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# The Canadian Patent Office

## RECORD

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### CONTENTS.

INVENTIONS PATENTED, .....	133
INDEX OF INVENTIONS,.....	143
INDEX OF PATENTERS,.....	144
ILLUSTRATIONS,.....	147

### INVENTIONS PATENTED.

No. 2472. ALBERT H. MERSHON, Philadelphia, Penn., U. S., 17th June, 1873, for 5 years: "A Gas Heater." (Fourneau à gaz.)

*Claim.*—1st. The gas heater constructed of a metallic body having a face in connection with perforations in and corrugations on said face, so as to form a heating surface on the front or toward the apartment; 2nd. In combination with a gas heater mechanism for obtaining hot water and steam as set forth.

No. 2473. JOHN CHARTON, Philadelphia, Penn., U. S., 17th June, 1873, for 5 years: "Shaft Coupling." (Ajustage des axes.)

*Claim.*—1st. A covered coupling consisting of the clamps formed in the body A, and the portions D, E, in connection with tightening screws, wedges or bolts; 2nd. The conical screws, wedges, or bolts, and the conical openings, in connection with the clamps C, and body A; 3rd. A coupling adapted to receive and hold the ends of shafting of varying diameters; 4th. The clamps divided transversely so that one pair or set is independent of the other; 5th. The auxiliary clips or fastenings H; 6th. The body cored or separated to form the segment of a circle which is divided at a in connection with the transverse division at G.

No. 2474. MICHAEL A. LYNCH, Boston, Mass., U. S., 17th June, 1873, for 5 years: "Lamp Lighting Apparatus." (Appareil pour allumer les lampes.)

*Claim.*—The shaft *a*, tooth *i*, crank *f*, connecting link *c*, lever or discharger *d*, and tube *e*, such fuse tube and shaft being applied to a lamp burner as described; the fuse made as described, composed of a strip of pyroxyline, notched or serrated and provided with a fillet of match composition to ignite by friction of a lever or striker as explained.

No. 2475. EDWARD J. CRANGLE & JAMES P. CRANGLE, (Assignees of W. F. Burton), St. Stephen, N. B., 3rd July, 1873, for 10 years: "Self-feeding Lath Gang Machine." (Machine à latte, multiple et à alimentation continue.)

*Claim.*—1st. The arrangement of the saw shaft B, elevated above the plane of the shafts of the lower feed rollers, whereby the saws cut below their shaft; 2nd. The combination and arrangement of the triple feed rollers D, D, D, and receiving rollers H, H, for feeding and delivering the stuff to and from the saws; 3rd. The arrangement and combination of the friction wheels K, A, and friction roller J, for operating the shafts of the feed and receiving rollers; 4th. The application and arrangement of the lever, T, whereby the upper shafts of the feed and receiving rollers can be simultaneously depressed as set forth.

No. 2476. EDWARD J. CRANGLE & JAMES P. CRANGLE, St. Stephen, N. B., (Assignees of W. F. Burton), 3rd July, 1873, for 10 years: "A Lath Machine." (Une machine à latte.)

*Claim.*—1st. The combination and arrangement of the pivot and sliding bearing of the feed roller shaft F, with the shaft E, and frame A, whereby the upper feed roller has a vertical movement to and from the lower feed roller; 2nd. The arrangement of the saw shaft C, gauge J, feed roller I, and friction roller L, whereby the cut of the saw is effected above the shaft C; 3rd. The application to the feed shaft F, of a lever M, and weight P, arranged as set forth, for applying pressure to the feed roller H; 4th. The application and arrangement of the adjustable gauge J, in combination with the feed rollers H, I, and saws whereby the laths may be cut of any desired thickness.

No. 2477. JARVIS B. WHITE & HARRIS WILSON, Windsor, Ont., 3rd July, 1873, for 5 years: "Combination Lock." (Serrure à combinaison.)

So constructed that stationary hooks engage with one of the discs of the lock, which discs form part of the lock, in combination with the change plates.

*Claim.*—The combination of the stationary hooks H, with the dials D, knobs C, rods E, and discs F, G, the parts being arranged as described.

No. 2478. DANIEL S. MERRITT, Bay City, Mich., U. S., 3rd July, 1873, for 5 years: "Machine for Cutting Iron." (Machine à couper le fer.)

Relates to the construction of the upper and under blades of the shears, both blades being sharpened, and when the machine is in operation both cutting, also to the combination of moveable joints and levers, imparting motion to said blades.

*Claim.*—1st. The shears constructed of two moveable parts A, and B, both having cutting edges operating towards each other and pivoted to the standards C, of the frame D. 2nd. The combination and arrangement of the levers G, H, and F, with the blades of shears A, and B, and standards E, of the frame D, for operating the parts A, and B, as set forth.

No. 2479. JOHN H. BRIDGMAN, St. Marys, Ont., 3rd July, 1873, for 5 years: "Hay Rake Spring." (Ressort de râtelier à foin.)

*Claim.*—The peculiarly shaped and constructed springs composed of steel Fig. 3, *a, b, c, d, e*, and *c*, also Fig. 2, and placed in combination by bolts with the hay rake at *c, c*, Fig. 1.

No. 2480. EBENEZER A. GOODES, Philadelphia, Penn., U. S., 3rd July, 1873, for 5 years: "Toy Sewing Machine." (Machine à coudre les jouets.)

*Claim.*—1st. The frame E, consisting of the part H, supporting the work plate, the part G, forming one bearing for the looper rod M, the part F, by which the frame is supported and secured, the part J, forming the other bearing for the looper rod, and one bearing of the driving shaft O, the part J', forming the other bearing of the driving shaft and the part N, forming the foot, the parts being continuous and adapted to operate in the manner described; 2nd. The rod M, with looper T, at one end, and the cam arm U, at the other end in connection with the spring V, for operating the arm U, in one direction and the handle J, of the wheel Q, for operating it in the other direction; 3rd. A sewing machine consisting of the frame E, F, G, J, J', work plate L, presser foot N, looper T, M, U, spring V, hand wheel Q, rod O, the needle and needle bar R, cor-

structed and operating as described; 4th. The case A, having a hinged top B, which supports the machine, and a lid C, whereby the machine may be enclosed in the case, in the manner described.

**No. 2481. WILLIAM DEPEW, Paris, Ont., 30th June, 1873, for 5 years: "Combined Straw-cutter and Grain Grinder." (Hache-paille et mouture combinés.)**

*Claim.*—1st. The combination of a straw-cutter and grain grinder on one frame and driven by one shaft, also in the fastening of the front plate and grinding plates C, and d, to the plate B, by means of the lever u; 2nd. In turning the double pinion from left to right on the main shaft C, and thus doing away with intermediate wheel between the spur wheel U, and the pinion T, also in the straight lever S. The placing of the spur wheel X, and V, on the outside of the frame A to enable the feed rollers I, J, to be brought close to the cutting knives. The fluted mouth piece G. The fluted comb H, and the weight L, directed on the hangers K, K, and the single swing N, underneath.

**No. 2482. JOHN J. WIGLE & ANDREW WIGLE, Gosfield, Ont., 3rd July, 1873, for 5 years: "A Horse Hay Fork." (Une fourche à cheval.)**

Consists in the combination and arrangement with the prongs of the fork, which are united by a circular band, of a semi-circular lever pivoted to the prongs, the ends of the lever project and connect by pivot joints to the harpoons, by means of a rod so that when the lever is raised or depressed the harpoons will be operated simultaneously.

*Claim.*—The combination and arrangement of the semi-circular or bow lever E, and connecting rods G, with the prongs A, having a circular head C, and harpoons B.

**No. 2483. JOSEPH LUDLAM, Kingsville, Ont., 3rd July, 1873, for 5 years: "A Harpoon Fork." (Une fourche harpon.)**

Relates to a fork with two, moveable points worked by a bale acting as a lever in raising or depressing the points.

*Claim.*—1st. The frame A, in combination with bale B, rods E, E, fulcrum axle C, axle D, and points F, F; 2nd. The sheave F, acting in combination with hole G, by means of a rope or cord fastened at G.

**No. 2484. BENJAMIN P. KING, Shelburne, N. S., 30th June, 1873, for 5 years: "Capstan and Windlass Gearings." (Engrenage des cabestans et guindeaux.)**

*Claim.*—1st. The toothed rim A, made in segments and secured to the barrel of a windlass; 2nd. A windlass marked by a vertical screw and toothed rim, the combination of the twin cogwheel C, D, with the lever H; 3rd. The combination of the cog-wheels F, and G, with the capstan; 4th. The combination of the cog-wheels C, D, with the cog-wheels F, and G, for the purpose of giving more or less speed to a windlass.

**No. 2485. LEVI DODGE, Waterford, N. Y., U. S., 3rd July, 1873, for 15 years: "A Baling Press." (Une presse d'emballage.)**

*Claim.*—1st. A cylinder or case A, in which the bale is given shape at the time of commencement of its formation so constructed as to permit the bale when formed to be bound before its removal from the press in rollers B, or other feed and pressing devices arranged to progressively feed and compress successive portions of the hay or other material into the cylinder or case until the bale is built up and formed in and beneath it. In a sliding table or support C, upon which the bale during the process of its formation will rest, said table the feeding and compressing devices being arranged as stated so that the one may have a motion away from the other, in proportion as the bale is built up and compressed; 2nd. In combination with the cylinder A, or other case in which the bale at the commencement of its formation receives its shape and the devices by means of which successive portions of the material to be baled are progressively fed and compressed into said cylinder or case, of a sliding table C, or support for the bale arranged as described, and so as to offer a yielding resistance to the compressing devices and to move away from said devices as successive parts of the bale are formed and compressed into and beneath the cylinder or case; 3rd. The combination and arrangement of the cylinder, the sliding table, the feeding and compressing devices with the surrounding frame, by which they are carried; 4th. A press for baling hay, straw, and other like materials, constructed and operated in the manner set forth.

**No. 2486. BENJAMIN P. KING, Shelburne, N. S., 30th June, 1873, for 5 years: "Hawser Pipe." (Plomb d'écubier.)**

*Claim.*—1st. The square hawser pipe A, constructed and fitted to a ship as set forth; 2nd. The combination of the hawser pipe A, fluted roller C, and chain stopper D, all in one piece.

**No. 2487. JULIUS MELCHERS, Windsor, Ont., 30th June, 1873, for 5 years: "A Hitching Post." (Un arénoire.)**

*Claim.*—1st. The peculiar opening or curve in the mouth (A), the hollow cast iron head (B), so curved that in a certain position, the chain cannot be withdrawn by the horse; 2nd. The chain (G), and weight (H), in combination with head (B).

**No. 2488. KATE C. BARTON, Philadelphia, Penn., U. S., 3rd July, 1873, for 5 years: "A Sail Sewing Machine." (Machine à coudre les voiles.)**

Consists in an arrangement of two or more needles and other necessary sewing parts with a device for folding or interlocking the edges of two pieces of fabric to be stitched in parallel lines, the whole operating to produce seams of great strength.

*Claim.*—1st. The combination of the duplex or multiple arrangement of needles and attaching devices travelling on ways with the guides B<sup>1</sup>, and B<sup>2</sup>; 2nd. The windlass W, roller V, card U, and post X, in combination with a travelling sewing machine guided upon rails and operating as described.

**No. 2489. CYRUS W. BALDWIN, Boston, Mass., U. S., 3rd July, 1873, for 5 years: "Hydraulic Elevator." (Un élévateur hydraulique.)**

*Claim.*—1st. In combination with an elevator-carriage and main supply and surplus receiving tanks t, v, one or more cylinders and pistons connected with said tanks and carriage, and provided with valves W, X, for regulating ingress and egress of water, and mechanism whereby said valves may be operated from or by the carriage at any height; 2nd. The combination of the cylinder q, and its piston, the valves W, and X, the crank s, and drum n, the latter being actuated by hand k, and the whole operating as explained.

**No. 2490. HENRY MORAN, PATRICK MORAN & JACOB P. MEDAY, New York, U. S., 3rd July, 1873, for 5 years: "Adjustable Horse Shoe." (Fer à cheval mobile.)**

*Claim.*—The perforated plates C, C, the guard D, loops E, L, lacing F, and frog protector G, in combination with the adjustable horse shoe B.

**No. 2491. JAMES ANDERSON, Quebec, Que., 30th June, 1873, (re-issue of patent No. 1886): "Formation of Spans of Bridges." (Construction des empan des ponts.)**

Relates to improvements on that class of bridges constructed on the principle known as the "Howe truss."

*Claim.*—1st. The top chords constructed as described with the clamps E, in combination with truss rods C; 2nd. The employment of iron or metallic straps B, in combination with truss rods C, constructed as described forming the bottom chord B; 3rd. The application of saddle pieces P, or equivalent bearings on the prism in combination with the prisms or cross girders; 4th. The end bearing blocks M; 5th. In the combination of top chord A, bottom chord B, clamps E, saddle pieces L, with other parts of framing of a "Howe Truss Bridge."

**No. 2492. DANIEL M. LAMB, Strathroy, Ont., 30th June, 1873, (re-issue of Patent No. 2244): "Water-proof Gum." (Gomme hydrofuge.)**

*Claim.*—1st. The art of extracting a water-proof gum from plants of the asclepias or milkweed family or other plants possessing similar properties by subjecting the plants to fermentation and insipidating the resultant liquid by evaporation; 2nd. A new article of manufacture in water-proof gum made from the insipidated juice of plants of the asclepias or milkweed family or of any analogous plants possessing like properties.

**No. 2493. HENRY P. ADAMS, Ravenna, Ohio, U. S., 30th June, 1873, for 5 years: "Butter Package." (Empaquetage du beurre.)**

*Claim.*—1st. The use of thin strips of cut wood scored partly through, bonding, folding, and locking them around each other forming rectangular packages for containing butter; 2nd. In boiling or saturating the thin wood in brine for removing the sap and preparing them for use as butter packages; 3rd. The combination of the rectangular butter packages with the rectangular box D, for economy of space, and so constructed as to be hermetically sealed.

**No. 2494. JOHN P. DALE, Battle Creek, Mich., U. S., 30th June, 1873, for 5 years: "A Milk-safe." (Un garde-lait.)**

Relates to that class of milk-safes which are provided with an internal rotatory rack for carrying the pans.

*Claim*—1st. The rotary shaft provided with bars F, mortised through the same, and with cross bars G, halved into the bars F; 2nd. In combination with one of the shelves H, the circular iron pan J, provided with radial slot d; 3rd. The fall leaf shelf J, provided with prop G; 4th. The arrangement of the safe containing the standard D, troughs E, E, rack bars F, bars G, shelves H, pan J, and fall leaf shelf J.

No. 2495. JOHN R. BLAKESLEE, Youngstown, Ohio, U. S., 3rd July, 1873, for 5 years: "A Nut Machine." (Machine à faire les noix.)

*Claim*—1st. The stem d, and laterally projecting arm d, for holding and swaging the bar in combination with a die a, and a descending shear c, for cutting off the nuts; 2nd. The stem d, and laterally holding and swaging arm d, in combination with the shear c, and punch e, arranged in respect to each other as described; 3rd. The reciprocating die bed f, constructed and operated as described; 4th. The reciprocating die bed f, provided with a cutter g, in combination with a cutter m, punch h, for cutting off and piercing the nuts; 5th. The slide O, forming one side of the die box which acts to hold the bar laterally and at the same time swage it, and operated by the cam p, 6th. The stationary block Q, and slide O, in combination with the reciprocating die bed f, and stem n, provided with a lateral arm n, forming the top of the die box; 7th. The die box consisting of the stationary block O, slide O, bridge block i, reciprocating die bed f, lateral arm n, of the stem n, and shear m; 8th. A plunger p, which yields as the nut is cut from the bar and resumes its normal position when the shear m, is not in contact with the bar of iron; 9th. A reciprocating die bed f, provided with a slot in its bottom and a corresponding opening in the bed plate of the machine through which the nut or washer is discharged in the backward movement of the reciprocating die bed f.

No. 2496. CHRISTOPHER WARDEN & JOSIAH B. PLUMB, Niagara, Ont., 3rd July, 1873, for 5 years: "Process of Converting Cast or Malleable Iron into Steel." (Procédé pour convertir la fonte ou le fer en acier.)

*Claim*—1st. The conversion of malleable iron or cast iron after being annealed into steel, by the process of heating it to incandescence and allowing it to cool gradually as set forth.

No. 2497. GEORGE STACY & HENRY MUIHOLLAND, Montreal, Que., 3rd July, 1873, for 5 years: "Chisel Pointed Nail Machinery." (Machine à clou à pointe de ciseau.)

*Claim*—The novel combination of the punch E, and bed die F, with boreals E, inclined side E, and bevel E.

No. 2498. GEORGE P. CLAPP & GEORGE STACY, Montreal, Que., 3rd July, 1873, for 5 years: "A Fire-escape." (Un appareil de sauvetage.)

*Claim*—1st. The novel combination of the plates a, frictions b, c, d, e, and f, in number more or less, and the spring clays or hooks g, and h; 2nd. The combination of the plates a, frictions b, c, d, e, and f, and hooks g, and h, with rope i; 3rd. The combination of the plates a, frictions b, c, d, e, and f, hooks g, and h, and rope i, with sling n, belt o, and ring p.

No. 2499. WILLIAM ROBINSON, Brooklyn, N. Y., U. S., 8th July, 1873, for 15 years. "Electric Railway Signals." (Signaux de chemin de fer électriques.)

*Claim*—1st. The battery B, and a suitably arranged magnet in combination with each other and with the rails of a section of railway track whereby when said section is bridged by the wheels and axle of a car, the electric circuit is changed and the signal operated through the demagnetization of the said magnet. 2nd. Two or more signals actuating magnets or helices C, T, and a battery B, in combination with a rail section or sections A, whereby the current is divided between the said magnets; 3rd. The combination of the signal actuating electro-magnet C, the rail sections A, and the cut out or key B, whereby the action of the cut out is caused to operate the aforesaid signal actuating magnet; 4th. The combination of the relay of which the electro-magnet C, forms a part, with the two distinctive local circuit connections; 5th. The switch bar made wholly or in part of non conducting material whereby the switch rails are insulated from each other; 6th. The combination of the switch constructed and operating as described with the metallic contact plate A; 7th. The combination with the drawbridge and the circuit connecting of the battery B, of the fixtures A, and the protection A; 8th. The connections of a circuit wire to a rail forming part of the circuit, by means of the casting K, constructed and applied; 9th. The apparatus arranged for signaling at a crossing as shown in Fig. 9; 10th. The apparatus arranged for block signaling as shown in Fig. 10; 11th. The signal bell actuated by axial magnetism in the manner as shown in Fig. 13; 12th. The signal bell actuated by axial magnetism and rendered intermittent in its operation by means as shown in Fig. 14; 13th. The combination with an electro-magnet C, of the rock bar A, capable of movement in a horizontal plane carrying the armature B, and actuating the axially moving vertical rod of the signal disc; 14th. The relay constituted by the magnets A, B, the armature C, and

spring F, in combination with each other and with the wires of a galvanic battery or batteries; 15th. The construction of signal and battery houses for electric railway signals.

