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# The Canadian Patent Office RECORD




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## INVENTIONS PATENTED.

No. 3492. MATHEW REEVES, Hamilton, Ont., 28th May, 1874, for 5 years. "Self-Acting Car Coupling." (Attelage de wagon automatique.)

*Claim.*—The bell-mouth A, of the draw-head or buffer, the coupling link B, and the draw hook c, as set forth; 2nd. The uncoupling rod D, with the cam D, attached to the spring E, as set forth.

No. 3493. WILLIAM T. RICHARD, Toronto, Ont., 28th May, 1874, for 5 years. "Construction of Machines for Washing, Concentrating and Amalgamating Ores of Precious Metals. (Construction des machines à laver, concentrer et amalgamer les minerais de métaux précieux.)

*Claim.*—1st. The re-coating the discs or plates I, with liquid quicksilver; 2nd. The plates or discs I, shaped in either a spiral or fish tail form and coated with quicksilver in combination with the revolving shaft F, and tank A.

No. 3494. ROBERT BUSTIN, St. John, N. B., 28th May, 1874, for 5 years: "Machine for Hanging Wall-paper. (Machine à tendre le papier.)

*Claim.*—1st. The combination of the rollers a b c and d, as set forth; 2nd. The combination of the plate g and nut and screw s and t with the roller b, as set forth.

No. 3495. ANDREW H. MALCOM, Dartmouth, N. S., 28th May, 1874, for 5 years: "Self Connecting Car-Coupling." (Attelage de wagon automatique.)

*Claim.*—1st. The combination of draught dog spring and coupling bar; 2nd. The combination with draught dog spring and coupling bar of bolt c as set forth.

No. 3496. GEORGE W. MCCREADY, Peticodiac, N. B., 28th May, 1874, for 15 years: "Boring Machine." (Machine à Percer.)

*Claim.*—1st. The combination with a series of levers E, fitted with oblique cranks j, of the collars i, as described; 2nd. The adjustable bit case c, constructed and secured to table A, as described by means of the binding screws l, slots u, screw plate v and lateral supports e, or in a manner equivalent thereto; 3rd. The use of three perforated borer plates D, set up in bit case c as already specified, for the purpose of holding in true parallel position the shanks of borers E, the third perforated plate also affording a bearing to collar i; 4th. The use of the fourth perforated plate D, similar to the other three for the purpose of holding the heads of borers E, said plate being let into a recess in driving plate B, and firmly secured therein by means of catches K, or an equivalent device; 5th. The construction and use of a driving plate B fitted with two circular openings C, said openings to be same as the distance between the axes of the shafts d and also the central boring or recessing of said driving plate B, for the re-

ception of the fourth perforated plate D; 6th. The use of two cranks or eccentrics o, upon shafts d, and driven by the same velocity by the pinions a gearing into the driving wheel C, said cranks or eccentrics giving the requisite motion to the driving plate B, as described; 7th. The combination of the driving plate B, bit-case c, perforated borer plates D, and borers E, with the eccentrics b, and pinions o, and the other mechanical appliances enumerated in the preceding claims in all respects as described; 8th. The construction and use of a clamping and feeding apparatus F, consisting essentially of a sliding carriage vice made up of the following parts, base and lower jaw r, vertical tubes s, upper jaw q, spring p, clamping plate h, perforated struts n, rods o, slots a, bolt t, and adjusting screws m, the same to be constructed as described and caused to move between guide rails g, securely fastened to table A; 9th. The use of a lever G, in combination with carriage vice and the cross bolts v, the latter being pivoted to the struts n, thereby producing simultaneously the clamping of the articles required to be bored and the feeding of the same to the borers E, and by the reverse motion of the lever withdrawing the articles after being bored and then releasing them from the grip of the vice; 10th. The combination of said clamping and feeding apparatus F, with the other parts of the boring machine described as essential to the completion and successful working of the same and each essential to the other.

No. 3497. FRANCOIS A. H. LARUE, Quebec, Que., 29th May, 1874, for 5 years. "Process for Cleaning and Concentrating Copper and other Pyrites." (Procédé pour nettoyer et concentrer les pyrites de cuivre et autres.)

*Réclame.*—1e. Traiter avec le charbon ou tout autre agent réducteur les pyrites de cuivre et autres pyrites, préalablement grillées ou non afin de rendre magnétique le minerai de fer combiné avec le minerai de cuivre ou autres minerais. 2e. Passer ce minerai ainsi préalablement traité sur un appareil magnétique ou électro-magnétique; 3e. Débarrasser par là les pyrites de cuivre et d'autres pyrites des substances minérales terreuses et étrangères avec lesquelles elles sont ou peuvent être mélangées, tel que décrit.

No. 3498. ISAAC ATKINSON, Hamilton, Ont., 29th May, 1874, for 10 years: "Process for Curing and Packing Meat." (Procédé de conservation de la viande.)

*Claim.*—The mode of treating meat for packing the same consisting in removing the moisture remaining in the meat after curing and washing by subjecting the meat to compression, preparatory to packing, as specified.

No. 3499. ELIJAH MCCOY, Ypsilanti, GEORGE G. ROBY and CHARLES G. WIARD, Detroit, Mich., U. S., 29th May, 1874, for 5 years: "Improvements on Lubricators for Steam Engines." (Perfectionnements aux graisseurs de machines à vapeur.)

*Claim.*—The thimble valve B, provided with slots or perforations d d, and resting upon a shoulder b, in the tube A, in combination with said tube A, and cap C, as set forth.

No. 3500. THOMAS LALOR, Toronto, Ont., 29th May, 1874, for 5 years: "Machine for Locking Cell and other Gates." (Machine à fermer à clé les portes des cellules et autres.)

*Claim.*—1st. The revolving shafts E, with the clips C, to fasten the gate, the lever B and rolling chain. 2nd. The combination of cog-wheels or the two flat bars to work the upright bars, lever &c. and the balance motion of the two ends of the coils or vaults &c., as set forth.

No. 3501. ALSON E. SALISBURY, Martin, Ohio, U. S., 29th May, 1874, for 5 years: "Barrel Heater." (Chaufeur de tonnellerie.)

Claim.—The cylinder A, divided into compartments H, I, by means of the partition J, fire place D, grate C, ash pit E, and shaft K, in the manner described.

No. 3502. JAMES LYDIATT, and EDWARD R. KENT, Hamilton, Ont., 29th May, 1874, for 5 years: "Improvements in Glass Furnaces." (Perfectionnements aux fourneaux de verrerie.)

Claim.—The arrangement of the furnace A and fire outside of the sarge bouches S, 2nd. The horizontal forward, backward and upward flue KK', on one or each side of the furnace A, in the brick-work, as shown, for the purpose of heating the cold air and admitting it heated under the crown C; 3rd. The arrangement of the raised brickwork H, constructed in the centre of the floor S, under the crown C, containing the air flue I, constructed as shown for the air to enter at a, and be ejected into the furnace at a'; 4th. The openings m and c, at the bottom of the brick-work H, communicating with the chamber N; 5th. The arrangement of the chamber M, with opening O, provided with sliding cover Y and trough R; 6th. The openings T T', one on each side of the furnace A, for extra pots Et Et', as specified.

No. 3503. ALFRED B. SMITH and GEORGE H. COOPER, Oakland, Ont., 29th May, 1874, for 5 years: "Hasp Lock." (Serrure à morillon.)

Claim.—The combination of the turning locking and unlocking plate H, having the notches, b thereon with the locking pins c, of the key post I, and the spring d, as described.

No. 3504. JAMES BRADLEY and JAMES NICHOLAS, Gomer, Ohio, U. S., 29th May, 1874, for 5 years: "Improvements on combined Thrashing, Grain Separating, and Clover Hulling Machines." (Perfectionnements aux machines combinées pour battre et vanner les grains et égrener le trèfle.)

