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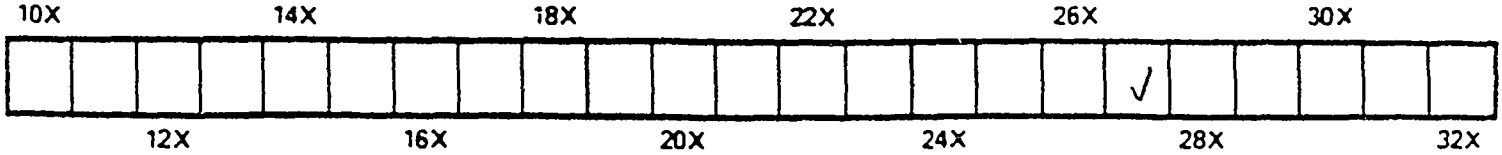

The Canadian Patent Office Record

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CONTENTS.

INVENTIONS PATENTED.

No. 6340. Improvements in Journals and Journal Boxes.

(Perfectionnements aux tourillons et aux boîtes de tourillons.)

William S. Mead, San-Francisco, Cal., U. S., 20th July, 1876, for 5 years

Claim.—1st. Securing the chilled or gray iron sleeve on the journal to prevent it from turning; 2nd. The chilled or gray iron balls *k*, between the end of the rollers G and the plate: 3rd. Relieving the friction due to end play and pressure by means of the chilled segments of a sphere M and C, and chilled or gray cast iron surfaces; 4th. The chilled cast iron pieces F in the end of the journal; 5th. The cover on the inside end of the journal box so as to run it with or without oil.

No. 6341. Machine for Lifting Stone and other heavy weights.

(Machine à lever la pierre et autres fardeaux.)

William H. Solomon, Stukely, Que., 21st July, 1876, for 5 years.

Claim.—1st. The combination of the spring L, hoist gage N and elongation T of said lever E; 2nd. The formation of the lower extremity of said sliding bar C into the claw hook Z.

No. 6342. Improvements on Window Shades.

(Perfectionnements aux jalousies.)

Elliott Metcalf, Port Huron, Mich., U. S., 21st July, 1876, for 5 years.

Claim.—1st. The two laces C, hanging down on each side of the slats B and fastened thereto by the staples D, one staple near each edge of each slat B; 2nd. The combination of the small rollers E, screwed to the top board A, with the laces C to open the slats B at any required degree; 3rd. The arrangement of the two cords F and G passing either in the forked pulleys H, or in the screw eyes *e* screwed to the top board A, for the purpose of opening or shutting the shade.

No. 6343. Improvement on Office Desks.

(Perfectionnements des pupîtres de bureaux.)

William S. Wooton, Indianapolis, Ind., U. S., 21st July, 1876, for 5 years.

Claim—The hinged, or pivoted, or rotating chests or cases A and A_1, located in the wings or ends of the desk.

No. 6344. Machine for Polishing Boot and Shoe Heels.

(Machine à polir les talons des chaussures.)

Leopold Graf, Newark, N. J., U. S., 21st July, 1876, for 5 years.

Claim.—The first part: 1st. The lever cam M, pivoted on the bearing G, in combination with the yoke A, dog L, pawl K and the clamp C F; 2nd. The combination of the eccentrically rotating plate K, with the yoke holder; 3rd. The ratchet wheel D_1 and holding pawl E, combined with the lifting spring C_1 of the yoke holder; the second part: 1st. A polisher pivoted at lower end of its carrier and connected with a stationary object at L, by the arm J and bar K, in combination with a carrier that swings on a pivot F in the top of a standard B; 2nd. The combination of the vibrating and adjusting gage M_1 with the polisher; 3rd. The gage M fitted on the pivot of the polisher and connected with stationary stud T; 4th. The combination of sliding gage M, spring O and the cam block P; 5th. The combination with the sole plate of clamp frame S, connected by the ball and socket joint U to holder V having a sliding motion in the swinging holder W.

No. 6345. Lifting Jack. (*Cric.*)

George W. Hunter, Joseph P. Norris, Theodore L. Chase, Philadelphia, Pa., and Henry M. Baker, Washington, D. C., U. S., 21st July, 1876, for 5 years.

Claim.—1st. The combination of a standard, sliding-bar, dog operated by a lever or other device and griping the bar when tilted; 2nd. The combination with the bar and tilting and griping dog of stops to tilt the dog; 3rd. The standard consisting of metal pieces *b* b_1, bolted together and to the base A; 4th. A lifting jack provided with a sliding-bar carrying an adjustable arm D; 5th. The combination of the sliding-bar, of a lifting jack and a chain secured permanently to the bar; 6th. The combination of the standard sliding-bar and base plate A, having a recess *a*, through which the bar may be projected below the base; 7th. The double ended pawl combined with the sliding-bar having teeth inclined at both sides to arrest the movement of the bar in either direction; 8th. The combination of the sliding bar, pawl, operating lever I and arm L, whereby the pawl is thrown outward on elevating the lever; 9th. The standard provided with an arm J, extending at right angles or thereabout to the standard below the lever; 10th. The standard consisting of the side pieces *b*, b_1, each having flanges *c*, *d*, and parallel guides.

No. 6346. Improvements on Fruit Dryers and Evaporators.

(Perfectionnements aux séchoirs et évaporateurs à fruits.)

Andrew J. Reynolds, Chicago, Ill., U. S., 21st July, 1876, for 5 years.

Claim.—1st. A condenser arranged within the drying chamber, said condenser filling or partly filling the upper portion of the drier whereby the air within the chamber is rendered and kept dry; 2nd. A drum revolving within a drying chamber and carrying with it, in its rotation, a series of fruit shelves or trays capable of being raised and lowered; 3rd. The drum E, extending centrally through the dry house and supporting the fruit trays, together with the windlass and ratchets; 4th. The combination with a hot air pipe, a hollow shaft, a furnace, a fan or blower, a smoke pipe and a drum E, whereby a current of heated air is created, maintained and caused to circulate through and among the revolving trays of fruit or other substance to be dried; 5th. The hot air drum Q, heated air pipe O, warm air chamber T, ports *u u*, in combination with the revolving drum E and fruit trays F F; 6th. The fruit trays to be attached; 7th. The revolving shelf frames F_1 F_1 in combination with the fans S_1 S_1, operated by the hollow shaft C; 8th. The combination of the shelf frames F F_1, the fans S_1 S_1 and furnace and condenser; 9th. The combination of a drip pan with a condenser and hollow shaft.

No. 6347. Improvements in the Construction of Sewers.

(Perfectionnements dans la construction des égouts.)

Alfred Brittain, Montreal, Que., 21st July, 1876, for 5 years.

Claim.—1st. The novel art of constructing drains and sewers in a continuous brick work by means of an outer rib c; 2nd. The rib c constructed to be arranged in combination with the brace *d*.

No. 6348. Improvements on Car-Couplings.

(Perfectionnements aux attelages de wagons.)

James C. Mitchell and Charles W. Roby, Lancaster, N. H., U. S., 21st July, 1876, for 5 years.

Claim.—1st. In combination with any freight or other car, the draw bar A provided with back plate A_2 and secured both to the cross head of the car and to any point near the centre of the car to equalize the draught strain; 2nd. The draw bar A provided with back plate A_2 and divided up

by one or more horizontal diaphragms *a*; 3rd. In combination with the draw bar A, secured to the car by bolts L_1 L_2 and key M, the guides or pins K secured to the back plate A working in the cross head.

No. 6349. Water Circulating Fire Bar and Bearer.

(Barreau de grille faisant circuler l'eau et collet.)

George Haworth, Saint Michaels Hamlet, Eng. (Assignee of Robert J. Ellis), *21st July, 1876, for 5 years.*

Claim.—1st. The novel combination of the fire bar A, tube *b* and connecting bearer *g*; 2nd. Casting the fire bar A in two pieces, being corresponding halves such as *a* a_1, having a groove or channel to receive a metal tube such as *b*, 3rd. The tubular water fire bar and connecting bearer constructed respectively and arranged in relation to each other.

No. 6350. Improvements on Faucets.

(Perfectionnements aux robinets.)

James Collins and William O Connor, Guelph, Ont., 21st July, 1876, for 5 years.

Claim.—The combination of the bore B, having the induction holes H and the screw stem D, having a disk valve E sliding in an enlargement at the rear end of said bore whereby the liquid is admitted to or shut off from the faucet.

No. 6351. Barn Door Fastening.

(Arrête-porte de grange.)

Perry A. Peer, Comstock, Mich., U. S., 21st July, 1876, for 5 years.

Claim.—A springless automatic fastening for barn doors, consisting of but two castings, one being a pivoted hook A, D, having in front the broad bevelled catch nose B and, at the rear, a curved arm C, while the other is a stand E having the stop G.

No. 6352. Manufacture of Paper Pulp.

(Fabrication de la pulpe à papier.)

Daniel Dull, Spring, Pa., U. S., 21st July, 1876, for 5 years.

Claim.—The process of producing pulp from wood and preventing its discoloration, which consists in boiling or steaming the wood in small pieces without pressure and then subjecting it to the ordinary grinding operation.

No. 6353. Nut Lock. *(Noix à bride.)*

Daniel Dull, Spring, Pa., U. S., 21st July, 1876, for 5 years.

Claim.—The spring *s*, in combination with the nuts by contact with a side of each nut so as to bind or lock them, 2nd. The spring *s* when constructed with the flange *x*.

No. 6354. Wine and Cider Presses.

(Pressoirs à vin et à cidre.)

Joe Nearing, Sherburne, N. Y., U. S., 21st July, 1876, for 5 years.

Claim.—1st. The reciprocating fruit tray D, having hinged covers d_2 and d_3 and arranged to pass between pressure rollers *c* and c_1 in such a manner as to force the said covers d_2 and d_3 gradually down upon the pomace in the tray and press the juices therefrom; 2nd. The reciprocating tray D and its operating screws E, combined with their fixed nuts *d*; 3rd. The springs F arranged to open the covers d_2 d_3; 4th. The springs F, with their adjustable connections *f* F_1; 5th. The adjustable pressure roller C_1, arranged to press with uniform force and at variable heights upon the moving covers d_2 d_3; 6th. The adjustable rollers C, the levers G and their weights *w*.

No. 6355. Garbage and Street Refuse Receptacles. *(Receptacles à tripailles et ordures de rues.)*

Andrew Schmidt, Williamsburgh, N Y., U. S., 21st July, 1876, for 5 years.

Claim.—The receiver B, with projections *b b* and lid O, in combination with the receptacle A with the handles *a a*.

No. 6356. Ship Ventilator and Fog Alarm.

(Ventilateur et alarme de navire en cas de brume.)

William F. Thiers, Milton C. Jeffers, Atmelia P. Armstrong, New York, and Eugene F. Beecher, Brooklyn, N. Y., U. S., 21st July, 1876, for 5 years.

