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### INVENTIONS PATENTED.

#### No. 8607. Seal Bolt for Car Doors. (Fermeture scellée pour les portes de wagons.)

William Burtis, New York, U.S., 30th March, 1878, for 5 years.

William Burtis, New York, U.S., 30th March, 1878, for 5 years. Claim.—1st. The novel combination of the sliding door C with staple m, staples n non side post D, bolt J, case or box H, and spring bolt v; 2nd. In a railroad freight car, the internal fastening, consisting of the tongues n n and m, and bolt J, in combination with the spring-locking bolt v, arranged in a close box H, acting as a guide for the bolt J, and provided with an opening x opposite the spring bolt v and seal covering the same, whether said box H is fastened to the roof of the car, or at or near the bottom of the car; 3rd. Passing the bolt J which fastens and unfastens the sliding door of a freight car, through the roof of said car.

# No. 8608. Improvements on Railway Gates.

( Perfectionnements aux barrières des railroutes.)

Stephen A. Jenks, Lincoln, (Assignee of Albert R. Sherman, Natick), R. I., U.S., 30th March, 1878, for 5 years.

U.S., 30th March, 1878, for 5 years.

Claim.—1st. The combination of two actuating pistons and cylinders and suitable intermediate mechanism with a pivoted gate; 2nd. The combination of two cylinders I and J, two pistons and rods G and H, two rack bars E and F and gear D, with a pivoted gate; 3rd. The combination of two pipes K and L, two pistons and their cylinder I and J, and suitable intermediate mechanism, with a pivoted gate; 4th. The combination of the piston rod H, rack-bar F and pivoted check hook r, with the pinion D; 5th. The combination of a stop with a piston rod carrying a rack-bar, and the latter provided at its upper and lower end with a lug; 6th. The combination of two force pumps M and N, two pipes K and L, two cylinders I and J and their respective pistons, with a pivoted gate and intermediate mechanism; 7th. The combination of two force pumps M and N, two pipes K and L, two cylinders I and J and their respective pistons, and piston rods G and H, two rack-bars E and F and gear D with a pivoted gate; 8th. The combination of the force pumps M and N, two pipes K and L, two cylinders I and J and their respective pistons or equivalent devices, pump cylinders M and N, and pipes K and L, with cylinders I and J and their pistons, and piston rods G and H, and the gate A and intermediate mechanism; 9th. The combination with a tank W of two or more sets of force pumps provided with mechanism for operating the same simultaneously. ism for operating the same simultaneously.

# No. 8609. Improvements on Cow Stanchions.

(Perfectionnements aux étançons à vaches.)

Stephen B. Ferguson, Hallowell, Ont., 30th March, 1878, for 5 years.

Claim.—The attachment of the stanchion E = G G, to the frame  $L_t L L_t$  by means of the eye hinges H H, in combination with the head blocks I 1 and with the backward inclination of the posts  $L_t L_t$ .

# No. 8610. Improvements in Stove Pipe Dampers. (Perfectionnements dans les clés des tuyaux

de pôeles.) Samuel Selden, Matthew Griswold, Erie, Pa., and Jotham S. Crump, West-field, N. Y., U.S., 30th March, 1878, for 5 years.

Claim.—1st. The damper C and spindle B, provided with the spur b, and both or socket e, for keying the damper to the spindle and preventing relative rotation; 2nd. The spindle B provided with the lug or spur b, in combination with clamping sleeves  $e^2$  and G, and spring g.

#### No. 8611. Improvements on Saws. (Perfectionnements aux scies.)

Eben M. Boynton and Alfred Boynton, New York, U.S., 30th March, 1878, for 5 years.

for 5 years. Claim.—Ist. A saw provided with teeth A A, each having two points aa dressed to cut in line and two outer cutting edges b b1, inclined slightly outward from the points; 2nd. The saw provided with teeth A, each having two points a a1 dressed to cut in line, a notch or gullet d between said points, and two outer cutting edges b b1 inclining slightly outward from said points; 3rd. The clearer teeth C bevelled on both sides, on each of their clearing edges.

# No. 8612. Improvements on Ice Creeners.

(Perfectionnements aux crampons à glace.)

Wilbur F. Dial and Lucius H. Packard, Montreal, Que., 30th March, 1878,

for 5 years, Claim.—Ist. The plate B having eye C, and creeper D having eye F, in combination with the pin G and elastic cushion I; 2nd. The eye C and eye F, in combination with the pin L and cushion I.

#### No. 8613. Process for Manufacturing Paper (Procédé de fabrication de la pâte à Pulp. papier.)

Louis C. Bourgeois, (Assignee of Francois Genin), Montreal. Que., 30th March, 1878, for 5 years.

Claim.—lst. Digesting straw or similar material in a heated solution of quicklime and salsoda, and after which washing it and treating it to three successive bleachings, and intermediately washing the second, and third bleaching being effected by a weaker agent than the first, after which treating the pulp thus bleached with alumina.

#### No. 8614. Improvements on Medical Com-(Perfectionnements aux composés pounds. médecinaux.)

David Manbeck, Des Moines, Iowa, U.S., 30th March, 1878, for 5 years.

Claim.—1st. A medical compound for vaporizing or fumigating purposes made of mullein and tar; 2nd. A cigar or cigarette of which the filling is mullein and vegetable tar, prepared in the manner set forth.

## No. 8615. Machine for Dressing Flour.

(Machine à bluter la farine.)

George T. Smith, Minneapolis, Min., U.S., 30th March, 1878 (Extension of Patent No. 2257), for 5 years.

# No. 8616. Machine for Dressing Flour.

(Machine à bluter la farine.)

George T. Smith, Minneapolis, Min., U.S., 30th March, 1878 (Extension of Patent No. 2257), for 5 years.

# No. 8617. Machine for Dressing Flour.

(Machine à bluter la farinc.)

George T. Smith, Midneapolis, Min., U.S., 30th March, 1878 (Extension of patent No. 2258), for 5 years.

# No. 8618. Machine for Dressing Flour.

(Machine à bluter la farine.)

George T. Smith, Minneapolis, Min., U.S., 30th March, 1878 (Extension of Patent No. 2258), for 5 years.

#### No. 8619. Process of Making Flour from Middlings. (Procédé pour extraire la farine des gruaux.)

George T. Smith, Minneapolis, Min., U.S., 30th March, 1878 (Extension of Patent No, 2409), for 5 years.

#### No. 8620. Process of Making Flour from Middlings. (Procédé pour extraire la farine des gruaux.)

George T. Smith, Minneapolis, Min., U.S., 30th March, 1878 (Extension of Patent No. 2409), for 5 years.

# No. 8621. Improvements on Packing Rings for the Pistons of Steam Engines.

(Perfectionnements aux garnitures métalliques pour les pistons des machines à vapeur.)

Loftus Perkins, London, Eug., 30th March, 1878 (Extension of Patent No. 2430), for 5 years.

# No. 8622. Improvement on Seeding Machines.

(Perfectionnements aux seme rs.)
Charles E. Patric, Springfield, Ohio, U.S., 6th April, 1878 (Extension of Patent No. 2217), for 5 years.

# No. 8623. Shaft Attachment for Carriages. (Ajusta je des limonières des voitures.)

George B. Stock, Toronto, Ont., 6th April, 1878 (Extension of Patent No. 2219), for 5 years.

