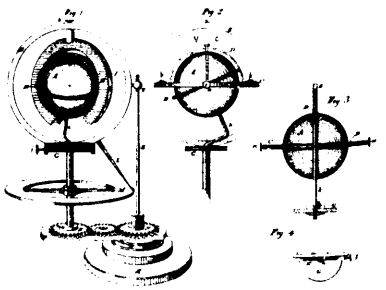
5609 Chapman's Lamp Lighter.



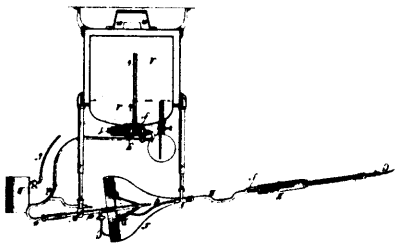
5610 Gard's Truck and Apparatus for Handling Bricks.



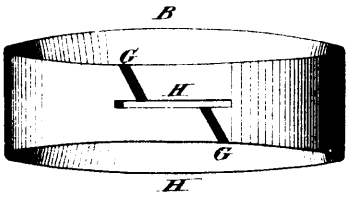
5612 Lefort & Chapleau's Watchman Detector.



5615 McVicar's Apparatus for Illustrating Geography and Astronomy.

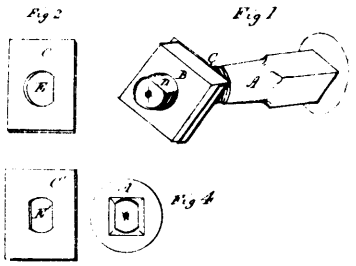


5616 Sloan's Apparatus for Thawing Water Pipes.

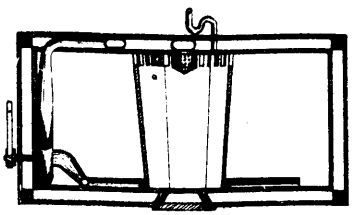


5617 St. John's Piston Packing.

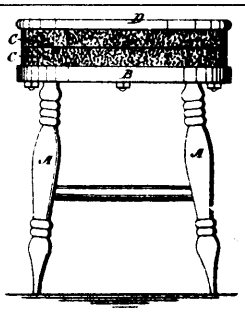
5618 Durrin's Improvements in Stakes.



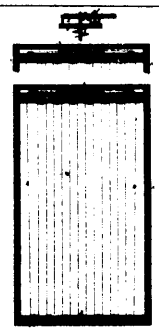
5619 Baghott & Thomson's Lock Nut.



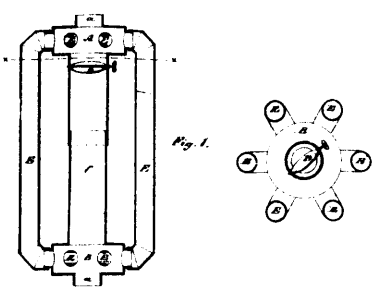
5621 Wickes' Refrigerator.



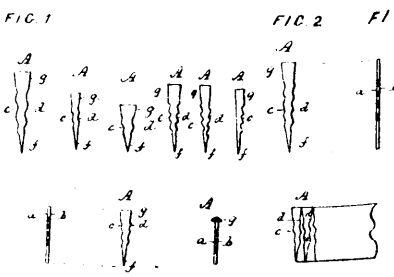
5622 Nash's Life-Preserving Stool.



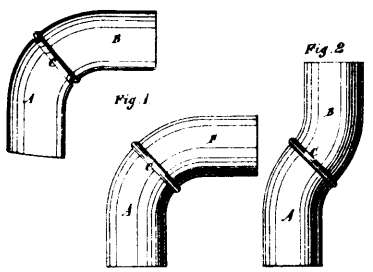
5623 Schorn & Kulow's Bed-Bottom.



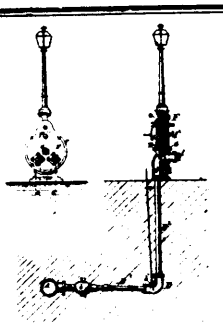
5624 Buckbee's Drum Heater.



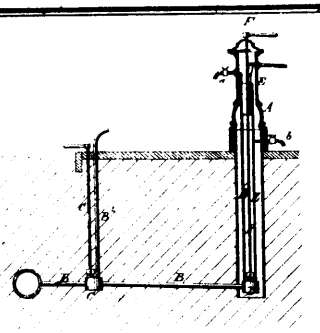
5625 Marshall's Boot and Shoe Nail.