Claim.—1st. A rudder having one or more air tubes with open lower ends extending downward into the water and connected at their upper ends to suction and discharge pipes; 2nd. A horizontal air valve having an oblique diaphragm in combination with the suction pipe or the discharge pipe of a ship ventilator. 3rd. A horizontal air valve having a removable cover giving access to the valve seat and to either compartment of the valve chamber and secured by a yoke and a clamping screw, or their equivalent, in combination with the suction pipe or the discharge pipe of a ship ventilator; 4th. A deodorizing and disinfecting chamber in combination with the discharge pipe or the suction pipe of a ship ventilator; 5th. A series of deodorysing and disinfecting chambers in combination with the discharge pipe or the suction pipe of a ship ventilator for the successive application of heat and chemicals to destroy the germs of infections or contagious diseases.

No. 6357. Process for the Manufacture of Illuminating Gas.

(Procédé pour la fabrication du Gaz d'éclairage.)

Henry Aitken, Falkirk, and William Young, Clippens, Scot., 21st July, 1876, for 5 years.

Claim.—1st. The general combination or arrangements of apparatus and the modes of using or applying the same for the treatment or distillation of shale, coal, mineral oil, resin and other similar bituminous substances, for the production of illuminating gas in conjunction with the production or manufacture of hydrogen and carbonic oxide by the decomposition of water by heated carbon, and for the production of other gases having a low illuminating power from spent bark, saw dust, peat and similar substances, and for the carburetting of the said water gases or other poor gases by diffusing the vapours of hydrocarbons produced with the illuminating gases from said bituminous substances, and thereby making good illuminating gas therefrom, 2nd. The application for the manufacture of illuminating gas of the volatile hydrocarbons produced and ordinarily left in the tars when coal, shale, hydrocarbon oils, resin and other similar bituminous substances, are destructively distilled for the production of illuminating gas by diffusing or suspending them in hydrogen carbonic oxide or other gas or gases having a low illuminating power through bringing the said gases into contact with the tars (condensed from crude bituminous gases) while in a heated state and spread over large surfaces, or by mingling the hydrogen carbonic oxide or other poor gas with the bituminous gases either in the bituminous retort as they are produced or afterwards, and subjecting the mingled gases to fractional condensation or cooling the condensed tars being kept in a heated state; 3rd. The use or application of the fixed carbon contained in the cokes resulting from the destructive distillation of bituminous substances, such as shale which contain a large percentage of mineral matter or ash, and which are in consequence unsuited for fuel, and also the use of the graphite or carbon deposited from bituminous substances in and on the surface of the retort and its contents for the decomposition of water, and the production therefrom of hydrogen and carbonic oxide and converting the same into good illuminating gas by diffusing through them the vapours of hydrocarbons derived from the destructive distillation of bituminous substances for illuminating gas.

No. 6358. Heat Extracting Apparatus.

(Appareil à extraire la chaleur.)

Hiram Purdy, Burlington, Iowa, U. S., 21st July, 1876, for 5 years.

Claim.—1st. The combination of the drum provided with conical air flues, which run from front to back and are flared from their receiving to their discharging end, and an air jacket enclosing the receiving and discharging ends of the said flues, 2nd. The combination of the broad flaring top flue C_4, having its bottom corrugated, the flaring flues C enlarged from their receiving to the discharging end and the drum B, 3rd. The double walled fire box A, having walls *a* and openings a_1 in its outer walls, in combination with the conical flue C drum B and jacket with flaring side E_3, and inlet and outlet passages; 4th. In combination with the heating apparatus, the smoke pipe I having conical flues *i* and a reservoir K; 5th. The heater, having its drum provided with the conical flues C which run from front to back and are flared from their receiving to their discharging ends, and its jacket divided into the compartments E_1 and E_2; 6th. The combination of the fire box A, having compartments A_1 A_2, and the compartment E_2, 7th. The combination of the fire box A, the drum B, transverse conical flues C and the jacket E; 8th. The combination of the drum, provided with conical flues *c*, and the fire box having compartments A_2, and the jacket having compartment E_2.

No. 6359. Improvements on Sewing Machines. *(Perfectionnements aux machines à coudre.)*

Simon W. Wardwell, jr., George W. Shaw and Hugh Menown, Saint Louis Mo., U. S., 21st July, 1876, for 5 years.

Claim.—1st. The top B of the table or stand having recesses suitably formed to receive the dove tails A^1, when the leg frames are inclined, and to clamp the dovetails in the recesses when the frames are vertical; 2nd. The combination of the leg-frames A, brace-frame C and tie rods D D_1; 3rd. The leg-frame A, provided with dovetail-shaped locking lugs; 4th. The combination of leg-frames A and tie rods D, having hooked ends D_2 engaging said frames; 5th. The combination of the leg-frames with recesses A^2, brace-frame C with tenons C^2, and tie rods with hooks D_2; 6th. The tie rod D, having its hooked end spherical in form to engage recesses a_1 in the lugs *a* of the leg-frame, 7th. The bar E_1, connected at or near the centre to the sandal E, and whose ends have bearing respectively beneath the sandal bearing bar D and the lower end F_5 of the pitman, 8th. The combination with the pitman F F_3 and socket bearing, The slot F_6 for the introduction and removal of the pitman to and from its bearing in the sandal; 9th. The ball-bearing of the pitman consisting of a lower part F_5 and an upper part F; 10th. The pitman consisting of the two parts F F_1 F_2 and F_3 F_4 F_5, fitted together with a longitudinal rib and groove joint capable of movement in relation to each other to compensate for wear of bearing, 11th. The combination of socket bearing E_3 E_5, ball bearing F_2 F_5 of pitman F_1 F_3, with divided upper hollow-bearing F_1 F_4 and globular crank wrist G_1, 12th. The combination with the bearing F F_4 G_1 and F_2 F_5 E_3 E_5 of the sandal E, rod D, bar E_1 and adjusting screw E_4, by which all lost motion may be eliminated from the bearings, 13th. The hanger H, cast in two counterpart portions which fit together upon the shaft G, and the suspension lugs I_1 I_2 of the turn table; 14th. The combination of the hanger cast in counterpart pieces with boxes H_1 H_2, shaft G and screws H_3, holding the parts of the hanger together upon the supporting lugs I_1 I_2 and the shaft G; 15th. The combination of hanger H made in counterpart portions and cleat I_3 I_4 beneath the turn table I, 16th. In combination with the turn table I and sectional cover J, the bracket J_1 connecting the parts of the turn table and forming the pivot bearings and rests of the cover; 17th. The combination of circular needle bar and tubular presser-foot bar *d*, permitting the turning adjustment of the presser foot without affecting the position of the needle bar, and without affecting the relative positions of the needle and presser-foot; 18th The combination of counterpart casting K K_1 and presser foot bar or barrel *d*; 19th. The shaft N, having globular crank wrist X for the lower end of the pitman, 20th. The shaft N, having take up cam *n*, in combination with the pitman of the take up, 21st. The shaft N, having the feed cam N^2 in combination with the slider S; 22nd. The shaft N, having the feed cam N_3 in combination with the slider S; 23rd. The rigid construction in one and the same piece of the shaft N, the crank wrist X, the take up cam *m*, the feed cams N^2 N^3 and the cup O, so that all parts have a positive motion relatively to each other; 24th. The tubular presser-foot bar *d*, with circumferential groove d_3, to receive the toe of the lifting lever *f* in all positions of said bar, 25th the combination of bar *d* with groove d^1, lever *f* and cam

lever g, 26th. The combination with the tubular presser foot bar d of the collar d, spring c in recess K1, 27th The combination in the tubular presser-foot bar of the key grooves d_2 and the feather key K2 at side of recess K3; 28th. A guard c projecting from the spool case holder for the purpose of preventing the thread hook engaging the needle by either springing said hook inward or the needle outward, 29th. A guard c projecting from the spool case holder in combination with a thread hook B; 30th. The combination with a revolving spool case holder of a removable vibratory hook projecting beyond the edge of said holder and operated by spring power whereby the said hook is always brought in line with the path of the needle; 31st. The combination with the spool case holder of a spring P1, point P2, guard P3 and pivot P4; 32nd The depressible spring loop hook piece P P1 P2 P3 P4 retained in its recess by the parts P5 P4 P3 o_1 o, 33rd The combination of spring P1, pivot P4, guard P3, toe P6 and point P in one piece of metal to form a hook piece; 34th The notch s in the side of the orifice s, 35th The combination with the spool case stay S, provided with the escape notch s, of the spool case finger Q4; 36th. The tension nipper Q4 Q6 with adjusting slider Q7 movable in inclined slot Q8, 37th. The combination with tension nipper Q4 Q6, of the thread retaining pin Q5, 38th The tension nipper Q4 Q6 in combination with the feed slider S, the latter having an orifice S through which the nipper passes to hold the spool holder at rest while the holder cup O rotates, 39th The slider S, in combination with cams N2 and N3 of the shaft N giving the forward and upward motion to the head S1 of the slider, 40th The combination in the slider of the toe S10 with arm S7 and adjusting screw S8; 41st. The combination with the feed slider S of the cams N2 N3 and spring S3, causing the forward, upward and backward movements of the slider, 42nd. The feed plate T with bearing in the cloth plate and having marginal slots T1, in combination with the toe S10 causing the slight rotary movement of the plate; 43rd. The combination of the plate T, pin T2 and lever U with feed ratchet U1 upon its end; 44th. In combination with the lever U and feed plate T, the spring U2 causing their return movement after the action of the toe S10 upon them; 45th. The keeper ring having spring catch W4 engaging in suitable notches in the groove V5; 46th. The tension spring h with adjusting screw i, 47th. In combination with the tension spring h and screw i, the upper spool holder t attached to screw i, 48th The tension spring h provided with thread eyes h h_5 h^6 and h_7, 49th. The pitman Y made in two counterpart portions held together upon the ball bearings of the shaft N and arm E by the central screw Y1, 50th. The keeper ring having bearing W in the down turned flange V4 of the cloth plate having a turning bearing W1 in the bed plate of the casting K and steady pin W2.

No. 6360. Improvement on Paper Vessels.

(Perfectionnement des vaisseaux en papier.)

John Stevens, Port Byron, N. Y., U. S., 21st July, 1876, for 5 years.

Claim.—1st. The combination of the cross ties C C halved or otherwise attached together and serving as stays to the rim or body of said vessel; 2nd. The combination with the chime, of the interior hoop b serving as a stiffener to the chime and a support to the bottom of the vessel, 3rd. The combination with the chime of the exterior metal hoop D; 4th. The combination with the top of the vessel, of the solid half round metallic hoop E.

No. 6361. Improvements on Brushes.

(Perfectionnements aux brosses.)

Orlando Jenness, Boston, Mass., U. S., 21st July, 1876, for 5 years.

Claim.—The combination of the brush A and the handle C, bifurcated at one end, with the adjusting plate F and the spring catch D and its adjusting spring.