# No. 8624. Apparatus for Manufacturing Nitro-Glycerine. (Appared a fabriquer la nitroglycerine.)

Carl W. Volney, Brockville, Out. 6th April, 1878 (Extension of Patent No. 2242), for 5 years.

# No. 8625. Improvements in Shingle Machines. ( Perfectionnements dans les moulens à bardeau.,

Isale Frechette, St. Hyacinthe, Que., 6th April, 1878 (Extension of Patent No. 2239), for 5 years.

# No. 8626. Machine for Washing Dishes. (Machine à laver la vaisselle.)

Emma S. Hampton, (wife of Charles G. Hampton), Detroit, Mich., U.S., 8th April, 1878, for 5 years

Claim.—The cage C, with its guard cage C1, and the dash B, in combination with the boiler A, and its perforated cover A1.

## No. 8627. Improvements on Pumps. tionnements aux pompes.)

Tronson Draper, Petrolca, Ont., 8th April, 1878 (Re-issue of Patent No. 8370.) Claim .- Ist. The pipe A attached either to the barrel B or pistons E, in combination with the weight F or its equivalent, 2nd. The barrel B provided with a check valve C, guide G and attached to the pipe A, in combination with the piston E, suction pipe D and weight F.

#### No. 8628. Improvements on Couplings for Shaftings. (Perfectionnements aux joints des arbres de couche.)

John Charlton, Philadelphia, Pa., U.S., 8th April, 1878 (Extension of Patent No. 2473), for 5 years.

# No. 8629\*. Apparatus for Washing Wool. (Appared pour laver la laine.)

Oscar Low, Chelsen, Mass., U.S., 8th April, 1878, for 5 years.

Oscar Low, Chelsea, Mass, U.S., 8th April, 1878, for 5 years.

Claim.—1st. In contining the wood within an arbitrary space and acting apon it, while thus confined with liquid under pressure, 2nd. The combination of a closed receiving chamber having suitable inlet and escape openings, with mechanism for forcing water or other liquids through said chamber under pressure. 3nd. The combination with a cleansing chamber and a receiver of suitable mechanism for forcing liquids into said chamber under pressure, whereby the wood is by the current or overflow wholly discharged from said chamber and deposited in the receiver, 4th. The combinate of the tank A, chamber B and pumping mechanism R, having draft pipe at and injection pipe a; 5th. The combination with tank A and chamber B of the adjustable sluice-way g; 6th. The combination with tank A and sluice-way g, of the receiver f, 7th. The double diaphragm consisting of the metaltic perforated plate b and the forammons wire screen c, adapted to be placed in the top or bottom or both of the chamber B. 2th. The combination with the chamber B. having a perforated cover d, of the double diaphragm b c, 9th. The combination with the chamber B having a perforated cover d, of the double diaphragm b c, 9th. The combination with tank A and chamber above the injection pipe, 10th. The combination but tank A and chamber B and adjustable suice-way g, of the ago. The combination of the tank A, chamber B and adjustable suice-way g, of the ago. The combination of the tank A, chamber B and adjustable suice-way g, of the ago. The combination of the tank A, chamber B and adjustable suice-way g, of the ago. The combination of the tank A, chamber B and adjustable suice-way g, of the ago. The combination of the tank A, chamber B and adjustable suice-way g, of the ago. The combination of the tank A, chamber B and adjustable suice-way g, of the ago. The combination of the tank A, chamber B and adjustable suice-way g, of the ago.

(\* Nata.-For drawing of this number see diagram following 8685.)

# No. 8630. Machine for Grinding Cutters of Mowers and Reapers. (Machine a afuter les conteaux des fancheuses-moiss onneuses.

ter les conteaux des faucheuses-moiss onneuses. J
Edward J Worcester, (co-inventor with Vernor F. Prentice), Worcester,
Mass., U.S., 28h April, 1872, for 5 years.

Claim.—1st. A yielding granding wheel or surface, in combination with
a firm supporting rest adapted to support the back edge of the cutter-bar
and indicate the proper bevel while the kinfe sections can be rocked towards
or from said grinding surface and the point of grinding contact be thereby
changed along the edge of the kinfe, 2nd. A grinding wheel rotating on a
shaft enpalse of longitudinal reciprocative movement and held or pressed
forward by a spring or equivalent yielding device, in combination with a
head piece or rest for sustaining the cutter-bar in position while the kinfe
sections are presented to grinding action against the disc face of the wheel;
3rd. The grinding wheel A made with conical grinding surface a and bevel
periphery at, in combination with mechansm for supporting the cutter-bar
of a mower or reaper in a position oblique to the axis of revolution of wheel
A, and with the knife sections projecting upwards for contact with the
grinding surface a; 4th. The grinding wheel A made with grinding surface
a on the disc of the wheel and bevel periphery a in combination with one or
more jaws or support —es Hi, having corrugations, projections or grooves
K. 5th. In combination of the granding wheel A, shaft B, spring D, gears
E F, head H and frame C c c<sup>1</sup>, 6th. The combination with the wheel A,
grooves K, slide plate H<sub>2</sub> and adjusting serew I.

# No. 8631. Improvements on Bed Bottoms.

(Perfectionnements aux fonds des lits)

Caleb E. Brown, Jackson, Mich., U.S., 8th April, 1878 (Extension of Patent No. 8108), for 5 years.

# No. 8632. Improvements on Bed Bottoms. (Perfectionnements aux fonds de lits.)

Caleb E. Brown, Jackson, Mich., U.S., 8th April, 1878 (Extension of Patent No. 8103), for 5 years.

#### No. 8633. Spring Catch for Securing Blocks of Stone. (Crochet à ressort pour assujetir les blocs de pierre.)

James H. Trickey, Hamilton, Ont., 9th April, 1878, for 5 years.

James H. Trickey, Hamilton, Ont., 9th April, 1878, for 5 years.

Claim.—1st. Two non corrosive metallic plates C and J counter-stack in cach, block of marble, &c., resuccively opposite one another, and fastened by solder P or screws Q in holes bored for the purpose in said blocks the formule plate C constructed with a socket E, central opening F, hole to constit H, springs I I and holes D and the male plate J constructed with horse D and with wedge-shaped point projection K, containing hole L, the said projection made to fit the opening F of the plate C and secured therem by the bolts H; 2nd. In combination with blocks of marble, grainite or other solid substances, of the plate C and J, constructed with four arms and hose D D; or other form, the precise form of the plate not being essential lid In combination with marble, grainite or iron blocks or other solid substances of the plate D; having projection K; and the clongated socket C provided with a recess F; the same being secured together by a pin H; for for the boungated socket C; and plate J; cast or made in one entire piece, for certain kinds of building work.

No. 86:34. Improvements on Clathes Wtingers.

# No. 8634. Improvements on Clothes Wringers. (Perfectionnements aux essoreuses à linge.)

Cornelius E. Haynes, Boston, Mass., U.S., 11th April, 1878 (Extension of Patent No. 2253) for 5 years.