No. 2500. LYMAN R. BLAKE, Brooklyn, N. Y., U. S., 8th July, 1873, for 5 years: "A Hydraulic Hose." (Un tuyau élastique.)

*Claim*—In hydraulic hose manufactured from a strip of woven material the edges overlapping and united by stitches passing from the outside to the inside or vice-versa.

No. 2501. NATHAN A. BEACH, TIMOTHY B. RIDER & HAMILTON M. RIDER, Stanstead, Que., 8th July, 1873, for 5 years: "Machine for Measuring and Rolling Cloth." (Machine à mesurer et rouler les tissus.)

*Claim*—1st. The combination of the roller B, crank journals C, arms C, lever D, pawls F, F, and wheel G, with the frame A. 2nd. The friction roller J, arranged and operating as set forth in combination with the roller B, and frame A; 3rd. The standard N, adjustable as set forth with its clamp P, and plate O, arranged and operating as set forth; 4th. In providing the chucks M, M, with V grooves and pins U, for receiving and holding the cloth board and cheek plates R; 5th. In providing the cheek plates R, with a collar S, and thumb screw T, for securing it adjustably to its shaft.

No. 2502. EDWIN D SMITH, Sutton, Que., 8th July, 1873, for 5 years: "Self-acting Car-coupling." (Attelage de voitures de chemins de fer automate.)

*Claim*—1st. The combination with the draw head A, of the hinged flap D, extending across the same internally and journalled at its sides to receive the draw of the coupling bar M; 2nd. In combination with the draw head A, and flap D, the arrangement of the lever H, chain I, and pulley J, whereby uncoupling of the draw bar can be effected from the sides of the car; 3rd. In combination with such draw head and flap the arrangement and employment of the spiral spring G, and guide rod E, for preventing untoward uncoupling; 4th. In providing the draw head internally at its sides with springs L, for compressing the end of the coupling bar M, and allowing it to have a lateral movement as set forth.

No. 2503. JOHN J. WRIGHT, Toronto, Ont., 8th July, 1873, for 5 years: "Newspaper Addressing Machine." (Machine à adresser les journaux.)

The mechanism propels the galley, holding type addresses, in such manner that the type comes under the lever at the proper time for stamping the address.

*Claim*—1st. The combination of lever box, spring, ratchet lever and ratchet; 2nd. The combination of toothed galley and type in such a manner as to be acted upon by the upward motion of lever B.

No. 2504. FRANCIS KORWAN, Kirnhalden, Baden, Germany, 8th July, 1873, for 5 years: "Self-lighting Gas Apparatus." (Appareil automate pour allumer le gaz.)

*Claim*—1st. One or more cocks, valves or equivalent, actuated by a flexible or moveable diaphragm I, operated by the pressure of the illuminating gas supply, which can be regulated by weights J, or their equivalents for the purpose of igniting and regulating one or more gas jets. 2nd. The combination with the tube L, of the auxiliary burner of the screw K, for regulating the influx, and the screw K, for regulating the efflux of the gas; 3rd. In combination with the described gas lighting apparatus the screw cock c, for regulating the flame. 4th. In combination with the diaphragm I, actuating the stop cock of a gas lighting apparatus the pivot bearings o, p, for overcoming the friction on the plug.

No. 2505. JESSE W. HATCH, Rochester, N. Y., U. S., 8th July, 1873, for 5 years: "Heel Stiffening for Boots and Shoes." (Contrefort de chaussure.)

Consists in a heel stiffening produced by crimping in contradistinction to one produced by molding, stamping in dies or otherwise.

*Claim*—A new article of manufacture in a crimped heel stiffening in which the seat B, is formed with a smooth surface, and the wrinkles of the leather are carried down to the inner margin without notching the leather.

No. 2506. DANIEL WOODBURY, Rochester, N. Y., U. S., 8th July, 1873, for 5 years: "A Horse-power." (Manège pour un cheval.)

*Claim*—1st. The combination of a horse-power with a sled when connected by journals a, a, which allow a turning motion, and when said sled has a removeable front bar r, to allow the raising

and lowering of the machine and the levelling frame; 2nd. In combination with the levelling frame I, the rocker plate K, attached on the under side and the lugs L, for the attachment of the rench; 3rd. The independent reach K, when constructed with the lugs L, and block N, and employed either in connection with the levelling frame or as a stay beneath the machine; 4th. In combination with the main frame C, the standard O, when connected with the segment block T, by passing through a socket in the same and secured by the guide plate M, pin V, 5th. In combination with the main frame C, the rigid shore N, when passing through a socket of the segment block T, and made adjustable in the manner specified; 6th. The boxes P, P<sub>2</sub>, made convex or rounding on the four sides and provided with the cylindrical projections *v*, *v*<sub>2</sub>, for fitting the sockets S<sub>1</sub>, S<sub>2</sub>, of the pinions; 7th. In constructing the rear box *u*, in two parts *u*<sub>1</sub>, *u*<sub>2</sub>, one of metal and the other of wood; 8th. In combination with the box Q<sub>2</sub>, which sustains the roller U<sub>2</sub>, the base bar W<sub>2</sub>, and clamp X<sub>2</sub>; 9th. In combination with the bull-wheel D, the guide block or blocks T, when made adjustable by the wedge *h*, or equivalent as described; 10th. The brake U, bearing upon the rim of the spur gear F, when arranged to receive the foot of the operator; 11th. The angular or rounded end *b*<sub>2</sub> of the sweep arm S, fitting in the space between the block M, and rim of the bull-wheel when said end is provided with the hook *c*, and said block with the eye *d*; 12th. The staking bars P, Q, connected at one end with the bearings W, W, and at the other end with each other by the eye and elbow *p*; 13th. In combination with the bull wheel D, of a horse power, the windlass V, and its spur gear *n*<sub>2</sub>, when the same has an end or vertical movement to throw it into or out of gear; 14th. In combination with the bull-wheel D, the dead plates *r*<sub>1</sub>, *r*<sub>2</sub>, or equivalent pinions on a rack frame; 15th. The hanger X, and brace O<sub>2</sub>, when said hanger incloses the bottom of spur gear F, and allows the vertical adjustment of box *v*<sub>2</sub>, which holds pinion G.

**No. 2507. ONESIME THIBAUDEAU, Montreal, Que., 8th July, 1873, for 5 years: "Machine for Sweeping and Scraping Streets." (Machine à balayer et gratter les rues.)**

*Claim* -- 1o. Une machine à gratter et à enlever la boue des rues et à les balayer, la combinaison des grattoirs E, tel que décrit, 2o. La combinaison des ressorts F, passant dans la coulisse verticale de la tête des grattoirs E; 3o. La combinaison des ressorts d'acier G, pour maintenir les grattoirs E, à leur place; 4o. La combinaison manivelle U, avec l'axe vertical V, et son pignon pour communiquer le mouvement du tambour T; 5o. La combinaison de la clofond allée X, et son bouton à cerou XI, avec la platine hexagone de l'axe vertical V, pour retenir le rouleau balayeur P, lorsqu'il est relevé et l'empêcher de balayer; 6o. La combinaison du tambour T, et des chaînes K, pour relever le rouleau balayeur P; 7o. La combinaison des guides N, des grattoirs E, et les languettes O, pour lever et abaisser les grattoirs E; 8o. La combinaison des trois rouleaux H, et de leurs chaînes pour relever un des jeux de grattoirs E, à volonté; 9o. La combinaison d'un quatrième rouleau J, et ses chaînes pour relever ou abaisser les trois jeux de grattoirs E, en même temps; 10o. La combinaison des roues à gouttière Z, et Z<sub>1</sub>, et la chaîne sans fin à maille carrée G<sub>1</sub>, pour communiquer le mouvement au rouleau balayeur P; 11o. La combinaison de la planchette C<sub>1</sub>, pour empêcher la poussière de s'élever et de se répandre de tous côtés; 12o. La combinaison des grattoirs P, pour gratter et enlever la boue des rues et le rouleau balayeur P, pour les balayer; 13o. La combinaison des ressorts ou bandes de fer N, pour baisser le brancard de derrière B, à mesure que s'usent les lames ou bâteaux métalliques du rouleau balayeur P; 14o. L'ensemble de la machine et la combinaison de toutes ses parties.

**No. 2508. JOHN COWAN, Dromore, Kenmare, Ireland, 8th July, 1873, for 5 years: "Apparatus for Heating Green Houses, &c." (Appareil de chauffage des serres, &c.)**

*Claim* -- In the combination of a lime burning kiln A, with a hot water boiler B, and circulating pipes C.

**No. 2509. JOHN WALMSLEY, Elmira, Ont., 8th July, 1873, for 5 years: "A Harvester Reel." (Un râtelier de moissonneuse.)**

*Claim* -- 1st. The hinges *h*, joining the radial arms A, A, to the longitudinal bars B, B. 2nd. A reel having the radial arms A, A, attached to the longitudinal bars B, B, by flexible joints or hinges *h*, or having the radial arms A, A, constructed with flexible joints or hinges at or near the longitudinal bars B, B. 3rd. The pins D, D, or their equivalents fixed to the bars B, B, for causing the bars B, B, to rotate or turn on the hinges *h*, from the withdrawing position *r*, to the working position R; 4th. The latches E, E, or their equivalents arranged to work automatically in engaging with the catches *c*, *c*, for temporarily securing the bars B, B, in their working position R; 5th. The catches *c*, *c*, or their equivalents attached to the bars B, B; 6th. The curved arm G, or its equivalent from actuating the bars B, B, and latches E, E, automatically; 7th. The arrangement and combination with a reel having its longitudinal bars B, B, attached to its radial arms A, A, by flexible joints or hinges of the pins D, D, latches E, E, catches *c*, *c*, and arm G, or their equivalents for automatically working the bars B, B. 8th. The reel carrier or standard H, when attached to or erected on the extreme front of the divider piece I, of the platform. 9th. The arrangement and combination with an adjustable reel of the intermediate pulley P, pivoted in line with the pivot of the reel carrier F, to admit of adjusting the height of the reel, without affecting the tension of the belt or belts transmitting rotation to the reel, each substantially as specified.

**No. 2510. ELAM F. AUSTIN, Rochester, N. Y., U. S., 8th July, 1873, for 6 years: "Velvet and Plush Mats and Robes." (Robes de voitures et nattes en velour et en peluche.)**

*Claim* -- As an improved article of manufacture in a mat or robe having a trimming of long woolled skin B, combined with a central portion A, of plush velvet, cloth or carpet as set forth.

**No. 2511. LORENZO P. WHITING, Poughkeepsie, N. Y., U. S., 8th July, 1873, for 10 years: "Adjustable Lathe Dog." (Mandrin de tour mobile.)**

*Claim* -- An adjustable lathe dog consisting of the stationary plate A, the scroll plate E, centre plate H, jaws B, B, adjusting screws K, K, and nuts L, L, arranged substantially as and for the purpose described.

**No. 2512. ALMON H. CALKINS, Chesterton, Ind., U. S., 8th July, 1873, for 5 years: "A Washing Machine." (Une machine à laver.)**

*Claim* -- 1st. A washing machine provided with yielding washing-rollers the combination and arrangement of the metallic blocks H, H, and the metallic pieces I, I; 2nd. A washing machine provided with yielding rollers the pins L, L, provided with the pins *a*, *a*, and arranged in the spiral part of the springs K, K, operating in connection with the yielding rollers; 3rd. A washing machine consisting in part of a combination and arrangement of rollers substantially, as specified, the pendant bar O, arranged in the manner described; 4th. A rotary washing machine, the grooved base-board C, in combination with the removable extension block Q, and the supporting block P.

**No. 2513. HANNON W. CORNELL, Oswego, N. Y., U. S., 8th July, 1873, for 5 years: "A Corn Sheller." (Egrenoir à blé-d'Inde.)**

*Claim* -- 1st. The shelling wheel J, having curved shelling surfaces on both sides extending inward from the periphery toward the centre for a certain distance as shown and provided with teeth S, of equal length, set in curved rows around the entire curved surfaces on both sides; 2nd. The adjustable double throat B, provided with feed passages *a*, *a*, angular bar *b*, with ears *i*, *i*, and the slotted flanges *d*, *d*; 3rd. In combination with the jaw C, arm G, and spring H, the adjustable slide A, to which the spring is attached for regulating the tension thereof, and set screw N, for adjusting the jaw; 4th. The combination of the feed wheels D, D, jaws C, C, and convex shelling wheel J, all constructed and arranged as described, and operated by the double cog-wheel K, pinion T, and cog-wheel M.

**No. 2514. JOHN W. CLOSE, St. Thomas, Ont., 8th July, 1873, for 5 years: "A Railway Rail Chair." (Un coussinet de rail de chemin de fer.)**

*Claim* -- 1st. A frog chair A, constructed with or having flanges B, turning over up and out side the wing rails D, to prevent them from spreading when the chair is secured to the ties; 2nd. The bifurcated plate E, in combination with the chair A, and bolt *t*, for holding down the wing rails and for securing the frog I, fixedly as set forth; 3rd. The guard rails braces J, in combination with the chair A, and guard rail K.

**No. 2515. GEORGE B. SNOW, Buffalo, N. Y., U. S., 8th July, 1873, for 5 years: "Steam Apparatus for Ringing Locomotive Bells." (Appareil à vapeur pour sonner les cloches de locomotives.)**

Constructed in such a manner as to prevent any apparent leakage either of water or steam, without resorting to the use of the stuffing boxes and also to effect the admission and release of the steam directly by the motion of the piston without the use of any intermediate parts between the piston and valve.

*Claim* -- The combination of the cylinder A, piston G, piston rod D, slotted rod C, and crank B, when constructed and operated in the manner and for the purpose described.

**No. 2516. EDWIN S. FIELD, Hartford, Ct., U. S., 8th July, 1873, for 5 years: "A Spring Bed." (Un lit à ressorts.)**

*Claim* -- 1st. A wire netting composed of the V, shaped links hooked together; 2nd. The peculiarly shaped link *g*, for forming a straight edge to such a netting; 3rd. The corner sockets *b*, provided with the adjusting screws *b*, in combination with the side rails C.

No. 2517. CHARLES F. JENKINS & ALFRED B. JENKINS, Boston, Mass., U. S., 8th July, 1873, for 5 years: "Steam Packing." (Garniture de machine à vapeur.)

*Claim.*—1st. A crudo, burnt, refractory rubber compound for valves, gaskets, and the like carrying incorporated with it sixty per cent. of refractory mineral matter; 2nd. The said compound less highly vulcanized as a material for the valves of oil pumps.

No. 2518. DAMON WRIGHT, Kingsville, Ont., 8th July, 1873, for 5 years: "A Reefing Machine." (Une machine à riser.)

The object of the invention is to shorten or reef the sail by means of the winding up or reeling of the ropes round revolving shafts.

*Claim.*—1st. The combination of the shaft B, B, actuated by bevelled pinion D, and bevelled pinion G, shaft E, handle H, pawl I, keeper J, and ropes N, N, N, and eyelets O, O, O, and shaft B, B, actuated by bevelled pinion D, and bevelled pinion G, shaft E, handle H, pawl I, keeper J, and ropes P, P, P, P, and eyelets O, O, O, O; 2nd. The combination of a single shaft B, B, revolved by means of gearing or without gearing by a handle merely and ropes N, N, N, N, and eyelets O, O, O, O; 3rd. The combination of any number of shafts B, B, fixed on the boom of a sail in the manner described or in any equivalent manner and revolved by means of gearing or in any other equivalent manner and ropes N, N, N, N, working through eyelets O, O, O, O, fitted with pulleys or without; 4th. The shield or cover K, in combination with shafts B, B, B, B, pinions D, D, pinions G, G, shafts E, E, handle H, H, pawls I, I, and keepers J, J, working together and with either of the shafts and its gearing separately and with any number of shafts with their gearing working together.

No. 2519. HENNAN BALDWIN, New Haven, Ct., U. S., 8th July, 1873, for 10 years: "A Fodder Cutter." (Un coupe-paille.)

So constructed that the upper or moveable feed roller may be made to move up and down squarely whether the material operated upon be thicker under one end of said roller or not and which may be readily adjusted to cut the feed longer or shorter as desired.

*Claim.*—1st. The hook or eye bars W, and frame X, in combination with the upper feed roller P, and the frame A, of a fodder cutter; 2nd. The combination of the adjustable spring Y, with the guide frame X, hook or eye bars W, upper feed roller P, and frame A; 3rd. The combination of the detachable gear wheels R, one or both an adjustable journal S, with the gear wheel N, attached to the journal of the knife-shaft J, the gear wheel Q, attached to the journal of the upper feed roller P, and the circular slotted forward end of the lever U, pivoted to the knife shaft J, and carrying the journal of the upper feed roller P.

No. 2520. PETRUS HERVIER, (of Paris, France), Quebec, Que., 8th July, 1873 for 5 years: "A Flat Tile with Treble Lapping Ribs." (Une tuile plate à nervures à triple recouvrement.)

*Claim.*—Une tuile plate ayant des nervures d, d1, d2, d3, d4, pour lui donner plus de force, et se recouvrant trois fois au côté et avec des canaux d'écoulement c, c1, c2, pour être plus étanche, dans la manière de la fixer au moyen de dents f, f1, et de fil de fer h.

No. 2521. JAMES F. CASS, L'Original, Ont., 8th July, 1873, for 5 years: "Ventilating and Cooling Milk Can." (Boite à lait à ventilateur-réfrigérateur.)

*Claim.*—1st. The attachment to a milk can cover of two or more tubes for the free ingress and egress of air; 2nd. The attachment to the upper side of a milk can cover, of one or more open tubes having its sides or superficies inclining inward and upward, or in such other manner; 3rd. The attachment to the upper side of a milk can cover of one or more open tubes, having the superficies of its upper end inclining inward and downward, or in such other manner; 4th. The combination and attachment to the underside of a milk can cover of two or more tubes having their lower ends closed and passing downwards into the body of the milk.

No. 2522. JOSEPH N. SMITH, Jersey City, N. J., U. S., 24th July, 1873, for 5 years: "A Brick Press." (Une presse à brique.)

Relates exclusively to machines for re-pressing bricks after they have been moulded and partially dried or seasoned and is designed to produce bricks somewhat similar to those known as the "Philadelphia pressed or front brick."