No 6362. Improvement on a Device for Lighting Fire.

(Perfectionnement à un appareil à allumer le feu.)

Leonard J. Hewitt, Toronto, Ont., 21st July, 1876, for 5 years

Claim.—1st The combination of a self feeding apparatus, comprising the globe D, pipe C stopper F tube G and wire H with a vessel A containing asbestos a and benzine (or other illuminating fluid) E, 2nd. The charged vessel A without the tube C.

No. 6363. Dumping Box. *(Boîte à bascule.)*

Joel W. Hiatt and William F Beck, Iowa Falls, Iowa, U. S., 21st July, 1876, for 5 years.

Claim.—The dumping box A having shaft A1 and mounted on rockers B having pins a, the parallel rack bars E and D, the crank C, pinion C1 and hub C2.

No. 6364. White Enamel Paint.

(Peinture blanche à émail.)

Thomas Ramsay (Assignee of John F Orr), Glasgow, Scot., 21st July, 1876), extension of patent No. 4638) for 5 years.

No. 6365. White Enamel Paint.

(Peinture blanche à émail.)

Thomas Ramsay (Assignee of John B. Orr) Glasgow, Scot., 22nd July, 1876, (Extension of patent No. 4638) for 5 years.

No. 6366. Adjustable Plough Point.

(Soc de charrue mobile.)

Jonathan L. Dawes, Bergen, N. Y., U. S. (Assignee of James A. Codey) 28th July, 1876, for 5 years.

Claim.—A steel socket plough point, the same being secured to and in combination with a cast iron plough point or share.

No. 6367. Improvements on Elevators.

(Perfectionnements aux élévateurs.)

Dexter S. Bailey, Dover, Me., U. S., 31st July, 1876 (extension of patent No. 5054), for 5 years.

No. 6368. Improvements on Elevators.

(Perfectionnements aux élevateurs.)

Dexter S. Bailey Dover, Me., U. S., 31st July 1876 (extension of patent No. 5054), for 5 years.

No. 6369. Improvements on Churns.

(Perfectionnements aux barattes.)

Patrick Fryer, Chambly, Que., 31st July, 1876, for 5 years.

Claim.—The rotary churn B of octogonal periphery internally in combination with stub shafts a secured centrally to its vertical sides and bearing on a frame A, 2nd. The hinged jointed screw clamps C for holding the cover to its bearings, 3rd The trough E bearing on the frame A, in combination with a rotary churn B.

No. 6370. Improvements on Breech-Loading Fire Arms.

(Perfectionnements aux armes à feu chargeant par la culasse.)

Charles B. Hunt, Springville, Pa., U. S., 31st July, 1876, for 5 years.

Claim.—1st. The carrier block E, having quadrangular grooves F in combination with a loading bolt G, 2nd. The loading bolt G, having a sleeve H united by a left hand screw operating to press the bolt forward when the lever I is turned downwardly into firing position, 3rd. The carrier G constructed with an inclined bottom, in combination with a loading bolt G provided with a hook J for engagement with the cartridge, 4th. The loading bolt G provided with a sleeve H, the sleeve having lugs a to lock in a chamber in the casing A for locking the bolt in firing position, 5th. The firing pin Q, provided with a pin P engaging in a slot in the sleeve H for fixing the pin Q when the bolt G is not in firing position; 6th. The lever I constructed with a detachable section c, 7th. The post K, for tilting the exploded shell, in combination with a carrier block E, 8th. In combination with a carrier block E, a post K adjustable for the purpose described; 9th. The provision to the casing A of a flap cover O hinged thereto, 10th. The provision to the magazine C of a spring R.

No. 6371. Revolving Book Case.

(Bibliothèque tournante.)

John Danner, Canton, Ohio, U. S., 31st July, 1876, for 5 years.

Claim.—1st. In combination with a revolving book case suspended from the top of a stationary post, having an oil cup bearing h, the pendent g attached to the top shelf of the frame and oil duct i; 2nd. In combination with a revolving book case suspended from the top of a stationary post F, the series of horizontal bars B1 and vertical strips D to cover the joints of the shelves and support them; 3rd. A revolving case, for books and other purposes, suspended from the top of a central post by means of a pendent spindle and cup bearing.

No. 6372. Revolving Road Scraper.

(Ebouoir tournant.)

Edward Huber, Marion, Ohio, U. S., 31st July, 1876, for 5 years.

Claim.—1st. In combination with the body A of the scraper, having the horizontal side ribs H, the spring catches G having the lugs d, and the bail D having looped ends, and handles E E attached thereto above the lugs or points a^1, 2nd The inwardly curved upward extensions C1 formed upon the rear ends of the sides C, 3rd The apron F, attached to the cross bar e^2 of the handles E, to overlap the back B of the scraper.

No. 6373. Refrigerating Room.

(Chambre réfrigérante.)

Moses Kimball, Montreal, Que., 31st July, 1876, for 5 years.

Claim.—The room a, provided with a box d having space e and corresponding space below.

No. 6374. Ice Velocipede. *(Traîneau velocipède.)*

Charles M. Day, Elizabeth, N. J., U. S., 31st July, 1876, for 5 years.

Claim.—1st The combination with sled of revolving spiral propellar H extending from front to rear, and the shaft I having treadle cranks J, the said shaft being connected with propeller shaft by bevel gears, 2nd. The body of the carriage connected to the runners by springs in combination with a screw propeller arranged to run at the edge of the blades or vanes on the surface of the ice.

No. 6375. Machines for Making Napped Fabrics. *(Machine à faire les étoffes à poil ras.)*

Lyman W. Whipple, New-York, U. S., 31st July, 1876, for 5 years.

Claim.—1st. In combination with the reciprocating needle bar M, the vertically adjustable plate O provided with ribs P and bars 3, 3; 2nd. In combination with the needle bar M and plate O, provided with ribs P and bars 3, 3, lever 12 and cam H.

No. 6376. Street Railway Car.

(Voiture de railroute-urbain.)

Eustache Picard, Montreal, Quebec, 31st July, 1876, for 5 years.

Claim.—The car a provided with revolving brushes g.

No. 6377. Force-Pump. *(Pompe foulante.)*

William Busk, Paisley, Ont., 31st July, 1876, for 5 years.

Claim.—1st. The cylinder C with bottom E, having one or more admission valves *e*, and cover F having four more or less valves *f f f f*; 2nd. The piston G with its lower plate *g*, having four less or more admission ports *h h, h h*, the upper plate *g*¹ with four less or more admission ports *h*¹*h*¹*h*¹*h*¹, valve H and discharge pipe K; 3rd. *In combination with the cylinder C and* piston G, the connecting rod Q, cranked bracket P, socket with pivot T and handle N

No. 6378. Carriage Jack. *(Chèvre à voiture.)*

Jason McLeod and Samuel T. Kempton (Assignees of Albert Churchill), Milton, N. S., 31st July, 1876, for 5 years.

Claim.—The combination of a cogged rod B, working in a cylindrical standard A and operated by cogged lever C attached to such standard by slotted jaws D.

No. 6379. Production of Photo-Ceramic Pictures.

(Production des portraits photo-céramiques.)

Alexander L. Henderson, London, Eng., 31st July, 1876, for 5 years.

Claim.—1st. The production of Intaglios, 2nd. The production of Photo-ceramic pictures.

No. 6380. Process of Preparing Photographic and Plate Printing Paper.

(Procédé pour preparer le papier de photographie et d'impression à la planche.)

Thomas Doney, London, Ont., 31st July, 1876, for 5 years.

Claim.—A photographic or plate printing paper having a lined or stippled surface imparted thereto.

No. 6381. Roller Skate. *(Patin à roulettes.)*

Frederick E. B. Beaumont and Woodford Pilkington, London, Eng., 31st July, 1876, for 5 years.

Claim.—1st. The inclined links E, jointed at one end to the footstand and at the other end to the roller axle, in combination with a caoutchouc or other spring D interposed between the roller axle and the footstand, 2nd. The combination of the caoutchouc block D in a box C, carrying the roller axle F with the inclined links E. 3rd. The caoutchouc block D, held by a frame C¹ and having the roller axle F and pin B¹, on which the links E work bedded therein, 4th. The screw adjustment for regulating the compression of the *caoutchouc spring.*

No. 6382. Improvements on Fences.

(Perfectionnements aux clôtures.)

Mahlon Burtless, Seneca Falls, N. Y., U. S., 31st July, 1876, for 5 years

Claim.—The base B, consisting of the bar *a* and hollow angular feet *b, b*, constructed with the sockets *c c* for receiving the angular stakes *d d.*

No. 6383. Improvements on Lamps.

(Perfectionnements aux lampes.)

William J. Armstrong, Toronto, Ont., 31st July, 1876, for 5 years.

Claim.—A combined barbers lamp and sign having one, two or more illuminated faces fitted with parallel strips of coloured glass or other transparent or semi-transparent material in alternate bands of red, white and blue, arranged in diagonal lines or in any of the usual trade designs

No. 6384. Improvements on Car Brakes.

(Perfectionnements aux freins de wagons.)

Jacob Blanshan, Le Fever Falls, N. Y., U. S., 31st July, 1876, for 5 years.

Claim.—The brakes A connected by rods C with each other, and with the lever H by rods D, chains E, pulleys F and the rods G, in combination with opposite brakes B connected together by rods I, and with the lever H by rods J.

No. 6385. Improvements in Post and Rail Fences.

(Perfectionnements dans les clôtures de pieux et perches.)

Joseph Bagshaw, Reach, Ont., 4th August, 1876, for 5 years.

Claim.—The cutting of notches or gaues in the post C, for the reception of the bevelled rail B, and the bevelling of the same and the mode of securing the rails in position by means of the slat A nailed or secured to the post over the face of the rails.

No. 6386. Improvements on Saw-Mill Machinery.

(Perfectionnements au Mécanisme de Scieries.)

Watson P. Widdifield, Siloam, Ont., 4th August, 1876, for 5 years.

Claim.—1st. The friction wheel E, provided with the parallel driving face E^1 and bevelled driving faces E^2 and E^3, the said driving faces being either a solid part of the one wheel, or formed on two or more separate sections fastened together; 2nd. The friction wheel E, with bevelled friction face E^2, *in combination with the bevelled friction wheel S of the shaft* S^1, 3rd. The combination of the adjustable shaft F^1, lever G, friction wheel F and friction wheel E provided with the friction face E^1, 4th. The combination of the levers J and J^1 suspended at one end by the chains *j j*, cant bars L^1 and L^2, chains *k k* and shaft F^1, provided with adjustable clutch mechanism for elevating the levers simultaneously or independently as desired, 5th. The spring pressure stay L^3 in combination with the cant bar L^1; 6th. The friction wheel E provided with the bevelled friction faces E^2 and E^3, in combination with the friction wheels N and O mounted on the shaft M; 7th. The shaft N arranged with a limited vertical motion and provided with friction wheels N N O placed in such position that either or both may be thrown out of gear with the friction wheel E for the purpose of feeding the carriage forward, backward, or stopping it at any point, 8th. The combination of all the operative and inoperative parts.