### No. 8635. Improvements on Middlings Purifiers. (Perfectionnements aux épurateurs des gruaux.)

David Charlesworth, Egmondville, Ont., 12th April, 1878, for 5 years

Claim.—1st. The combination of the suction fan M, operating by currents of air through the suction spouts L L, and through the success C 12 14, and controlled by the regulating valves I I II and main valves K K; 2nd. The combination of the shaker and sieves C 12 24 clothed with different grades of cloth, and the carrying boards D 12 24, for carrying the purificial middlings to the discharge spouts E E E and outlets F G II, and the regulating valves I I I I for offal, purified middlings and seconds: 3nd the combination of the shall and the mode of buildings the same, in which the sieves C2 and C4 are use a instead of return boards, the sieves distributing the middlings available. the middlings evenly.

# No. 8636. Improvements on Lubricating Oils. (Perfectionnements aux huiles lubréfiantes.)

Clark Johnston, Rochester, N. Y., U.S., 12th April, 1878, for 5 years

Claim.—1st. A lubricating compound composed of petroleum or other oi. African palm wax, graphite, immeral, extract of petroleum and a satabalikali; 2nd. The lubricating compound composed of petroleum, poxdered graphite, mineral extract of petroleum, Japan wax, myrtic wax gamba wax and a suitable alkali.

# No. 8637. Apparatus for Cutting Rock. (Appareil à couper le roc.)

John D. Brunton, Kentish Town, Eng., 12th April, 1878, for 5 years.

Claim.—1st. Imparting to circular cutters a positive rotation by means of gearing arranged in the interior of the chuck, 2nd. The combination with a hollow chuck carrying a circular entire or cutters having a positive motion imparted thereto by gearing situated in the interior of the chuck of means controlling and adjusting the speed of the cutter or cutters relatively to the speed of the chuck.

#### No. 8638. Journal Oil Box Lid for Railway (Couverele de godet a haile pour les Cars. essieux des wagons de railroutes.)

Francis C. L. G. Susemihl and Herbert H. Hewitt, Detroit, Mich., U.S., 19th

Francis C. 17. to Susemini and Trefort II. Treating Petera, partial Res. April, 1878, for 5 years.

Claim.—1st. The cover C having flanged ends and a central rib d and provided with projections; 2nd. The cover C having projections c, in combination with the box A, having formed upon it the grooved ears B.

#### No. 8639. Machine for Washing Clothes. (Machine à laver le linge.)

William H. Sanford, Moncton, N. B., 12th April 1878, for 5 years Claim .- The combination with the conical part A and hollow stem or handle B, of the plug C, valve A and cross arms b.

# No. 8640. Improvements on Refrigerators.

(Perfectionnements aux garde-manger.)

Thomas C. Phillips, Strathroy, Ont., 12th April, 1878, for 5 years Claim.—1st. The combination with a double walled refrigerator of the rows of tapering dishes I, pan L and rack floor M, dividing the lood from the fee-chamber and provided with troughs K, channel G and pape H for carrying off the waste water, and water of condensation: 2nd The ierchamber provided with racks N around its vertical walls; 3rd A refrigers to have consequent to the consequence of the results of the consequence of the results.

# No. 8641. Preparation of Distemper Paint. (Préparation des couleurs à la détrempe.)

tor having a show-case extension R from one or more side:

George J. Stephens, Brooklyn, N. Y., U. S., 12th April, 1878, for Tyears

Claim.—A prepared dry kalsomine or distemper paint in rigid form of cake tablet, ball or other shape as an improved article of trade.

# No. 8642. Improvements on Buggy Tops.

(Perfectionnements aux soufflets de voitures.)

James H. Tackaberry, Tilbury East, Opt., 12th April, 1878, for 5 years.

Claim.-1st. The construction of the frame so as to form a jointless buggy top in position as a top at all times, whether raised or in a reclining position, is combination with quarter circle G, with the spring N attached as set forth; 2nd. The iron railing H, with eye attachment and quarter circle Y, in combination with the notch or shoulder S; 3rd. The plate F in combination ation with the pinion or bolt M.

# No. 8643. Improvements on Sewing Machines.

(Perfectionnements aux machines à coudre.)

Ruben M. Rose, Brooklyn, N.Y., U.S., 12th April, 1878, for 5 years.

Claim.—The combination of the presser carrier and guide E, the presser and needle guide G, the spring and the tappet, the whole organized as described, to be attached to and detached from a sewing machine, and when attached thereto to be operated by the action of the needle carrier on said tappet.

# No. 8644. Improvements in Cabinet Desks.

(Perfectionmements aux pupîtres-buffets.)

Joseph A. Moore, Indianapolis, Ind., U.S., 12th April, 1878, for 15 years.

Joseph A. Moore, Indianapolis, Ind., U.S., 12th April, 1878, for 15 years. Claim.—1st. The two wings pivoted or hinged together; 2nd. The two wings pivoted or hinged to a common shaft, upon which the wings rotate in opening and closing; 3rd. The wings constructed with a recess F therein, for the reception of the ends of the writing table when the desk is closed; 4th. The combination with the table B. of the shaft C and brace B2, forming the support for the said table; 5th. The combination with the wings of a cabinet desk, of the upright shaft C forming the hinge pivot therefor; 6th. In combination with the upright shaft C and the wings A A, the projecting arms C provided with pivots c forming the hinge for the desk; 7th. The combination with the upright shaft C and one of the wings A, of the projecting piece C4, having pivot c forming the hinge for one of the wings of the desk; 8th. A desk composed of rota ing wings, the circular track E attached to either the wings or the base, in combination with said wings; 9th. A cabinet desk so constructed that the top thereof may be used as a standing desk, while the front is used as a sitting desk; 10th. The combination of the table B, provided with downwardly projecting pin b, with the brace B2 provided with a socket and thumb screw b1, for the purpose of adjusting the height of the front edge of the table. of the table.

# No. 8645. Improvements on Thimble Skeins.

(Perfectionnements aux cuillers d'essieux.)

Simeon V. King, Hamilton, Ont., 12th April, 1878, for 5 years.

Claim.—1st. A thimble skein having its under or bearing side A thicker at the flange A and nipple B, than at the upper side C; 2nd. In combination with a thimble skein, of a shallow upwardly tapering recess E, for a lubri-

# No. 8646. Table for Washing and Ironing.

(Table pour laver et repasser.)

George W. Williams, Boston, Mass., U.S., 12th April, 1878, for 5 years.

Claim.—The combination of the hinged top B and the ironing board C, the hinged tub rest E and the brace F, with the hinge I and pivot G.

# No. 8647. Improvements in Knitting Machines. (Perfectionnements aux machines à tricoter.)

Thomas Newbigging, Adam Kay and Richard I. Creelman, Georgetown, Ont., 12th April, 1878, for 5 years.

Ont., 12th April, 10th, 10th years.

Claim.—Ist. The combination of a revolving cam having an inflected groove, and the needles G with upwardly bent ends Gr, arranged to fit in said groove, with the stationary disc C provided with radially cut grooves; 2nd. A revolving needle operating cam having an inflected groove to receive the upwardly bent ends of the needles, in which cam the bounding edge follows the sinuosity of the groove at such a distance away that the bent ends of the needles may be inserted into or removed from the groove without disturbing the position of the cam; 3rd. The bracket driving arm Hattached to the cam cylinder, cog-wheel or other suitably operating part attached to the cam cylinder, cog-wheel or other suitably operating part of the machine, in combination with the needle operating cam and its conmections; 4th. A ribbing attachment consisting of the bracket arm H, cam
E, needles G and disc C, in combination with a cylinder knitting machine.

# No. 8648. Improvements on Sash Pulleys.

(Perfectionnements aux poulies de croisées.)