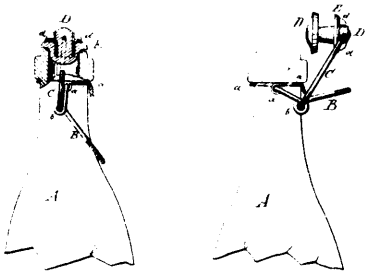
5626 Syversen's Stove-pipe Elbow.



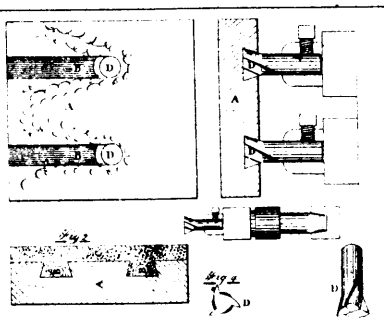
5627 Rapp's Improvement on Hydrants.



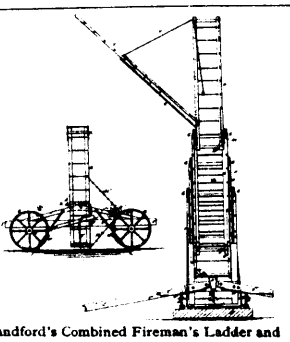
5628 Rapp's Improvement on Hydrants.



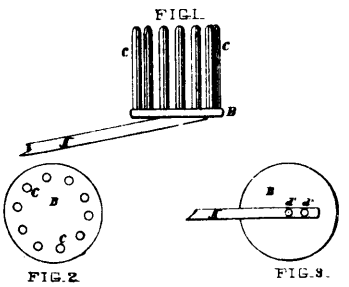
5629 Quilfeldt's Bottle Stopper.



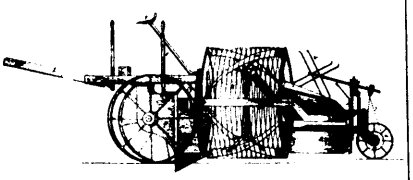
5630 Thomson's Improvements in Plastering.



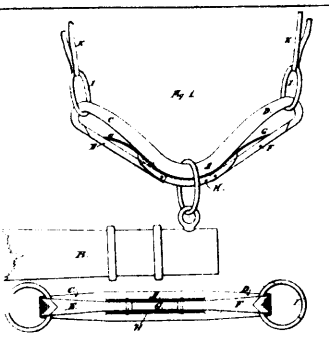
5631 Sandford's Combined Fireman's Ladder and Fire-escape.



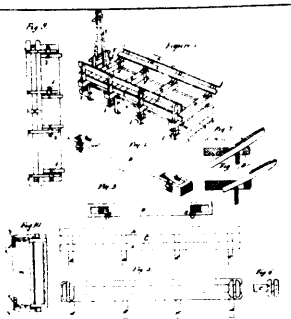
5632 Varner's Fruit Gatherer.



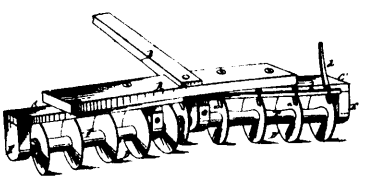
5633 Bartlett's Machine for Digging and Picking Potatoes.



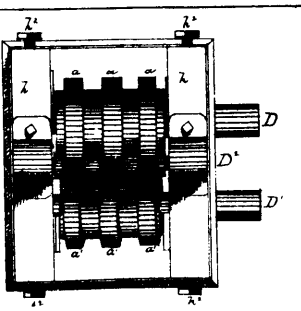
5634 Hickox's Improvement on Breast Irons.



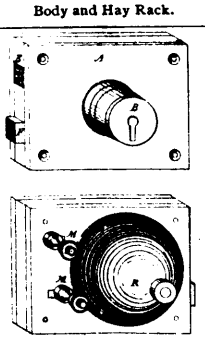
5635 Williams' Improvements on Hoyt's Waggon Body and Hay Rack.



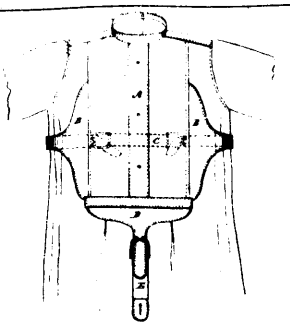
5636 Bramer's Improvements on Wheel Harrows.