No. 6387. Improvements in Ploughs.

(Perfectionnements aux charrues.)

George Wiard and Charles W. Hough, East-Avon, N. Y., U. S., 4th August 1876, for 5 years.

Claim.—1st. The combination with the beam A, provided with lug *b*¹ and recess *a*¹, of the landside B constructed with off set *b*², hook *b* and elliptical *lug a and fastening bolt c*; 2nd. *A plough-handle secured to two supports* $f f^1$ by two bolts *g g*¹ arranged at right angles to each other for preventing the splitting of the handle; 3rd. A mould board cast with the handle supporting arm f^1 and a lateral brace f^2 connecting the upper end of the arm f^1 with the rear end of the mould board; 4th. The handle brace E, constructed in one angular piece flattened at the bent, in combination with a socket *h* arranged on the beam A and having under cut lip L^4. 5th. The combination with the beam A provided with ribs *l l* of the mould board C provided with lug *m* and over lapping ledge *n*, for securing the mould board to the beam, 6th. The combination, with the standard A^1 and brace P of the toe plate O provided with slot *q for receiving* the bolt *r and for facilitating the* casting of the parts in one piece.

No. 6388. Sled shoe *(Patin de traîneau).*

William G. Calkins, Winneconne, Wis., U. S., 4th August, 1876, for 5 years.

Claim.—A sled shoeA cast with chilled sides B B.

No. 6389. Fog Alarm *(Alarme en cas de brume.)*

George Sweanor, Sherbrooke, and Horace R. Sewell, Quebec, Que., 4th August, 1876, for 5 years.

Claim.—1st. An air cylinder B having a piston O and piston rod N operated by winding mechanism giving a fast and slow motion to the piston for intermittently sounding a trumpet or whistle connected to the cylinder 2nd. The combination with a winding drum and wheels of the friction wheel G having an irregular eccentrical periphery and laterally, a cam groove I, the arm J, rock shaft K, lever M, piston rod N and piston O, operating in an air chamber B for sounding a trumpet or whistle attached there to automatically and at intervals.

No. 6390. Reversible Plough.

(Charrue tourne-oreille.)

Myron R. Hubbell, Sweetsburgh, Que., 4th August, 1876, for 5 years

Claim.—1st. The rod E running the length of the beam, with its cranks F I and the slot in the clevis or draught attachment; 2nd. The slotted lever K moved by the mould board brace N and which operates the draught attachment by means of the rod E and cranks F I.

No. 6391. Improvements on Dumping Boxes.

(Perfectionnements aux bottes à bascule.)

Garret Seger, Humberstone, and William Stanton, Port Colborne, Ont., 4th August, 187, for 65 years.

Claim.—The combination of side bars B B and the end rod C.

No. 6392. Force-Pump. *(Pompe foulante.)*

Cyrus Green, Hespeler, Ont., 4th August, 1876, for 5 years.

Claim.—1st. The cylinders A A constructed with the openings *b b*, stationary valve *a*¹, working bucket *a*, 2nd The rocking beam D with centre piece pivoted, 3rd. The combination of the cylinders A A, connection pipes A^2 A^3, discharge pipe cross heads B B, side rods C C, rocking beam D with centre pieces *d*, connecting rods E, E, top bracket F, crank shaft G and winch H; 4th. Operating the device either as a double or a single cylinder pump as may be required 5th. The combination and arrangement of the whole.

No. 6393. Improvements on Car-Couplings.

(Perfectionnements aux attelages de wagons)

William V. Perry, Kokomo, Ind., U. S., 4th August, 1876, for 5 years.

Claim.—1st. The drawhead A provided with the interior transverse ridges *t t*¹ and the tapering head *b*; 2nd. The coupling pin B having concave front curve *x*, straight front edge *c* and convex back curve *z*, the *curves being concentric; 3rd. The combination of the flat bar D and rod K* with the slotted plate F provided with the transverse groove *m*; 4th. The fork G arranged within the draw head A; 5th. A universal coupling *p* in combination with the fork G, shaft *n* and operating devices; 6th. The combination of the arm K with elongated slots, the flattened rod J, universal coupling *p*, shaft *n* and fork G

No. 6394. Sad Iron Holder and Guard.

(Panier porte-fer à repasser le linge.)

Samuel J. Ward, Buffalo, N. Y., U. S., 4th August, 1876, for 5 years

Claim.—1st. The combination with a hinged wire frame of the cloth holders B and protecting shields D attached by the perforations *d*, 2nd The combination with the shields D of the curved and wires C provided with the eyes E, braces F, guard G and the cloth-holder B.

No. 6395. Meat Preserving Process.

(Procédé de conservation de la viande.)

Windsor Leland, Chicago, Ill., U. S., 4th August, 1876. for 5 years.

Claim.—Cooking the meat by boiling or steaming, then cutting or chopping it, then evaporating and finally sealing the meat so treated in air-tight cans.

No. 6396. Improvements on Fences.

(Perfectionnements aux clôtures.)

Jesse Kinney, London, Ont., 4th August, 1876, for 5 years.

Claim.—1st. A fence constructed of hollow standards A, bars C, wire-ropes D and marble or stone-caps E; 2nd. The standards A with foot B and wrought-iron bar A^1; 3rd. The gate F, in combination with the standards A and bars C.

No. 6397. Improvements on Milk Strainers.

(Perfectionnements aux couloirs à lait.)

Patrick S. Ryan, Rutland, Vt., U. S., 4th August, 1876, for 10 years.

Claim.—A milk strainer A provided with an inwardly and outwardly inclined rim C around its peripheral edge, and the strainer gauges B at an inclination, with a sediment cavity D below them.

No. 6398. Composite Wood-Block Pavement.

(Pavage mixte en blocs de bois.)

David Ewart, Ottawa, Ont., 4th August, 1876, for 5 years.

Claim.—The combination of the vertical dove-tailed blocks B with the horizontal scantlings C, wooden slips D and iron-bolts E F G H.

No. 6399. Improvements in Churns.

(Perfectionnements dans les barates.)

John McConachie, Ancaster, Ont., 4th August, 1876, for 5 years.

Claim.—1st. A churn A having a central partition L forming two chambers M and N, said partition being perforated with holes O O^1 near the top and bottom respectively, so that the cream is driven by double dashers from one chamber to the other; 2nd. In combination with the churn A, the frame work B provided with double crank D, walking beams F F, connecting rods I, balance wheel E.

No. 6400. Improvements on Corn Brooms.

(Pérfeceionnements aux balais de houque.)

James D. Dresser, (Assignee of James W. Cuthbertson), Brantford, Ont., 5th August, 1876, for 4 years

Claim.—The malleable iron head A B made in two pieces with pikes or teeth E cast on each, and socket C cast on B, also screws F.

No. 6401. Machine for Re-Sawing Lumber.

(Machine à refendre le bois.)

Edwin Benjamin, Chicago, Ill., U. S., 5th August, 1876. for 5 years.

Claim.—1st. The combination of the weighted lever K provided with lugs P O, guides *c c*, connecting rods *a b*, sliding frames 5, 6, carriage J and feed rollers E E E^1 E^1; 2nd. The combination of pinions V W, lever *f*, rack *g*, shaft d^1, with feed rollers E E; 3rd. The combination of the till rod *h*, carriage J, carriage frame J^1, screw clutch 3 and rollers E E^1.

No. 6402. Improvements on Fences.

(Perfectionnements aux clôtures.)

Elijah Sims and John H. Peak, Aurora, Ill., U. S., 5th August, 1876, for 5 years.

Claim.—1st. The metallic fence rod *b* having plane faces and provided with barbs *a* integral therewith, all projecting from one face, said rod twisted to arrange the barbs spirally around it; 2nd. A twisted barbed fence-bar, the barbs being at intervals upon one side of a plane faced bar, tapering or wedge shaped in its cross section and pointed; 3rd. The method of constructing barbed fence bars, consisting in treating an angular bar to the successive operations of reducing it to a wedge shape in cross section, cutting out intervals from one side leaving the barbs pointed in the same plane with the stock, and twisting said bar to project the barbs.

No. 6403. Car Axle Journal Lubricator.

(Graisseur de fusée d'essieu de wagon.)

George M. Morris, Cohoes, N. Y., U. S., 5th August, 1876, for 5 years.

Claim.— 1st. A lubricating device applicable to a journal of a car axle within the housing of the same, the combination with the lubricating wheel roller and its shaft, of the full bearing C and the notched bearing C^1, both supported in an elastic manner, and the latter capable of being separately and previously depressed in relation to the former, and the former capable of retaining the wheel in its shaft in position; 2nd. In combination with the full bearing C supported in an elastic manner from base E F, and notched bearing C^1 also supported in an elastic manner from said base and capable of being depressed previous to the bearing C which may itself be subsequently depressed of the shaft B carrying the wheel-shaped roller A having shoulders X X at a point about midway between said wheel roller and the bearings C C^1, and journal Z Z^1 extending from said shoulders outward past the outersides of said bearing for operations.

No. 6404. Grain Drying Kiln.

(Four de séchage du grain)

William Stewart, St. Thomas, and William E. Blake and J. Wesley Woolley, Springfield, Ont., 5th August, 1876, for 5 years.

Claim.—1st. One or more shelves or screens F suspended within a drying kiln by the rods G, and having a reciprocating motion imparted to them by suitable means in combination with the hopper J, worm screw L, octagonal cylinder or screen M, discharging spout N and screw O, arranged and operated for the purpose of automatically conveying grain through a heated chamber or kiln at such a speed that the said grain shall be dried as required before it is finally discharged from the kiln; 2nd. An iron furnace C provided with a smoke flue D placed within a drying kiln.

No. 6405. Combined Oatmeal Cutter and Malt Crusher.

(Hache-gruau et triturateur de drêche combinés.)

Edward S. Higgins and Pierre Payette, Ottawa, Ont., 5th August, 1876, for 5 years.

Claim.—1st. The combination of the feeding rollers C C^1 and the cutting rollers D D^1, made either solid or with separate knives bolted together with the fly wheel G and other gearings F, and the frame A to produce oatmeal; 2nd. The peculiar action of the feeding rollers C C^1 in rolling from the centre upwards for the purpose of letting the grain fall cross-ways on the cutting rollers D^1 that they may be cut crosswise; the said motion effecting the purpose of preventing any foreign body from passing between the feeding rollers and thereby endangering the machine; 3rd. The combination of the feeding rollers C C^1 and the crushing rollers *i i* with the fly wheel G and other gearings F and the frame A, to crush malted barley or other grain, &c.

No. 6406. Machine for Planing and Matching Lumber. *(Machine à raboter et bouveter le bois.)*

Edwin Benjamin, Chicago, Ill., U. S., 5th August, 1876, for 5 years.