Claim.—The combination of the crank K, connecting rod L, and crank M, with the feed board J, and the roller N, of the straw-carrier, as set forth.

No. 3505. LAVINUS R. DREW, Magog, Que., 29th May, 1874, for 5 years: "Improvement on Carriages." (Perfectionnement des voitures.)

Claim.—Securing the dash board, seat and seat back or top removably to their several attaching parts of the carriage by the hooked or notched prongs or pins, C, bent notched ends E, and pivoted clamps D of the connected parts engaging in holes E, in the attaching parts, as set forth.

No. 3506. WILLIAM HUMPHREY, Sharon, Wis., U. S., 29th May, 1874, for 5 years: "Artificial Marble." (Marbre artificiel.)

Claim.—1st. The composition of matter described of the materials and about the proportions named for the purpose set forth; 2nd. An artificial marble composed of sulphate of alumina, chloride of potassa, water and cement, in about the proportions described; 3rd. In artificial marble or stone, the chloride of zinc as described and in about the proportions named.

No. 3507. HERBERT COTTELL, Newark, N. J., 29th May, 1874, for 5 years: "Diamond Stone Cutting Machinery." (Appareil à diamant pour tailler la pierre.)

Claim.—1st. The revolving disc A, having section a, holding diamonds or carbons, in combination with wedge shaped disc U, as shown in figures 1, and 2; 2nd. The band A, working over pulleys C, in combination with sections B, holding carbons, &c., as shown in Fig. 3, 4 and 5, 3rd. The bands A, with sections B, in combination with table E, provided with friction balls or rollers C, as shown in Fig. 3; 4th. The cutting mechanism consisting principally of the carrier B, provided with mandrel a, actuated by pulley b, the said carrier being operated by screwed shafts c, and d, as shown in Fig. 6; 5th. The screwed shafts c, and d, in combination with pulleys E, and F, operated by frogs I, worked off pulleys G, and H, constructed, arranged and operated as described and shown in Fig. 6; 6th. The mechanism described of the pulleys E, and F, constructed of periphery h, having projector rib i, hub j, and clamp plate k, as shown in Fig. 9; 7th. In combination with the cutting mechanism, constructed as described, the feed mechanism consisting of supporting frame J, arranged to be moved, adjusted and secured as described and shown in Fig. 6; 8th. The supporting plate J, arranged to be moved, adjusted and secured as described in combination with dove-tailed grooves J', J', and dogs K, with or without centres r, as described and shown in Figs. 7 and 8; 9th. The disc A, provided with slots a, and arms b, one or more in number, as described, the arms b, having cutting points c, as described the whole constructed, arranged and operated as set forth and shown in Figs. 10 and 11; 10th. The chuck A, provided with sections B, armed with carbons, &c., constructed, arranged and operated as described and shown in Figs. 12 and 13; 11th. The revolving spindle A, attached by balls and socket-joint F, to the carrier G, having chuck H, and

polisher I, as described and shown in Figs. 14 and 15; 12th. The standard M, with table H, attached thereto, in combination with head I, bar F and shaft C, constructed and arranged as described for operation; the spindle A, as specified and shown in Figs. 16, 17 and 18.

No. 3508. SANFORD P. OLNEY, Patroit, Mich., U. S., 29th May, 1874, for 5 years: "Machine for Gumming Saws." (Machine à affuter les scies.)

Claim.—1st. The arm L, of a saw-gumming machine so pivoted to its supports as to have a radial movement in the vertical and horizontal planes, and an inclination or oscillation in an intersecting plane, 2nd. The frame A, table B, driving shaft C, driving pulley D, standard E, boaming F, yoke G, eye-bolt H, counter-shaft I, pulley J, cord K, arm L, arbour c, pulleys G, O, and belt P, combined and arranged as set forth; 3rd. The counter-weight M, constructed as described, in combination with the arm L; 4th. The eye-bolt H, when provided with the eyes a, a'; 5th. The combination of the slotted segment R, and standard S, with the guide-arc T, pivoted thereto, as described.

No. 3509. HENRY A. HOWE, Detroit, Mich., U. S., 29th May, 1874, for 5 years: "Improvements on Harvesters." (Perfectionnements aux moissonneuses.)

Claim.—1st. The casing A, provided with pipes a, a', and hinged cover A', for joining the main frame of harvester, as well as a protection for the enclosed gearing as described; 2nd. The combination with the frame A and slotted pedestal H, of the bent bar G, forming a draught rod and alignment trace for the shoe and cutter-bar, as described; 3rd. The combination with the frame A, and bent rod G, of the latch lever I, 4th. The combination with the frame A, and bent rod G, of the levers J, K, and cam K'. 5th. The arrangement within the frame case A, with relation to the pinion K, of the gears b, c, d, on the axle B, and the gears g, h, on the eccentrically journaled shaft e; 6th. The pipe l, and guard o, arranged in the frame A, to form a bearing for the shaft e; 7th. The ratchet ring o, provided with the ratchet teeth g, and studs s, in combination with the ratchet feed disc N, and wheels M, each provided with the Bangs r; 8th. The foot P, having a polygonal cross-section at the central portion where it is secured to the frame A, by the clamp u; 9th. The seat supporting spring R, secured to the cover A', by inserting its lower end in a lip in the said cover, and a single bolt or set screw v, as set forth.

No. 3510. EDWIN A. STREET, Lynn, Mass., U. S., 29th May, 1874, for 5 years: "Improvements on Hose." (Perfectionnements aux tuyaux élastiques.)

Claim.—1st. The improved hydraulic hose, formed of the strip of woven material, the edges of which being lapped to form the tube, and the strip being coated with rubber, the tube is vulcanized to render it impervious at the seam or junction, or fastenings, or both as described; 2nd. In combination with the hose made of the strip having its edges lapped to form the tube, the welt applied inside or outside of the tube, and to cover the seam or junction, or fastenings, or both as described; 3rd. A tube or hose formed of the strip, having its edges lapped and united, and a welt or welts applied and vulcanized, as described.

No. 3511. EVERETT E. WHEELER, Norwalk, Ct., U. S., 29th May, 1874, for 5 years: "Improvements in Wheels." (Perfectionnements dans les roues.)

Claim.—The clamps J, and M, with screws n, p, in combination with hub A, and the spokes D, as set forth.

No. 3512. GEORGE WILKINSON, Aurora, Ont., 29th May, 1874, for 5 years: "Improvements on Gang Ploughs." (Perfectionnements aux charrues à socs multiples.)

Claim.—1st. The construction of the frame B, of wrought iron bars, combined with a cast iron socket A, said frame being formed and bolted together as set forth; 2nd. The form of the head C with flanges, also the form of the rocking plate F, as set forth.

No. 3513. JAMES H. BLESSING and FREDERICK TOWNSEND, Albany, N. Y., U. S., 29th May, 1874, for 5 years: "Steam Trap." (Trappe à vapeur.)

Claim.—1st. The combination of a steam trap for a heating apparatus of a valve E, with the float of the trap, and with a valve which is operated by the steam admitted to it, for the valve E, is moved out of its seat; 2nd. The trapping vessel A, of a steam trap constructed with an auxiliary steam chamber or chest, in combination with the chest D, arranged within the chest B, and provided with a valve mover F, whose journal is fitted steam-tight within the chest D, by the device W, W', and connected outside of the chest D, to the float of the trap by an arm d, which is within the chest B, as described.

No. 3514. EDWIN EVANS, Lynn, Mass., U. S., 29th May, 1874, for 5 years: "Improvements on Gas Burners." (Perfectionnements aux becs à gaz.)