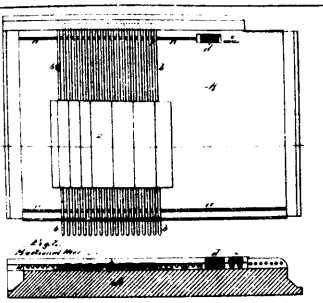
5637 Seaman's Machine for Rounding and Straightening Rods.



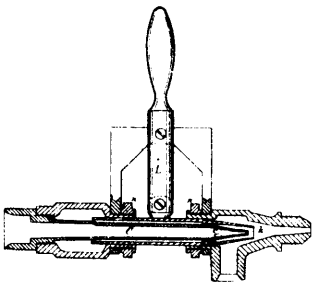
5638 Gaffney's Combination and Burglar-Proof Lock.



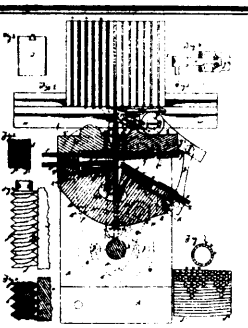
5639 Millikin's Shirt Front.



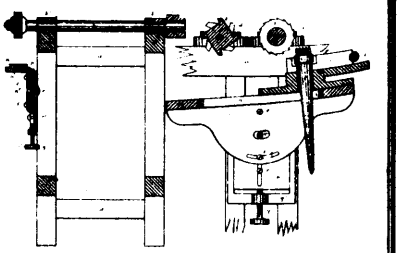
5640 Carpenter's Side Plaiter.



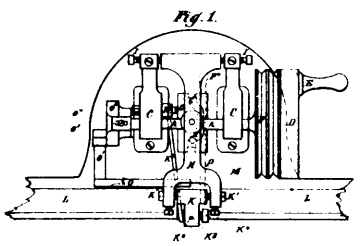
5641 Little's Improvements on Injectors and Ejectors.



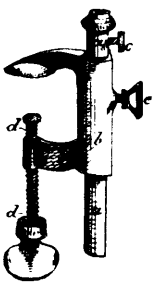
5642 Wickersham's Nail Cutting Machine.



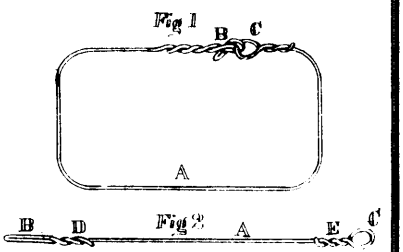
5643 Whiting's Machine for Making Brush Handles.



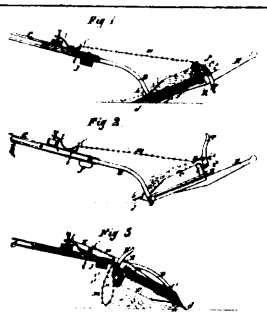
5644 Pearson's Machine for Sewing Hosiery.



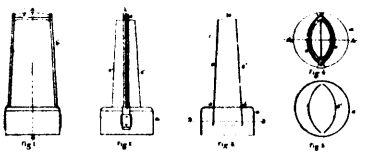
5645 Vassie's Lamp Holding Attachment for Sewing Machines.



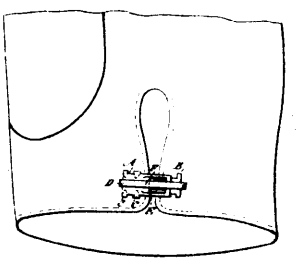
5646 Dederick's Wire Baling Tie.



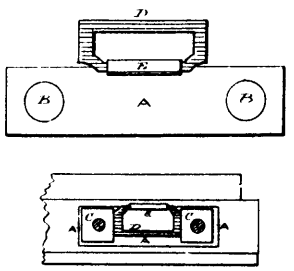
5647 Nichols' Road Scraper.



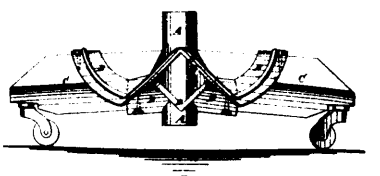
5648 Wright & Kenney's Mica Lamp Chimney.



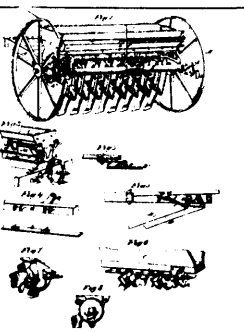
5649 Farnham's Glove Fastener.