Claim.—1st. The combination of the frame caps *l*, screw rods 10, sliding bearings or boxes N^1, stationary bearing or boxes N, feed rollers *m* m^1, guides or frames B B, stirrups H H, weighted levers *i* J, screw rod 10 and pinion E; 2nd. The combination of the feed rollers *m* m^1, connecting rod S, arm T, lever U, pinions R Q Y, rod *a* and gear O P *t*; 3rd. The combination of transversely concave cap plates *h* with knives *g*, nuts *i* and cutter head *f*; 4th. The combination of the connecting rod W provided with an enlarged journal C at one end, a cup *d* at the other end to fit an enlarged journal on the gear L, with the bridge *b* provided with a cup *e* to fit journal C; 5th. The combination of the double pinion Q Y, pinion R, arm T, rod *a*, gear O P *t* and feed rollers *m* m^1.

No. 6407. Expansion Joint for Tubular Water Fire Bars.

(Joint à Expansion de barreaux tubulaires de grilles faisant circuler l'eau,)

George Haworth, Saint Michaels Hamlet, Eng. (Assignee of Frederick R. Ellis), 5th August, 1876, for 5 years.

Claim.—1st. The novel combination of the fire bar *b*, link piece *a* and the bearer *c*; 2nd. The link piece *a*.

No. 6508. Manufacture of Counters for Boots and Shoes. *(Fabrication des contre-forts de chaussures.)*

John R. Moffit, Chelsea, Mass., U. S., 5th August, 1876, for 5 years.

Claim.—1st. The improved process of shaping counters consisting in first giving the proper curves by a revolving former, and afterwards giving the exact shapeby forming the counter over a male mould; 2nd. The male mould *e*, formed with its sole surface curved, in combination with a pressure surface arranged to move over it in the arc of a circle, and thereby form the bottom of a counter on a curve; 3rd. The mode of giving a more permanent set to the curve by running the presser roll *b* at a greater speed than the former *a*; 4th, In combination with the male mould *e*, the heads A and B; 5th. The guide C in combination with the male mould *e* and mechanism for shaping the counter over that mould; 6th. The needle *k* in combination with the male mould *e* and mechanism for operating the needle.

No. 6409. Portable Gas Machine.

(Machine à gaz portative.)

Thomas H. Hicks, Thomas A. Stevens, William P. Turner and James Burns, London, Ont., 5th August, 1876, for 5 years.

Claim.—The process of uniting wood gas with oil to form an illuminating gas.

No. 6410. Wood Screw Machine.

(Machine à vis à bois.)

Charles D. Rogers, Providence, R. I., U. S., 5th August, 1876, for 15 yards.

Claim.—1st. A multiple tool mounted on the tool post and so governed by a locking index wheel that by turning forward and locking the index wheel a new tooth may be presented to a revolving blank and caused to operate upon it; 2nd. A multiple tool having bearings in the tool post, in combination with an index wheel and mechanism for making and preserving the adjustment, whatever may be the diameter of the tool; 3rd. A multiple tool revolved and adjusted in combination with mechanism for controlling the revolution of the tool automatically.

No. 6411. Improvements on Wood Screws.

(Perfectionnements aux vis à bois.)

Charles D. Rogers, Providence, R. I., U. S., 5th August, 1876, for 15 years.

Claim.—A pointed wood screw having the outer periphery of the thread upon its body cylindrical, while a portion of the body below the thread and near the neck is conical, the remainder of the body to the point being cylindrical and jet having all the threads brought to an edge of a constant angle without jogs in the paths between the threads.

No. 6412. Soap Boiling Apparatus,

(Appareil à cuir le savon.)

Archibald O. Glass, Detroit, Mich., U. S., (Assignee of Milton J. Palmer) 5th August, 1876, for 5 years.

Claim.—The combination of a horizontal boiler A, mixing chamber B, tube *b*, inlet E and agitator H provided with concave floats *h* and slats i set diagonally across.

No. 6413. Improvements in Weaving Temples.

(Perfectionnements aux temples de tisserands.)

James B. Paton, Sherbrooke, Que., 5th August, 1876 for 5 years.

Claim.—1st. The box and cap *a*; 2nd. The projections or lugs c; 3rd. the swaged teeth on the roller *a*, 4th The spring shaft *b*, 5th. The support guides *c*.

No. 6414. Waggon Seat Lock.

(Arrête-siége de voiture.)

Joseph Hill, Wabash, Ind., U. S., 5th August, 1876, for 5 years.

Claim—The box C having recess D, coiled spring F and catch plate E H, the latter pivoted in box C, so as to form a close fitting cover for the recess or aperture wherein it works, in combination with the seat iron A having bevelled point *d*, notch *b* and shoulder *c*.

No. 6415. Improvements on Mowers and Reapers. *(Perfectionnements aux faucheuses-moissonneuses)*

Louis H. Hébert, Grande Ligne, Que., 5th August, 1876, for 5 years.

Résumé.—1o. La combinaison du levier M, de la canne à dents de rochet N, de la chaine O, du bras P ayant un ressort R, avec la roue S pour soulever ou baisser la table A d'une faucheuse-moissonneuse; 2o. La combinaison du poteau mobile D, portant le dévidoir E, avec le poteau fixe C boulonné au devant de la table A, 3o. La combinaison du poteau fixe C de la branche latérale F, du levier H, de la poignée I, de la tige J avec le poteau mobile D, la poulie L, la chaine K et le levier M pour soulever ou baisser le dévidoir E.

Claim—1st The combination of lever M, ratchet toothed rod N, chain O, arm P having a spring R with the wheel S to raise or lower the table A of a mower and reaper 2nd The combination of the movable post D, carrying the reel E with the fixed post C bolted in front of the table A 3rd The combination of the fixed post C, side arm F, lever H, handle I, rod J with the movable post D, block L, chain K and lever M to raise or lower the reel E.

No. 6416. Improvements in Weather Strips.

(Perfectionnements aux bourrelets de portes.)

Joshua Johnston, Toronto, Ont., 7th August, 1876, (Extension of Patent No. 1095), for 5 years.

Claim.—1st. The construction and application of the weather strips Figs. 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and 29; 2nd. The application of the weather strip Fig. 28.

No. 6417. Improvements on Centrifugal Pumps. *(Perfectionnements aux pompes centrifuges.)*

William D. Andrews, Brook Haven, N. Y., U. S., 11th August, 1876, for 5 years.

Claim.—1st. A centrifugal pump having a cylindrical case A, the discharge branch or nozzle D of an enlarged rectangular construction at its junction with the case and coincident with the sides thereof, but terminating externally in a contracted orifice *b* and arranged so that the interior surface *s* of its outer side is in tangential relation with the inner periphery of the case and with the circular path by the outer ends of the propelling wheel or its wings, 2nd The discharge branch or nozzle D having the interior surface *s* of its outer side in tangential relation with the cylindrical case A, and constructed or provided with a relief opening *s* having a curved surface *n* arranged to connect with the inner periphery of the case and with the tangential surface *s* of the discharge branch or nozzle D, 3rd The wings N of the propelling wheel constructed of reverse curve constituting a volute for the greater portion of the length of the wings but having outer radial terminations; 4th. The combination of the wings N N, irrespective of their shape having their inner edges terminating at distance from the centre of the wheel so as to provide an unobstructed central space within them with a hub N¹ on one side only of the wheel of a diameter approximating to that of said central space and with re enforces O O, the said hub and re-enforces extending equally into the cylinder; 5th. The removal head B of the pump case provided an arbor G for the wheel shaft, and constructed to independently carry the propelling wheel shaft and driving pulley; 6th. The combination of the pulley H, arranged on the arbor G, projecting from the removable head with the shaft I and the coupling J; 7th. The combination with the removable head B constructed to independently carry the driving pulley and wheel shaft, having an attached clutch of the pump case A and its attached head C, induction nozzle M and discharge branch D; 8th. The circularly adjustable case A formed with circular extensions on the opposite sides or faces to form broad or distant bearings in the support of the case by the stand E beyond opposite side of the discharge pipe D.

No. 6418. Combined Hame and Horse Collar.

(Attelle et collier de cheval combinés.)

Ezra Strond, Riceford, Min., U. S., 11th August, 1876, for 5 years.

Claim.—The hames A having holes *o*, the bow rods 3 M having a series of holes N in their end portions and supporting the neck pad D.

No. 6419. Screw Machine. *(Machine à vis.)*

Charles D. Rogers, Providence, R. I., U. S., 11th August, 1876, for 15 years.

Claim.—1st. The cams Y and M¹, combined with the ordinary mechanism for operating the chaser, for the purpose of accelerating, retarding and limiting the sidewise cuts of the chaser over the cone and cylindrical body of the screw proportionately to the depth of the cut of the chaser towards the axis of the screw so as to bring the threads to an edge of a uniform angle over those parts without changing the outer periphery of the screw.

No. 6420. Portable Engine. *(Machine portative.)*

Martin W Shapley, Binghampton, N. Y., U. S., 11th August, 1876, for 5 years.

Claim.—1st. The combination of the boiler and the conical fire-box with the cross and upright tubes, and jacket and chamber, 2nd. The combination of the boiler composed of parts *a m* and the cross and upright tubes opening into the chamber *k* with the removable jacket, whereby the tubes may be quickly and easily cleaned by removing the jacket; 3rd. A portable engine and boiler provided with a conical fire-box and tubes *j n*, and jacket and heater *b* and pump c, all arranged on a base *d*.

No. 6421. Improvements on Stoves.

(Perfectionnements aux poeles.)

James R. Armstrong, Toronto, Ont., 11th August, 1876, for 5 years.

Claim.—The plate A, divided into two sections A¹ and A², pivoted to the apron or cart's plate in such manner that either section separately may be opened without disturbing the other or both may be opened simultaneously

No. 6422. Improvements on Switch Rails.

(Perfectionnements aux rails mobiles.)

Joseph Haggas, Uxbridge Ont., 11th August, 1876, for 5 years

Claim.—The tubes E, in combination with the rods B B¹ and rails A.

No. 6423. Improvements on Stoves.

(Perfectionnements aux poëles)

William Doyle, Albany, N. Y., U. S., 11th August, 1876, for 5 years

Claim.—1st. A heating stove having an oven at its rear, and the base flues *b b* and c, bottom horizontal flue with dampers *c c* between it and the said base flues and an ascending flue between the oven and the stove proper, 2nd The combination with the ascending flue *f* of the blast flue *h* leading from the combustion chamber to the horizontal flue or chamber *g* and through said ascending flue whereby the hot gases passing through the said blast flue may reheat the gases of reduced temperature in the said ascending flue and stimulate the draft of the same, 3rd. The combination with the stove proper of the blast flue *h*, horizontal flue or chamber *g*, direct return flues *m* and ascending flue *f*; 4th. The combination with the blast flues *h* and *k*, one or more return flues *m m* and horizontal top flue *g* of the rings carrying damper plates *s¹ s²*.