*Claim.*—1st. The spring E, arranged and combined with the stirrup G, and gate C, as shown for supporting and lifting it; 2nd. The annular ring J, combined with the bed piece C, and wedge wheel A; 3rd. The adjustable wedges H, H, in combination with the wedge wheel A, and lower die post T; 4th. The flangular portions K, K1, K2, and L, of wedge wheel and wedges in combination with spring rollers U, U1, for actuating the table K, in combination with the wedge wheel A; 5th. The stud X, attached to the wedge wheel A, combined with the cams Q, and Q1, standard bar R, standard R1, and slotted carrier bar M; 6th. The sectional die

S, composed of central block N, ring O, bars G, and spring C1; 7th. In the die post T, in combination with the wedge wheel A, and sectional die S, Figs. 6 and 7; 8th. The die box S, and U, in combination with the table V, and O; 9th. The arrangement of the bolts P, and nuts P1, P2, for adjusting the height of the surrounding die box U, and 5, in combination with the gate G1 for the purpose of adjusting the opening G for the escape of surplus material; 10th. The carrier M, in combination with the dies and annular wedge A; 11th. The combination with the dies, and the said carrier M, of the auxiliary carrier; 12th. The oiler O, O1; 13th. The oil reservoir S, with its frame U, and adjustable stoppers L, combined with the oilers O, O1, and dies; 14th. The flexible feed openings V, V, V, combined with the reservoir S, and adjustable stoppers L, L, L, L; 15th. The adjustable die seat, frame P1, and binder C, in combination with the girt L; 16th. The adjustable bolts O, O1, actuating pinion A, for adjusting the height of the upper die in combination with the girt L, and frame P1; 17th. The springs Z, Z, in combination with the frame and the shoes X, X, in combination with the bolts X, X, and frame P1; 18th. The oiler G, in combination with the wedge wheel A, and ring F, for oiling the same, Fig. 4, sheet IV; 19th. The oiler I, in combination with the hoop B, and wedges H, H, for oiling the said wedges Fig. 4, sheet IV; 20th. The opening B, formed by the bevel as shown on the lower inside portion of the surrounding die U, and 5, Figs. 2, and 5, sheet VI; 21st. The double link J, J, in combination with the carrier M, and dies S, and S1; 22nd. The cam lever N, in combination with the double link J, stud P1, and carrier M; 23rd. The cam lever M, in combination with the stud P1, and carrier L, and stripper M; 24th. The rod Z, in combination with the cam lever N; 25th. The stud W1, in combination with the post T, for limiting the descent of the table; 26th. The friction springs O1, attached to binder W, W, pressing on and in combination with the carrier bar L, to prevent its premature motion Fig. 1, sheet II.

No. 2523. SAMUEL HORTON, Peabody, Mass., U. S., 24th July, 1873, for 5 years: "Gas Purifier and Regulator." (Purificateur et régulateur de gaz.)

The object of the invention is to relieve gases, more particularly the ordinary illuminating hydrocarbon gas of their impurities and of their vaporised watery and other liquid elements, thereby securing greater brilliancy and steadiness in the flame.

*Claim.*—1st. The use of sponge or of other absorbent materials confined in a chamber to which the gas can enter and from which it can escape; 2nd. The combination with the above claim, a chamber for the reception of the gas, after its passage through the absorbent material; 3rd. The chamber A, in two parts B, and C, supplementary chamber G, and absorbent material I, all constructed, combined and arranged together as described.

No. 2524. ORVILLE K. WOOD, Westchazy, N. Y., U. S., 24th July, 1873, for 5 years: "Machine for cleaning, separating and grading grains, &c." (Machine à nettoyer, séparer et sortir les grains, &c.)

*Claim.*—1st. The combination of the smooth and cog-rollers A, A, and C, in combination with plat X, rollers A, A, and C; 2nd. The dowels B, B, in combination with the feeder J, and moveable plate O, O; 3rd. The shoe D, D; 4th. The rod E, the guides G, G, and R, R, the plates S, S, and T, T; 5th. The blank board F, F; 6th. The lock pins H, H; 7th. The method of confining the wind blast; 8th. The fluted irons X, X, and Y, Y, and the cog-roller B1; 9th. The fanning mill or separator constructed, combined and arranged as described.

No. 2525. ERNEST J. KNOWLTON, Ann Arbor, Mich., U. S., 24th July, 1873, for 5 years: "A Portable bath." (Une baignoire portative.)

*Claim.*—1st. A bath of pliable material, pendant from a rigid flat frame around the top edge only; 2nd. A bath of pliable material, pendant from a frame with that portion of the sack for the chest or shoulders touching the floor, or a solid base, and the limb portion of the sack slightly inclined upward; 3rd. A pendant bath of pliable material with less depth of sack near one end than near the other, or in the limb portion thereof than in the chest portion thereof, thereby reducing the cavity and economizing fluid; 4th. A bath of pliable material pendant from a flat frame, with projections B, for resting on or for attaching to chairs or other temporary supports; 5th. The division of the cavity of a pliable bath by a single contraction of the sack or pliable material thereof; 6th. A bath of pliable material pendant from a frame as described, or from any common mechanical structure, the parts of which are relatively so arranged that by simply drawing a cord around the same, or elevating the sack near the middle thereof, two different baths may be formed, varying in average width; 7th. The arrangement of cords and means for their adjustable attachment by which partitions and adjustments may be obtained in a pendant pliable bath; 8th. A pendant pliable bath in an inclined position; 9th. The practical combination of a pendant pliable bath with the common house chair in forming specific adaptations as for a full, a hip, or a sponge bath; 10th. A bath of pliable material pendant from a frame turned or sprung into shape as a hoop; 11th. A spout or apron for the discharge of fluids, projecting directly from, or forming a part of the stiffening support of a pliable bath; 12th. A change in the form of the cavity of a pendant pliable bath, from an adaptation for one specific design to that of another, as from a full bath to a partial bath, or from a foot to a hip bath by temporarily contracting or collapsing a part of the pliable material thereof; 13th. A bath of pliable material, which affords a firm place to stand in the bottom thereof, and is so nearly suspended as to press the pliable parts, closely against the sides of the person bathing, by the weight of that person.



No. 2526. JACOB GROBB, Clinton, Ont., 24th July, 1873, for 5 years: "Gate Attachment." (Disposition de barrière.)

The gate can be opened and shut by a person driving without his alighting from the carriage.

*Claim.*—The combination of the bars *b*, *b*<sub>1</sub>, rod *c*, slides or spring bolt *d*, wire or chain *e*, pulleys, *h*, *j*, *k*, *h*<sub>1</sub>, *j*<sub>1</sub>, *k*<sub>1</sub>, suspended from the posts *g*, *g*<sub>1</sub>, together with the rope or chain, connected with the bars *b*, *b*<sub>1</sub>, passing through the pulleys *h*, *j*, *k*, and *k*<sub>1</sub>, *j*<sub>1</sub>, *h*<sub>1</sub>, the whole being used in the manner described.

No. 2527. ELISHA L. MILLS & CHARLES H. WALTERS, (Assignees of John W. McGlashan,) Montreal, Que., 24th July, 1873, for 5 years: "A Folding-down Stake for Railway Platform Cars." (Une ridelle pliante pour les voitures plates de chemins de fer.)

For the purpose of causing the cars to lock automatically when placed in an upright position, also to be held by their own gravity horizontally.

*Claim.*—1st. The bracket *h*, and pawl *i*, so attached to the car above the centre *d*, that the stake *b*, shall abut against it either when raised vertically or when folded down; 2nd. The bolt *i*, attaching the pawl *g*, and bracket *h*, to the frame *a*, in combination with the pawl bed *f*, and holding the stake vertically; 3rd. The pawl bed *f*, in combination with the stake *b*; 4th. The combination of the frame *a*, stake *b*, bolt *d*, pawl *i*, bed *f*, pawl *g*, bracket *h*, bolt *i*, and flange *k*, all working together as described.

No. 2528. THOMAS SIMMONS, ALBERT CLEMEN & CHARLES T. CLEMEN, Halifax, N. S., 24th July, 1873, for 5 years: "A Gas Burner." (Un bec à gaz.)

*Claim.*—1st. The burner *A*, having a chamber or retort *D*, above the outlets *F*, and provided with projecting rings notched to form air ducts *H*, *I*, and air inductor *G*, in combination with the superheater *J*, and regulating needle valve operating substantially as and for the purpose set forth; 2nd. The application to a burner *A*, constructed as set forth of an air inductor *G*, as specified.

No. 2529. JAMES MCGILL, (Assignee of Charles Lehmann,) Montreal, Que., 24th July, 1873, for 5 years: "A Soap Crutcher." (Un bouloir à savon.)

*Claim.*—A machine for stirring soap, and other materials, the arrangement of two sets of stirring blades *D*, *E*, alternating with each other, and set to incline in opposite directions, each of said blades being provided with holes *a*, *b*, in combination with a central shaft *B*, to impart motion to one or both sets of stirring blades, and with squeezing inclines secured to a bridge *c*, extending across the top of the tub which incloses the entire mechanism.

No. 2530. WILLIAM H. FORAN, Boston, Mass., U. S., 24th July, 1873, for 5 years: "A Fire-proof Paint." (Une peinture incombustible.)

*Claim.*—A composition composed of coal-tar linseed oil, dead oil gum tragacanth and soda ash, the whole prepared as stated.

No. 2531. CLIFTON D. HUNTER & ERASTUS S. WOOD, Marlborough, Mass., U. S., 24th July, 1873, for 5 years: "An Inhaler." (Un inhalateur.)

*Claim.*—1st. The valve *d*, in combination with the exhaust tube *C*, inlet tube *b*, stopper *B*, and main receptacle *A*, operating in the manner described; 2nd. The stopper *B*, provided with a cavity or recess for the reception of the said vessel *c*; 3rd. The stopper *B*, provided with a groove *h*, for the reception of the upper portion *10*, of the inlet tube *b*, when forced down, the inlet tube being so constructed and arranged that it may close the exhaust passage and prevent the leakage or escape of the medicated liquid from the main receptacle, when tipped or inverted as described; 4th. The band *i*, in combination with the acid embedded in the stopper *B*, and the inlet tube *b*; 5th. The inlet tube *b*, provided with a valve *m*; 6th. In combination with the main receptacle stopper, exhaust tube and inlet tube of an inhaler, a valve so constructed and applied as to open outward on blowing into the exhaust tube, whereby the air is allowed to escape, and is prevented from exerting a pressure upon the liquid in the main receptacle.

No. 2532. WILLIAM GRIFFITH, Toronto, Ont., 24th July, 1873, for 5 years: "A Lock." (Une serrure.)

*Claim.*—1st. The combination of the bolt *E*, and bolt lever *D*, the latter fitting into circular recesses in the former as described; 2nd. The combination of the pawl *F*, and pin *f*, working in a slot in the sliding block *G*; 3rd. The combination of the square axle *C*, hubs *H*, plates *A*, and *a*.

No. 2533. JOHN BOYD, Antigonish, N. S., 24th July, 1873, for 5 years: "A Steam Cooking Stove." (Un poêle de cuisine à vapeur.)

*Claim.*—1st. The combination of the stand *A*, with the moveable fire basket *D*; 2nd. The combination of the oil reservoir *f*, and water reservoir *e*, arranged so that water is admitted within the oil reservoir *f*, as required to keep the oil well up against its top in order to prevent the generation of gas; 3rd. The case *B*, over *g*, false bottom *b*, stand *A*, and lamp *E*, arranged in combination with each other as specified; 4th. The combination of one or more drawers *I*, and *J*, hot reservoir *t*, casing *C*, and *B*, false bottom *b*, arranged in combination with the stand *A*, and lamp *E*; 5th. The cold air pipe *M*, in combination with the condensing chamber formed between the top *K*, and cover *L*.

No. 2534. WARREN R. EVANS, Lynn, Mass., U. S., 24th July, 1873, for 5 years: "A Repeating Gun." (Un fusil à répétition.)

Consists in a magazine to contain the cartridges and to present them to the breach of the fire-arm; also in a lock to operate the magazine, load the piece, remove the case of the exploded cartridge, and discharge the cartridge newly supplied to the barrel.

*Claim.*—1st. The combination of the fluted shaft *c*, which has one or more grooves or flutings and the fixed spiral thread or wire *b*; 2nd. The combination of the lever (Fig. 5) and its point *t*, with the rotating fluted shaft; 3rd. The method of operating the magazine by the lever (Fig. 5), and the breech block (Fig. 4); 4th. The hammer (Fig. 3) made and operating as described in connection with the slotted breech block (Figs. 4 and 6) and the main spring; 5th. The breech block (Figs. 4 and 6) having the part *J*, and the two walls with a space between the same and the slot *g*; 6th. The combination of the retractor *W*, pivoted to one side of the breech block and the spring *X*; 7th. The combination of the trigger *O*, having the shoulder *n*, to operate in combination with the shoulder *m*, of the hammer (Fig. 3); 8th. The combination of the hammer (Fig. 3) with the breech block and arranged within the same as described and trigger *O*; 9th. The breech block (Fig. 4) when constructed with the slot *g*, as set forth.

No. 2535. LYMAN LITCHFIELD, Gouverneur, N. Y., U. S., 24th July, 1873, for 5 years: "A Horse Rake." (Un râteau à cheval.)

*Claim.*—1st. The combination of the lever *A*, wheel or quadrant *B*, pitmans *C*, *D*, and arm *F*, with the bar *G*, and the rake frame for lifting the teeth simultaneously; 2nd. In providing the wheel or quadrant *B*, with a foot-rest *E*; 3rd. In constructing the sockets *H*, with hooked arms *J*, and the application and arrangement of the bar *G*; 4th. In forming the teeth sockets *H*, with diagonal intersecting lugs, for securing the teeth by the grip of the metal cast thereon, at the two points or places as described.

No. 2536. GEDEON BASTIEN & PIERRE VALOIS, Ste. Scholastique, Que., 24th July, 1873, for 5 years: "A Washing Machine." (Une machine à laver.)

*Claim.*—1o. Une blanchisseuse mécanique, les deux blocs cannelés *Q*; 2o. Les encoches *S*, des bras *P*, qui permettent de retirer ou repousser les blocs cannelés *Q*, à la demande du linge à laver; 3o. La combinaison de la manivelle *D*, des brelles *K*, et des balanciers *M*, pour donner le mouvement de va-et-vient aux blocs cannelés *Q*; 4o. La combinaison des roues d'air *J*, *J*, pour diminuer la friction du mécanisme; 5o. La combinaison de la blanchisseuse mécanique et de son mécanisme tel que décrit.

No. 2537. PIERRE VALOIS & GEDEON BASTIEN, Ste. Scholastique, Que., 24th July, 1873, for 5 years: "A Washing Machine." (Une machine à laver.)

*Claim.*—Une blanchisseuse mécanique, la combinaison d'un poids de gravitation *N*<sub>1</sub>, fixé à la roue d'air *N*, pour aider à son mouvement de rotation et celui de la machine, tel que décrit.

No. 2538. JOHN HUNT, Glenwilliams, Ont., 24th July, 1873, for 5 years: "An Easy Lounge." (Une chaise longue.)

*Claim.*—The adjustable top with the combination of the sections *B*, *C*, *D*, and *E*, by means of the hinges *F*, *F*, *F*, the brace *G*, and the notches *H*, *H*, *H*.

No. 2539. GEORGE H. CHINNOCK, Brooklyn, N. Y., U. S., 24th July, 1873, for 15 years: "A Sheet Metal Can." (Un bidon en métal.)

Relates to that class of hermetically sealed cans used for holding paint, preserved fruits, condensed milk and other substances.

*Claim.*—1st. The strip *C*, soldered to the lower edge of the flanch *F*, and to the upper edge of the can and furnished with the extension *A*; 2nd. The arrangement with reference to the flanch *f*, of the cover *B*, and the circumferential edge of the can of the groove *e*, and the rabbit *c*, provided respectively upon the said flanch and edge; 3rd. The circumferential groove *a*, provided at the edge of the can, and in relation to the flanch of the cover and the over-

laying soldered strip *c*; 4th. The loop *p*, of the strip *c*, fastened at its overlapping extremity and arranged with reference to the cover *B*, and body *A*; 5th. The loop *p*, tapered as described, in combination with the strip *c*, arranged with reference to the cover *B*, and body *A*; 6th. The combination with the body *A*, of the rigid transverse brace *d*, the said brace arranged nearly or quite in line with the points of attachment of the ball *B*, whereby inward strain upon the body *A*, when suspended by or from the bale is counteracted; 7th. The combination with a tubular transverse brace, arranged in the upper part of the body *A*, of the inwardly turned ends of the bale *B*; 8th. The combination with the cover *C*, attached to the body *A*, by the soldered strip *D*, of an orifice *m*, provided either in the cover or the body, and when the can is filled closed by the soldered cap or disc *g*; 9th. The combination with the body *A*, of the pocket *E*.

No. 2540 HENRI THOMAS, Brooklyn, N. Y., U. S., 24th July, 1873, for 5 years: "A Carving Machine." (Une machine à sculpter.)

*Claim*.—1st. The combination of the sliding work and pattern carrying centers and the vertically adjustable and horizontally swinging tool carrying arms arranged and operating as specified; 2nd. The center holder plates *D*, *F*, radices bars *H*, links *J*, toggle jointed bars *K*, sliding nut *L*, and screw *M*, combined and arranged as specified; 3rd. The arms *O*, *P*, block *Q*, bar *A*, slide *W*, bars *V*, and link *U*, combined and arranged as specified; 4th. The sliding block *Q*, standard *Y*, arms *O*, *P*, and their actuating devices, and the adjusting screw *Z*, and crank shaft *Z'*, combined with the work and pattern centers as specified.

No. 2541. WILLIAM N. WHITELEY, Springfield, Ohio, U. S., 24th July, 1873, for 15 years: "A Harvester." (Une moissonneuse.)