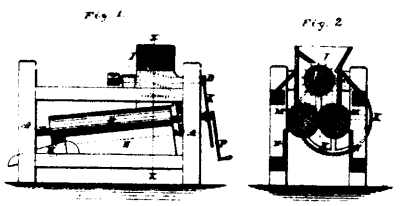
5650 Corby's Nut Lock and Washer.



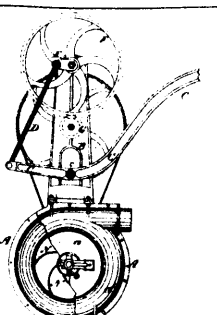
5651 Doremus' Chair Base



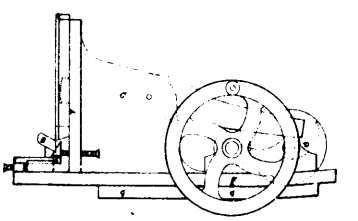
5652 Patric's Grain Drill and Seeding Machine.



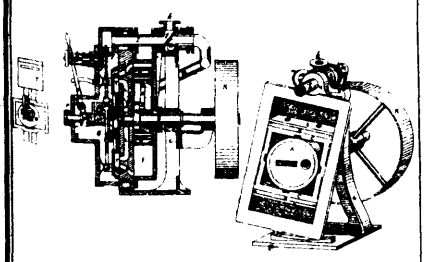
5653 Curtiss' Cider Mill.



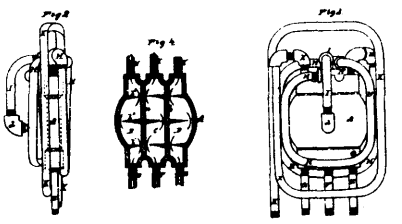
5654 Préfontaine's Hand Blower.



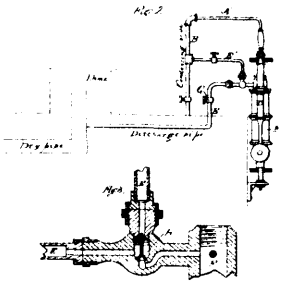
5655 Fisher's Machine for Cutting Boiler Plate.



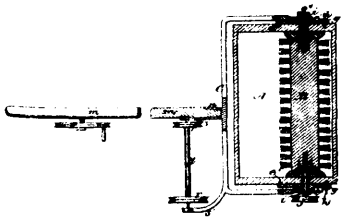
5656 Warrick's Improvements on Steam Engines.



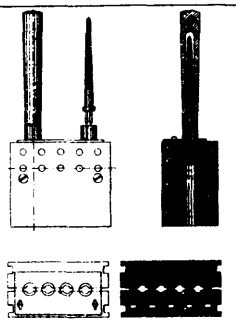
5657 Griffin's Hydro-carbon Burner and Gas Generator.



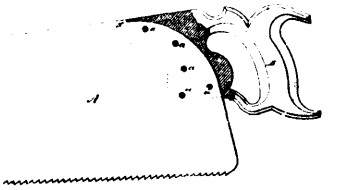
5658 Selbert's Improvement on Lubricators.



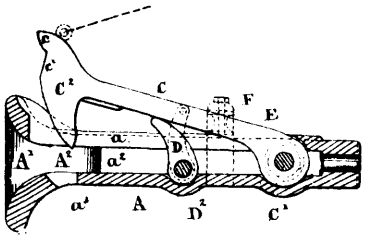
5659 Hathinger's Carpet Sweeper.



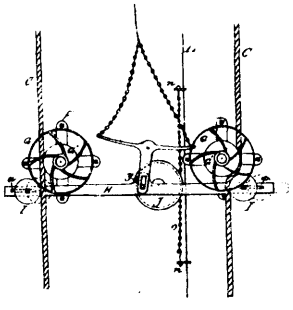
5660 Whiting's Apparatus for making Brushes.



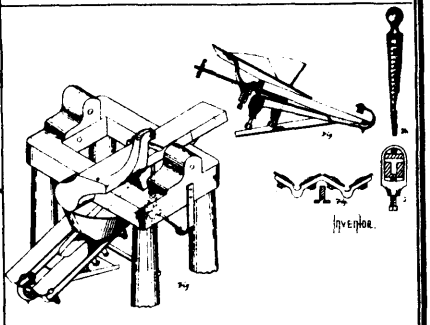
5661 Disston's Improvements on Hand-saws.