No. 6424. Combined Portmanteau and Shawl Straps.

(Portemanteau avec courroies pour ceinturer les châles).

Diana S. Mathews, Adrian, Mich., U. S., 11th August, 1876, for 5 years.

Claim.—1st. The combination of a portemanteau, satchel, case or other receptacle, with two or more shawl straps applied to the bottom of the same, 2nd. The combination of the portemanteau, or other receptacle of soft leather, with detachable shawl straps and with shorter additional straps buckled to the bottom to admit the secure strapping on any article whether the portemanteau is in filled or empty state.

No. 6425. Ironing Machine. *(Machine à repasser.)*

James Martin, Goliad, Texas, U. S., 15th August, 1876, for 5 years.

Claim.—1st. The combination of a smoothing iron (without regard to the form of such smoothing iron) and a rotary and adjustable ironing bed, 2nd. A rotary ironing bed applied to a frame, which is adjustable horizontally back and forth under a smoothing iron: 3rd. The combination of a swinging frame adapted to be worked by a foot treadle and carrying a rotary ironing bed, provided with a hand crank for turning it, a standard for supporting said frame and its ironing bed and a portable bracket, carrying a smoothing iron 4th. The rotary ironing bed having its outer cloth covering on surface fastened by expanding cut ring; 5th. The adjustable clamp for holding the rotary ironing bed in its place, in combination with the half bearings for the shaft of the ironing bed and an ironing bed.

No. 6426. Improvements on Plough Harness.

(Perfectionnements aux harnais de charrues.)

Edwin Coleman, Castleton, Ont. (Assignee of Ambrose B. Coleman) 12th August, 1876, for 5 years.

Claim.—The combination of the draw lever A, the four lugs B B B B and the circular stretch bars C C.

No. 6427. Picture Frame Machine.

(Machines à cadres d'images.)

Myron L. Baxter, Aurora Ill., U. S. (Assignee of William E Eastman), 12th August, 1876, for 5 years.

Claim—1st. The clamping devices B B1 when used in connection with the circular saw A; 2nd. The hollow cylinder C in combination with the clamping devices B B1 3rd A measure D ruled with diagonal lines parallel to the plane of the saw A, in combination with the gauge bar E and gauge block F; 4th. In combination with the gauge bar E, gauge block F and clamping devices B B, the saw A; 5th. The saw guide *f* attached to the frame of the machine at the rear of the saw A and guiding the same above and in front of the centre thereof; 6th. The slides *b* in the face of the supplementary jaws c of clamping devices B B1.

No. 6428. Railroad Rail Joints and Bolts and Nut Locks.

(Joints et boulons et noix à bride de rails de railroutes.)

Richard Long, Pittsburg, Pa., U. S., 12th August, 1876, for 15 years.

Claim.—1st. The method of rigidly connecting the continuous ends of railroad track rails by means of fish plates constructed with a re enforcement at the centre or opposite the rail joint, 2nd A fish plate constructed with a heavy re-enforcement at its central portion; 3rd. A fish plates B B having a re-enforcement at their central portion and extending from the top edge to the bottom thereof, in combination with the rails A A, 4th. A fish plate, constructed of varying thicknesses whereby different degrees of rigidity are obtained therein, and capable of being rolled in their manufacture. 5th. The fish plates B B having the depressions c c formed in the face thereof, in combination with the rails A A, whereby the rails are allowed to yield; 6th. The fish plates B B constructed with the re-enforcement *a a b b* and *d d* the depressions c c; 7th. The rail joint bar formed of the fish plate and angle piece provided with a re-enforcement extending entirely across both· 8th The method of fastening or securing nuts upon bolts, consisting in striking up a rib or projection on the body of the neck of said bolts; 9th The bolt A1 having the smooth neck *a1* formed on the end thereof and the conical recess *b1* also in the end of the neck, 10th the punch E1 having the cup-shaped recess c1 c1 and the central stem or projections *d1*.

No. 6429. Improvements in Finger Rings.

(Perfectionnements des anneaux de doigts.)

William Eisele, Indianapolis, Ind., U.S., 12th August, 1876, for 10 years.

Claim.—A finger ring composed of the section A perforated at each end with holes P the cases B B1 arranged to receive the section A and the hinged ornamented catch C provided with a pin D.

No. 6430. Improvements on Floor Scrubbers.

(Perfectionnements aux balais à laver.)

Frederick A. Balch, Hingham, Wis., U. S., 12th August, 1876, for 5 years.

Claim.—1st. The pivoted head H provided with the rubber strips C and springs G G combined with the box A, 2nd. The combination of the pivoted head H provided with the rubber strips C, springs G G box A handle B and brush D, 3rd. The button J sliding on the handle B and engaging with the box A and head H.

No. 6431. Sliding Folding Doors or Shutters.

(Portes ou contrevents brisés en coulisses.)

Sidney J. Sandford, Barrie, Ont., 12th August, 1876, for 5 years.

Claim.—1st. The combination of folding doors or shutters with swivelled rollars running on a bar above, 2nd The combination of the roller J and the frame K with the strap M and the piece N connected by the shackle L.

No. 6432 Improvements on Chronometer Escapements.

(Perfectionnements aux échappements d'horlogerie.)

Frederick H. Voight, Buffalo, N. Y., U. S., 12th August, 1876, for 5 years.

Claim.—The combination with the chronometer lever E, of its equivalent of a disengaging or release lever F, or its equivalent, constructed to recede when passing said chronometer lever in the re- swing and to snap back to its normal position as soon as said chronometer passed, without causing this chronometer lever, or part thereof, to describe a back movement beyond its rest.

No. 6433. Process of Tanning Leather.

(Procédé de tannage des peaux.)

George Goodwin, Cookshire, Que., 12th August, 1876, for 5 years.

Claim.—1st. The solution of sulphuric acid, 2nd. The solution of salt and waters, 3rd. The solution of japonica, 4th. The solution of alum.

No. 6434. Apparatus for Burning Hydrocarbons. *(Appareil à consumer les hydrocarbures.)*

Mathew Boynton, Chicago, Ill., U. S., 12th August, 1876, for 5 years.

Claim.—1st. The spreader *b* in combination with the atomizer A, 2nd. In a hydrocarbon injector the spy hole H provided with transparent plates; 3rd. In combination with a hydrocarbon injector the receiver C directly connected with the smoke stack of the furnace by means of which hot air is conveyed from the smoke stack through the injector into the furnace.

No. 6435. Door Bolt and Burglar Alarm.

(Verrou de porte alarme-voleur.)

John P Kislingbury Rochester N Y, U S 12th August, 1876, for 5 years.

Claim.—1st. The combination with the gear L and double acting bolts I I of the pivoted rack bars L1 L1 arranged to be connected with or disconnected from the said gear, 2nd. The combination with the pivoted rack bars L1 L1 of the links M M, sliding screw bolt *g* and clamping nut k, 3rd. In combination with the door bolts I I and two hammers F F, the rock arm P connected with the door bolts by a slot and pin and provided at its upper end with the spring bolt *a a*, the tops of said spring bolts being bevelled inward to allow them to center between the hammers.

No. 6436. Improvements in Mill Trams.

(Perfectionnements dans la disposition des meules d moulins.)

Ferrand G Wallace Ripon, Wis., U. S., 12th August, 1876, for 5 years.

Claim—1st The combination with the bed stone A and supporting plate C of the same, of a ball and socket joint B *b*, recesses c, lugs *b1 b1*, recesses c c1 to provide for the oscillation of said bed stone, 2nd. The packing device for the runner spindle consisting of an annular plate H attached to the bed stone and provided with an upwardly projecting rim *h* around its central opening in combination with an annular plate I above consisting of two metallic annular plates I1 and I2 with an interposed flexible disk I3 surrounding the spindle, 3rd. In combination with the bed stone and its skirting of a flexible packing I3 of rubber, canvas, or other suitable material.

No. 6437. Machine for Making Barrel Heads.

(Machine à faire les fonds de barils.)

William W. Frevor, Lockport, N. Y., U. S., 12th August, 1876, for 5 years.

Claim.—1st The toothed wheel *a* provided with the projecting pin *l*, in combination with the pinion *p* and spring catch N for releasing the swinging frame or carriage I after the heading is cut, 2nd The wheel *a* with the counter weight *d* and the stop K provided with the adjusting screw *h*, 3rd. The combination with the wheel *a* of the swinging bearing *b* and spring arm *n*; 4th. The swinging rod P combined with and jointed to the swinging clamp shaft H; 5th. The swinging rod P having lengthwise motion in its support, and the spring N in combination with the clamp shaft 6th The combination with the swinging frame or carriage I carrying the shaft H of the adjusting frame W provided the pulley V V whereby the belt U is tightened when the clamp is swung up to the saw, but slacked when it is swung back; 7th. The combination with the clamp B of the pivoted latch *r*, cam *t*, or equivalent, and rod *v*.

No. 6438. Improvements on Horse-rakes.

(Perfectionnements aux râteaux à cheval.)

Charles La Dow, Ballston, and James H. Melick, Albany, N.Y., U.S., 12th August, 1876, for 5 years.

Claim.—1st. The divided axle A A with wheels B B fastened upon the outer ends thereof, 2nd. The combination of a friction gripe with the axle and rake head for locking them together, 3rd. A friction gripe consisting of a wire or cord or their equivalent, connected to the rake-head wrapped around at the axle and connected to the foot lever for locking the axle to the head 4th A friction gripe in combination with the divided axle secured firmly to the wheels, 5th. The longitudinally grooved button G pivoted to the front of the rake head in combination with the bent rake teeth and grooves in the head whereby the teeth are secured to the head and a free hinge movement of the same permitted, 6th. A compound or divided lever in combination with a rake head and its teeth, 7th. A divided lever handle in combination with the rake head friction gripe and axle; 8th. The stop *d* of india rubber or equivalent material adjustable upon the rake teeth C, 9th. The angular or bent clearing arms L.

No. 6439. Cheque Book. *(Livret de Mandat.)*

George E. Waring, Jr., Newport, R.I., U.S., 12th August, 1876, for 5 years.

Claim.—The combination with a central piece provided with a projecting lip for binding and containing two or more stubs or counterfoils of a corresponding number of cheques, arranged to fold over the central piece.

No. 6440. Ventilator and Chimney Top.

(Ventilateur-chapeau de cheminée)

John B Robertson, Toronto, Ont., 12th August, 1876, for 5 years.

Claim.—1st. A casing C, formed by the union of two cone frustrums D and E with a circle of holes G pierced in the lower half D of the said casing C, in combination with an air shaft A, 2nd. An air shaft A provided with a casing C, in combination with a cone-shaped cap H.

No. 6441. Vehicle Fifth Wheel.

(Rond d'avant-train de voiture.)