*Claim*.—1st. A rear cut hinged bar machine, a cutting apparatus the outer end of which is supported by a jointed carrying wheel, having its bearing upon the ground in rear of said cutting apparatus and the inner end of which is supported by a flexible connection with the main frame, in combination with the drag bar the front end of which may be raised or lowered by means of a lever, while the machine is in motion; 2nd. A cylindrical drag bar *S*, the rear of which is projected through orifices in the upturned ends of the shoe *T*, and its front end extended through the slot *S*, and controlled by means of tilting lever; 3rd. The rock shaft *L*, one end of which is connected to the front end of the drag bar *S*, and its opposite end controlled by means of the hand lever *R*; 4th. In combination with the rock shaft *L*, and the stationary rock *K*, and the locking dog *I*; 5th. The slotted bracket *8*, constructed as shown and connected to the frame *A*, by means of the arms *9*; 6th. The slide bar *l*, of the rectangular main frame, projected forward and the tongue *o*, attached thereto in combination with the brace *d*, as described; 7th. The combination of the rectangular main frame *A*, and the slotted bracket *8*, for the purpose of connecting and holding the front end of the drag bar *S*; 8th. The shifting lever *22*, constructed as described and combined with the stationary cam *24*; 9th. In combination with the plate *2*, hinged to the outer shoe *Z*, and provided with a series of apertures or notches *1* and wheel arm *U*, and the latch bolt *5*; 10th. The grain wheel arm *U*, constructed with the stationary stud *X*, projecting therefrom and fitted to the socket *Y*, in the plate *2*, to impart great strength to the joint between said arm and plate; 11th. The hollow spindle *8*, to form a bearing for the grain wheel, in combination with the bolt *V*, which passed axially through said sleeve and clamps it firmly to the grain wheel arm; 12th. The chain wheel pawl *31*, combined with the set lever *34*, for lifting said pawl entirely out of connection with its ratchet; 13th. The chain wheel *33*, whereby motion is transmitted to the rake connected with the drive wheel and held in position thereon by means of a notched flange *30*, fitting over the arms of said drive wheel; 14th. In combination with the chain wheel secured to the drive wheel, the chain picker *1*, hung loosely upon the axle of the said drive wheel; 15th. The shield or guard *28*, upon the pitman box *27*, to prevent the winding of grass around the wrist pin; 16th. The sent spring *38*, constructed with the inclined and vertical plates joined in the manner and form described; 17th. The rake cam *z*, and standard *W*, constructed of one solid piece from end to end; 18th. The standard *w*, made hollow and fitted to constitute a box or bearing for the driving shaft *f*, of the rake; 19th. The cam *z*, and standard *w*, provided with feet *26*, and slots for the bolts whereby said cam may be adjusted to properly regulate the strokes of the reel and rake; 20th. The double tree plate *42*, provided with adjusting bolts and holes whereby the position of said plate may be shifted upon the tongue *o*, as required to equalize the draft.

No. 2542. JACOB KAISER, York, Ont., 24th July, 1873, for 5 years: "Grain or Corn Crushing Mill." (Moulin à triturer le grain ou le maïs.)

Adapted to steam or horse-power and by removing the pulley and attaching a crank handle to the driving shaft it can be worked by hand.

*Claim*.—1st. The series of inclined grooves *b*, *b'*, around the inner edge of the annular plate *B*; 2nd. The horizontal metal plate *C*, constructed and operated as described.

No. 2543. CHARLES B. CLARK, Buffalo, N. Y., U. S., 24th July, 1873, for 5 years: "Sliding Door Hanger." (Ajutage de porte en coulisse.)

*Claim*.—1st. The bevelled wheel *B*, in combination with a bevelled track *c*, and guide *f*; 2nd. In combination with a rail *C*, wheel *B*, and hanger frame *A*, and lip *h*, and stop *i*.

No. 2544. ORIN WEBSTER, Compton, Que., 24th July, 1873, for 5 years: "Cow Milker and Strainer." (Appareil pour traire et couler le lait.)

Consists of a number of tubes running into a main pipe to which a strainer is attached, whereby a number of cows can be milked together and the milk strained at the same time.

*Claim*.—The pipe *A*, strainer *B*, hinge *b*, and ring *C*, as described.

No. 2545. EUGEN COAPMAN, Rochester, N. Y., U. S., 24th July, 1873, for 5 years: "Machine for forming Barrel Hoops." (Machine à former les cercles de futaille.)

*Claim*.—1st. The combination of the pro and roller *G*, and forming wheel *A*, when arranged to operate in the manner specified; 2nd. The forming wheel *A*, constructed in two parts which open and close to enlarge or contract the size of the hoop when combined with the stationary disk *B*, in the right and left screw *C*, slides *L*, *L'*, set screws *i*, and slots *K*, *K'*, when combined with the forming wheel *A*, and disk *B*; 4th. The combination of the dog *D*, and the depressed part *S*, of the periphery of the forming wheel *A*, arranged to operate in the manner specified.

No. 2546. EDWARD SCHIRCK, Rochester, N. Y., U. S., 24th July, 1873, for 5 years: "A Governor Valve." (Une pendule conique.)

Consists in combining in the ordinary casing or shell of the valve, a cylinder in which the piston plays, said cylinder and piston having coincident parts for the passage of the steam, also in a device for swivelling the piston rod and a lever for raising the balls for letting on the steam.

*Claim*.—1st. The combination with the exterior casing *A*, of the exterior cylinder *E*, and piston *G*, when provided with coincident parts *c*, *d*; 2nd. In combination with the governor valve having the cylinder *B*, and piston *G*, the lever *K*, when arranged to operate the piston to let on steam in starting the engine as described.

No. 2547. JOHN TAYLOR, Whitby, Ont., 24th July, 1873, for 5 years: "A Pot Strainer." (Un couloir à pot.)

*Claim*.—The perforated strainer, made of tin or other material to fit in any pot or other vessel for cooking or boiling vegetables, meats or other articles so that upon lifting said strainer out of the pot or boiler the water or other liquid is strained or drained out into the pot or vessel from which the strainer has been lifted.

No. 2548. JOHN TESSEYMAN, & EDMUND I. HOWARD, Dayton, Ohio, U. S., 24th July, 1873, for 15 years: "Valve Gear for Direct-Acting Steam Engines." (Appareil de soupape pour les machines à effet direct.)

*Claim*.—1st. A direct acting engine, a reciprocating pump provided with two longitudinal grooves, intersecting at their ends and diverging at their centers, and through suitable mechanism connected with and imparting motion to the steam valve; 2nd. In combination with the reciprocating cross head *B*, provided with the intersecting grooves *h*, and arm *B'*, and with the valve rod *K*, and rocker arms *L*, *L'*, and *L''*, the rod *U*, provided with the adjustable collars *P*, and springs *Q*; 3rd. The valve gearing as a whole when constructed and arranged to operate as set forth.

No. 2549. JOHN D. LEWIS, Toronto, Ont., 24th July, 1873, for 5 years: "A Child's Spring Crib." (Un hamac d'enfant à ressort.)

*Claim*.—1st. The combination of springs *S*, *S'*, with cords *D*, and *H*, eyes *C*, *C'*, *C''*, cross bar *F*, and suspension chain *G*; 2nd. The combination of frames *A*, and *B*, with flexible bands *x*, *x'*, *x''*, &c.

No. 2550. GEORGE H. PEDLAR, Oshawa, Ont., 24th July, 1873, for 5 years: "A Drum Heater and Fuel Saver." (Un poêle sourd épargne-combustible.)

*Claim*.—1st. A heater consisting of the outer drum *A*, inner drum or cylinder *B*, base piece *C*, tube *D*, chamber *M*, annular flue *G*, bottom *E*, angular cap and top exit flue *H*, arranged as described; 2nd. In combination with the chamber *M*, concave base *C*, and air tube *D*, arranged as described.

No. 2551. WILLIAM HOWELL, Thorold, Ont., 25th July, 1873, for 5 years: "Self-adapting Rake and Pea Harvester." (Rateau et moissonneuse à pois combinés.)

*Claim*.—The combination of the *H*, hinge *P*, with the heads *d*, *d'*, of the rake, and draw-bar *K*, as specified.



No. 2552. HENRY HARPER, Reach, Ont., 25th July, 1873, for 5 years: "Fanning Mill Attachment." (Disposition de crible.)

*Claim.*—The combination of the bar A, A, and the pens B, B, B, as set forth.

No. 2553. VOLNEY SMITH, Schenectady, N. Y., U. S., 25th July, 1873, for 5 years: "Compound for Dental Purposes." (Composition à dentiers.)

*Claim.*—A dental plate made of the following ingredients, viz., gum cotton prepared gum shellac, a compound for the body sulphuric ether and alcohol prepared in the manner shown

No. 2554. SIMEON F. EMERSON & JOSEPH W. SABIN, Akron, Ohio, U. S., 25th July, 1873, for 5 years: "A Harvester Grinder." (Un rémouleur de couteaux de faucheuses.)

*Claim.*—1st. The moveable adjustable base A; 2nd. The ears I, formed on the base for limiting the movement of the standard and holding it in position; 3rd. The adjustable head C, pivoted to the standard and used for adjusting the grinder to different angles; 4th. The base A, standard B, head C, and arms D, E, in combination with a grinder and suitable grinding mechanism.

No. 2555. HENRY G. DAYTON, Maysville, Ky., & EDWIN L. JONES, Washington, D. C., U. S., 25th July, 1873, for 5 years: "Machine for Carbureting Air." (Machine à carburer l'air.)

*Claim.*—1st. The plate C, having the pipe P, and the float K, in combination with the feed pipe E; 2nd. The water chamber B, upon the bottom of the holder of the gasoline, or other hydrocarbon, and immediately under the latter as described

No. 2556. JOHN MAY, Ottawa, & CHARLES B. PETTIT, Richmond, Ont., 25th July, 1873, for 5 years: "Cast Metal Fence Post." (Poteau de palissade en fonte.)

*Claim.*—1st. A cast metal fence post, the upper portion A, formed broad and thin with suitable perforations B, therein, and the lower portion round and tapering or of tapering cruciform webs or ribs C; 2nd. In forming the top of the post and inclined cap piece or plate E, to hold a weather board G; 3rd. In providing the post A, at or immediately below the ground line, or top of the ribs, with hooks D, or their equivalent to receive a stay bar E, as described.

No. 2557. EDWARD CHURCHILL, St. Thomas, Ont., 25th July, 1873: "Composition for Roofing." (Composition à toiture.)

*Claim.*—A composition composed of the following ingredients ordinary roofing paper: a gum composed of paraffine and gas tar; any coarse linen canvas, dry cement composed of water lime, slacked white lime, salt, pulverized mica, and clean sand, and the finishing coat composed of white lime a gum composed of paraffine and gas tar; unslacked water lime, salt, pulverized mica and pulverized potash boiled in water, the whole mixed in the proportions set forth.

No. 2558. CHARLES B. CLARK, Buffalo, N. Y., U. S., 25th July, 1873, for 5 years: "A Mop Head." (Un manche de torchon.)

*Claim.*—1st. The central annular groove B formed by uniting the two parts E, of the moveable jaw D, for operating in connection with the nut G; 2nd. The wire or moveable jaw d, provided with the bent ends, in combination with the rivets e, c, and the annular recesses f, f, in the plates E, E; 3rd. The nut G, formed with the opposite spins d, d, in combination with the grooves a, b, of the collar constructed and operating as set forth; 4th. The mop-head the shank B, provided with the double series of rack-teeth K, K, and operating in connection with the inclined feather h, of the nut G.

No. 2559. GEORGE S. CHASE, Toronto, Ont., 25th July, 1873, for 5 years: "Coal Oil Cooking Stove." (Poêle de cuisine à pétrole.)

*Claim.*—1st. The horizontal extension of stove plate forming flue A, aperture or orifice C, with raised pieces B, B; 2nd. The downward extension D, with hinged portion E, to admit of the adjustment of the heater to the stove plate; 3rd. The water-trough with tube for separating the flames of the burners when required.

No. 2560. ADELE E. P. BAUDVIN, Paris, France, 25th July, 1873, for 5 years: "A Metallic Alloy resembling Silver." (Un alliage métallique imitant l'argent.)

*Claim.*—The manufacture of an alloy resembling silver by combining the following metals copper, nickel, tin, inc. cobalt, and iron, with sometimes the addition of a small quantity of aluminium in the proportions set forth.

No. 2561. LEWIS M. HILLS, New Haven, Ct., U. S., 25th July, 1873, for 15 years: "Paneling and Molding Machine." (Machine à lambrisage et moulage.)

*Claim.*—1st. In combination with a revolving cutter, and a holding device having both a longitudinal and transverse movement a templet as a guide for said cutter, when the said templet is made adjustable as to length and width; 2nd. In combination with the adjustable templet, described, and revolving cutter, the collar guides I, or I; 3rd. A templet as a guide for paneling machines the sides of which are formed in several parts secured together by a covering plate and the other two sides adjustable as to length as set forth; 4th. The shaft C, provided with cylinders E, and combined with cylinders F, and g, g, and a curved irregular templet constructed as described; 5th. In combination with a revolving cutter the table Fig. 14, provided with the stud or guide d, in axial line with the said cutters; 6th. In combination with a revolving cutter the table Fig. 14 provided with a stud or guide d, in axial line with the said cutters, and with a series of collar guides upon the said stud or guide; 7th. Combination with a revolving cutter the table Fig. 14, provided with the stud or guide d, in axial line with the said cutters, and with the adjustable bar b, b.

No. 2562. ISAAC ATKINSON, Hamilton, Ont., 25th July, 1873, (Re-issue of Patent No. 1780): "Process of Curing and Packing Hams and Bacon, &c." (Procédé de conservation du jambon et du lard, etc.)

*Claim.*—The art or process of curing and packing meat, the same consisting in rolling the meat or meats in fine alum after being salted and washed, and packing with a sheet of paper or analogous material between or around each piece to prevent injurious contact as specified.

No. 2563. ROBERT L. WALTON, Stratford, Ont., 25th July, 1873, for 5 years: "Stake Holder for Flat Cars." (Porte-ridelles de wagons plats de chemin de fer.)

Consists in pivoting the stake holder to the sills instead of attaching them rigidly thereto which admits of the stake being folded.

*Claim.*—1st. The combination of the disc a, and stake holder D pivoted on the bolt E; 2nd. In the combination of the stake holder D, stake C, and longitudinal rail H.

No. 2564. MALCOLM LEISHMAN, Montreal, Que., 25th July, 1873, for 5 years: "A Shirt." (Une chemise.)

So made that it will open all the way down, the necessity of drawing it over the head being thus obviated.

*Claim.*—A shirt provided with a fly, e, as set forth.

No. 2565. WILLIAM BERRY, Montreal, Que., 25th July, 1863, for 5 years: "Improvements on Cocks and Valves." (Perfectionnements aux robinets et valves.)

Relating to cocks, valves, &c. of that class in which by the sliding, moving or revolving of the stopper or valve upon its seat an opening is either opened or closed as desired, also causing the valves or cocks to work with less friction.

*Claim.*—1st. The cock K, having two or more openings opposite each other as shown at r, and g, as described; 2nd. The valve i in combination with the recess h, and with or without extensions X, by which communication is had with one or more passages C, C with or without passage d; 3rd. The valve f, constructed as described, having the pressure within and without the same.

No. 2566. WILLIAM MOORE, Barnston, Que., 25th July, 1873, for 5 years: "A Double Spring Bed Bottom." (Un fond de lit à doubles ressorts.)

*Claim.*—The combination of springs and slats, viz: longitudinal slats A, A, stationary pins B, B, cross slats C, C, cross slat springs E, E, with cross slat pins F, F, stretchers D, D, and stretcher springs G, G, as described.

No. 2567. HENRY S. FLOOD, San Francisco, Cal., U. S., 25th July, 1873, for 5 years: "A Corset Clasp." (Une agrafe de corset.)

The corset can be partially opened and turned down in front without the necessity of unfastening it entirely.

*Claim.*—1st. The corset steels b, b, either provided with a hinged flap or section d, or constructed in two parts which are hinged together in the manner described; 2nd. The improved corset A, having the hinged corset steels b, b, as described.

No. 2568. JOHN LITTLE, Newburgh, N. Y., U. S., 25th July, 1873, for 15 years: "Horse Shoe Sharpener." (Rémouleur de fers à chevaux.)

Consists of a tool or machine to sharpen the calks on horse's shoes when they are on the horse's foot instead of taking the shoes off and sharpening them in the usual way.

Claim.—The portable compound machine consisting of the grinding wheel A, and outer V, arranged on the same shaft and capable of being adjusted to any desired position.

No. 2569. JAMES M. DORLAN, Dorlan's Mills, Penn., U. S., 25th July, 1873, (Extension of Patent No. 1872, for a 2nd period, of 5 years): "Paper Sizing." (Collage du Papier.)

Claim.—1st. As a sizing ingredient or chloride of lime, or its equivalent; 2nd. Chloride of lime, or its equivalent, in quantities large or small, as a new and essential sizing ingredient or material and as a basis or principle in any composition of other sizing ingredients in and for sizing paper stock materials, or paper pulps to make pulp-sized papers, and for sizing any other article that has required or may require any degree of a poreless gum, size, or of a waterproof character, imparted thereto or therein; 3rd. The process of sizing paper stock materials and paper pulps to make pulp-sized papers when chloride of lime or its equivalent, shall compose a constituent part of the composition or mass of other sizing ingredients or materials; 4th. Chloride of lime as a sizing ingredient, in combination with resins, soaps, starches, oil, tallow and alums, separately or collectively.

No. 2570. JAMES M. DORLAN, Dorlan's Mills, Penn., U. S., 26th July, 1873, (Extension of Patent No. 1872, for a 3rd period of 5 years): "Paper Sizing." (Collage du papier.)

No. 2571. WILLIAM H. CORY & EDWARD CORY, London, Eng., 26th July, 1873, for 10 years: "Artificial Fuel Blocks." (Blocs de combustible artificiel.)

Relates to the compounding of small coal, coal dust, &c., in a minutely divided condition with certain ingredients which cause it to cohere when it is compressed into blocks.

Claim.—The mixture of cement or clay and silicate of soda or of potash with carbonaceous matter for the production of fuel blocks as described.

No. 2572. WILLIAM H. CORY & EDWARD CORY, London, Eng., 26th July, 1873, for 10 years: "Fuel Moulding Machine." (Presse à combustible.)

Claim.—1st. A pressing and moulding machine the combination of the revolving moulding table A, containing mould cavities B, with the cover G, and feed hopper K, and with the plungers C, working on the helical tramway D; 2nd. The use for the moulds of such apparatus of sliding covers L, L', fitted with rollers L<sup>2</sup>, and L<sup>3</sup>, which work in cam grooves in the cover G; 3rd. The mode of fitting the plungers C, which form the bottoms of the moulds B, with rims and inner plungers M, worked by rods N, so as to lift the moulded blocks clear of the said rims; 4th. The combination with the pressing and moulding apparatus, of the wipers S, and travelling band T, for removing the moulded blocks from the revolving table; 5th. The method of adjusting the charge of the moulds and regulating the pressure to which the material is subjected in moulding by means of the moveable parts V, and W, of the inclined tramway and the springs W, which support the latter.

No. 2573. FRANCIS H. PERRY, Drummondville, Ont., 26th July, 1873, for 5 years: "Machine for Doubling and Twisting Yarns." (Machine à doubler et retordre les fils.)

Claim.—1st. The vibrating arms H, H, and the vibrating fulcrums H<sup>2</sup>, H<sup>3</sup>, operated in the manner set forth; 2nd. In twisting the yarns and controlling its draft or delivery by the revolution of the spindle Y; 3rd. The combination and application of the worm A, upon the spindle Y, and its worm gear X; 4th. The combination and use of the spindle Y, cone headed bobbin X<sup>1</sup>, and flexible stop holder K<sup>1</sup>; 5th. In the inverted V, to control, the centrifugal action of the thread.

No. 2574. WILLIAM NEIL, San Francisco, Cal., U. S., 26th July, 1873, for 5 years: "Refiner for Distilling Apparatus." (Raffineur d'appareil de distillerie.)