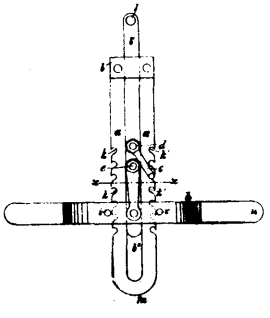
5662 Dunn's Self-acting Car-coupler.



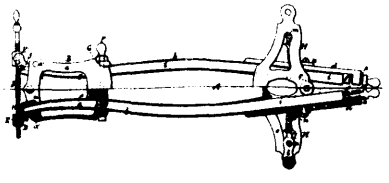
5663 Leitch's Hoisting Apparatus.



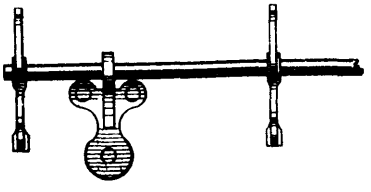
5664 Coyne's Automatic Nail Assorter.



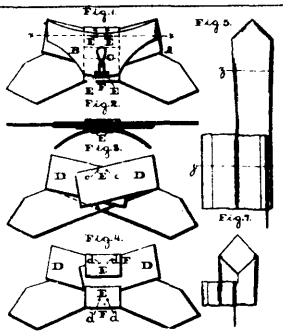
5665 Jones' Stone and Stump Extractor.



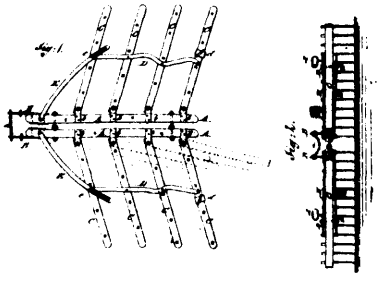
5666 Bailey's Wood Bending Machine.



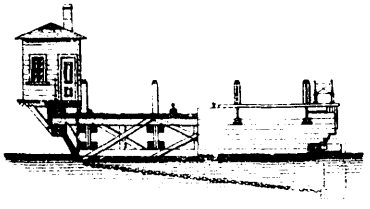
5667 Kinney's Hat and Coat Hook.



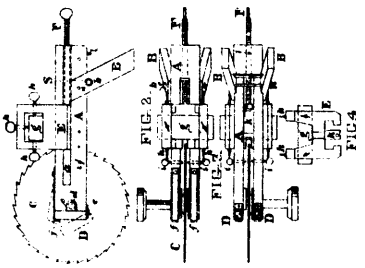
5668 Struhar's Improvements on Neck-ties.



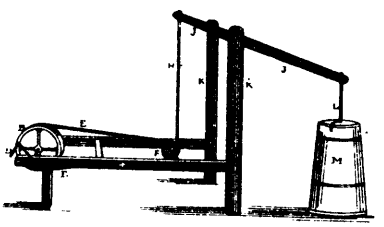
5669 Meili's Improvements on Harrows.



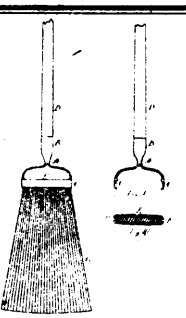
5670 Gorringe's Floating Draw-bridge.



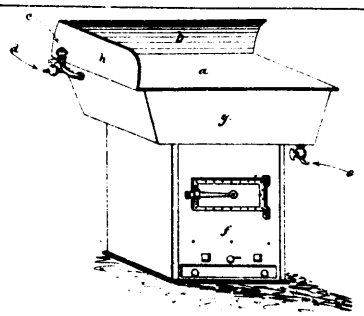
5671 Potter's Machine for Jointing and Dressing Circular Saws.



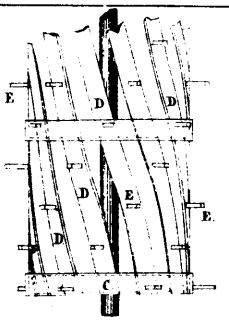
5672 Hantley & Oliver's Churn Power.



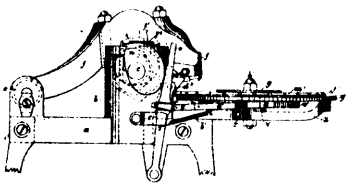
5674 Ewing & Forde's Manufacture of Brooms and Whisks out of Broom Corn.