Peter B. Cunningham, Frechold, Pa., U.S., 17th August, 1876, for 5 years.

Claim—1st. The combination of the fifth wheel A, secured to the frame B and provided with raised flat portions *a a*, and inclined portions *b b* and *b1 b1*, with rollers E hung to the under side of the waggon body, 2nd. The king bolt *f*, secures to the frame B and having an enlarged head *h*, in combination with the tubular socket *i* and its spring *j* 3rd The combination of the raised flat portions *a a* of the fifth wheel A with the blocks *e* secured to the under side of the body.

No. 6442. Machine for Elevating the Rack from a Waggon. *(Machine à élever un ratelier de wagon.*

John McLennan, Malahide, Ont., 17th August, 1876, for 5 years.

Claim—The combination of the ratchet wheel E and wooden disc with groove K in combination with the revolving shaft D, and the method in which the ropes B B and L L therefrom are connected with the rails A A.

No. 6443. Manufacture of Illuminating Gas.

(Fabrication du gaz d'éclairage.)

Myron H. Strong, Brooklyn, N.Y., U.S., 17th August, 1876, for 5 years.

Claim.—1st. The gas making apparatus consisting of a retort filled with vertical tubes combined with the chimney and the supply pipe for petroleum or other liquid hydrocarbon, 2nd. The combination with a retort for making gas from liquid hydrocarbon, of a fire bed and a hopper for coal, and a gas delivering pipe leading from the hopper, 3rd. The method of manufacturing illuminating gas from liquid hydrocarbon by subjecting such liquid to the heat of a retort and passing the resulting gas through coal in a heated condition, 4th. The combined processes of manufacturing illuminating gas and alternately heating the retort for again making illuminating gas by employing the carbon deposited from the liquid hydrocarbon and the coke from the coal, in heating the gas making retort and using the hydrocarbon vapours and gases from the coal to carburet the hydrogen from the petroleum to form illuminating gas, and at the same time produce coke that aids in heating the retort.

No. 6444. Smokeless Furnace. *(Fourneau fumivore.)*

James W. Bonta, New Brighton, Pa., U.S., 17th August, 1876, for 5 years.

Claim.—1st. A base burning coal magazine arranged over a closed ash pit provided with blast pipe for injecting air in combination with a lateral heating chamber having outlets from its bottom for the discharge of the uninflammable products of combustion in a downward direction; 2nd. In combination with the heating chamber of a furnace, a door or doors for closing the opening or openings of the heating chamber in combination with a movable deflecting shield or shields for the purpose of laterally deflecting the hot air puffed out from the heating chamber upon the opening of the door or doors; 3rd. A heating chamber provided with an outlet for the escape of unaflammable products of combustion and an opening or mouth for allowing access to its interior provided with a movable door and a closed ash pit provided with a pipe for the injection of air, in combination with two vertical chambers or magazines closed at the top by movable covers for containing coal and discharging the same, after partial coking, into the opposite sides of the heating chamber, 4th. A sliding door for closing the mouth of the heating chamber of a furnace, and mechantsm for raising such door in combination with a valve arranged in the air blast pipe of the furnace in suitable position to be acted upon by the mechanism which raises the door whereby when the door is raised the valve is closed; 5th. Two series of base burning coal magazines arranged over two corresponding series of closed ash pits provided with pipes for injecting blasts of air in combination with a melting chamber situated between the coal magazines, and having narrow openings in its opposite side walls, a short distance above its bed, for admitting the flames from the lower parts of the coal magazines, 6th. A series of base burning coal magazines and a melting chamber having an inclined bed, in combination with downward flues leading from the melting chamber when the inner mouths of the said flues are at, or nearly at, the same level as the lower boundary of the openings in the side walls of the melting chamber bed; 7th. A melting chamber in combination with a charging chamber, situated above the melting chamber and provided with movable cover and a swinging bottom for facilitating the charging of the melting chamber without permitting the escape of the heat therefrom, 8th. A melting chamber and a charging chamber in combination with a fire brick slide for closing the opening in the melting chamber which communicates with the charging chamber, 9th A perforated pipe for injecting downward jets of air into the melting chamber in combination with a side magazine or magazines having a lateral opening or openings through which the gases and flames from the magazine or magazines are discharged into the melting chamber.

No. 6445. Flour Bolt. *(Blutoir.)*

Edwin Slagle and John M. Graham, Albany, N. Y., U. S., 17th August, 1876, for 5 years.

Claim.—1st. A flour or meal bolt consisting of a suspended movable frame, and a flexible cloth arranged in wave-like from between the boards A of the frame; 2nd. The combination with the cloth B of the cross pieces J and the boards A, the latter being connected in zig zag lines with the cloth between them, 3rd The combination with the bottom cloth B, partition I and cross pieces J of the points *a*, tacks L and cords M; 4th. The combination of one or more coolers *b d* having wave-shaped bottom with the bolt; 5th. The combination of the wire riddle *f* and chute *g* with the bolt; 6th. In combination of riddles *n* and *f* adjustable section *h* of the latter and the chute *g* with the bolt; 7th. The combination of swinging knocker *k* having a protecting substance of soft material, with the shaking bolt; 8th. The brake *m* and weighted adjusting cord *n* combined with the swinging knockers, 9th. The vertically adjustable bars *q*, combined with the flexible hangers E and the bolt, 10th. The flexible hangers E connected to the bolt by detachable connection with bars *t* and secured to buttons *n*; 11th. The combination of rod *f* with the chute *g*, riddle *f* and the bolt B, 12th. The cloth B connected to the frame by points *a*, projecting from one side, and by tacks L and cords M on the other side; 13th. The combination of the tension rods *e*t with the cloth B arranged in wave-like form.

No. 6446. Improvement in Cupola Furnaces.

(Perfectionnement dans les cubilots.)

James Blackeney, Springfield, Mass., U. S., 17th August, 1876, for 5 years.

Claim.—The combination with cupola of flat circular plate A having curved inclined chutes B, plate D and pipe F, 2nd. The combination with tuyere of case G, having irregular hollows H in bottom, and openings I.

No. 6447. Improvements on Knife-heads for Harvesters.

(Perfectionnements aux lames de moissonneuses.)

George W. Harrison, Lansing, Mich., U. S., 17th August, 1876, for 5 years.

Claim.– 1st. In combination with the knife A, the base or heel plate B secured to the knife by rivets *a* and constructed at its top rear edge with under cut varied projections or joints B_1 B_2 B_3, 2nd. In combination with the plate B constructed with projections and recesses B_1 B_2 B_3 the coupling head C constructed with varied recessed and notched base C_1 C_2 C_3 fitting thereto, 3rd. A coupling head or pitman connection for harvesters made in two separate and distinct parts, whereby the head may be removed from the base plate by which it is secured to the heel of the knife and applied to different blades of different harvesters, 4th. The coupling head or pitman connection for harvesters, composed of separate and removable head C and base plate B, the two united by a joint between the two and bolt B_4 and to the knife by rivets or bolts passing through the knife and plate, 5th. The hollow coupling head C constructed with varied notched base C_1 and provided at each end with screw plugs D D, 6th. In combination with the hollow coupling head C constructed with varied notched base C_1 and screw plugs D D at each end, the rubber packing E E and metal boxing F F placed at each side of the pitman arm and adapted to be adjusted independently of each other by the screw heads D D, 7th. In combination with the hollow head C and screw heads D D, the rubber packing E fitted within the head C and adapted to be adjusted at either end by the plugs D D, 8th In combination with the head C and packing E F, the bent arm H, entering the cylinder through oblong opening D_2, and connected to pitman by screw coupling H_1; 9th The combination of knife A, cylinder C, base plate B, made separate therewith, and pitman arm H entering the cylinder only at one side; 10th. The pitman connection composed of separate base plate B and cylinder C, screw heads D D, rubber packing E E, metal boxes F F and pitman arm H.

No. 6448. Improvements on Harnesses.

(Perfectionnements aux harnais.)

Frederick Walsh, Brantford, Ont., 17th August, 1876, for 5 years.

Claim.—The overcheck adjasters D, containing the double flanged roller F.

No. 6449. Gas Apparatus. *(Appareil à gaz.)*

George Drolet, Quebec, Que., 12th August, 1876, for 5 years.

Résumé.—1o. La combinaison des récipients superposés F G H 2o La toile métallique E brisant l'air.

Claim.—1st. The combination of receptacles placed one over the other F G H; 2nd. The wire cloth E breaking the air.

No. 6450. Sad Iron Heater.

(Chaufferette de fers à repasser.)

John B. Christian, Hamburg, Iowa, U. S, 17th August, 1876, for 5 years

Claim.—The lids or covers C C pivoted to the top B and provided with lots and wings, in combination with the heater A and a sad iron.

No. 6451. Millston Dresser.

(Marteau à repiquer les meules.)

Augustine Defor, Etna, Main, U. S., 17th August, 1876, for 5 years.

Claim.—1st. The driving wheel H, pinion I, connecting rod L, pick handle K and adjustable pivot N for the pick hammer, 2nd. The feed screw G, pinion I, plate E, plate B, nut O and the supports P.

No. 6452. Improvement on Railroad and other Signals.

(Perfectionnement des signaux de railroutes et autres.)

John W. Hawley, Warsaw, N. Y., U. S., 17th August, 1876, for 5 years.

Claim.—1st. The combination with the suspended wire A of the hangers *a* and rock arms *a*1; 2nd. The combination with the wire A of the crank rod B, pivoted link *b* and inclined top band *c* or equivalent; 3rd. The combination with the wires A A of the sliding wedge plates *d d*, spring bolt *d*1 and sliding plate or arm *e*; 4th. The combination with the sliding plate *e*, of the sliding rod D1 and depressing mechanism D; 5th. The combination with the signal of a depressing device attached to the track at a distance operated by a projection from the engine, a wire connecting said depressing device with the signal and a depressing mechanism at the signal with a rod resting near the signal for replacing the same.

No. 6453. Improvements in Corsets.

(Perfectionnements aux corsets.)

Clara P. Clark, Wakefield, Mass., U. S., 25th August, 1876, for 5 years.

Claim.—1st. A corset having boneless bosom portions formed by the parts B C D; 2nd. A corset constructed with boneless bosoms, and back pieces extended obliquely upward to form a shoulder piece provided with the straps E1 which cross each other and pass over the opposite shoulders to the front of the corset, in combination with the skirt supporters G.

No. 6454. Improvements in Pails and Tubs.

(Perfectionnements dans les seaux et cuvettes.)

James S. McMurray, Toronto, Ont., 17th August, 1876, for 5 years.

Claim.—1st. A sheet metal ear A formed with a button-shaped projection *d* and clinching pieces *a* and *b b*, in combination with the hoop B; 2nd. The eye E having ends *c c* fitting and working within the space formed by the button-shaped projection *d*, in combination with the bail B.

No. 6455. Sewer or Cesspool Inlet Cover and Grating.