*Claim.*—1st. The shell A, perforated diaphragm C, tubular plug e, and screw or valve f; 2nd. The employment in connection with the globe or chamber A, of the perforated diaphragm c, whereby the gas is spread out and compelled to come about the entire inner surface of the chambers a; 3rd. The tubular plug e, and screw or valve f, in combination with the chamber a, and diaphragm c, whereby the amount of gas admitted under its original pressure to the burner is regulated without disturbing or removing any portion of the device; 4th. The construction of the block or cock l, and plug o.

No. 3515. JAMES L. SPRAGUE, Hermon, N. Y., U. S., 5th June, 1874, for 5 years: "Milking Stool." (Banc pour traire les vaches.)

*Claim.*—1st. The combination of an adjustable pail holder consisting of the board J, arm I, and post H, with a milking stool having a device for holding the tail of the cow while milking; 2nd. The manner of securing the lever E, to the seat by a screw G, passing through an elongated hole, as set forth.

No. 3516. WILLIAM WEST and PETER WEST, (Assignees of W. A. West), Toronto, Ont., 8th June, 1874, for 5 years: "Manufacture of Burial Cases." (Fabrication des cercueils.)

*Claim.*—The application of a silver or nickel plated frame work stamped or rolled to any ornamental design of thin sheet metal for the purpose set forth.

No. 3517. AUSTIN D. CABLE, Montreal, Que., (Assignee of G. Murray), 8th June, 1874, for 5 years: "Improvements on Faucets." (Perfectionnements aux robinets.)

*Claim.*—1st. The shell a, having projection or seat k, in combination with the valves e, operated by end of nozzle m, n, said end m, n, forming joint on lower side of k; 2nd. In a faucet, the projection k, forming a double valve-seat, in combination with the valve e, (actuated by the end of nozzle m, n,) and valve formed by m, n, as set forth.

No. 3518. AUSTIN D. CABLE, (Assignee of L. Danze), Montreal, Que., 8th June, 1874, for 5 years: "Improvements on Lifting Jacks." (Perfectionnements aux crics.)

*Claim.*—1st. The combination of the cylinder a, sleeve c, bar f, pin h, and lever k, having end m, at right angles, all working together as described; 2nd. In a lifting jack a, sleeve c, guided as described, in combination with a bent lever k, and adjustable bar f.

No. 3519. ELIZA M. JONES, wife of C. JONES, Brockville, Ont., 8th June, 1874, for 5 years: "Tucking Device." (Appareil à plisser.)

*Claim.*—1st. An engraved, marked or in any other way delineated scale or plate on the cloth plate A, of any sewing machine having letters or figures or both of reference thereon; 2nd. A chart or book of, or patterns of tucks b, having letters or figures, or both of reference relating to and corresponding with a scale B, engraved, marked or otherwise delineated, on the cloth plate of any sewing machine; 3rd. The combined use of a book or chart of pattern-tucks letters or figured and a relative scale on the cloth plate of any sewing machine correspondingly lettered or figured to indicate the position for placing the gauge D, and marker E, of a tucker, to make a certain width of tuck selected or chosen from the chart and delineated thereon.

No. 3520. JOHN ABSTERDAM, New York, U. S., 8th June, 1874, for 5 years: "Process of Manufacturing Steel and Welding Steel and Iron." (Procédé de fabrication de l'acier et de soudage de l'acier et du fer.)

*Claim.*—1st. In a bar, plate, sheet or slab of semi-steel of cementation produced by subjecting unrefined wrought iron bars or rough flats of old wrought iron rails to a process of cementation and then refining the metal by welding the same together into a merchantable article as described; 2nd. A railway bar made of wrought iron and semi-steel of cementation produced by subjecting the crude unrefined iron bars, puddled bars, scrap bars, muck bars or flats from old iron rails to a process of cementation, and finishing the metal after cementation into a head bar by welding the same together under a hammer or by the action of rolls, then welding the said head bar to an iron pile in finishing the whole into a merchantable railway bar; 3rd. A railway bar made of semi-steel of cementation and wrought iron by subjecting the crude, unrefined iron bars, puddled bars, muck bars, scrap bars or flats of old iron rails to a process of cementation and then refining the metal during the process of conversion into a steel headed rail in the manner specified; 4th. In a bar, plate, sheet or slab of wrought iron with steel surfaces produced by subjecting blooms, billets, loops, bars or slabs of wrought iron to a process of cementation superficially or of case hardening, before the metal is finished through the finishing roll, and then reheating the said case of hardened iron and finishing the same through the finishing rolls into a merchantable steel plated wrought iron; 5th. The process of welding cast or Bessemer steel and wrought iron into one body by placing between the plates or bars of cast or Bessemer steel and the bars or plates of wrought iron which are to be united, a body of semi-steel of cementation, spring steel or shear steel or other

steel of cementation, blistered steel, puddled steel or case hardened wrought iron, which forms an intermediate welding metal or soldering agent as set forth, 6th. The process of welding together cast or Bessemer steel and wrought iron into one body by first case hardening the surface of the pieces, then placing the case hardened surfaces against each other in the pile or forge and heating and rolling the same into a merchantable article; 7th. The process of renovating the welding properties of old rails or flats made of the same by subjecting said rails or flats to a process of case hardening as described; 8th. Providing the surfaces of the metal to be welded with depressions, indentations or corrugations for the purpose of retaining the flux between the welding surfaces as set forth.

No. 3521. THOMAS J. REYNOLDS, Irvington, Ill., U. S., 8th June, 1874, for 5 years: "Railway Switch." (Aiguille de railroute.)

*Claim.*—1st. The combination of the rails C, B, rod F, spring G, and target rod H, with the rails A, D, and piece E; 2nd. The combination of the piece E, with the rails A, D, and lugs b, b, b, as set forth.

No. 3522. WILLIAM M. WISWELL, Portland, Me., U. S., 8th June, 1874, for 5 years: "Improvements on Car-couplings." (Perfectionnements aux attelages de wagons.)

*Claim.*—Let A drawbar of a railway car, constructed and provided with the axial or central bore C, and bolt F, and spring H, and the pin E, with the plate d, for permitting the removal of a bent pin; 2nd. The pin E, with its channel or groove a, in combination with the plate d, drawbar A, and spring bolt F; 3rd. The drawbar A, formed with the internal abutment a', pin receiving hole a, and provided with the elastic seat l, under and at the rear end of said abutment a'; 4th. In self-locking car-couplings, the combination with the drawbar of a vertically sliding latch F, and coupling-pin f, connected together to be operated simultaneously by a single lever J; 5th. In combination with the sliding gate or latch F and coupling pin f, the T shaped lever J, connected to said parts so that the lever may be operated from either the side or platform of the car to effect the simultaneous movement of both the latch and the coupling pin; 6th. In combination with the coupling link N, having the hole Q, and hook P, the sliding gate F, and coupling pin f, connected so that the link on entering the drawbar will raise the latch, lift the coupling pin simultaneously and afterwards drop with the latch when the latter clears the hook P, the pin entering the hole Q, at the same time that the latch drops in front of the hook P, as set forth.

No. 3523. ROBERT LITSTER, Halifax, N. S., 8th June, 1874, for 5 years: "Improvements on Coffer-dams." (Perfectionnements aux boitardsaux.)

*Claim.*—1st. A coffer-dam having an inner and outer shell constructed of the superstructure sections A, and sections D, and inserted interposing pieces F, to receive a clay puddling, the several parts being adjusted together and capable of separation by screw bolts, as set forth; 2nd. The section pieces D, with cross-pieces E, bolted together and adjustable in the section of the superstructure frame A, in the manner set forth.

No. 3524. JOHN S. ELLIS, Washington, D. C., U. S., 8th June, 1874, for 5 years: "Nut Lock." (Bride de noix.)

*Claim.*—The use of the wire B, of tough iron or other suitable metal secured in the groove A, in the side of the bolt, in combination with the projection or lugs D, cast on the lower surface of the nut C, when constructed, arranged and operating as specified.