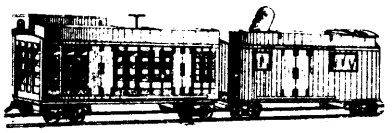
5675 Stern's Steam Candy Heater.



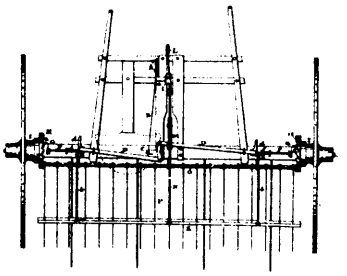
5676 Smith's Threshing Machine Cylinder.



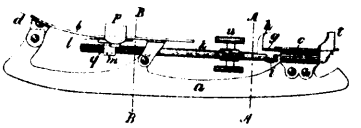
5677 Wills' Horse-shoe Nail Finishing Machine.



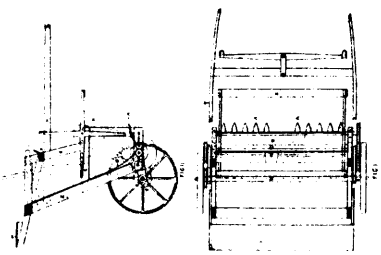
5678 Knott & Bridges' Railway-car for Transporting Live Cattle.



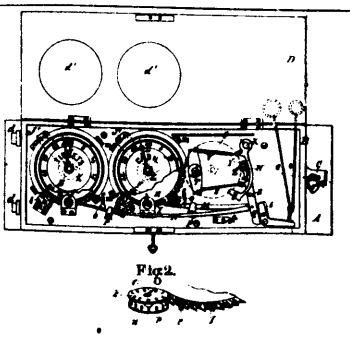
5679 Fenwick's Improvements on Horse Rakes.



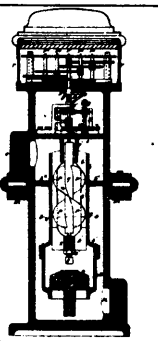
5680 Brewster's Improvements on Skates.



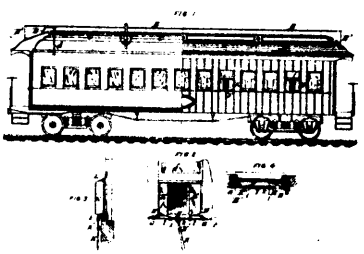
5681 Snider's Machine for Catching and Killing Potato Bugs.



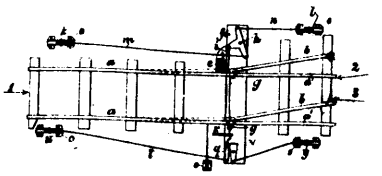
5682 Shaw's Fare Register.



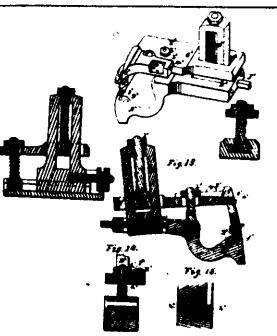
5683 Maxim's Liquid Meter.



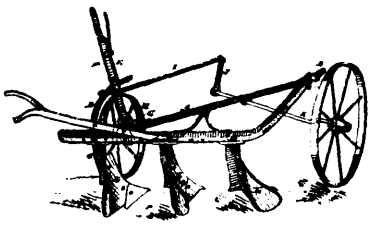
5684 Winchell's Apparatus for the Ventilation of Railway Cars.



5685 Dickson's Railway Switch.



5686 McDowell's Heel Trimming Machine.



5688 Walton's Improvements on Gang Ploughs..

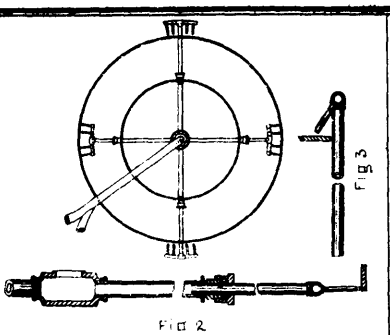
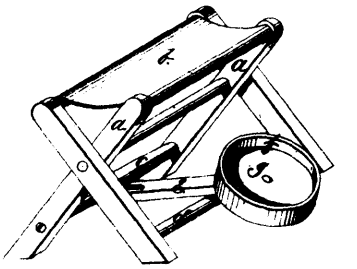


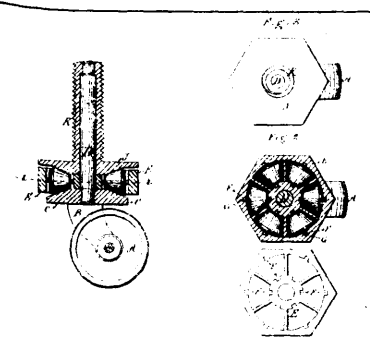
Fig 2

Fig 3

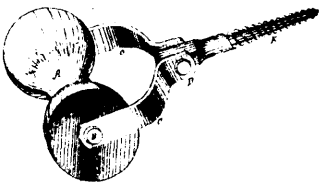
5689 Reeds' Tire Heating Apparatus.