Consists in an elongated vessel having diaphragms placed across it at intervals. These diaphragms are perforated alternately at the top and bottom for the passage of the vapors.

Claim.—1st. The vessel A, with its perforated partitions E, and F, for directing and condensing the vapors and forming chambers for holding the condensed products, together with its enclosing water-jacket B; 2nd. In combination with the divided vessel A, the discharge pipes G, H, and I, and the vessel J, with its partitions K, gradually increasing in height from first to last; 3rd. In combination with the refiner in peculiar discharge vessel or pipe A<sup>1</sup>, having perforated floors.

No. 2575. HUGH ROBERTSON, Carillon, Que., 26th July, 1873, for 5 years: "Improvements on Sewing Machines." (Perfectionnements aux machines à coudre.)

Consists in the attachment and use of an oscillating hook, on one side of which is fixed a bracket or cell for the reception of the shuttle, the latter being secured therein by any suitable contrivance, and it relates also to the means employed of regulating the tension of the shuttle thread.

Claim.—1st. The hook A, with its bracket B, or cell, oscillating on an axis D, in combination with a shuttle C, of a "sewing machine"; 2nd. The auxiliary hook I, or its equivalent, in combination with the oscillating hook A; 3rd. The spring M, applied to the oscillating hook A; 4th. The moveable loop check N, applied and operating as set forth; 5th. The application to the shuttle C, of an internal or external spring P.

No. 2576. SIMON L. GOULD, Gardiner, Me., U. S., 26th July, 1873, for 5 years: "A Pulp Engine." (Un engin à pâte à papier.)

Claim.—1st. The case A, G, in combination with the centrifugal disintegrator B; 2nd. The partitions P, arranged in the case A, G, in combination with a centrifugal disintegrator

No. 2577. HUGH ROSS, Plattsburg, N. Y., U. S., 26th July, 1873, for 5 years: "Wash Boiler Attachment." (Disposition de chaudière de buanderie.)

Claim.—1st. The air chamber I, formed by the out walls G, and lining H; 2nd. The circulating passages Q, formed by the inner walls J, lining H, and double partition walls P; 3rd. In providing the steam and water passages in the inserted bottom A, with perforated coverings D, ball valves F, and cages E; 4th. In providing the inserted bottom A, with a surrounding rim B, and cross partition C; 5th. The chamber of ice L, constructed with perforated sides and bottom and valved tube M, for holding essences or chemically saturated material for removing stains and the application of such device in the manner set forth.

No. 2578. CHARLES S. HALL, Rochester, N. Y., U. S., 26th July, 1873, for 5 years: "Grain Threshing Separators." (Séparateurs pour les machines à battre les grains.)

Claim.—1st. In combination with the threshing cylinder H, the primary and secondary belts C, and D, arranged to operate conjointly in the manner set forth; 2nd. The beater E, constructed as described, in combination with the threshing cylinder H, and bolt G; 3rd. The adjustable grate G, in combination with the cylinder H; 4th. The adjustable grate G, having its interstices arranged at right angles or nearly so, to the axis of the threshing cylinder, and extending through, unobstructed, to the rear end of the finger rods C; 5th. In grain threshing separators, a concave formed of one or more segments, provided with raised diagonal serrations; 6th. In combination with the serrated portions N, N<sup>1</sup>, in this class of concaves. The depressed bars V, arranged relatively as described.

No. 2579. JAMES E. CROOKER & WALTER G. CROOKER, Toronto, Ont., 25th July, 1873, for 5 years: "Vegetable and Root Basket." (Panier à légumes et à racines.)

Claim.—The wire basket A, and top and bottom frame B, B<sup>1</sup>, and handles C, C.

No. 2580. JOSEPH E. HOLMES, New York, U. S., 12th August, 1873, for 5 years: "Atmospheric Motor." (Moteur atmosphérique.)

Claim.—The general combination of cylinders A, piston B, and gearing with the use of atmospheric pressure as a motive power for small hand machines.

No. 2581. PRINCE BAKER & JAMES H. BAKER, North Esk, N. B., 12th August, 1873, for 5 years: "Railway Snow Plough." (Charrue à neige de chemin de fer.)

This plough is mounted on wheels like an ordinary railway wagon and provided with a fixed engine to operate the shovels independently from the locomotive required to carry it over the track.

Claim.—The combination of the plow share H, attached to the body of the plow by two arms I, operated by a cog-wheel and crank A, gearing on segment B, in shovels F, and G, operated by a fixed engine and working in opposite directions by means of a cog-wheel C, and gear-wheels D, and E, and in the application of a fixed engine to operate the shovels F, and G, as set forth.

No. 2582. FRANCIS H. PERRY, Drummondville, Ont., 12th August, 1873, for 5 years: "Creel and Tension Spooling Machine." (Cannelier et bobinoir à tension.)

*Claim.*—1st. The combination of the creel stand A, and spooler section B, into one frame, the whole constructed and arranged in the manner set forth; 2nd. The hinged roll J, levers F, and  $\mu$ , and pendent I, click wheels L, and L', friction driving pulley E, plates S<sub>1</sub> and S<sub>2</sub>, operating levers W, W<sub>1</sub>, and W<sub>2</sub>, unlocking levers M<sub>1</sub>, and shipping spring S, and notch N<sub>1</sub>; 3rd. The friction guide D, and sheet metallic rolls C, and H, the whole combined as set forth.

No. 2583. FRANCIS H. FERRY, Stamford, Ont., 12th August, 1873, for 5 years: "Journal Bearing and Holder." (Coussinet et support de tourillon.)

*Claim.*—1st. The adjustable seat D, in combination with the main pendent hanger A, and the spherical bearing B; 2nd. The spring cap C, and set screws I, H, and key H; 3rd. The series of rings, or wire spiral coil bushing G, all combined as set forth.

No. 2584. JOHN ROBERTSON, (Assignee of John Robertson), Montreal, Que., 12th August, 1873, for 5 years: "Oscillating Steam Engines." (Machines à cylindres oscillants.)

Relates to that class of engines in which the piston or pistons are arranged to move in the arc of a circle.

*Claim.*—The combination with the curved cylinder A, A, and its central abutment B, of the curved solid piston D, D, of smaller area in their transverse section than the cylinder, the glands or stuffing boxes C, C, and the valve ports d, d, e, all arranged as specified.

No. 2585. ADDISON NORMAN & GEORGE HEAD, Junior, Toronto, Ont., 12th August, 1873, for 5 years: "Non Elastic Seamless Gaiter." (Guêtre non-élastique sans couture.)

*Claim.*—1st. Having an opening in the back of the boot upper A, with or without a bellows tongue B, and having a depression in the heel stiffener; 2nd. A boot upper A, with but one seam made in the centre of the back as described.

No. 2586. WILLIAM C. EDGE, Newark, N. J. U. S., 12th August, 1873, for 5 years: "Knitted, Fabrics and Machinery for the same." (Tricot et machine pour cet objet.)

Consists in the arrangement of a reciprocating tool, which expands the links or meshes that are put through completed loops of the fabric and in the mechanism for shaping the wire, &c

*Claim.*—1st. The process of manufacturing knit fabrics or chains from wire by the use of an expanding tool F, which enlarges the loops subsequent to their application to the chains or fabrics; 2nd. The rod B, arranged as a guide for the fabric which is being knit from wire; 3rd. The intermittent rotary sleeve d, combined with a rod B, for turning the fabrics; 4th. The wheels J, m, arranged on the bed A, of the machine for bending the wire into zig-zag form; 5th. The forked contractor G, applied to the wire knitting machine; 6th. The V shaped spring n, arranged in combination with the forked reciprocating contractor G; 7th. The rod B, provided with the groove p, in which the wire is guided; 8th. The spring plates r, r, applied to the bed A, for the support of the loop and reception of the expander; 9th. The reciprocating expander E<sub>1</sub>, applied to a wire knitting or chain machine; 10. The cams H, arranged stationary on the bed A, or rod B, for turning up into a vertical position the expanded loops; 11th. The combination of the rod B, spring jaws r, r, and cam H, with the expander F; 12th. The method of making chains by enlarging the newly introduced links and then bending the same; 13th. The bed A, of a chain machine having the aperture u, through which the completed portion of the chain is put; 14th. The chain machine made as described.

No. 2587. CHARLES CATON, Coshocton, Ohio, U. S., 12th August, 1873, for 5 years: "A Miter-box." (Une boîte à onglets.)

*Claim.*—1st. The arc B, as arranged in relation to and in combination with the base board A; 2nd. The supporting stay D, in combination with the arc B; 3rd. The guides I, J, and saw guide consisting of the stem E, and arms F, stay D, index L, and disc H, in combination with the arc B, and base A; 4th. The combination of the adjustable saw guide, consisting of the stem E, and arms F, adjustable stay D, and arc B.

No. 2588. JOSEPH S. PARROTT & HENRY E. PARROTT, Dayton, Ohio, U. S., 12th August, 1873, for 10 years; "Bolting Machine." (Un blutoir.)

Relates to the means employed for admitting currents of air below the screens, which currents are drawn through suitable openings in the walls of the case.

*Claim.*—1st. The inlets B, in the walls of the chest A, when said inlets are placed below the screen S; 2nd. In combination with the chest A, provided with inlets b, the air box B, arranged on top of said chest, and communicating with the interior thereof by means of an oblong passage fan box c, and trunk c', the latter being provided with a regulating valve A; 3rd. The said chest a, provided with inlets B, and in combination with the screen supporting springs e, c', the eccentric and adjustable shafts f; 4th. An air chest A, provided with inlets B, the socketed and shouldered

bumpers N, on the screen frame, in combination with springs e, and fixed blocks N<sub>1</sub>; 5th. A chest A, provided with inlets b, the air box B, screen S, passages S<sub>1</sub>, and conveyor J, m, when arranged to operate as set forth.

No. 2589. ISAAC A. CHOMEL, New York, U. S., & AIMÉ N. N. AUBIN, Montreal, Que., 12th August, 1873, for 5 years: "Suspended Ship's Berth." (Hamac de navire.)

For the purpose of preventing sea-sickness.

*Claim.*—1st. The guide bar F, the articulated frame G, and H, and the double berths D, suspended from a center ring and their connections; 2nd. The stiff suspension frame e<sub>1</sub>, in combination with the bracket e<sub>2</sub>, the universal joint and the berth E; 3rd. The suspension rod a<sub>1</sub>, terminated by a universal joint placed nearly on a level with the point of suspension b<sub>1</sub>, of the articulated frame, and in combination with the berth E; 4th. The double bolt J, in combination with the berth E, enabling the occupant to fix the berth in a stationary position; 5th. A spiral spring I, in combination with the berth E; 6th. The curtains X, in combination with the berth E, and its connections.

No. 2590. FRANK SEABURY, JOHN S. SEABURY AMMI D. SEABURY, ALPHEUS GRANT, NICHOLAS GRANT & HERBERT GRANT, Yarmouth, Me., U. S., 12th August, 1873, for 10 years: "Filling for Wood to be Varished." (Remplissage des pores du bois à vernir.)

*Claim.*—The employment of "Terra-Alba" as a wood filling.

No. 2591. HUBERT R. IVES & ROGERS N. ALLEN, Montreal, Que., 12th August, 1873, for 5 years: "Blind Hinge." (Charnière de persienne.)

*Claim.*—A blind hinge consisting of the leaves A, and B, each provided with the horizontally projecting rib located at the extremity of the leaves, the rib B, being provided with the conically recessed elongated eye; and the rib C, with the conically enlarged pin<sub>1</sub> a, b, said arrangement allowing the screw holes and pin<sub>1</sub> eye, to be cast at one operation.

No. 2592. JOSEPH A. TALPEY, Sommerville, JOHN HITCHCOCK, Boston, and WILLIAM H. HOPKINS, Sommerville, Mass., U. S., 12th August, 1873, for 15 years: "Fire-escape and Mechanism for Lowering Goods." (Appareil de sauvetage et pour descendre les meubles.)

*Claim.*—1st. The drum or pulley B, provided with the groove c, in which are formed the ribs d, in combination with a rope, wire, chain, or other flexible operating medium, passing over said drum or pulley, and held between said ribs, when the bearing upon which said drum or pulley revolves is of greater diameter than that portion from which the load is suspended; 2nd. The pulley B, made in two parts and secured together by the central bolt C, and nut d, lugs a, a, and recesses b, b, and provided with the arms e, e, c; 3rd. In combination with the pulley B, provided with the groove C, and the ribs d, and operated by a rope, wire, or chain in one or more weighted brake levers f, pivoted or otherwise connected to said pulley so as to revolve therewith and at the same time be free to oscillate in a plane at right angles to the axis of revolution and an enclosing circular case against which said levers bear at a point near their fulcrum when their weighted ends are thrown outward by centrifugal action; 4th. The peculiar construction of the weighted brake levers g, whereby two levers may cross each other while at the same time each may be heavily weighted at its free end; 5th. In combination with the drum or pulley B, and any suitable flexible operating medium in a self-adjusting guide for separating the ropes or chains after they leave the casing.

No. 2593. STEPHEN K. ELLIS, Waltham, Mass., U. S., 12th August, 1873, for 5 years: "Clasp for Stocking Suspensives." (Agraffe de bretelles à bas.)

*Claim.*—1st. In the construction of a stocking supporter of a clamping mechanism or device by means of which the top of the stocking is grasped and held between two clamping surfaces in contradistinction to buckling or buttoning the same; 2nd. A clamp or clasp constructed as described.

No. 2594. HENRY E. MARCHAND, Pittsburg, Penn., U. S., 12th August, 1873, for 5 years: "A Car Coupler." (Attelage de voitures de chemin de fer.)

*Claim.*—1st. The vibrating trigger arm H, constructed as described, and arranged loosely within the draw-head to operate in connection with a coupling pin and the coupling link of a car; 2nd. The coupling pin B, provided with an enlarged lower end and lateral ribs D, to operate in relation to guide grooves in the draw-head; 3rd. The combination with the coupling pin and draw-head of a pivoted latch o.

No. 2595. WILLIAM SHAW, (Assignee of W. Bignell.) Quebec, Que., 12th August, 1873, for 5 years: "A Respirator." (Un inhalateur.)

The object being to allow an invalid using the respirator to inhale the fresh air and expel the vitiated air while seated in an apartment.

Claim.—The combination of the mouth piece A, inlet and outlet valves B, and C, inhaling and exhaling tubes D, and E, and chamber G.

No. 2596. ISAAC TURNER, Markham, Ont., 12th August, 1873, for 5 years: "Railroad Car Coupler." (Attelage de voitures de chemin de fer.)

Relates to the combination of coupling pin and coupling link in such a manner that coupling and uncoupling may be performed without getting off the car or platform, the object being to prevent risk to life and limb.

Claim.—1st. The combination of the coupling pin A, and roller B; 2nd. The combination of the weight E, and the coupling link D; 3rd. In the forms of the ends of the coupling link D.

No. 2597. JOHN WINER, Hamilton, Ont., 12th August, 1873, for 5 years: "Self-supplying Coal Cooking Stove." (Poêle de cuisine à charbon à alimentation continue.)

Claim.—1st. A pivoted moveable perforated cone shaped grate C, in combination with a fire box F, and stationary grate d: 2nd. The four corner diving flues g, g, g, g, opening into the air chamber or space P, under the oven; 3rd. A cubed shaped self-supplying cooking stove as shown constructed with four descending flues g, g, g, g, a stationary grate d, and moveable perforated cone grate c, with handle o.

No. 2598. THOMAS HAZARD, Wilmington, Ohio, U. S., 12th August, 1873, for 5 years: "Straw and Hay Cutter." (Coupe-paille.)

Claim.—1st. The knife c, having a concave cutting edge, and having one end pivoted to the frame B, and the other end pivoted to a pitman c, which is coupled to an arm on the end of a rotary shaft b; 2nd. The adjustable pin l, applied to the stationary frame support on standard b, in combination with the rock shaft or lever h, rigid pin l, dog h, and comb b; 3rd. A presser feed roller f, r a hay or straw-cutter constructed hollow and adapted to the reception of heavy filling; 4th. A presser block for a hay or straw-cutter constructed hollow and adapted to the reception of heavy tilling; 5th. The mouth piece E, slotted arm I, and screw bolt N, in combination with the knife c.

No. 2599. ROBERT BUSTIN, St. John, N. B., 12th August, 1873, for 5 years: "Portable Fire-escape." (Appareil de sauvetage portatif.)

The person using the apparatus in lowering himself from window regulates the speed of his descent by pressure on the handles or by means of the cleat.

Claim.—1st. The combination of the rope or wire C, with the belt E, the handles d, d, and the reel G; 2nd. The combination of the rope or wire C, with the cleat Fig. 5.

No. 2600. FRANK BRAMER, Little Falls, N. Y., U. S., 12th August, 1873, for 5 years: "A Mowing Machine." (Une moissonneuse.)

Claim.—1st. The construction of the socket for the reception of the dividing stick or finger A, in such manner that said stick or finger may be rolled in the socket and secured in any position desired; 2nd. The combination of the iron C, board D, and adjustable dividing stick A; 3rd. The eccentric K, for the purpose of tilting the finger bar; 4th. The block M, one end of which forms a lever for tilting the finger bar, and which forms the attachment of the main connecting bar P, and the push bar J; 5th. The combination of the eccentric K, and the block M; 6th. The combination of the block M, push bar J, and main brace P; and 7th. The combination of the eccentric K, block M, push bar J, main brace P, connecting rod H, and lever E.

No. 2601. HUGH H. MAWHINNEY, Stoneham, Mass., U. S., (Assignee of Jno. E. Wiggins,) 12th August, 1873, for 5 years: "Bye-letting Machine." (Machine à poser les œillets.)

Claim.—The punch b, its bed c, and the upsetting anvil a, arranged as set forth, to have a lateral reciprocating motion and provided with mechanism for operating them so as to cause the material to be punched and fed forwards in order to be eye-letted; and in combination therewith and the work supporting platform, the presser f, provided with mechanism for actuating it as described.

INDEX OF INVENTIONS.