No. 3525. LUCIUS GILL and ELUAH S. COON, Watertown, N. Y., U. S., 8th June, 1874, for 5 years: "Improvements on Spring Bed Bottoms." (Perfectionnements aux fonds de lits à ressorts.)

*Claim.*—1st. Securing the springs D, to the slats C, by a flat headed button E having a shank passing through the slats and bent to form a hook for receiving the loop of the springs; 2nd. Fastening the ends of the springs D, to the cross-bars B, by tabetting the latter and inserting the former diagonally in the bars as specified; 3rd. The bent-rod G, having pivotal connection at each end with the head rest F, and centrally with a bar H, sliding on the head of a bedstead and operated by cord M, and knob J, in the manner set forth; 4th. The employment of metallic bearings K, secured to the side rails of a bedstead for receiving the end of the cross-bars B; 5th. The employment of metallic sockets L, secured to the side rails of a bedstead receiving the projecting ends of the cross-bar of the head rest F, cylindrically to form a pivotal connection therewith as set forth.

No. 3526. GEORGE L. ELSON, Des Moines, Iowa, U. S., 8th June, 1874, for 5 years: "Improvements in Corsets." (Perfectionnements dans les corsets.)

*Claim.*—1st. The method of securing a stay-busk to the edge of the corset by means of eyelets b, b, and studs d, d, in the manner set forth; 2nd. The auxiliary leaf or stay C, in combination with a corset A, and stay-busk B, when constructed and arranged to operate as specified.

No. 3527. HENRY GROSS, Cincinnati, Ohio, U. S., 8th June 1874, for 5 years: "Improvements on Mail Bags." (Perfectionnements aux valises à lettres.)

*Claim.*—1st. For a mail bag or analogous use in the barrels sockets G and hooks H, connected and operating as specified; 2nd. The combination of plate I, frame J and spring K, for enclosing card M, as specified; 3rd. The notched or grooved stud N, perforated case O, T, and bolt V, W, operating in connection with suitable bolt, throwing and locking tumblers, as specified.

No. 3528. FRANCIS W. BECKWITH, Merrickville, Ont., 8th June, 1874, for 5 years: "Improvements on Washing Machines." (Perfectionnements aux machines à laver.)

*Claim.*—1st. The stirrups F, supporting the axial pins of the rollers B B, suspended by connection with the spring G; 2nd. The U-shaped springs G, curving over the axial pins D, with or without the block I; 3rd. The stay frame H, applied to the ends of the washer for bracing the side pieces A, and base, and to form a bearing for the shaft of the roller C, as set forth.

No. 3529. JAMES BENNET, Saint John, N. B., 8th June, 1874, for 5 years: "Improvements on paper fyles." (Perfectionnements aux serrepapier.)

*Claim.*—1st. A paper-fyle having a clamp so connected that it and the bed-plate operate the same as the parts of a parallel ruler in combination with the holding pins as described; 2nd. The parallel joint-bars C, C, in combination with the bed A, and clamp as described; 3rd. The metallic strip E, disc nuts and holding pins D, D, in combination with the bed and clamp of a paper fyle, as described; 4th. The recesses G, G, and mortises J, J, in combination with the bed A and clamp B, as set forth.

No. 3530. BENJAMIN WARD, Dundas, Ont., 8th June, 1874, for five years: "Improvement in Knitting Machines." (Perfectionnement des machines à tricoter.)

*Claim.*—A longitudinal presser F, arranged and adjusted in the stand E, or otherwise, for pressing the bars of the needles from the sinker wheel D, to the landing wheel G in combination with a spring needle circular knitting machine, as specified.

No. 3531. ELISHA NEWCOMB, Westbrook, Me., U. S., 8th June, 1874, for 5 years: "Car-Replacer." (Appareil pour remettre les wagons sur la voie.)

*Claim.*—The combination of the two parts A and B arranged and constructed as described, and the brace D, to hold the part A in position, as set forth.

No. 3532. JOHN BRADLEY, New York, U. S., 8th June, 1874, for 5 years: "Improvements in Apparatus for Ventilating." (Perfectionnements aux appareils de ventilation.)

*Claim.*—1st. The sliding sash A in combination with the adjustable glass bearing sash B, the two being constructed, connected and operating in the manner described or in any manner equivalent thereto; 2nd. The combination of the sliding sash B, the adjustable sash C and the toggles or links d; 3rd. The combination of the adjustable sash when provided with the toggles or links, or their equivalents and the supporting sill I; 4th. The hood H constructed with the flange or gutter as described; 5th. The hood H combined with the adjustable sash; 6th. The disc a in combination with the bolts E, E, when either or both are curved, as described; 7th. The plate / having the raised lip or flange A in combination with the operating handle c; 8th. The plates p p enlarged at their ends in combination with the links, as described; 9th. The screens L constructed and arranged as described; 10th. The apron J; 11th. The combination of the sliding inner sash B, the outer sash C, the apron J, and the sill I and screen L, as described.

No. 3533. JOHN W. MEAKER, Detroit, Mich., U. S., 10th June, 1874, for 10 years: "Improvements in Hoistways for Stores, Factories and other Buildings." (Perfectionnements aux éleveurs pour les magasins, fabriques et autres bâtiments.)

*Claim.*—1st. In an elevator for stores, factories and other buildings, the combination of the carriage G, provided with the cams O and K, and the cross-bars F, with the gate M, provided with a crank arm d, the doors D D, bars J, levers H, H, and lift cover E, constructed and arranged to operate as set forth; 2nd. The combination of the cam plate O, attached to the carriage G, with the crank arm d, gate bar M, and gate spring constructed as described; 3rd. The combination of the flanged cam plate K, with the levers H H, bars J, and doors D D, the cam being attached to the carriage, and the levers and doors being provided with the studs, flanges and crank arms, as described; 4th. The lift cover E in combination with the cross bars or frame F, attached to the upper end of the carriage G, as described for opening and closing the upper hatchway of a hoistway, as set forth.

No. 3534. SCRATES SCHOFIELD, Providence, R. I., U. S., 10th June, 1874, for 5 years: "Improvements on Saws for Logging." (Perfectionnements aux scies à billots.)

*Claim.*—1st. The combination of two saws A A' arranged side by side for operation in the same kerf; 2nd. The combination of the saws A A' with a holding guide B, 3rd. The combination of the saws A A' with a holding guide B, shaft E, opposite cranks C, C, and connecting rods D, D, as described.

No. 3535. JAMES DAWSON, Greenwood, Ill., U. S., 10th June, 1874, for 5 years: "Improvements on Machine for Cutting Bolts." (Perfectionnements aux machines à couper les boulons.)

*Claim.*—1st. The cutting jaws D D, constructed as described, in combination with the spring /, and operating cam a, on the end of the pivoted lever C; 2nd. The sliding block h, arranged between the upper cutting jaw D, and the operating cam a; 3rd. The combination of the bar A, with arms B B, and ends b b, cutting jaws D D, spring /, lever C, with cam a, handle G, loop E, r, wedge i, all constructed as set forth.

No. 3536. ALONZO C. RAND Minneapolis, Min., U. S., 10th June, 1874, for 15 years: "Improvements on Gas Retorts." (Perfectionnements aux cornues à gaz.)

*Claim.*—1st. A gas retort provided with an interior vaporizer; 2nd. The combination of a test or pet cock b, with the stand pipe of a gas retort.

No. 3537. EZEKIEL W. BARKER, Portland, Me., U. S., 10th June, 1874, for 5 years: "Car-coupling." (Attelage de wagons.)

*Claim.*—1st. The device B, when constructed as described and operated in the manner set forth; 2nd. The combination in a draw head of the slotted plate c, with its heads f, g, the spiral spring b and the device B; 3rd. The combination in a drawhead having on its interior surface the projections l, n, of the slotted plate c, with its heads f, g, the spiral spring b, and the device B, as described; 4th. A drawhead having on its interior surface the projections l, n, for the purpose of holding the link in position for entering an approaching drawhead, as set forth.