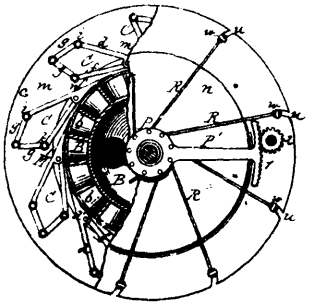
5690 Stearn's Milking Stool.



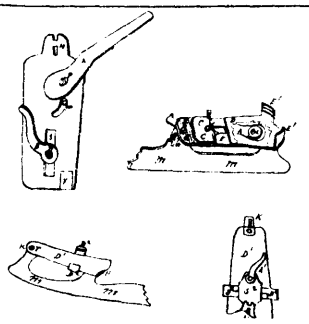
5691 Perkins' Caster Wheel.



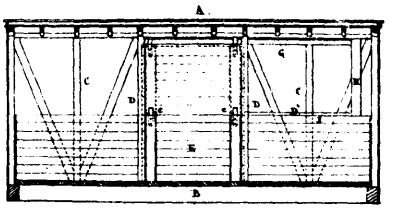
5692 Guénette's Clothes Line Stretching Roller.



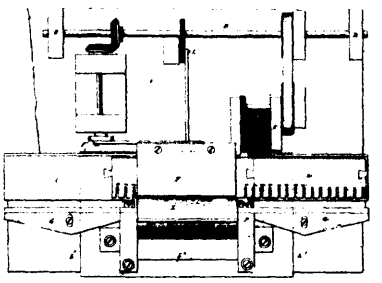
5693 Tait's Water Wheel.



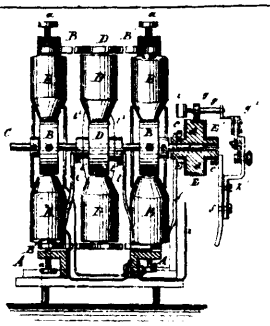
5694 Fenerty's Improvements in Skate Fastenings.



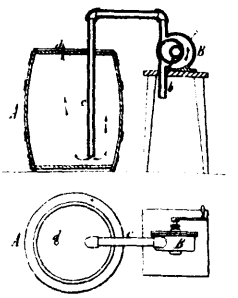
5695 Brydon's Railroad Grain Car Door.



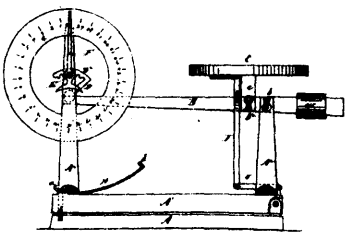
5696 Mallett's Needle Machine.



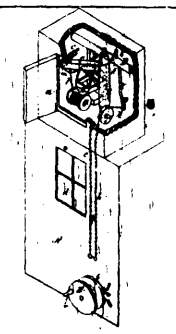
5697 Hussey's Electro-Magnetic Engine.



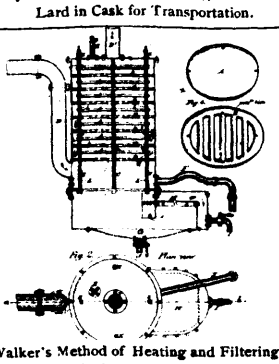
5698 Bullymore's Process for Fining and Cooling Lard in Cask for Transportation.



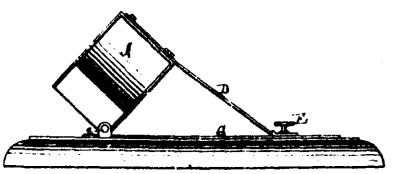
5699 Woolley's Improvements in Scales.



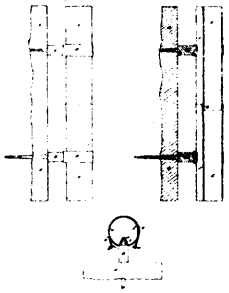
5700 Jingras' Fire-Escape.