Addressing machine, newspaper, J, J. Wright.....	2503
Air carburetting, E. L. Jones & G. H. Dayton.....	2555
Bacon and linn curling, J. Atkinson.....	2562
Baling press, L. Dodge.....	2485
Barrel hoops, E. Coapman.....	2545
Basket, vegetable, J. E. & W. G. Crooker.....	2570
Bath, portable, E. J. Knowlton.....	252
Bed bottom, Wm. Moore.....	2566
Bed spring, E. S. Field.....	2516
Bells ringing locomotive, G. B. Snow.....	2515
Berth, ships, J. A. Chomel.....	2589
Blind hinge, H. R. Ives & R. M. Allen.....	2591
Bolting machine, J. S. & E. Parrott.....	2588
Boot heel stiffener, J. W. Hatch.....	2505
Brick press, J. N. Smith.....	2522
Bridges, spans of, J. Anderson.....	2491
Butter package, H. P. Adams.....	2493
Can, sheet metal, G. H. Chittwood.....	2539
Capstan and windlass gearings, B. P. King.....	2481
Car coupler, Henry E. Marchand.....	2594
Car coupling, E. D. Smith.....	2502
Carving machine, H. Thomas.....	2540
Clasp for stocking suspenders, Stephen R. Ell.....	2593
Clasp for corset, H. S. Flood.....	2567
Cloth-measuring and rolling, N. A. Beach & T. B. & H. M. Rider.....	2507
Cocks and valves, Wm. Berry.....	2565
Corn crusher, grain or, J. Kaiser.....	2542
Corn sheller, W. Hannon.....	2513
Crib, child's spring, J. D. Lewis.....	2549
Dental purposes, a compound for, V. Smith.....	2553
Distilling apparatus, Wm. Neff.....	2571
Door hanger, C. B. Clark.....	2543
Eye-letting Machine, J. E. Wiggins.....	2601
Elevator, hydraulic, C. W. Baldwin.....	2489
Fanning mill, H. Harper.....	2552
Fire escape, G. P. Clapp & G. Staey.....	2498
Fire Escape, Portable, Robert Bustin.....	2599
Fire escape and mechanism for lowering goods, Joseph A. Talpey, John Hitchcock and William H. Hopkins.....	2592
Fodder cutter, H. Baldwin.....	2519
Fork, a harpoon, J. Ludlum.....	2483
Fuel blocks, artificial, Wm. & E. Cory.....	2571
Fuel moulding press, Wm. H. & E. Cory.....	2572
Gallon, seamless, A. Norman & G. Read.....	2585
Gas apparatus, F. Korwan.....	2504
Gas burner, T. Simmons & A. & C. T. Clemen.....	2528
Gas heater, A. H. Mershon.....	2472
Gas purifier, S. Horton.....	2523
Gate, G. Grobb.....	2526
Grain cleaner, O. R. Wood.....	2524
Grain or corn crusher, J. Kaiser.....	2542
Grain grinder and straw cutter, Wm. Depew.....	2481
Green houses, heating of, J. Cowan.....	2508
Gun, repeating, W. R. Evans.....	2534
Ham and bacon, curing, J. Atkinson.....	2562
Harvester, W. N. Whittely.....	2541
Harvester grinder, F. Emerson & J. W. Sabin.....	2551
Harvester reel, J. Walmsley.....	2509
Hawser pipe, B. P. King.....	2486
Hay fork, a horse, J. J. & A. Wigle.....	2482
Hay rake, spring for, J. H. Bridgman.....	2479
Heater, a drum, G. H. Pedlar.....	2538
Hitching post, J. Melchers.....	2487
Horse power, D. Woodbury.....	2506
Horse shoes, adjustable, H. Moran & P. & J. P. Meday.....	2490
Horse shoe sharpener, J. Little.....	2568
Hose hydraulic, L. R. Blake.....	2500
Inhaler, C. D. Hunter & E. S. Wood.....	2531

Iron cutting machine, D. S. Merritt.....	2478
Iron and steel process, C. Worden & J. B. Plumb.....	2496
Journal and bearing holder, F. H. Perry.....	2583
Knitted fabrics and machinery, Wm. C. Edge.....	2586
Lamp lighting apparatus, M. A. Lynch.....	2474
Lath gang machine, W. F. Burton.....	2475
Lath machine, W. F. Burton.....	2476
Lathe dog, adjustable, L. P. Whiting.....	2511
Lock, Wm. Griffith.....	2532
Lock, a combination, J. B. White & H. Wilson.....	2477
Lounge, easy, J. Hunt.....	2538
Mats and robes, E. F. Austin.....	2510
Milk can, J. F. Cass.....	2521
Milker, a cow, O. Webster.....	2544
Milk safe, J. P. Dale.....	2494
Miter box, C. Caton.....	2587
Molding machine, L. M. Hills.....	2561
Mop head, C. B. Clark.....	2558
Motor, atmospheric, J. E. Holmes.....	2580
Mowing machine, F. Bramer.....	2600
Nail machinery, chisel pointed, G. Stacy & H. Mulholland.....	2497
Nut machine, J. R. Blakeslee.....	2495
Paint, fire proof, Wm. H. Foran.....	2530
Paper, pulp engine, S. L. Gould.....	2576
Pea harvester and rake, Wm. Howell.....	2551
Post, metal fence, C. B. Pettit & J. May.....	2556
Railroad car coupler, Isaac Turner.....	2596
Railway car, stake holder for, R. L. Walton.....	2563
Railway cars, folding down stakes for, J. W. McGlashan.....	2527
Railway rail chair, J. W. Close.....	2514
Railway signal, electric, Wm. Robinson.....	2499
Railway snow plough, P. Baker & J. H.....	2581
Rake, horse, L. Litchfield.....	2535
Rake and pea harvester, Wm. Howell.....	2551
Reefing machine, D. Wright.....	2518
Respirator, Wm. Shaw.....	2595
Robes and mats, E. F. Austin.....	2510
Roofing composition, F. Churchhill.....	2557
Self-supplying coal cooking stove, John Winer.....	2597
Sewing machine, H. Robertson.....	2575
Sewing machine for sails, K. C. Barton.....	2486
Sewing machine, toy, E. A. Goodes.....	2480
Shaft coupling, J. Charlton.....	2473
Shirt, M. Lelsman.....	2564
Silver alloy, metallic, A. E. P. Baudouin.....	2560
Sizing paper, J. M. Durlan.....	2569
Sizing paper, J. M. Durlan.....	2570
Soap crutcher, C. Lehmann.....	2529
Steam engines, oscillating, J. Robertson.....	2584
Steam engines, valve gear for, G. Tesseyman & E.T. Howard.....	2548
Steam packing, C. F. & A. B. Jenkins.....	2517
Stove, coal oil cooking, G. S. Chase.....	2559
Stove, steam cooking, J. Boyd.....	2533
Strainer, a pot, J. Taylor.....	2517
Straw and hay cutter, Thomas Hazard.....	2598
Straw cutter and grain grinder, Wm. Depew.....	2481
Streets, machine for sweeping, O. Thibaudau.....	2507
Spooling machine, F. H. Perry.....	2582
Thrashing grain separator, C. S. Hall.....	2578
Tile, P. Hervier.....	2520
Valve, a governor, E. Schrek.....	2516
Valves and cocks, W. Berry.....	2565
Wash boiler, H. Ross.....	2577
Washing machine, G. Bastien & P. Valois.....	2536
Washing machine, G. Bastien & P. Valois.....	2537
Washing machine, A. H. Calkins.....	2512
Water proof gum, D. M. Lamb.....	2492
Wood filling, F. J. S. & A. D. Seabury & A. & N. & H. Grant.....	2590
Yarns, twisting and doubling, F. H. Perry.....	2573

INDEX OF PATENTERS.

Adams, H. P., butter package .....	2493
Allan, R. N., & H. R. Ives, blind hinge.....	2591
Anderson, J., spans of bridges .....	2491
Atkinson, J., curling ham and bacon .....	2562
Austin, E. F., mats, robes .....	2510
Baker, P., & J. H., railway snow plough.....	2581
Baldwin, C. W., hydraulic elevator .....	2489
Baldwin, H., fodder cutter.....	2519
Barton, K. C., sail sewing machine.....	2488
Bastien, J., & P. Valois, washing machine.....	2536
" " " " .....	2537
Baudvin, A. P. E., metallic silver alloy.....	2560
Bench, N. A., & T. B., & H. M. Rider, measuring and rolling cloth .....	2501
Berry, W., cocks and valves .....	2565
Blake, L. R., hydraulic hose .....	2500
Blakeslee, J. R., nut machine.....	2465
Boyd, J., steam cooking stove .....	2533
Bramer, F., mowing machine.....	2600
Bridgman, J. H., hay rake spring.....	2479
Burton, W. F., lath machine.....	2476
" " lath gang machine .....	2475
Bustin, Robert, portable fire-escape.....	2599
Calkins, A. H., washing machine.....	2512
Cas, J. F., milk can.....	2521
Caton, C., miter box .....	2587
Charton, J., shaft coupling.....	2473
Chase, G. S., coal oil cooking stove .....	2559
Chincock, G. H., sheet metal can.....	2539
Chomel, J. A., ship's berth .....	2589
Churchill, E., roofing composition.....	2557
Chupp, G. P., & G. Stacy, fire-escape .....	2498
Clark, C. B., door-hanger.....	2543
" " mop head.....	2558
Clemen, A., & C. T., & T. Simmons, gas burner.....	2528
Close, J. W., railway rail chair.....	2514
Coopman, E., barrel hoops .....	2545
Cory, Wm. H., & E., fuel moulding press .....	2572
" " artificial fuel blocks.....	2571
Cowan, J., heating green houses.....	2508
Crangle, E. J., & J. P., (assignees), lath machine.....	2476
" " " lath gang machine .....	2475
Crooker, J. E., & W. G., vegetable basket .....	2579
Dale, J. P., milk-safe.....	2494
Dayton, H. G., & E. L. Jones, carburetting air .....	2555
Depew, Wm., straw-cutter and grain grinder .....	2481
Dodge, L., balling press .....	2485
Dunn, J. M., paper sizing.....	2569
" " " " .....	2570
Edge, Wm. C., knitted fabrics and machinery.....	2586
Ellis, Stephen R., clasp for stocking suspenders .....	2593
Emerson, S. F., & J. W. Sabin, harvester grinder .....	2554
Evans, W. R., repeating gun .....	2534
Field, E. S., spring bed .....	2516
Flood, H. S., corset clasp .....	2567
Foran, Wm. H., fire-proof paint.....	2530
Goodes, E. A., toy sewing machine .....	2480
Grant, A., & N., & H., & Seabury F., & J. S., & A. D., wood filling .....	2530
Grobb, G., gate.....	2526
Griffith, Wm., lock .....	2532
Gould, S. L., paper pulp engine .....	2576
Hall, C. S., grain thrashing separator.....	2578
Holmes, J. E., atmospheric motor .....	2580
Hannon, W., corn sheller .....	2513
Harper, H., fanning mill .....	2533
Hatch, J. W., heel stiffener for boots.....	2508
Hazard, Thomas, straw and hay cutter .....	2598

Hervier, P., tile.....	2520
Hill, L. M., moiding machine.....	2501
Hitchcock, John, Wm. H. Hopkins, and Joseph A. Talpey, Fire-escape and mechanism for lowering goods.....	2502
Hopkins, Wm. H., Joseph A. Talpey, and John Hitchcock, Fire-escape and mechanism for lowering goods.....	2502
Horton, S., gas purifier .....	2523
Howard, E. J., & J. Tesseyman, valve gear for steam en- gines.....	2548
Howell, Wm., rake and pea harvester.....	2551
Hunt, J., easy lounge.....	2538
Hunter, C. D., & E. S. Wool, inhaler.....	2531
Ives, H. R., & R. N. Allen, blind hinge.....	2591
Jenkins, C. F., & A. B., steam packing .....	2517
Jones, E. L., & G. H. Dayton, carburetting air .....	2555
Kaiser, J., grain or corn crusher.....	2542
King, B. P., capstan and windlass gearings .....	2484
King, B. P., hawser pipe .....	2180
Knowlton, E. J., portable bath .....	2525
Korwan, F., gas apparatus.....	2504
Lamb, D. M., water proof gum.....	2192
Lehman, C., soap crutcher.....	2529
Leishman, M., shirt .....	2564
Lewis, J. D., child's spring crib .....	2519
Litchfield, L., horse rake.....	2535
Little, J., horse shoe sharpener.....	2508
Ludlam, J., harpoon fork .....	2483
Lynch, M. A., lamp lighting apparatus.....	2474
Marchand, Henry E., car coupler.....	2594
Mawhinney H. H., assignee, eyeletting machine.....	2601
May, J., & C. B. Pettit, metal fence post .....	2550
Meday, J. P., & H., & P. Moran, adjustable horse shoes.....	2490
Melchers, J., hitching post.....	2487
Merritt, D. S., machine for cutting iron.....	2478
Mershon, A. H., gas heater.....	2472
Mills, E. L., & C. H. Walters, (assignees), folding down table for railway cars.....	2527
Mills, E. L., & C. H. Walters, (assignees), folding down stake for railway cars.....	2527
Moore, Wm., bed bottom .....	2566
Moran, H., & P., & J. P. Meday, adjustable horse shoes.....	2490
Mulholland, H., & G. Stacey, chisel pointed nail machine..	2497
McGill, J., (assignee), soap crutcher .....	2529
McGlashan, J. W., folding down stake for railway cars.....	2527
Nell, W., refining and distilling apparatus.....	2574
Norman, A., & G. Read, seamless gaiter .....	2588
Parrott, J. S., & E., bolting machine .....	2588
Pedlar, G. H., drum heater .....	2550
Perry, F. H., twisting yarns.....	2573
" spooling machine.....	2582
" journal bearing and holder.....	2583
Pettit, C. B., & J. May, metal fence post .....	2550
Plumb, J. B., C. Warden, iron and steel process .....	2496
Reed, G., & A. Norman, seamless gaiter .....	2588
Rider, T. B., & H. M., & N. A. Beach, measuring and roll- ing cloth.....	2501
R bertson, H., sewing machines .....	2575
R bertson, J., oscillating steam engines.....	2584
R bertson, J., (assignee), do do .....	2584
Robinson, Wm., electric railway signal.....	2499
Ross, H., wash boiler .....	2577
Sabin, J. W., & S. F. Emerson, harvester grinder.....	2551
Schirck, E., governor valve.....	2546
Seabury, F., J. S., & A. D., & Grant, A., & N., & H., wood fill- ing.....	2590
Shaw, William, (assignee of W. Bignell), A respirator .....	2595
Simmons, T., & A., & C. T. Clemens, gas burner.....	2528
Smith, E. D., car coupling.....	2502
Smith, J. N., brick press .....	2522
Smith, V., compound for dental purposes.....	2553

Snow, G. B., apparatus for ringing locomotive bells.....	2515
Stacy, G., & G. P. Clapp, fire escape.....	2498
Stacy, G., & H. Mulholland, chisel pointed nail machinery	2497
Talpey, Joseph A., John Hitchcock, and Wm. H. Hopkins, Fire-escape and mechanism for lowering goods .. ..	2502
Taylor, J., pot strainer .....	2547
Tesseyman, J., & E. J. Howard, valve gear for steam en- gines.....	2548
Thibaudau, G., machine for sweeping streets.....	2507
Thomas, H., carving machine .....	2540
Turner, Isaac, railroad car coupler .....	2590
Valois, P., & G. Bastien, washing machine .. ..	2530
" " " " " .....	2537
Walmsley, J., harvester reel.....	2509
Walter, C. H., & E. I. Mills, (assignees), folding down stake for railway cars .....	2527
Walton, R. L., stake holder for cars .....	2563
Warden, C., & J. B. Plumb, iron and steel process .....	2496
Webster, O., cow milker.....	2544
White, J. B., & H. Wilson, combination lock .....	2477
Whitely, W. N., harvester.....	2541
Whiting, L. P., adjustable lathe dog.....	2511
Wiggin, J. E., an eyeletting machine.....	2601
Wigle, J. J., & A., horse hay fork .....	2482
Wilson, H., & J. B. White, combination lock .....	2477
Winer, John, self-supplying coal cooking stove.....	2597
Wood, E. S., & C. D. Hunter, inhaler .....	2531
Wood, O. R., grain cleaner.....	2524
Woodbury, D., horse power .....	2506
Wright, D., reefing machine .....	2518
Wright, J. J., newspaper addressing machine .. ..	2503

ADDITION TO THE RULES AND REGULATIONS

(SEPTEMBER, 1872)

OF THE

CANADA PATENT OFFICE,

JANUARY 14th, 1873.

I. DRAWING.

In order to allow the Patent Office to have a Patent Office Record printed and published, containing the Claims and Drawings of all Patents issued, it is further directed, in addition to the requirements of Rule 13 and Form 15, that:—

One Drawing on a sheet of card board, 8 x 13 inches, will be required of each invention, in addition to those ordered by Rule 13 and 15; the sheet is to be without writing on its face, merely the usual lettering required on the Drawing; written title, references, certificate, signature, &c., not being necessary.

Where several sheets and figures are furnished, in accordance with Rule 13, any one figure, which will best give a general idea of the invention, will be sufficient.

The card board to be used must have a smooth or calendered surface—a sheet of "double thick Bristol board," or "Whatman's drawing paper," is recommended.

All drawings must be clear, sharp, well defined, not too fine, and perfectly black.

NOTICE.

Lines that are pale, ashy, very fine, ragged, or rotten, give bad results when photo-lithographed.

Brush-shading, tinting, and imitation surface-graining, should never be used; and in fine shading the result should be attained with as few lines as possible.

Section lines also should be as open in their spacing as the case will admit of, and these, as well as all right lines, in order to insure clearness, should be made with a ruling pen. The shading of convex and concave surfaces may be dispensed with when the invention is otherwise well illustrated.

Shade lines may sometimes be used with good effect, but heavy shadows, where they would obscure lines or letters of reference, should be avoided.

The card board drawing should be rolled on a roller for transmission to the office, as folding will prevent its usefulness for photo-lithography.





# THE CANADIAN PATENT OFFICE RECORD.

## ILLUSTRATIONS.

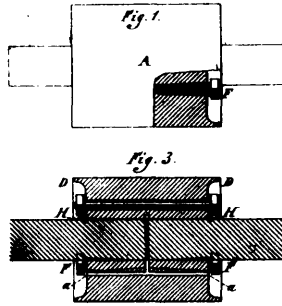
Vol. I.

SEPTEMBER, 1873.

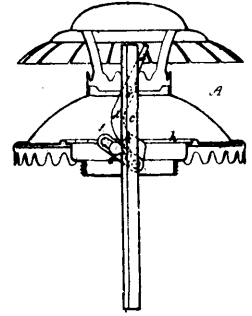
No. 6.



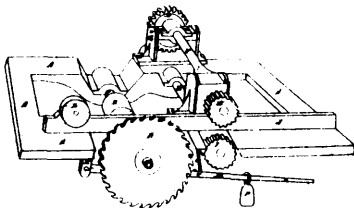
2472 Mershon's Gas Heater.



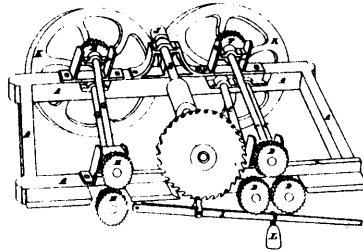
2473 Charton's Shaft Coupling.



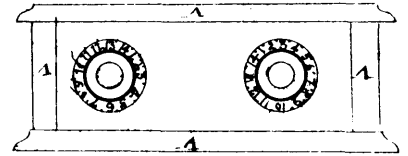
2474 Lynch's Lamp Lighting Apparatus.