No. 3538. FAYETTE HUNGERFORD, Rochester, N. Y., U. S., 10th June, 1874, for 5 years: "Improvement on Furnaces for Burning Oil and other Liquids for Generating Steam." (Perfectionnement des fourneaux consommant l'huile et autres liquides pour produire la vapeur.)

*Claim.*—1st. The combination of the fluids B, B', with the free space / and the water sheet a, between them, arranged as described for the purposes specified; 2nd. The combination with the fluid B B' of the water tubes E F, arranged and operating as described; 3rd. The combination with the boiler A of the separate water-head E, connected with the boiler by tubes or equivalent, which allow a free circulation of water to and from the water-head as described; 4th. The combination with the water head E and boiler A, of the tubes b, b, provided with the perforation n n; 5th. The trap s, in the oil pipe t, as specified.

No. 3539. GUNDER G. FELLAND, Hudson, U. S., 10th June, 1874, for 5 years: "Automatic Registering Grain Meter." (Compteur à grain à registre mécanique.)

*Claim.*—The meter attachment described consisting of the parts A, B, C, D, E and F, constructed and arranged as described and for the purposes set forth.

No. 3540. GEORGE I. COLBY, Reading, Mich., U. S., 10th June 1874, for 5 years: "Washing Machine." (Machine à laver.)

*Claim.*—The combination of the large crank roller D, with a roller bed of two or more smaller rollers H each of said small rollers being hung upon or supported by springs to allow of their independent movement to or from the large roller; 2nd. The end-boards A, A, provided with slots b, and holes f as described in combination with the roller bed and large crank roller; 3rd. The button hook G, in combination with the slotted end pieces A and crank E, of the roller D; 4th. The bottom cleat I, in combination with the end pieces A, and thumb screw J; 5th. The combination of the frame A, B, C, crank roller D, smaller independently operating rollers H, button hook G, cleat I, and thumb-screw, J, all constructed and arranged as set forth.

No. 3541. WILLIAM L. HORNE, Chicago, Ill., U. S., 10th June, 1874, for 5 years: "Machine for Regulating the Pressure of Gas and other Fluids." (Machine pour régler la pression du gaz et autres fluides.)

*Claim.*—1st. A valve for governing the flow of a fluid weighted by a column of liquid of greater specific gravity than such fluid, the

height of which column is automatically increased or diminished by the pressure of the fluid upon a fountain in the main, according as it is augmented or reduced as specified; 2nd The combination in an apparatus for governing the flow of a fluid by a changing column of water or mercury, of a valve D, an open vessel E, carried by the valve, and exposed to atmospheric pressure, an open tank G, exposed to the pressure of the fluid in the main and a siphon through which the liquid in the tank G communicates with that in the vessel E, all as specified; 3rd. The tank G, in combination with the adjusting screw spindle G', siphon H, vessel E and valve D, as specified.

No. 3542. JOHN W. RICKER, Sherbrooke, Que., 10th June 1874, for 5 years: "Washing Machine." (Machine a laver.)

*Claim.*—1st. The slotted standard E, E, provided with an inclined face, the adjustable half pulley 2, 2, with the slot 3; 2nd The upper half pulley F, F, with the projections f, f, and the flanges f, f; 3d. The bearing I, the roller H, as described; 4th. The base D, with the slot a, and the fastening plates B, and socket C, with the loop b and wedge c, all constructed as set forth.

No. 3543. YANCY M. C. JOHNSON, Franklinsville, N. C., U. S., 10th June, 1874, for 5 years: "Combination Tool for Shoemakers' use." (Combinaison d'outils à l'usage des cordonniers.)

*Claim.*—1st. A shoemakers' combination tool consisting of pinners, hammer, nail-drawer and welt-trimmer as described.

No. 3544. THOMAS HAZARD, Wilmington, Ohio, U. S. 10th June 1874, (Extension of Patent No. 2598) 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 e, 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 or standard b, in combination with the rock shaft or lever h, rigid pin L, dog h, and cam b'; 3rd. A presser feed roller for 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 filling. 5th. The mouth piece E, slotted arm I, and screw-bolt N, in combination with the knife c, constructed, arranged, and operated as specified.

No. 3545. THOMAS HAZARD, Wilmington, Ohio, U. S., 11th June, 1874, (Extension of Patent No. 2598), for 5 years: "Straw and Hay-cutter." (Coupe-paille.)

No. 3546. ISRAEL P. MAGOON and HENRY FAIRBANKS, Johnsbury, Vt., U. S., 15th June, 1874, (Re-issue of Patent No. 2736): "Locomotive Feed Water Heater." (Chaufeur d'eau pour alimenter les locomotives.)

*Claim.*—1st. A closed heating chamber arranged to receive exhaust steam, constructed with the smoke flue B, as its inner cylindrical wall and the outside casing of the smoke-stack as its outer cylindrical wall and these two connected by the two heads T, T, at the top and bottom of the heater; 2nd. An insulating outer casing of the heating chamber formed by doubling the walls of the outside of a section of the smoke stack; 3rd. A pipe through which the feed water on its way to the boiler is forced, a section of which is disposed in coils around the smoke flue within the said heating chamber; 4th. In combination with the said heating chamber, the duplex coil E, constructed as described, so that the water passes up in one a, and down in another helix thereof; 5th. In combination with the said heating chamber the pipes e, e, conducting exhaust steam from the cylinder into the chamber, the pipe A, discharging the steam after it has performed its office from the chamber into the smoke flue to increase the draught and the drip pipe P, removing the water of condensation; 6th. In the feed water heating apparatus of a steam fire engine (whether locomotive, marine or stationary) a coil through which the feed water is forced within an exhaust steam chamber which is insulated by doubling the outside walls as specified; 7th. A smoke stack of a locomotive constructed in sections with a joint near the top of heating chamber in the manner set forth.

No. 3547. JAMES H. WENTWORTH, Boston, Mass., U. S., 15th June, 1874, for 10 years: "Portable Range or Cooking Stove." (Lancier ou poêle de cuisine portatif.)

*Claim.*—A portable range or cooking stove in two detachable parts, as shown, the combination of the hot-closet attachment with the bottom plate G, of the range, the said bottom plate G, being provided with the removable plate F, as set forth.

No. 3548. HUGH JEFFERSON, Toronto, Ont., 15th June, 1874, for 5 years: "Manufacture of Artificial Stone or Marble." (Fabrication de la pierre ou du marbre artificiels.)

*Claim.*—A compound composed of sulphate of zinc, chloride of zinc, sugar of lead, pulverized alum or rock salt, warm rain water,

marble cement or hydraulic cement, ground siliceous barytes, alumina, calcum or clay and gypsum, the whole mixed in the proportions set forth.

No. 3549. CHARLES H. HUTCHINSON, Manchester, Eng., 15th June, 1874, for 5 years: "Balanced Valve." (Soupape équilibrée.)

*Claim.*—1st. The chambered weight or piston K, and its supporting levers N, N, applied to the slide valve in combination therewith, and with the chambered cap B, and the open balance or frame D, all being arranged together and with the valve chest or the guard plate F, thereof as described; 2nd. The weight receiving chamber or receptacle L, provided with apertures as described in combination with the valve A, and with the chambered and perforated weight K, the levers N, N, the chambered cap B, and the open balance or frame D, applied to the said cap, all being as specified; 3rd. The metallic packings S, S, and their caps T, arranged together and with the frame or balance D, as described; 4th. The open frame or balance D, provided with the grooves or escape passages arranged in its upper edge as set forth; 5th. The rocker levers N, N, extended laterally across the interior space of the balance or open frame D, or between the partitions as described and arranged to operate as explained, without any weight applied to the inner ends; 6th. The holes i, i, arranged in the top of the valve A, and with the frame balance D, applied to the chamber B, all being as represented; 7th. The perforated bridge and the rod arranged and combined together and with the valve A, the balance D, and with the levers N, N, extended longitudinally and laterally across the space within the balance D, as explained.