Benjamin D.Washburn, Boston, (Assignee of Henry A.Wilbur, Somerville,) Mass., U.S., 12th April, 1878, for 5 years.

mass., U.S., 12th April, 18/8, for 5 years.

Ctaim.—1st. Securing the plates B B of the pulley casing to the face plate A, by means of a strip G cut from the centre of the face plate and bent over the edges of the casing; 2nd. The strip E cut from the centre of the face plate and attached to a rivet F, connecting the two sides of the casing together; 3rd. Connecting the sides B B of the casing to the face plate A by means of the rivets a a; 4th. The combination with the pulley C, composed of the two metal plates or disks of the interposed block D.

# No. 8649. Improvements on Ozone Machines.

(Perfectionnements aux machines à ozone.)

Amos W. Sangster and Edward M. Jewett, Buffalo, N. Y., U. S., 12th April, 1878, for 5 years.

April, 167, 167 J years.

Claim.—1st. The combination of the dome A, frame J and a float for supporting the phosphorus; 2nd. The combination of the dome A, springs B D E, and vessel C, for the purpose of holding the dome vertically and retaining it at one point; 3rd. The combination of the dome A, vessel C, float G, phosphorus K, and the interposed frame J; 4th. A glass dome A, Provided with an inwardly projecting flange F.

# No. 8650. Improvement on Stoves, &c.

(Perfectionnement des poèles, etc.)

James B. Andrews, Jersey, N. J., U.S., 12th April, 1878, for 5 years.

-The suction blower with vanes having their forward ends bent and rear ends curved, the whole mounted and secured to the shaft.

# No. 8651. Improvements in Straw-Carriers.

(Perfectionnements dans les claies à paille.)

Freedom G. Shepard, Battle Creek, Mich., U.S., 12th April, 1878, for 5 years.

Claim.-1st. A straw-stacker for threshing machines made in sections Claim.—1st. A straw-stacker for threshing-machines made in sections hinged together and provided with pins, studs, or their equivalent, near the point of hinging; 2nd. The hinged sections of a straw-stacker, provided with pins or studs b b1 or their equivalent, arranged on opposite sides of the pivots of the hinges, and in close proximity therewith; 3nd. The straw-stacker formed of hinged sections, and provided with pins, studs, or their equivalents, near the point of hinging, in combination with the rope or cord attached to said carrier at a point beyond the hinge or pivot; 4th. The straw-stacker formed of the hinged sections, and provided with the pins, studs or their conjugator and the cord in combination with the windless. studs, or their equivalent, and the cord, in combination with the windlass.

# No. 8652. Improvements in the Application of Pneumatic, Hydraulic, or Steam Pressure. (Perfectionnements dans l'application de la pression pneumatique, hydrauli-

que ou de vapeur.)

John W. Hyatt, Newark, N. J., U. S., 12th April, 1878, for 15 years.

Claim.—The flexible chambers composed of elastic metal plates connected alternately centrally and circumferentially.

# No. 8653. Improvements on Bed Bottoms.

(Perfectionnements aux fonds de lits.)

Norton Adams and Lorenzo D. Mott, Ottawa, Ont., 12th April, 1878, for 5

Claim.—1st. The slot C, cross-slot F r, slot or opening D, screw B and tightening screw K combined together as a compound bed-slat; 2nd. The compound slot X with tin plates G, washers H, hinges L, cord M, support I and notches J.

# No. 8654. Improvements on Ventilators.

(Perfectionnements aux rentilateurs.)

James E. Ellison, Leeds, Eng., 12th April, 1878, for 5 years.

Claim. - 1st. The form of aperture for an air inlet larger in the inside than on the outside, with a tapering connection between; 2nd. The intermediate chamber for the equalizing of the temperature.

# No. 8655. Torch for Lighting Gas.

(Flambeau pour allumer le gaz.)

William W. Batchelder, New York, U.S., 12th April, 1878, for 5 years.

Claim.—1st. A gas torch provided with mechanism operated automatically to withdraw the tape or primer from the magazine and feed and ignite the same by the reaction of a spring operated by means of a cord, wire or chain extending down the interior of the tube of the torch to an operating lever; 2nd. A gas torch having the magazine located upon the same side of the bend as the handle thereof, whereby all injury to the globe or shade is avoided in the use of the instrument, and all danger of the magazine becoming heated and the contents ignited is obviated; 3rd. The combination in a gas torch, of the tubular extension C and tubular section E, riding thereon and operated by means of a spring and a chain, cord or wire extending to a lever near the handle, with the springs H and I and number K, whereby the tape or primer is withdrawn from the magazine and fed forward and ignited; 4th. In combination with the tube A, the longitudinal partition therein dividing the same into two compartments for the passage of the operating wire and the tape or primer, forming a flat guide for the latter; 5th. In combination with the tape or primer, a fastening device for securing the end of the same within the magazine to prevent the tape from being wholly Claim.—1st. A gas torch provided with mechanism operated automatically communation with the tape or primer, a matering device for securing the end of the same within the magazine to prevent the tape from being wholly withdrawn therefrom in order to provide for the attachment of a fresh tape or primer; 6th. A portable percussion torch for lightening gas, constructed and arranged to operate as described.

# No. 8656. Music Transposing Board. (Transpositeur musical.)

Laing Anderson, Corseley, Ont., 18th April, 1878, for 5 years.

Claim.—1st. A musical transposing board with staff lines, having notated letters or characters attached to the ends of wires operated by a key-board; letters or characters attached to the ends of wires operated by a key-board; 2nd. In combination with a transposing board having notated characters operated by wires, a plate J and scale L operating slidingly; 3rd. The combination with a transposing board having notated characters operated by wires, of a slide J for holding the transposing scale L, and a bell or gong Q tuned to operate as set forth.

# No. 8657. Improvements on Harrows.

(Perfectionnements aux herses.)

John McKenzie, East Missouri, Ont., 18th April, 1878, (Extension of Patent No. 2256,) for 5 years.

# No. 8658. Process for Treating the Metal of Old Car Wheels. (Procédé de traitement du métal des vieilles roues de wagons.

George W. Swett, Troy, N. Y., U. S., 24th April, 1878, for 5 years.

Claim.—In melting the metal in a reverberatory furnace by means of a carbonizing flame until a highly heated state of liquidity is obtained, and in sequence the application of a decarbonizing flame to the extent described, and the subsequent addition of speigle Tranklenite, or number one or number two iron, in the proportions named.

# No. 8659. Combined Rein and Whip-holder,

( Accrocke-guide et porte-fouct combines.)

John Johnston, Iona, and Mark Silcox, Dutton, Ont., 24th April, 1878, for 5

Claim. -The combination of the standard A, the holder E, together with the tooth plate D.

# No. 8660. Improvements on Waggon Brakes. (Perfectionnements aux freinsdes wagons.)

Alfred Hart and Desmond P. Hopkins, San-Marcos, Texas, t. S. 24th April,

1878, for 5 years. Claim.—The movable waggon body A, the longitudinally adjustable perch C, cranked shaft H, carrying shoes g, pivoted supporting arms vecomeeting rods c, and a suitable locking device applied to one of said arms, and the waggon body, in combination with the front and rear holsters F E, front and rear hounds, and running gear

# No. 8661. Improvements in Flying Machines. (Perfectionnements and machines colantes.)

James J. Pennington, Henryville, Ten., U.S., 24th April, 1878, for 5 years

Claim—1st. The combination of a movable ensing B, having air-conduits F and an air-discharge or blast tube C, with a revolving fan E and supporting frame A; 2nd. The gate H, in combination with the discharge nozzle C having the fin-shaped end.