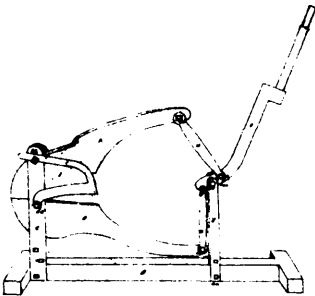
2475 Burton's Self-feeding Lath Gang Machine.



2476 Burton's Lath Machine.



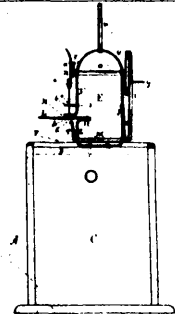
2477 White & Wilson's Combination Lock.



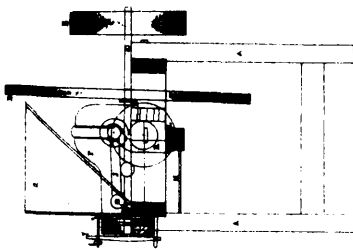
2478 Merritt's Machine for Cutting Iron.



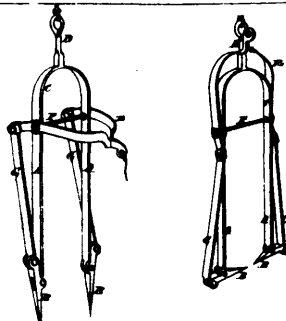
2479 Bridgman's Hay Rake Spring.



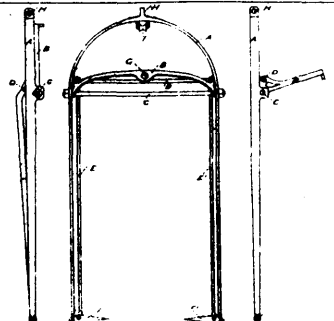
2480 Goodes' Toy Sewing Machine.



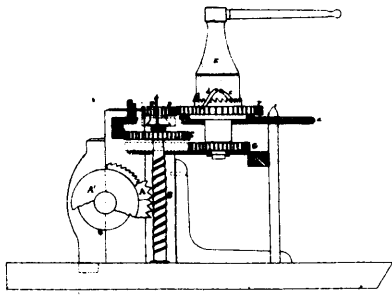
2481 Depew's Combined Straw-cutter and Grain Grinder.



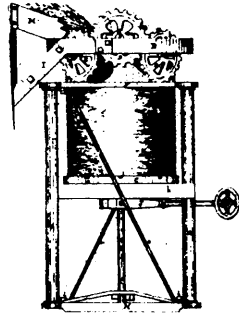
2482 Wigle's Horse Hay Fork.



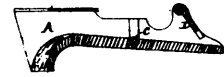
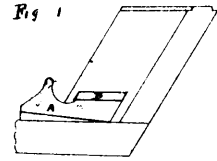
2483 Ludiam's Harpoon Fork.



2484 King's Capstan and Windlass Gearing.



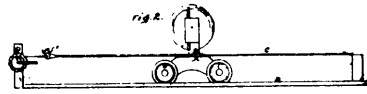
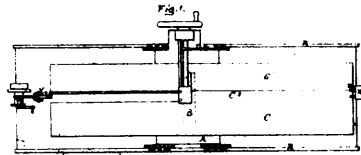
2485 Dodge's Baling Press.



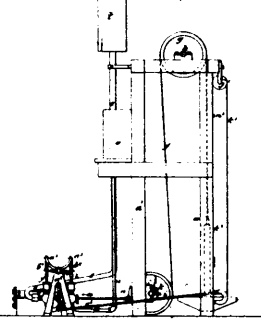
2486 King's Hawser Pipe.



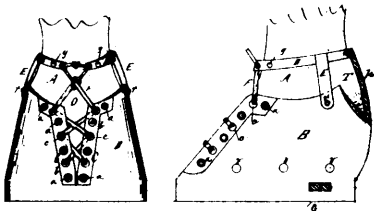
2487 Melchers' Hitching Post.



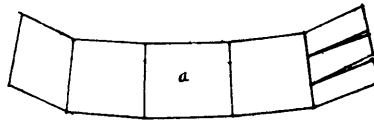
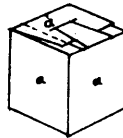
2488 Barton's Sail Sewing Machine.



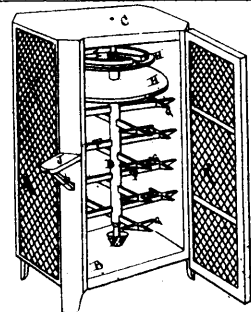
2489 Baldwin's Hydraulic Elevator.



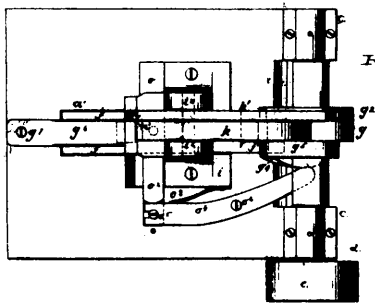
2490 Moran & Meday's Adjustable Horse Shoes.



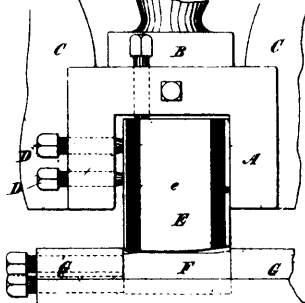
2491 Adams' Butte Package.



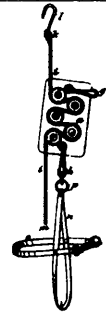
2494 Dale's Milk-safe.



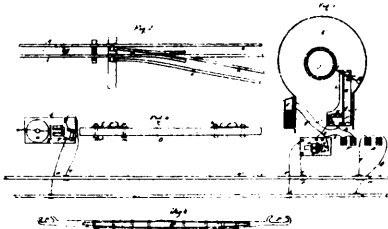
2495 Blackeslee's Nut Machine.



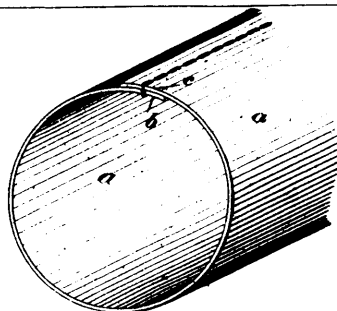
2497 Stacy & Mulholland's Chisel Pointed Nail Machinery.



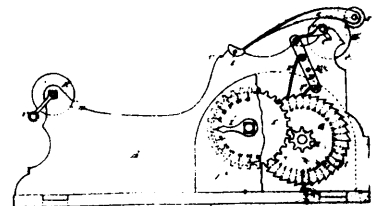
2498 Clapp & Stacy's Fire-escape.



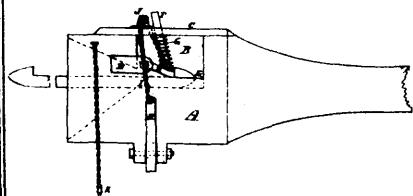
2499 Robinson's Electric Railway Signals.



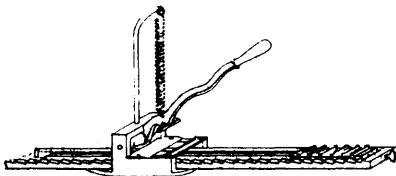
2500 Blake's Hydraulic Hose.



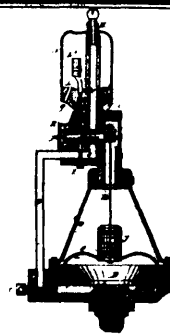
2501 Beach & Rider's Machine for Measuring and Rolling Cloth.



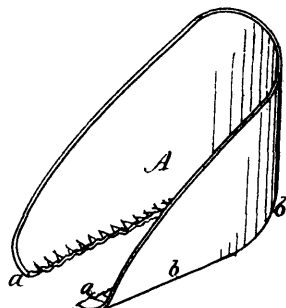
2502 Smith's Self-acting Car-coupling.



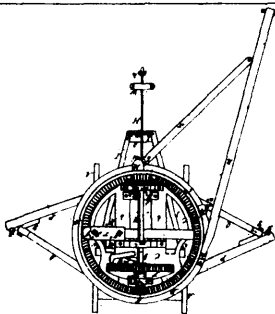
2503 Wright's Newspaper Addressing Machine.



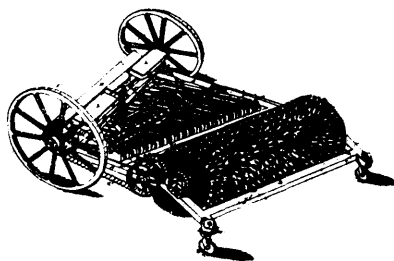
2504 Korwan's Self-lighting Gas Apparatus.



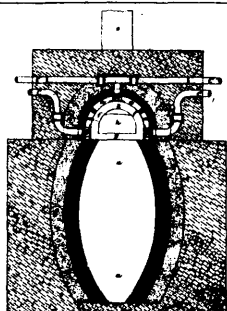
2505 Hatch's Heel Stiffening for Boots and Shoes.



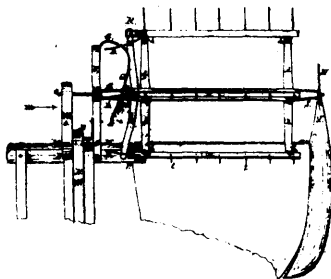
2506 Woodbury's Horse-power.



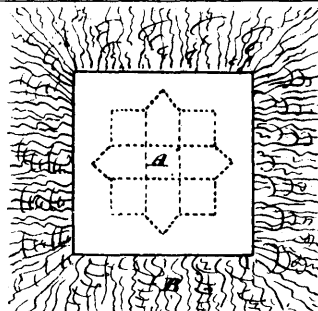
2507 Thibaudau's Machine for Sweeping and Scraping Streets.



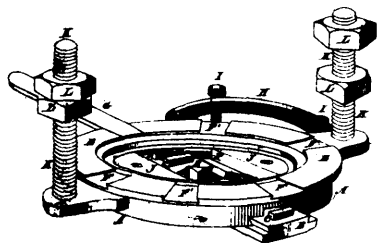
2508 Cowan's Apparatus for Heating Green Houses, &c.



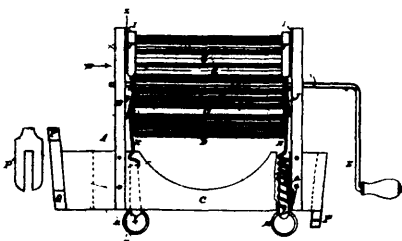
2509 Walmsley's Harvester Reel.



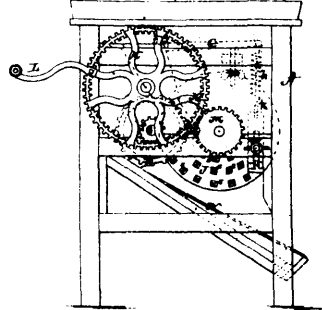
2510 Austin's Velvet and Pish Mats and Robes.



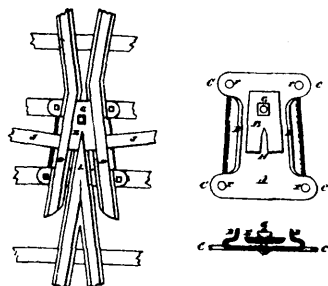
2511 Whiting's Adjustable Lathe Dog.



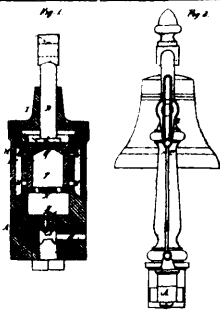
2512 Calkins' Washing Machine.



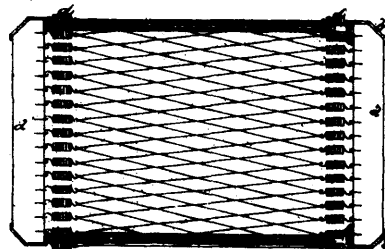
2513 Cornell's Corn Sheller.



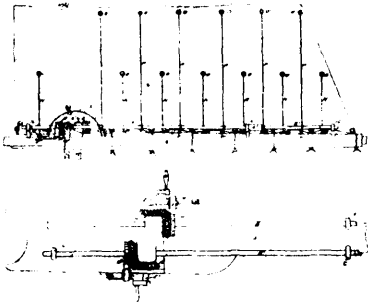
2514 Close's Railway Rail Chair.



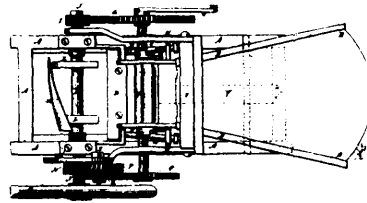
2515 Snow's Steam Apparatus for Ringing Locomotive Bells.



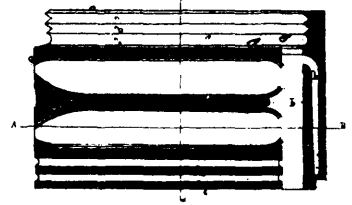
2516 Field's Spring Bed.



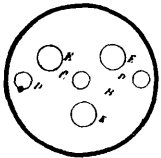
2518 Wright's Reeling Machine.



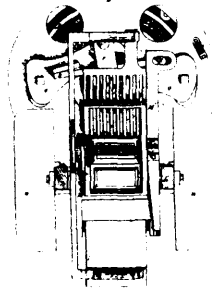
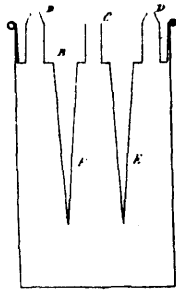
2519 Baldwin's Fodder Cutter.



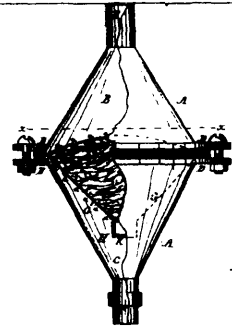
2520 Hervier's Flat Tile with Treble Lapping Rib.



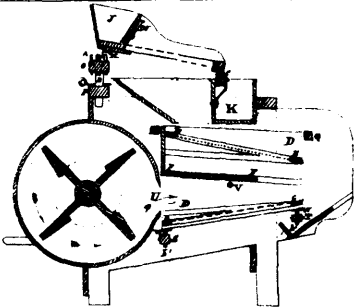
2521 Cass' Ventilating and Cooling Milk Can.



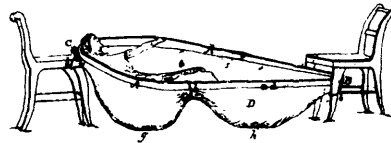
2522 Smith's Brick Press.



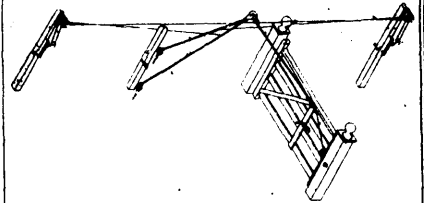
2523 Horton's Gas Purifier and Regulator.



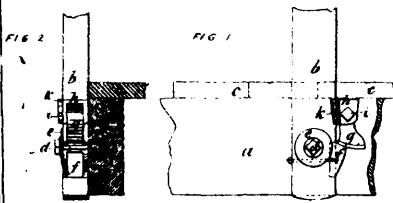
2524 Wood's Machine for Cleaning, Separating and Grading Grains, &c.



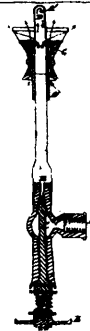
2525 Knowlton's Portable Bath.



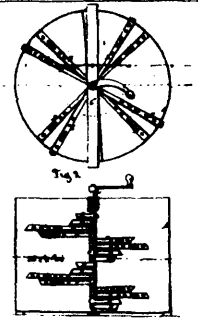
2526 Grobb's Gate Attachment.



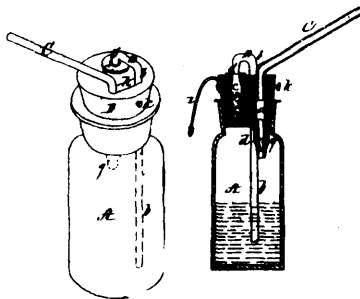
2527 McGlashan's Folding-down Stake for Railway Platform Cars.



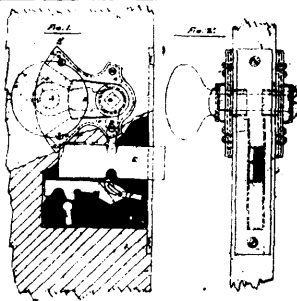
2528 Simons & Clemen's Gas Burner.



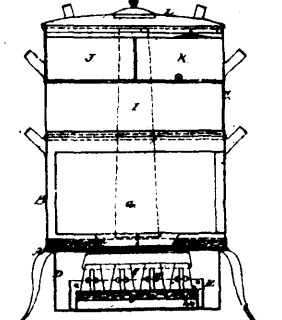
2529 Lehmann's Soap Crutcher.



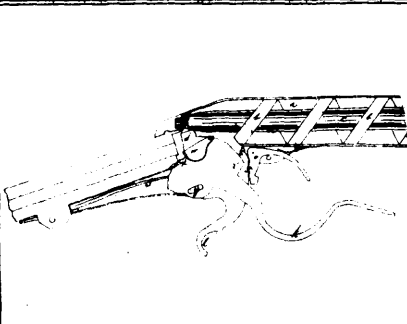
2531 Hunter & Wood's Inhaler.



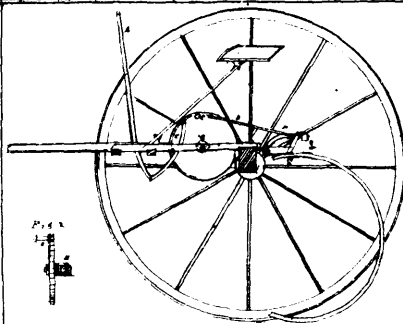
2532 Griffith's Lock.



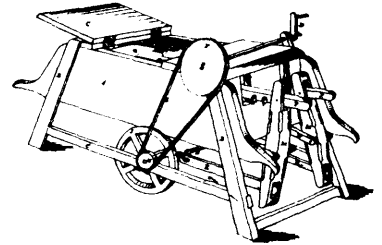
2533 Boyd's Steam Cooking Stove.



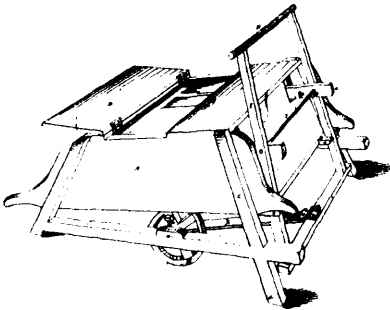
2534 Evans' Repeating Gun.