No. 3550. DAVIS H. PACKARD, Brockton, Mass., U. S., 15th June, 1874, for 5 years: "Moulded Box for the Toes of Boots and Shoes." (Carre moulée pour les chaussures.)

*Claim.*—An improved article of manufacture, in a moulded box for boots and shoes, formed of leather board in manner described.

No. 3551. JOHN T. JONES, Iliou, N. Y., U. S., 15th June, 1874, for 5 years: "Treadle for Sewing Machines, &c." (Marche de machines à coudre, &c.)

*Claim.*—1st. The rocking lever a, connected to the crank or fly wheel by the pitman c, in combination with the treadles f, and parallel motion bar x; 2nd. The heel pieces m, separate from the moving foot pieces or treadles in combination with the rocking lever a, to which the treadles are connected; 3rd. The treadle for sewing and other machines made with heel and foot bearings and an intermediate space, so that the foot may rest upon both portions or only on the foot bearing for the purposes set forth.

No. 3552. JOHN GOULD, Clinton, Penn., U. S., 15th June, 1874, for 5 years: "Animal Trap." (Piège à vermine.)

*Claim.*—The combination of the pivoted or tilting platform E, K, connecting rods F, N, levers G, G, pivoted rods H, P, bent lever catches J, Q, cam levers J, R, stop springs S, T, gear wheels V, bearing pins V, projecting alternately from its opposite sides, coiled spring Z, gear wheel B, shaft C, cranks D, and connecting bars E, with each other and with the three boxes A, B, C, drop-doors F, and wire drop gate M, as described.

No. 3553. MARNELL B. MARCUM, Cameron, Mo., U. S., 15th June, 1874, for 5 years: "Coupling." (Attelage de wagons.)

*Claim.*—The drawhead A, provided with the spear shaped draw-bar C, having catch-pawl F, in combination with the tripping lever D, lever E, rod H, bell cranks b, b, and handled rods d, and d, as specified.

No. 3554. BENJAMIN T. BABBITT, New York, U. S., 15th June, 1874, for 5 years: "Process for Coating Caustic Alkali." (Procédé pour enduire les alcalis caustiques.)

*Claim.*—The process for coating packages of caustic alkali with a substance or composition which is solid at ordinary atmospheric temperature, but capable of fusion or solution by submerging the package in the substance or composition while the latter is in a liquid state in a vessel in which a vacuum is produced as described.

No. 3555. BENJAMIN T. BABBITT, New York, U. S., 15th June, 1874, for 5 years: "Caustic Alkali Package." (Paquet d'alcali.)

*Claim.*—A ball, slab or block, of caustic alkali hermetically sealed and protected from atmospheric influence by means of a coating or envelope of turpentine as described.

No. 3556. WILLIAM H. BOND, Syracuse, N. Y., U. S., 15th June, 1874, for 5 years: "Hot Air Furnace." (Calorifère à air.)

*Claim.*—1st. The corrugated air heating surface D, combined with the inlet and outlet air passages; 2nd. In combination with the corrugated chamber D, and chamber B, the triple pipes f, f, f, connecting the chamber C, therewith, as specified for extending

the surface and equalizing the draught as described; 3rd. The combination of the fire chamber for burning wood with the hot air and combustion chambers constructed as specified; 4th. The stationary bars m, and shaking grate n, for burning wood, constructed and arranged as described.

No. 3557. JAMES O. WATERHOUSE, Sherbrooke, Que., 15th June, 1874, for 5 years: "Sewing Machine." (Machine à coudre.)

Claim.—1st. The crank in the shaft A, the connection D, when worked by the crank c, and slot d, and the joints f, f, to convey motion to the shuttle; 2nd. The device for giving horizontal motion to the feeder by means of the cam H, and connection I, working in connection with the rocker shaft J; 3rd. A device for varying the rise of the feeder above the top surface of the bed plate, which is operated from the top surface of the bed plate.

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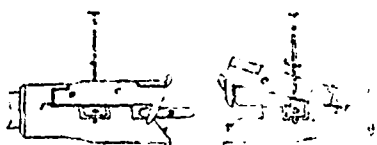
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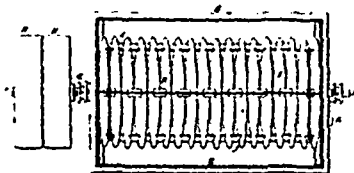
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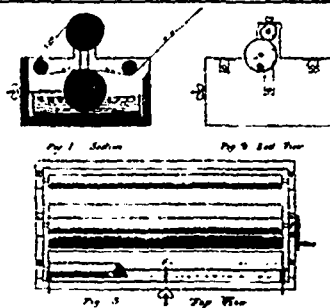
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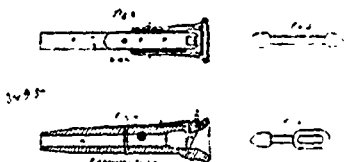
3492 **Roeve's Self-acting Car Coupling**



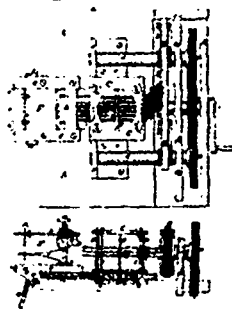
3493 **Richard's Construction of Machines for Washing, Concentrating and Amalgamating Ores of Precious Metals.**



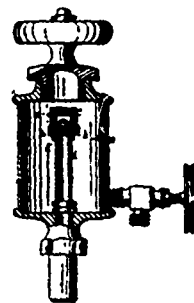
3494 **Bustin's Machine for Hanging Wall-paper.**



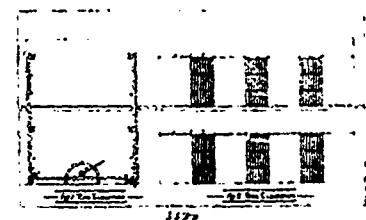
3495 **Malcom's Self-connecting Car Coupling.**



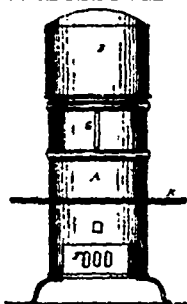
3496 **McCready's Boring Machine.**



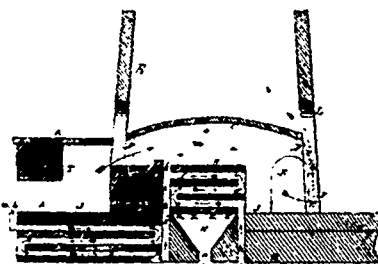
3499 **McCoy, Roby & Ward's Improvements on Lubricators for Steam Engines.**



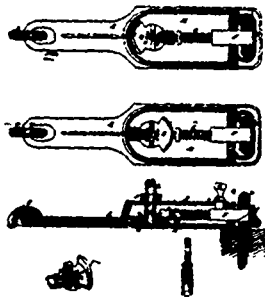
3503 **Lalor's Machine for Locking Cell and other Gates.**



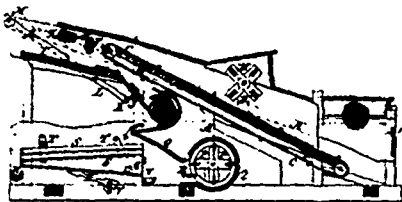
3504 **Salisbury's Barrel Heater**



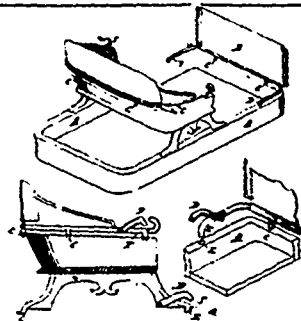
3507 **Lydiatt & Kent's Improvements in Glass Furnaces.**