# No. 8662. Improvements in Sewing Machines. (Perfectionnements dans les machines a condre. )

Joseph M. Cook, New York, (Assignee of George D. Hart, Newark, N. J.) U.S., 24th April, 1878, for 5 years.

Claim,—1st. The combination with a fixed bracker, of the proser toot carrying a fixed laying hith and loop carrier with a vertical shaft operated by a projection upon the needle bar of a sewing machine, and transmitting rotary reciprocating motion to the loop earrier; 2nd. In combination with the presser foot A, carrying the bracket of and the fixed laying hith B, and loop carrier C the spirally grooved shaft F, adapted to be operated by a projection upon the needle-bar of a sewing machine, and the gears D and E.

# No. 8663. Improvements in Door Hangers.

(Perfectionnements dans les ferrures des portes,) Warren E. Warner, Symouse, N. Y., U.S., 24th April, 1878, for 5 years

Warren F. Watter, Syncise, S. F., C. S., 2 th April, 126, 107 Syens Claim.—1st. A hanger having a suspension device for suspending the door by the edges attached in the manner specified. 2nd. The adjustable hanger consisting of the compound roller carriages connected by a rod D., 3rd. The suspending rods S, attached to the roller frame, provided with the friction roller R and an adjustable device; 4th. In combination with the plate O, the drop stop Or, its range of motion being limited by the pins I.1, the device being adapted to be fastened on the inner edge of a door to prevent a running out too far. ning out too far.

# No. 8664. Improvements on Carriage Seats.

(Perfectionnements aux sièges des voitures.)

Pierre U. Tetu, St. Pudentlenne, Que., 21th April, 1878, for 5 years.

Résumé.-Le ressort, l'écron, la broche de fer servant de bras, la ture et la ferrure dans laquelle passe le brus, comprenant les figures ABCDE.

# No. 8665. Apparatus for Controlling Gas. (Appareil à contrôler le gaz.)

George Weston, Sheffield, Eng., 24th April, 1878, for 5 years.

George Weston, Sheffield, Eng., 24th April, 1878, for 5 years. Claim.—1st. The diaphragm r and valve g, in combination with the casing consisting of the discs  $\Lambda f$  having the inlet  $\ell$ , outlet d and tube h; 2nd. The combination of the casing  $\Lambda_2$  having the inlet  $\ell$  and outlet k, the valve  $\ell$ , spring lever m and adjusting serew r; 3nd. The rubber discs m tor, ring at and adjusting serow b, in combination with the valve v; 4th. The combination of the casing Ct, having the inlet ct, outlet dt, and liquid chamber ct, the tube q1 and float f1; 5th. The combination of the chamber Dt, having mercury filled recess ht, inlet t1 and outlet t2, the cup-shaped valve t1 and air supply pipe mt1; 6th. The combination of the diaphragm tt2, lever rt2 and flexible tube nt3. The combination of the electro magnet tt3, having the armature tt4, the valve tt5 and diaphragm tt6; 6th. The electro magnet tt6, having the armature tt7, in combination with the fextile tube tt8; 9th. The protected igniting burner and the burner tt8, in combination with a device for controlling the flow of gas to the said burner tt8.

# No. 8666. Improvements on Postage Stamps. (Perfectionnements aux timbres-poste.)

James Sangster, Robert Dunbar and George H. Dunbar, Buffalo, N. Y., U. S., 24th April, 1878, for 5 years.

Claim.—1st. Postage or other stump having the ink composing the stamp design more easily removable in the treated portions A than in the untreated portions of the stamp, 2nd. A postage or other stamp treated with an alkali or its equivalent, whereby the cancelling ink, when put on, becomes indelible in the portions so treated

# No. 8667. Improvements on Hay Knives.

(Perfectionnements aux conteaux à foin.)

John Granger, Dunbarton, Ont., 24th April, 1878, for 5 years. Claim .- The combination of the hundle D, shank B, foot bar C and Llade A.

# No. 8668. Improvements in Bridge Building.

Perfectionnements dans la construction des ponts.

Edward Wasell, Digby, N.S., 24th April, 1878, for 5 years

Claim.—1st. The combination of the sheath-like casting F, the rails or bars acting as chords or posts K and I and fastened together: 2nd. The combination of the sheath-like castings A and C, the rails K and I, the

cables A E D B D E C and the pin P fastened together, 3rd. The combination of the castings E D and B, having grooved, or semi-circular accurred beds H and ears, or large b, with the posts I, the chords J and the chains, ropes or cables A E D B D E C

# No. 8669. Process for Drying and Preserving. (Procede pour secher et conserver.)

Andrew J. Chase, Boston, Mass., U. S., 24th April, 1878, for 5 years

Claim.—The process for drying and preserving, consisting of passing a through a cooling receptacle, after which it is passed through a most arrabsorbing material and finally turefled and oxpanded by means of heat previous to its entering the preserving room.

# No. 8670. Machine for Drawing Wire.

(Machine a degrossir le fil métallique.)

Charles D. Rogers, Providence, R.L., U.S., 24th April, 1878, for 15 years

Charles D Rogers, Providence, R. I., U.S., 24th April, 1878, for 15 years.

Claim.—1st. The combination with the drum and the draw plate, of stoping mechanism, whereby when the wire breaks between the draw plate and drum, the latter will be prevented from revolving; 2nd. The combination with the drum and its driving shaft, of stopping mechanism controlled to a real standard whereby when the real standard is unduly displaced from a proper position the drum will be stopped; 3rd. The combination with the drum of a wire drawing machine, of a presser for preventing the wire tron uncoding. 4th In combination with a drum in a wire drawing machine and stopping mechanism, of a presser whereby, when the dram is stopped the presser is caused to engage with the wire coiled on the drum; 5th. The combination with the driving shaft, the drum and its connecting clutch, of the disc on the shaft, its latch, a spring slide controlled either by a die plate or real standard, or both a sleeve provided with inclined planes, foosely mounted on the shaft, its latch, a spring slide controlled either by a die plate or real standard, or both a sleeve provided with inclined planes, foosely mounted on the shaft, its days and a cross head for lifting the drum.

#### No. 8671. Improvements in Picture Frames. (Projectionnoments dans les contres d'images :

Sylvester C. Bigford, Toronto, Ont., 24th April, 1878, for 5 years.

Claim.—A moulding for picture and other frames constructed with member B, which member is cut from the solid wood of moulding forming an integral portion thereof, and serving the purpose of a retaining strip for the glass, &c., and an inner margin to the frame.

# No. 8672. Improvement on Stump Machines.

(Perfectionnement des arrache-souches.)

James W. Anderson and Charles P. Anderson, Elora, Ont., 24th April 1878, for 5 years.

Claim,—1st. The combination of the grab from I with the sower chain K and pocket wheel II; 2nd The combination of the pall a, and trip weight B; 3rd. The combination of the driving wheel D, the driving chain P and the friction pulleys T T.

#### No. 8673. Improvements on Saw-mill Carriages. (Perfectionnements aux charriets des scieries.)

Robert McGuire, Chatham, N.B., 24th April, 1878, for 5 years.