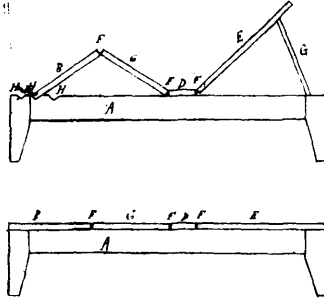
2535 Litchfield's Horse Rake.



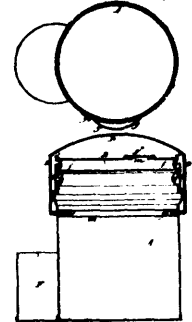
2536 Bastien & Valois' Washing Machine.



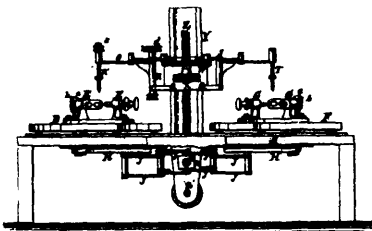
2537 Valois & Bastien's Washing Machine.



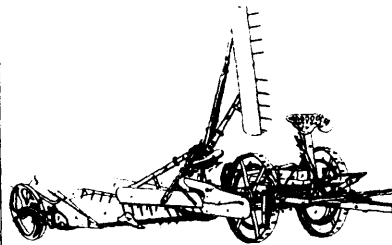
2538 Hunt's Easy Lounge.



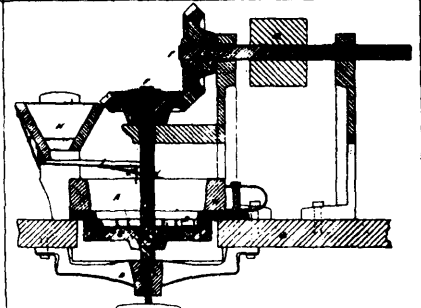
2539 Chinnock's Sheet Metal Can.



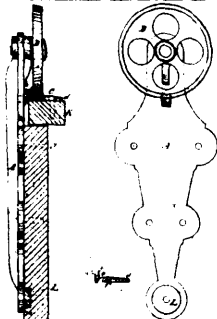
2540 Thomas' Carving Machine.



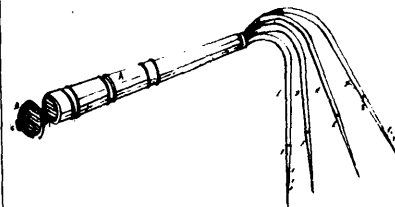
2541 Whiteley's Harvester.



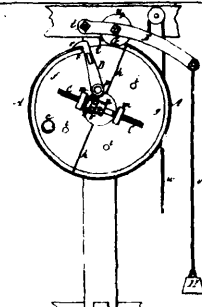
2542 Kaiser's Grain or Corn Crushing Mill.



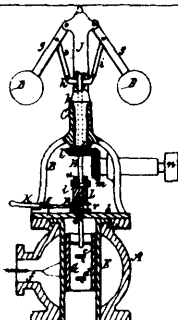
2543 Clark's Sliding Door Hanger.



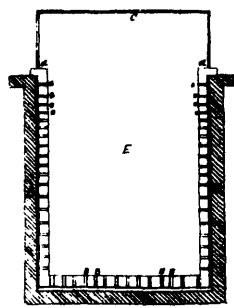
2544 Webster's Cow Milker and Strainer.



2545 Coapman's Machine for Forming Barrel Hoops.



2546 Schirck's Governor Valve.



2547 Taylor's Pot Strainer.

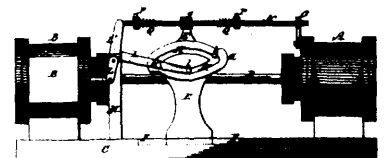
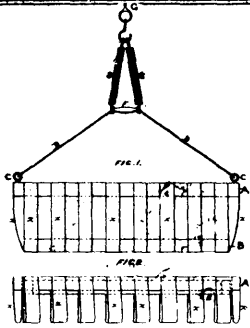


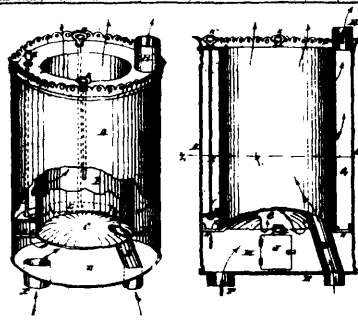
Fig. 2. Plan View

2548 Tessyman & Howard's Valve Gear for Direct-acting Steam Engines.

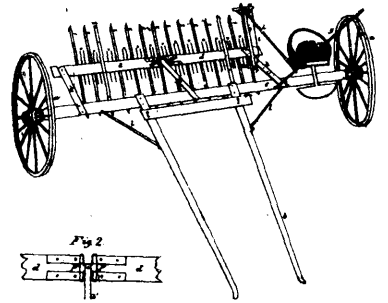




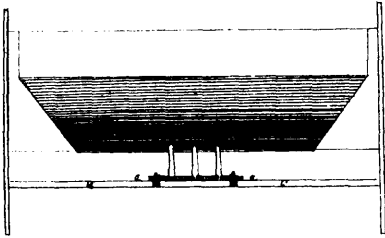
2549 Lewis' Child Spring Cril.



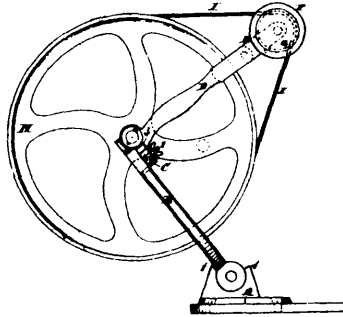
2550 Pedlar's Drum Heater and Fuel Saver.



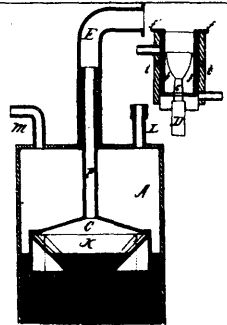
2551 Howell's Self-adapting Rake and Pea Harvester.



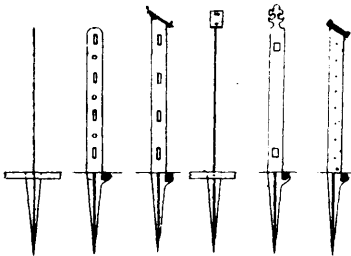
2552 Harper's Fanning Mill Attachment.



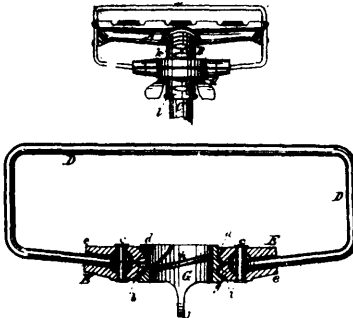
2554 Emerson & Sabin's Harvester Grinder.



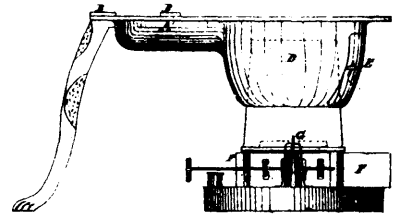
2555 Dayton & Jones' Machine for Carburetting Air.



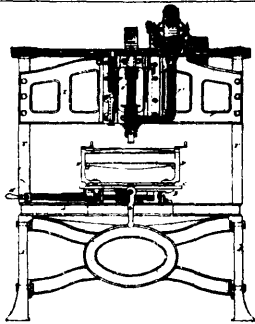
2556 May & Pettit's Cast Metal Fence Post.



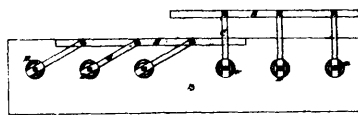
2558 Clark's Mop Head.



2559 Chase's Coal Oil Cooking Stove.



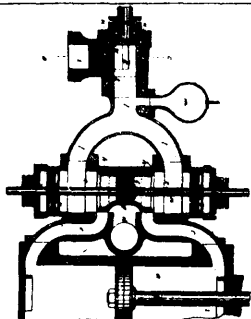
2561 Hills' Paneling and Molding Machine.



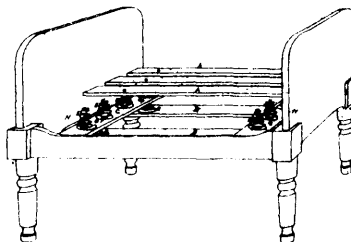
2563 Watton's Stake Holder for Flat Cars.



2564 Leishman's Shirt.



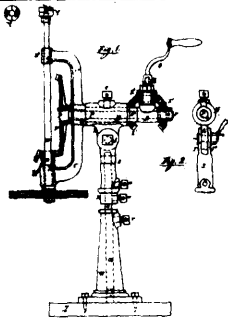
2565 Berry's Improvement on Cocks and Valves.



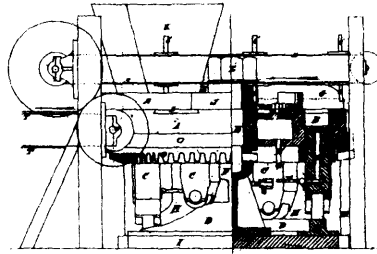
2566 Moore's Double Spring Bed Bottom.



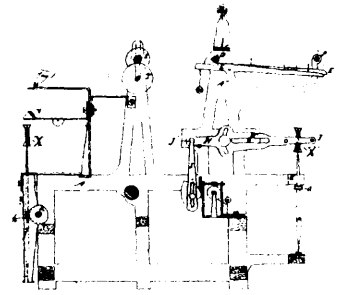
2567 Flood's Corset Clasp.



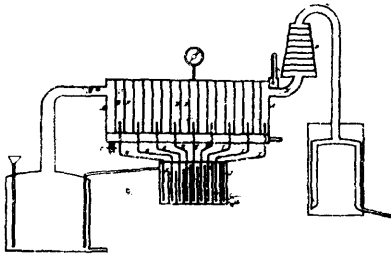
2568 Little's Horse Shoe Sharpener.



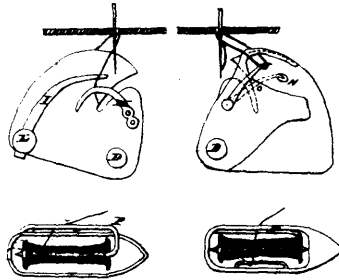
2572 Cory's Fuel Moulding Machine.



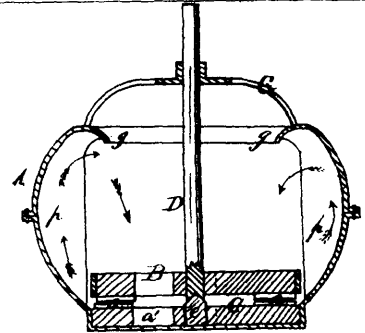
2573 Perry's Machine for Doubling and Twisting Yarns.



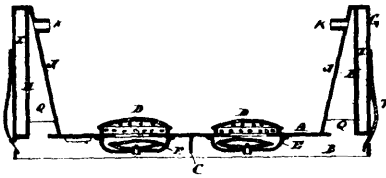
2574 Neil's Refiner for Distilling Apparatus.



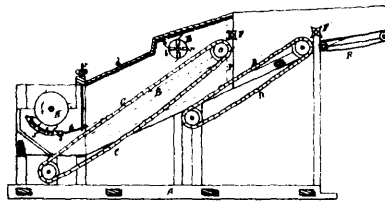
2575 Robertson's Improvements on Sewing Machines.



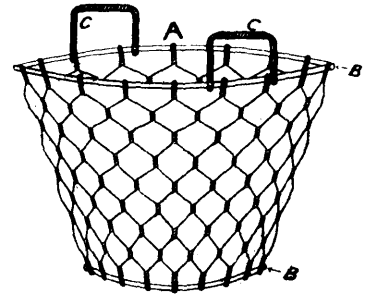
2576 Gould's Pulp Engine.



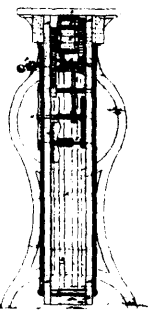
2577 Ross' Wash Boiler Attachment.



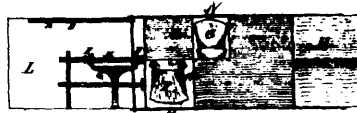
2578 Hall's Grain Threshing Separators.



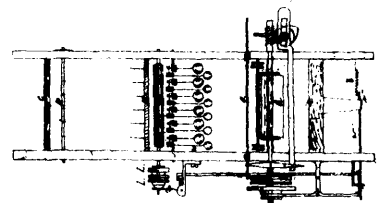
2579 Crooker's Veg. table and Root Basket.



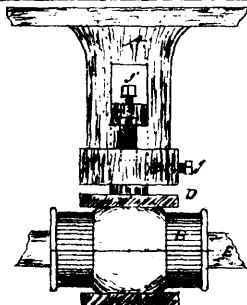
2580 Holmes' Atmospheric Motor.



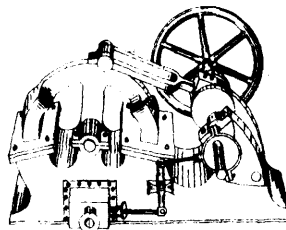
2581 Baker's Railway Snow Plough.



2582 Perry's Creel and Tension Spooling Machine.



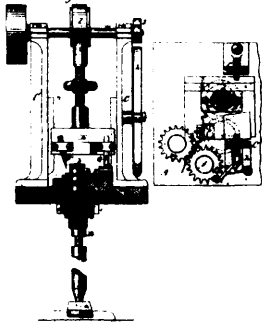
2583 Perry's Journal Bearing and Holder.



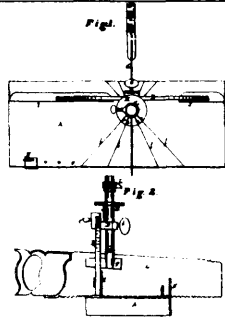
2584 Robertson's Oscillating Steam Engines.



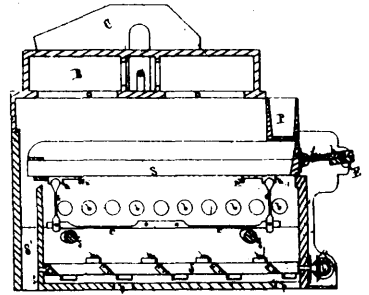
2585 Norman & Read's Non Elastic Seamless Gaiter.



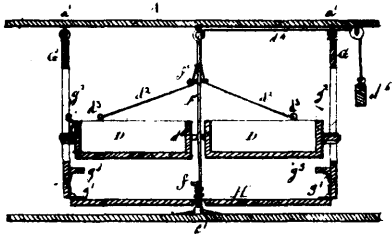
2586 Edge's Knitted Fabrics and Machinery for the same.



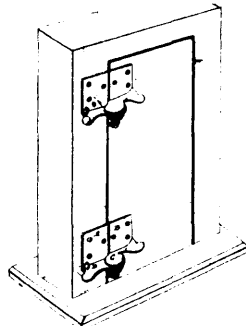
2587 Caton's Miter-box.



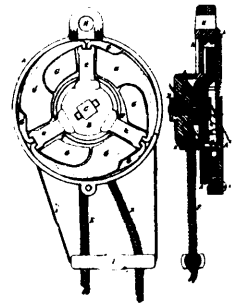
2583 Parrott's Bolting Machine.



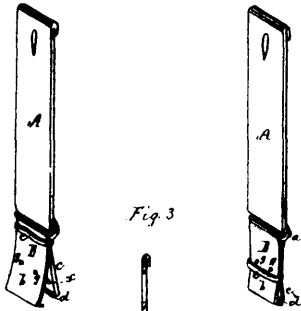
2589 Chomet & Aubin's Suspended Ship's Berth.



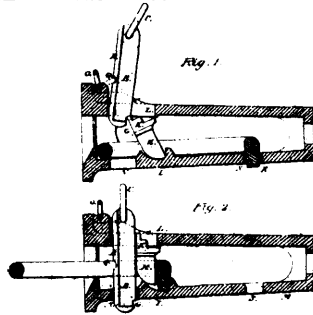
2591 Ives & Allen's Blind Hinges.



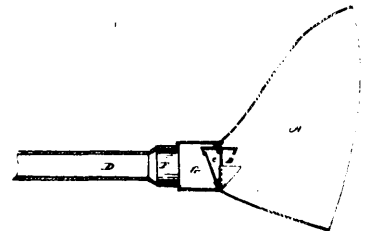
2592 Talpey, Hitchcock & Hopkins' Fire-escape and Mechanism for Lowering Goods.



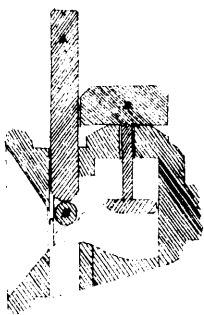
2593 Ellis' Clasp for Stocking Suspenders.



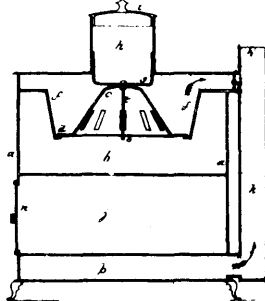
2594 Marchand's Car Coupler.



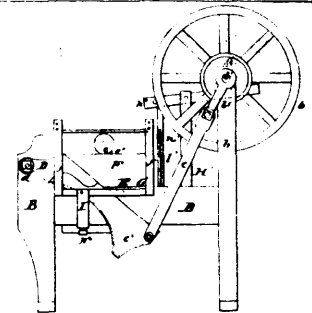
2595 Bignell's Respirator.



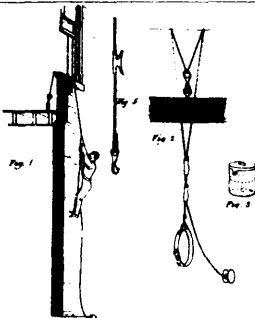
2596 Turner's Railroad Car Coupler.



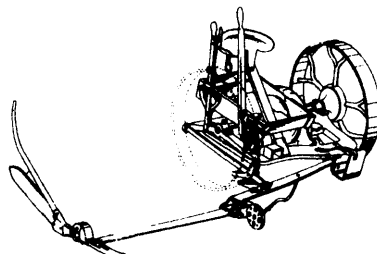
2597 Winer's Self-supplying Coal Cooking Stove.



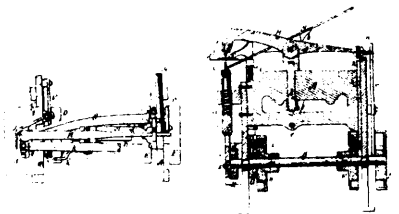
2598 Hazard's Straw and Hay Cutter.



2599 Bustin's Portable Fire-escape.



2600 Bramer's Mowing Machine.



2601 Wiggin's Eyeletting Machine.