3508 **Smith & Comer's Hasp Lock.**

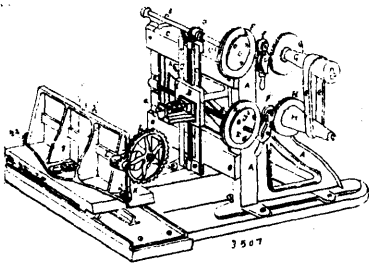


3504 **Bradley & Nicholas' Improvements on Combined Thrashing, Grain Separating, and Clover Hulling Machines.**

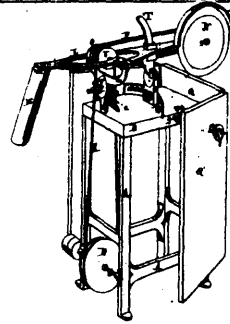


3505 **Drew's Improvement on Carriages.**

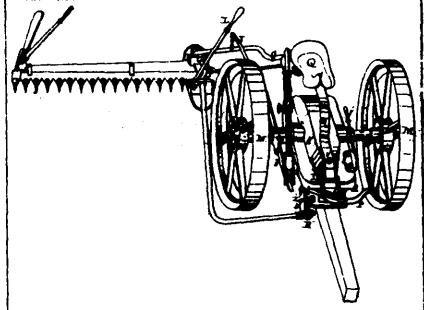




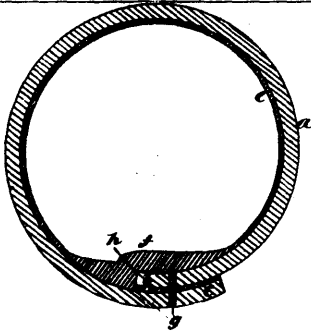
3507 Cottrell's Diamond Stone Cutting Machinery.



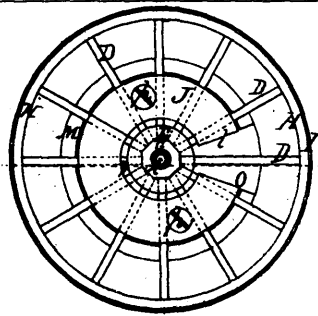
3508 Olney's Machine for Gumming Saws.



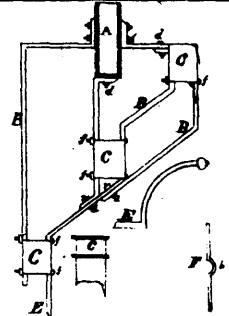
3509 Howe's Improvements on Harvesters.



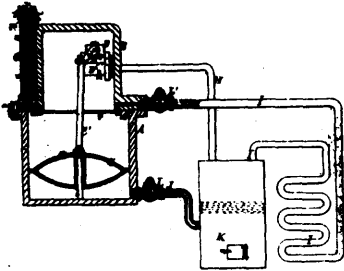
3510 Street's Improvements on Hose.



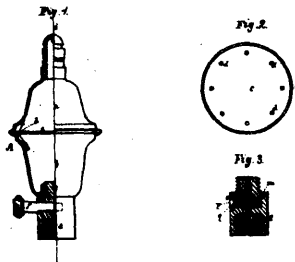
3511 Wheeler's Improvements in Wheels.



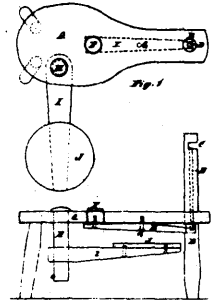
3512 Wilkinson's Improvements on Gang Ploughs.



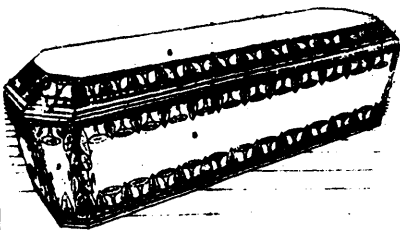
3513 Blessing & Townsend's Steam Trap.



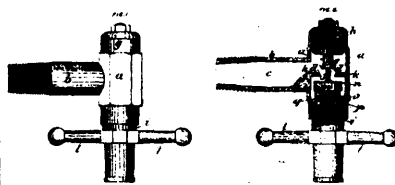
3514 Evans' Improvements on Gas Burners.



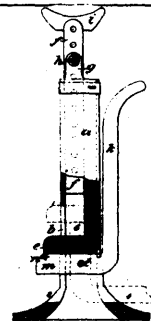
3515 Sprague's Milking Stool.



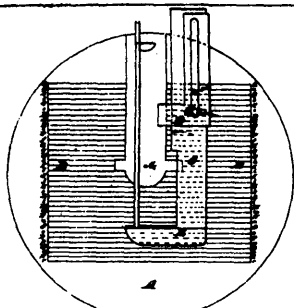
3516 West's Manufacture of Burial Cases.



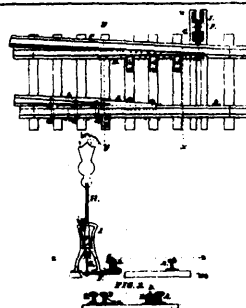
3517 Murray's Improvements on Faucets.



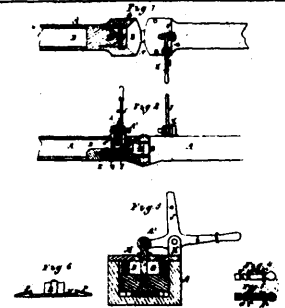
3518 Danze's Improvement on Lifting Jacks.



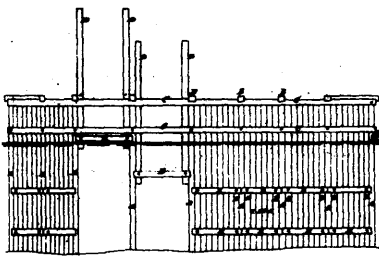
3519 Jones' Tucking Device.



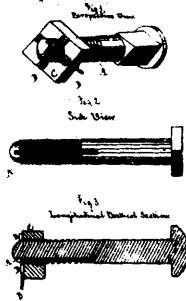
3521 Reynold's Railway Switch.



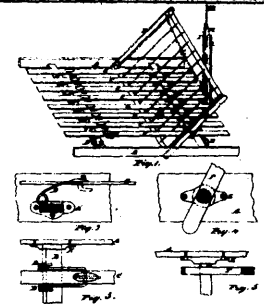
3522 Wiewell's Improvements on Car-Couplings.



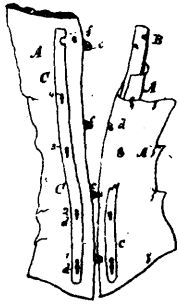
3523 Lister's Improvements on Coffe-dams



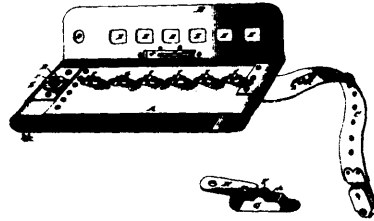
3524 Ellis' Nut Lock.



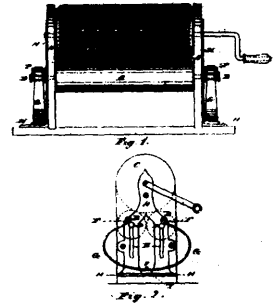
3525 Gill & Coen's Improvements on Spring Bed Bottoms.



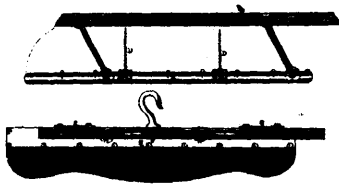
3526 Eason's Improvements in Corsets.