Claim.—In combination with an endless rope revolving below the carriage way, a track C, having one or more frames Q, constructed with clamp block R, sliding frame S, having block T and operated by a lever V, for clamping the rope P.

# No. 8674. Process for making Pails from Pulp. (Procédé pour juire des scaux de pulpe.)

Ezra B. Eddy, Hull, Que., (Assignee of Eber Hubbard, Medina. N Y., U.S.,) 24th April, 1878, for 5 years.

Claim .- 1st. The combination of the conical form E with the flaring ring Catan.—1st. The combination of the conical form E with the naring ring of, placed thereon and forming the shoulder at the junction; 2nd. The combination at the conical form E with the flaring ring G, in combination with a series of exterior compressible staves B; 3nd. The combination of the car pressible staves B and the retracting spring b, connected thereto, but he combination of the bed A, with post H, staves B, rings C, inner former E G cover L and Low. G, cover I and key J.

#### No. 8675. Improvements on Holdbacks and Trace Detachers. (Perfectional ments anx rayots de limonières et aux crochets de palonniers.)

Almon B. Roberts, Brooks, Mc., U. S., 25th April, 1878, for 5 years

Almon B. Roberts, Brooks, Mc., U. S., 25th April, 1878, for 5 years. Claim.—1st. The base plate A formed with the recess a, boss b, hole d ears ee, with slot between them, in combination with the hook B, with the arm B<sub>1</sub>, the latch C, with head Cl, and the spring D, 2nd. The combinator of the recessed perforated and slotted base-plate A, having boss b and ears e, the hook B with arm B<sub>1</sub> and tenon h, the latch C with head C<sub>1</sub> and the spring D; 3rd. In combination with the whiftle-tree A<sub>2</sub>, the rotary detacher C<sub>2</sub>, constructed with central projection A<sub>2</sub> formed or arranged to result and bear on the top of the whiftle-tree, while the traces are drawing upon the quadrantal hooks  $b_2$   $b_2$ ; 4th. In combination with the cross-bar B the whiftle-tree A<sub>2</sub>, and the rotary detacher C<sub>2</sub>, constructed and applied as described, the holding spring D<sub>2</sub> fixed to the cross-bar and arranged with the bow  $a_2$ . the bow a.

# No. 8676. Improvements on Lawn Mowers. (Perfectionnements and faucheuses a bras.)

William J. Lloyd, William W. Supplee and Coates Walton, Philadelphk Pa., U. S., 25th April, 1878, for 5 years.

Claim.—1st. The sectional ratchet caps fitted to the driving shaft 2nd The driving shaft constructed of tubular form and clutched to one of the wheels of the gearing of the rotary cutter; 3rd. The tubular driving shaft with an inclosed stay-rod. 4th. The hearings of the cutter-shaft formed with movable caps which are jointed to the stationary portions and provided with screws, so as to be adjusted in right lines and axially, 5th. The gear box

formed in sections of equal or nearry equal parts—6th—The stationary knife mounted on bosses through which the holding screws or bolts are passed. 7th. The rotary cutter formed with transversely extending lugs; 8th. The handle attached to the side plates or frame by means of lugs with overtheying portions; 9th. The combination of sectional ratchet caps, driving wheels, tubular shaft, sectional gard box and cutters; 10th. The combination with the side plates or frame of adjustable caps for the shaft of the rotary-cutter and cosses for the stationary cutter

# No. 8677. Improvement on Piston Packing.

(Perfectionnement des garaitures de pistons )

Archelaus V. Stewart and Herman B. Wells, Cincfunati, Ohio, U.S., 25th

April, 1878, for 5 years.

Claim.—A packing ring and Intricating compound composed of slippery elm or other equivalent vegetable substance, and material for absorbing the former material, and holding the same in proper contact with the parts to be packed and lubricated

#### No. C378. Improvements on Bolt-cutters. (Perfectionnements aux cisailles a boulons.)

William McDade, Struthroy, Ont., 25th April, 1878, fc. 5 years.

Claim.—The solid frame A with bevelled edge c, in combination with the cutting bar C handles D and enclosing plates E

# No. 8679. Improvements on School Desks.

(Perfectionnements aux papitres d'écoles.)

Edward G. Durant, Racine, Wis., U.S., 25th April, 1878, for 5 years.

Chain.—1st. The combination, in a seat or similar article of furniture, of a sustaining arm, or standard provided with lugs, a series of wooden slats applied to said arm and a pin or pins passing through the slats and lugs to hold the former in place. 2nd The combination of the metal arm A provided with lugs C the slats B and the fastening pin or wire D. 3rd A cast metalarm or standard A, for seats or similar articles of furniture provided with inch shading to to receive wooden slats and the fastening pin or wire.

#### No. 8680. Improvements in Cooking Stoves. Perfectionnements dans les poêles de cuisine.)

James M. Spencer, Great-Village, N.S., 25th April, 1878, for 5 years.

Claim.-1st. In combination with a soft coal or wood burning stove, havag an elevated oven, the deep ash pit c v r containing ash pan a a a, having bale or handle h h; 2nd. The combination and construction of back basings to stoves, constructed in three triangular pieces, cut by lines c c c c basing deep ribs R R R.

# No. 8681. Improvements on Horse Shoes.

(Perfectionnements aux jers a cheval.)

George E. Pierce, Colchester, Ont., 25th April, 1878, for 5 years.

Claim —The combination of the plate a -flange b, band r, bolt d and long washer c.

# No. 8682. Improvements in Hay Rakes.

(Perfectionnements dans les rationes a mas)

Charles Lundy, Newmarket, Ont., 25th April, 1878, for 5 years

Claim—1st The hollow axle tree A with journals L. E., upon which the wheels F F revolve in combination with the dump rode D D, connected to each of the whoels F F, and having friction pulleys C C keyed to them, 2nd. The friction band I attached to the pin J, fitting around the friction pulleys C C and connected to the arm K, in combination with the spindle L, and N and grooved semi circular lover P, operated by the foot lever O, through the rod P, Jnl. The arm N, pivoted upon the spindle L, and provided with a roller B reating on the lever P, in combination with the notched quadrant M, keyed to the spindle L.

#### No. 8683. Improvement on Washing Machines. (Perfectionnement des muchanes a laver.)

Albert R. Fowler, Rochester, N. Y., U. S., 25th April, 1878, for 5 years,

Claim—1st The combination with the standard B B, of the bevel piece cattached to the foot of one of the standards, the socketed block d attached to the bottom of the tub and receiving said bovel piece the curved piece f on the opposite standard resting against the tub, and the loose locking piece g inserted in the space between the standard and the tub above the block d 2nd The combination with the futler foller E and the pressing rollers G G, of the bearing plates K K, provided with sockets to receive the journals of the pressing rollers constructed with the brick runs n, resting over the tops of the standards, and connected by springss s s s with the plates t t t, 3rd, The combination with the fluted roller E, of the rubber packing rings k k, resting in grooves at the end of the roller and the covering caps t t serving as chairs to tighten the rings in place; 4th. The combination of the cearing plate K provided with oval ling r, and the bearing I provided with opt soit m, said bearing I being attached to the top of the standard, and the shell allowing a rocking monon of the ing increm. Claim -1st The combination with the standard B B, of the bevel piece

#### No. 8684. Improvement on Fruit Dryers. (Perfectionnement des séchoirs à fruits.)

William S. Plummer, Portland, Oregon, U S., 25th April, 1878, for 5 years. Claim.—The combination of the fire box N drum P pipes Q and coils with the lower case A, provided with the luning B pipes C, and holes D, the continuous platform F, the upper case H, provided with the posts I, the slides J, the doors L, and the cover M

#### No. 8685. Mode of Lacing Boots and Shoes. (Mode de lacer les chaussures.)

Nathaniel Evans, Boston, Mass., U.S., 25th April, 1878, for 5 years.