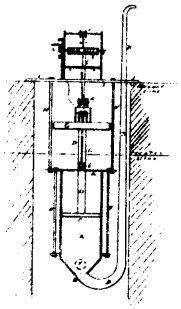
5701 Walker's Method of Heating and Filtering Water for Steam-engine Boilers



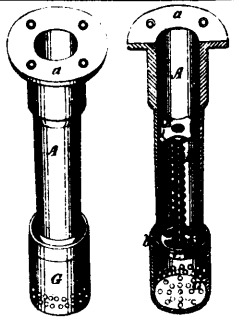
5702 Wheeler's Solar-chronometer.



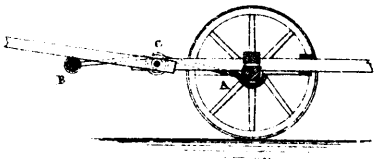
5703 Linklater's Improvements in Conductor Pipes and Holdfasts.



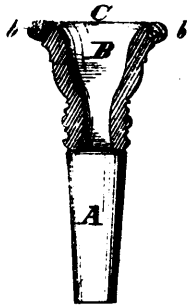
5704 Garner's Improvements on Well Pumps.



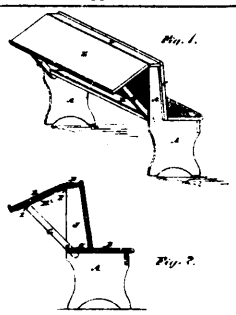
5705 Dyer's Self-corking and Must Preventing Apparatus.



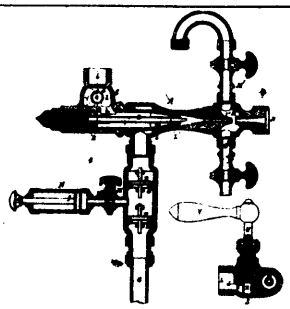
5706 McCarter's Waggon Tongue Support.



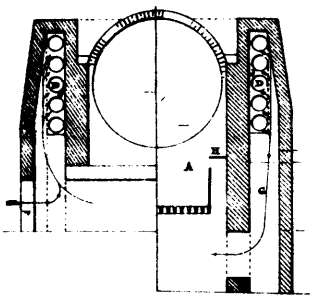
5707 Conn's Musical Instrument Mouth Piece.



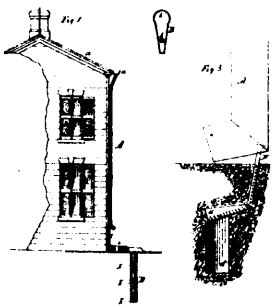
5708 Charterand's School Seat and Desk.



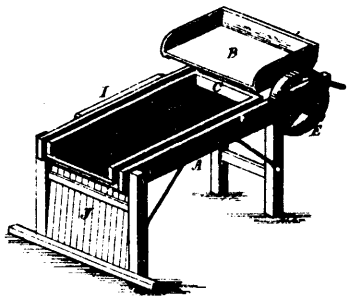
5709 Messinger's Steam Boiler Injector.



5710 Thonger's Improvements on Furnaces.

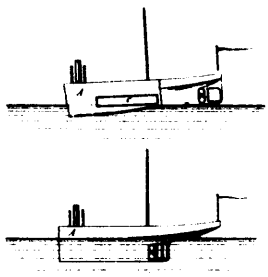


5711 Spang's Lightning Conductor.

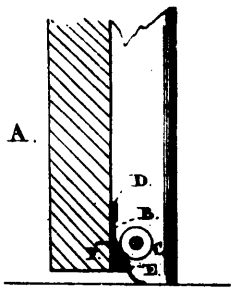


5712 Savoie's Shaking Sieve for Millet Seed Cleaning.

5713 Frazee's Improvements in Wooden Pumps.

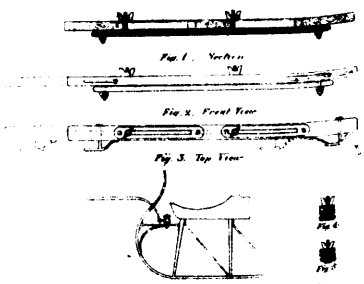


5714 Weederman's Ice Breaking Vessel.



5716 Widdifield's Door-strip.

5717 Cornish's Bungs and Vents.



5718 Fairweather's Mode of Attaching and Shifting Sleigh Shafts.