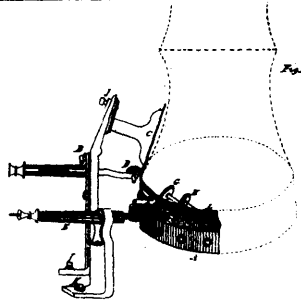
3527 Gross' Improvement on Mail Bags.



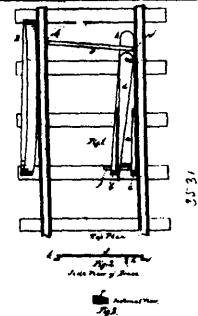
3528 Beckwith's Improvements on Washing Machines.



3529 Bennett's Improvements on Paper Files.



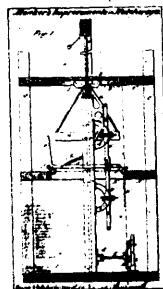
3530 Ward's Improvement in Kitting Machines.



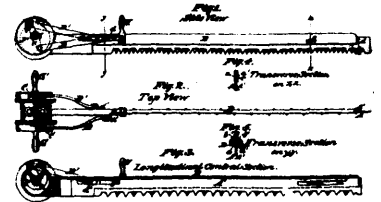
3531 Newcomb's Car-Replacer.



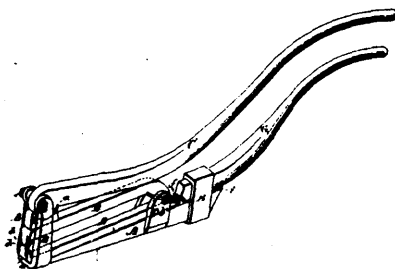
3532 Bradley's Improvements in Apparatus for Ventilating.



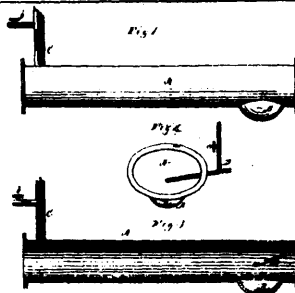
3533 Meaker's Improvements in Hoistways for Stores, Factories and other Buildings.



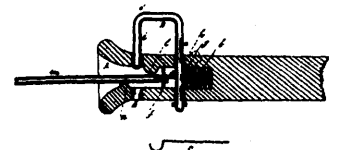
3534 Schofield's Improvements on Saws for Logging.



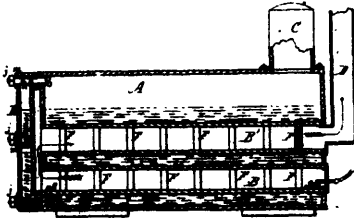
3535 Dawson's Improvements on Machine for Cutting Bolts.



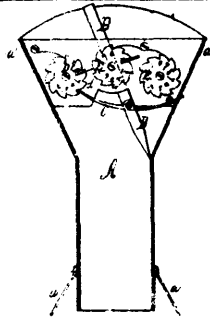
3536 Rand's Improvements on Gas Retorts.



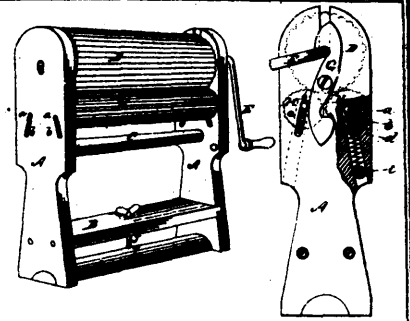
3537 Barker's Car-Coupling.



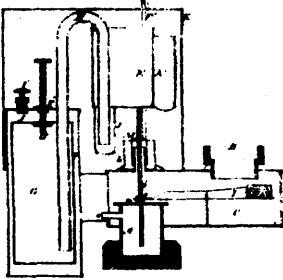
3538 Hungerford's Improvement on Furnaces for Burning Oil and other Liquids for Generating Steam.



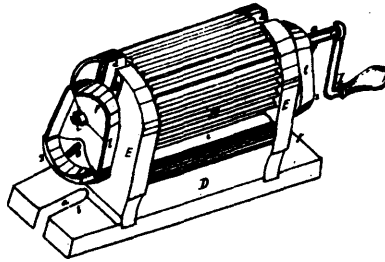
3539 Felland's Automatic Registering Grain Meter.



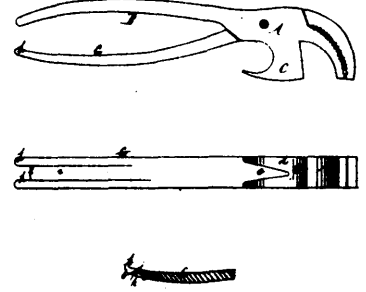
3540 Colby's Washing Machine.



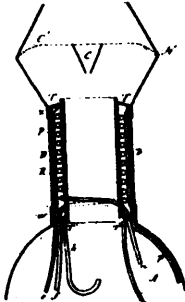
3541 Horne's Machine for Regulating the Pressure of Gas and other Fluids.



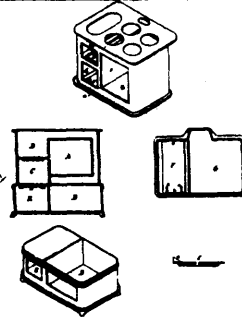
3542 Ricker's Washing Machine.



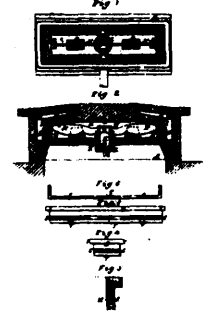
3543 Johnson's Combination Tool for Shoemakers' use



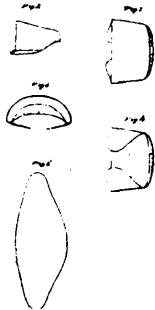
3546 Magoon & Fairbanks Locomotive Feed Water Heater.



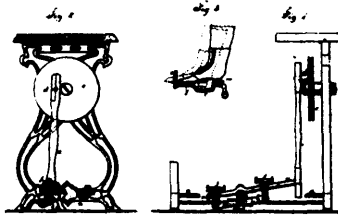
3547 Wentworth's Portable Range or Cooking Stove.



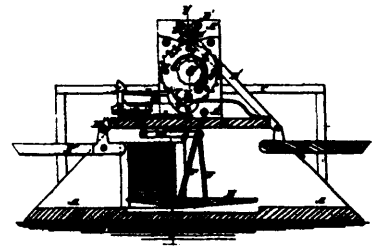
3548 Hutchinson's Balanced Valve.



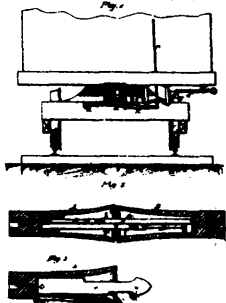
3550 Packard's Mould for the Toes of Boots and Shoes.



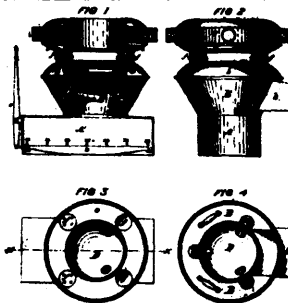
3551 Jones' Treadle for Sewing Machines, &c.



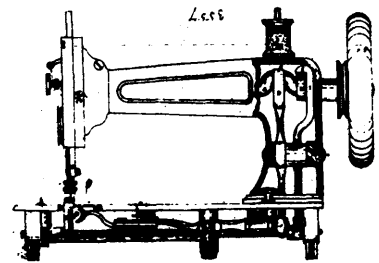
3552 Gould's Animal Trap.



3553 Marcum's Car-Coupling.



3556 Bond's Hot Air Furnace.



3567. Waterhouse's Sewing Machine