Claim.—A shoe provided with lace holes along the two edges of the opening, one set of holes being coincident with the other set, together with an auxiliary hole at one side, all adapted to receive a lacing.

# List of Patents issued up to 21st May, 1878, but not yet Officially published in the Patent Office Record.

No 8686 J. H. Palmer Lodi Wis., U. S. A. "Wind Mill," 25th April, 1878.

No. 5687. S. Bair, Spencerville, Ind., U.S. A., "Churn," 25th April, 1878.

No. 2688. O. Wilhamson, Covington, Ohio, U.S.A., "Picture Exhibitor," 25th April, 1878.

No. 5689. J. Smith, Hamilton, Ont., 'Pruning Knife, '25th April, 1877. No. 6690. B.P. Morrison, Abingdon, Virginia, U. S.A., "Thill Coupling," 25th April, 1878.

No \$691. F. Clark, Springfield, Mo., U.S.A., "Saw Guide," 25th April,

No \*602 C. Ryan, Montreal, Que., "Pots for Hot Air and Hot Water Purnaces Combined," 25th April, 1878.

No. 8693. W. H. Rodden, Toronto, Ont., Marking Pots, 25th April, 1-78.

No 5694. P. H. Lindsey, Lockport, N.Y., U.S.A., Buggy Top Adjoster, '25th April, 1878.

No. 8695, G. W. Staker, Monroe, Iowa, U.S.A., Apparatus for Rescuing Goods from Fire," 25th April, 1878. No. 2696. W. H. Doane and G. W. Bugbee, Cincinnati, Ohio, U. S. A., "Blad Stale Boring and Mortising Machine," 25th April, 1878.

No. 8697. D. B. McRao, Bay City Mich , U S. A 'Circular Saw," 25th April, 1878.

No. 2694 No. 8692 Jas. F. McCoy and A. Tyler, Ayer's Flat, Que., Freight Car Coupler," 29th April, 1878.

No -699 Godfroy Moreau, Victoriavillo, Que., Reservoir or Tank,

30th April, 1878. No. 8700. J. N. Cottin and G. Whitefield Bond Buddeford, Me. U S A Bearers for Harness Collars and Breeching," 30th April, 1878.

No \*701 Jas Wythe Bowmanville, Ont., Process and Apparatus for Bread Making," 30th April, 1878.

No. 8702. E. T. Gennert, New York, U.S.A., " Drying Kiln," 30th April, 1878.

No. 8703. S. Rich, Boston, Mass., U.S.A., "Method of Preserving Cured Fish and Potatoes," 30th April, 1878. No. 8701. F. and C. Watkins, Woodstock, Ont., "Pump,' 30th April,

1878.

No. 8705. M. A. Keller, Fremont, Ohio, U. S. A., "Grain Raking and Binding Machine," 30th April, 1878.

No. 8706. F. J. T. Dixon, St. Alphonse, Que., "Animal Power for Churns, Ac.," 30th April, 1878.

No. 8707. W. E. Henderson, Winona, Minn., U.S.A. "Furnace" 30th April, 1878.

No. 8708. C. and B. H. Dusenbury, New York, U.S.A. "Apparatus for

Casting Metal, 30th April, 1878. No. 8709. J. F. Allen, Brooklyn, N. Y., U.S. A., "Rivetting Holding-on Bar," 30th April, 1878.

No. 8710. Jno. A. McMartin. Montreal, Que., "Pump. 30th April, 1878.

No. 8711. R. H. McQuoid, Frankford, Ont., ' Hay Press,' 30th April,

No. 8712. W. E. Nickerson, Somerville, Mass., U. S. A., "Circular Saw Making Machine," 30th April. 1878.

No. 8713. R. Strange, Point Edward, Ont., 'Instrument for Curing Piles,' 30th April, 1878.

No. 8714. Jno. Mos., New York, Jno. H. Smith and G. J. Hill, Buffalo, N.Y., U.S.A., "Cash Recording Machine," 30th April, 1878. No. 871 5. W. S. Plummer, Portland, Oregon, U. S. A., 'Fruit Drie,"

30th April, 1878. No 8716  $^{\circ}$  H  $^{\circ}$  Thompson Jr , Pittsfield Mass  $^{\circ}$  U S A Binders," 30th April, 1878.

No 8717 J Chittock, Cleveland, Ohio, U. S. A., Transparent Buriat Casket," 30th April, 1878.

No. 8718. E. T. Gennert, New York, U.S.A., "Evaporating Pan," 30th April, 1878.

No. 8719. Jas. M. Lasater, Manchester, Ten., U. S. A., "Fish Trap and Bucket Combined," 30th April, 1878.

No. 8720. B. Holly, Lockport, New York, U.S.A., "Street Pipes for Supplying Large Districts with Heat for Warming Buildings," 30th April,

No. 8721. Jno. Kinleyside, M. Wilson and C. Schoonmaker, Hamilton, Ont., "Gardening Implement," 30th April, 1878.

No. 8722. W. H. Doane and G. W. Bugbee, Cincinnati, Ohio. U. S. A., "Band Saw," 30th April, 1878.

No. 8723. H. K. Fligler, (Assignee of R. R. Atchison), Boston, Mass., U.S.A., "Engraving, Cutting and Chasing Machine," 30th April, 1878.

No. 8724. M. G. Field and Jas. Finigan, Syracuse, N.Y., U. S. A., "Apparatus for Constructing Sewers, &c.," 30th April, 1878.

No. 8725. B. Holly, Lockport, N. Y., U. S. A., "Steam Generator for Warming Buildings, &c.," 30th April, 1878.

No. 8726. G. H. and Jno. F. Kitchen, Ryc, and F. McLowee, New York, (Assignces of Jno. R. Scattergood, New Jersey), U.S.A., "Gas Lighter," 30th April, 1878.

No. 8727. F. M. Sheppard, New York, (Assignee of B. B. Douglass, Newark), U.S.A., "Garden Hose Reel," 30th April, 1878.

No. 8728. B. French, Rochester, N.Y., U.S.A., "Lubricating Compound," 30th April, 1878.

No. 8729. H. Ransford, Brighton, Eng., "Brine Evaporator," 30th April, 1878.

No. 8730. R. Moore, Kingsville, Ont., "Fruit Drier," 30th April, 1878.

No. 8731. I. Davis, St. Paul, Min., U.S.A., "Tobacco Pipe," 30th April, 1878.

No. 8732. W.W. Kitchen, Grimsby, Ont., "Calendar," 30th April, 1878.

No. 8733, B. Holly, Lockport, N.Y., U.S.A., "Meter Valves of Apparatus for Warming Buildings," 30th April, 1878.

No. 8734. F. W. Brooks, New York, U.S. A., "Postal Card," 30th April, 1878.

No. 8735. W. Shaw, Kingman, Me., U.S.A., "Bark Cutting Machine," 30th April, 1878.

No. 8736. H. C. Goodrich, Chicago, Ill., U. S. A., "Slates," 30th April, 1878.

No. 8737. J. Russell, Newark, and J. J. Reimer and C.E. Moller, Hoboken, N.J., U.S.A., "Horse Shoe," 30th April, 1878.
No. 8 S. T.T. Turnbulland C. N. Armstrong, Montreal, Que., (Assignees of E. Grivel, Paris, France,) "Compressed Lamp," 2nd May, 1878.

No. 8739. W. McKenzie, New York, U. S. A., "Improvement in the, Manufacture of Tubing," 2nd May, 1878.

No. 8740. P. Fitzgibbons, Oswego, N.Y., U. S. A., "Steam Boiler," 2nd

May, 1878. Jno. B. Fayette, Oswego, N.Y., U.S.A., "Lifting Jack," 2nd

No. 8741. May, 1878. No. 8742 J. Roberts, Leon, Iowa, U.S.A., "Boot Jack," 2nd May, 1878.

No. 8743. E. C. Jones, Warrenburg, Miss., U.S.A., "Invalid Chair," 2nd May, 1878.

No. 8744. Switches," 1. G. Royal, Trukee, Cal., U. S. A., "Device for Cleaning 2nd May, 1878.

No. 8745. H.W. King, Alden, N.Y., U.S.A., "Barrel Trussing Machine," 2nd May, 1878.

No. 8746. J. Brown, Malahido, Ont., 'Threshing Attachment to Grain Thrushers." (Extension of Patent No. 7546,) 2nd May, 1878.

No. 8747. J. Brown, Malahide, Ont., "Threshing Attachment to Grain Thrashers," (Extension of Patent No. 7546,) 3rd May, 1878.

No. 8748. G. W. Ainsworth, Montpelier, Vt., U. S. A., "Clothes Drier," (Extension of Patent No. 2315.) 4th May, 1878.

No. 8749. E. W. Lee, Stanstead, Que., "Sap Pan Elevator and Car," (Extension of Patent No. 2332,) 6th May, 1878.

No. 8750. T. H. Risden and W. W. Tyler, Mount Holly, N. J., U.S. A., "Turbine Wheel," 7th May, 1878.

No. 8751. T. S. Brown and J. P. Adriance, Poughkeepsie, N. Y., U.S.A., "Harvester," 7th May, 1878.

No. 8752. J. S. Kemp, Magog, Que., and W. McK. Burpee, Derby, Vt., U.S.A., "Manure Spreading Machine," 7th May, 1878.

No. 8753. H. Woodman, Saco. Me., U.S.A., "Positive Motion Loom," 7th May, 1878.

No. 8754. C. Fockler, Dabuque, Iowa, U. S. A., "Vehicle Top," 7th May, 1878.

No. 8755. G. J. Kantz, Emporium, Pa., U. S. A., "Circular Sawing Machine," 7th May, 1878.

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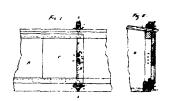
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ILLUSTRATIONS.

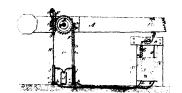
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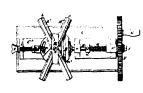
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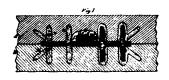
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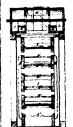
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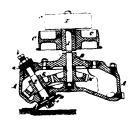
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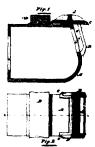
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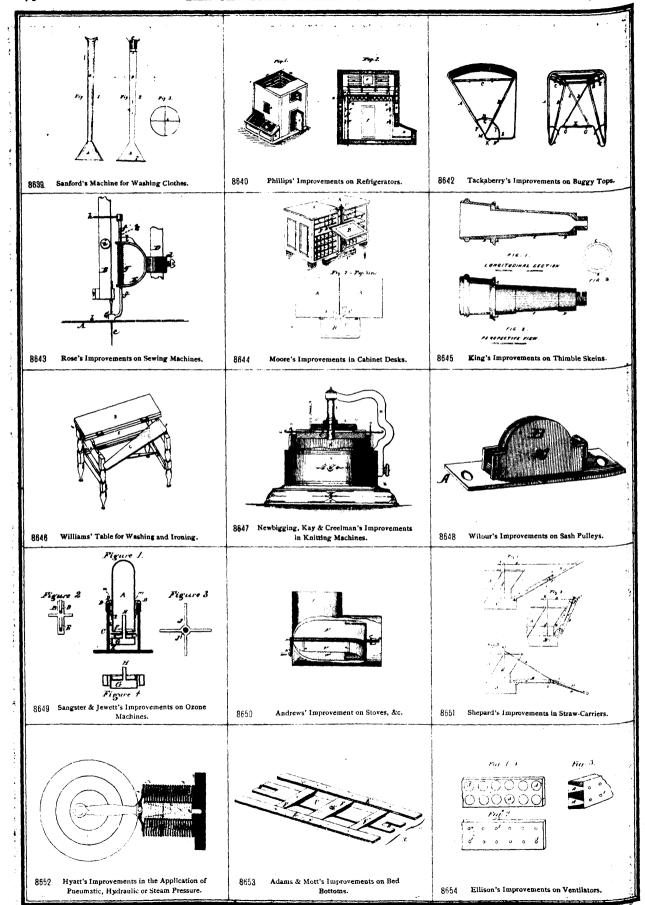
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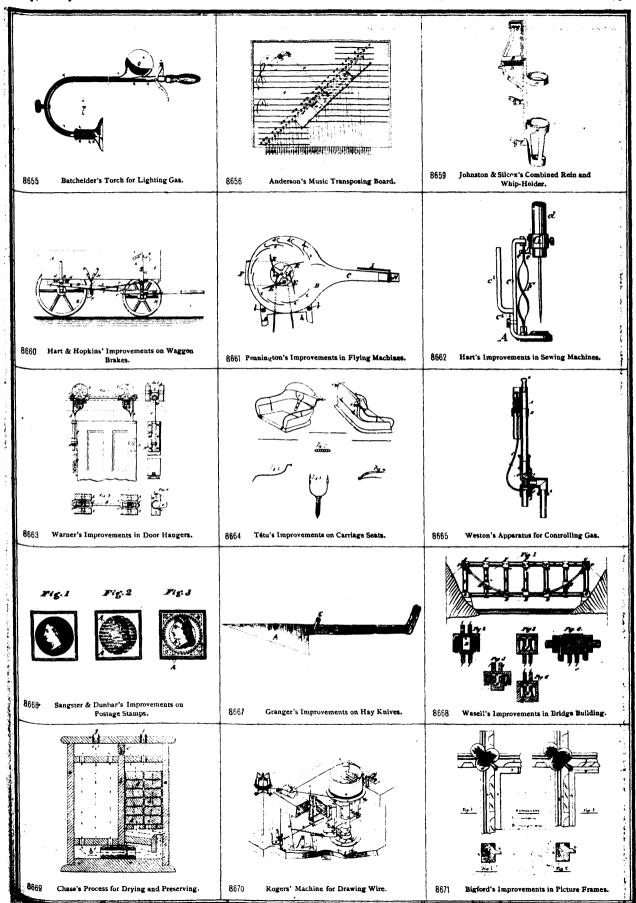


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