(Couvercle et grillage de regard d'égoût ou de cloaque.)

Henry W. Clapp, Concord, N. H., U. S., 17th August, 1876, for 5 years.

Claim.—1st. The combination of the grate A, base ring B and series of posts C, 2nd. The main supporter D, provided with the flanges *b* and *d* or with such and the concave *c*, 3rd. The combination of the said supporter D

with the grate A, it base ring B and standards C; 4th. The combination of the supporter D, the trap or hopper F and the automatic or counter balanced valve G with the elevated grate A, or with such and its base ring and supporting standards; 5th. The combination of the auxiliary supporter E with the main supporter D and the elevated grate applied thereto.

No. 6456. Improvements on Weighing Scales.

(Perfectionnements aux balances.)

Hosea Willard, Vergennes, Vt., U. S., 17th August, 1876, for 5 years.

Claim.—The main levers A G, intermediate levers K and the adjusting lever W; the forked beam lever N pivoted to the adjusting bar Q, in combination with intermediate levers K; the weight hook pivot S connected adjustably to the beam lever and provided with a shifting screw to set the scale for net or gross weight; the toothed bar *a* connected to beam lever N, in combination with pinion *b*, dial *d* and pointer *e*.

No. 6457. Improvements on Shoe Hoses.

(Perfectionnements aux hausses de souliers.)

Olivier Durocher, Ottawa, Ont., 17th August, 1876, for 5 years.

Claim.—The fly B made in the rear part of the upper (or hose) *a* and convey outside, thus giving a concavity inside to facilitate the putting on of the shoe A; and also the flap D with the strap F sewed to the middlepart of the middle seam *b*, said trap F closing the flap D and being buckled to the buckle E on the inside of the shoe A.

No. 6458. Car-coupling. *(Attelage de wagon.)*

Jacob Singer, Harrisburgh, Pa., U. S., 24th August, 1876, for 5 years.

Claim.—1st. The combination of the draw-head inclined bearing and bar *f* and a follower having a recess *g* adapted to said bearing; 2nd. The draw head provided with a central bearing and with a follower adapted thereto, when arranged to permit the link to pass wholly inward upon said bearing, and to be thrust forward by the forward motion of the follower; 3rd. The combination of the draw head, the follower adapted to an inclined bearing and a trigger, all operating to release and retain the pin, to hold the link and permit the latter to pass inward undser pressure; 4th. The combination of the draw head, central bearing block *d* and follower adapted to said block; 5th. The cross bar *f*, of malleable iron or steel, combined with the draw head; 6th. The cross bar arranged wholly in front of the pin; 7th. The draw head provided with the follower B, and with a receptacle X beneath the latter; 8th. The draw head provided with the follower B, receptacle X and opening *y*; 9th. The ribs *n* arranged at the mouth of the follower; 10th. The combination of the draw head and a pin elevating device operated by a transverse shaft J; 11th. The combination of the draw head frame I, shaft J for operating said frame.

No. 6459. Improvements in Cooking Stoves.

(Perfectionnements aux poëles de cuisine.)

George W. Johnston, Yarmouth, N. S., 24th August, 1876, for 5 years.

Claim.—1st. The corrugated oven plates A A A; 2nd. The cleaning door B at the back of the stove, giving access to all three lower flues, in combination with cleaning door B, at the front of the stove, in combination with the tapering flues C C and the corrugated oven plates A A A; 3rd. The tapering flues C C in combination with corrugated oven plates A A A, back cleaning door B and deflecting plates D D; 4th. The deflecting plates D D in combination with tapering flues C C and corrugated oven plates A A A; 5th. The general design of the stove and arrangements of its several parts.

No. 6460. Saw Sharpening Machine.

(Machine à affûter les scies.)

John A. Miller, Oshkosh, Wis., U. S., 24th August, 1876, for 5 years.

Claim.—1st. The combination of the longitudinal carrier A, transverse carrier B and vertical carrier C; 2nd. The combination of the discs E and E_1, constructed with slots I and I_1, J and J_1; 3rd. The independent reversible collar W V; 4th. The sliding cam *a* in combination with the angular or key seated rod *c*, lifting bar *d* and adjustable journal plate *g*; 5th. The spindle C_1, in combination with bowl S, carrier C and cone S_1 and nut; 6th. The table T, with adjusting legs K and spindle joint *t*, and bearing a grooved saw-way G; 7th. The clamping jaws U, operated by double acting screw P; 8th. The toothed friction roller O, with driving lever Q and block Q_1, and having its shaft R hung on pivot joint *f* and its friction adjusted by screw R_1.

No. 6461. Implement for Weeding Land.

(Instrument pour sarcler la terre.)

Daniel N. Ford. Boston, Mass., U. S., 24th August, 1876, for 5 years.

Claim.—The head *a*, rod *c*, and their connections *d* arranged and provided with a socket piece or shank *b*; the series of teeth *e*, the head *a*, rod *c*, connections *d* and socket piece or shank *b*.

No. 6462. Self-feeding Pen. *(Plume-fontaine.)*

John M. Might and Charles W. H. Taylor, Toronto, Ont., 24th August, 1876 for 5 years.

Claim.—A ink reservoir A arranged within a pen-holder made to hold an ordinary nib C, which nib is fed by ink from the said reservoir A, by the pressure of the thumb or finger at G, which forces the ink through the hole O into the said nib C.

No. 6463. Improvements on Smelting Furnaces. *(Perfectionnements aux fourneaux de fusion.)*

John L. Sturdy, Goderich, and John A. May, Kincardine, Ont., 24th August, 1876, for 5 years.

Claim.—1st. The arrangement and combination with a cupola A, of the two furnaces B and flues M and N; 2nd. The arrangement, in combination with a cupola A, of the two outlet passages O P and the two steam boilers E and the steam pipes S discharging longitudinally into the passages P; 3rd. The arrangement, in combination with a cupola A, of the combustion chambers Q and perforated wall R.

No. 6464. Combined Wood and Metal Tap.

(Robinet en bois et en métal.)

Edward Carroll, Toronto, Ont., 24th August, 1876, for 5 years.

Claim.—A metallic plug A, having a lip *a*, in combination with a separate projecting tube B having a recess *b* cut in it.

No. 6465. Improvements on Straw-cutters.

(Perfectionnements aux hache-paille.)

Abemilech Hillman, Guelph, Ont., 24th August, 1876, for 5 years.

Claim.—The roller provided with grooves, or their equivalent, filled with material, and the caps to keep the same in proper place.

List of Patents issued up to 16th Sept., 1876, but not yet Officially published in the Patent Office Record.

No. 6482. L. Smith & R. Booth, Sherbrooke, Que., "Fog Alarm, 30th August, 1876.

No. 6483. T. S. Disston, Philadelphia, Pa., U. S. A., "Rotary Pressure Blower," 30th August, 1876.

No. 6484. M. V. Dodsworth, Parsborong, N. S., "One-Stave Tub," 30th August, 1876.

No. 6485. G. W. Schermerhorn, East-Limington, Me., U. S. A., "Brush Handle," 30th August, 1876.

No. 6486. J. L. Cain, Newcastle, Ont., "Clothes Line Fastener," 30th August, 1876.

No. 6487. H. A. R. Horton & A. P. Hayes, McKinney, Texas, U. S. A, "Fire Lightener," 30th August, 1876.

No. 6488. G. Sweanor, Sherbrooke, Que., & H. R. Sewell, Quebec, Que., "Fog Alarm," 30th August, 1876.

No. 6489. L. R. Howse, (Assignee of B. T. Clark), Philadelphia, Pa., U. S. A., "Meat Hook," 31st August, 1876.

No. 6490. S. Parker, Altoona, Pa., U. S. A., "Riving and Racking Machine," 4th September, 1876.

No. 6491. C. Dion, Chambly Basin, & J. Baylis, Montreal, Que., "Stove," 4th September, 1876.

No. 6492. W. McCormick, Blair, Neb., U. S. A., "Fruit Lifter," 4th September, 1876.

No. 6493. J. H. McMechan, London, Ont., "Over-Shoe," 4th September, 1876.

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No. 6495. T. M. C. Wilson, Venice, Pa., U. S. A., "Washing Machine," 4th September, 1876.

No. 6496. J. N. Tarbox, Hamilton, Ont., "Process of Toughening Glass," 4th September, 1876.

No. 6497. C. C. Walworth, Boston, Mass., U.S.A., "Connection for Steam Heating Apparatus, and Pipes for Conducting Steam, Gas or Water," 4th September, 1876.

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No. 6499. J. B. Lazier, Port-Perry, Ont., "Cutter and Sleigh Beam and Knee Combined," 4th September, 1876.

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No. 6502. T. Vezina, Verchères, Que., "Washing Machine," (Extension of No. 1125), 4th September, 1876.

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No. 6504. J. Williams, Jarrettown, Pa., U. S. A., (Assignee of J. S. Williams, Riverton, N. J., U. S. A.), "Anchor," 6th September, 1876.

No. 6505. E. J. Major, (Assignee of F. O. Wood, Montreal, Que.), "Fence Post," 6th September, 1876.

No. 6506. J. M. Reid, New York, U.S.A., "Stench Trap," 6th September, 1876.

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No. 6516. W. Buckeridge, Port Huron, Mich., U. S. A., "Four-Wheeled Vehicle," 7th September, 1876.

No. 6517. W. R. Parks, & R. L. Goddard, Palmer, Mass., U.S.A., "Water Tube Steam Boiler," 7th September, 1876.

No. 6518. J. Firmenich, G. Firmenich, & F. Firmenich, Buffalo, N. Y., U. S. A., "Steam Generator," 7th September, 1876.

No. 6519. C. D. Read, E. D. Read, & J. A. Read, Ayer, Mass., U. S. A., "Corn Sheller," 7th September, 1876.

No. 6520. J. M. Grover, Winnipeg, Man., "Washing Machine," 7th September, 1876.

No. 6521. J. D. Huntington, Chicago, Ill., U. S. A., "Emery Wheel Dresser," 7th September, 1876.

No. 6522. D. M. Lamb, London, Ont., "Process of Deodorizing and Purifying Petroleum and other Oils," 7th September, 1876.

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No. 6524. H. Smith, Gananoque, Ont., J. George & C. Mee, Kingston, Ont., "Reed-organ Stop-action, 13th September, 1876.

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No. 6528. J. A. Moody, Toronto, Ont., & C. Hill, of the same place, "Clothes Horse," 13th September, 1876.

No. 6529. H. Chadwick, Chapelon, Que., & W. Jardine, Irvine, Scot., "Lead Salt Copper Purifying Process," 13th September, 1876.

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No. 6532. J. P. Bellinger, Minden, Montgomery, U. S. A., "Curd Slicer," 13th September, 1876.

No. 6533. J. Norris, St. Catharines, Ont., (Assignee of S. S. Javett, Buffalo, N. Y., U. S. A., "Cooking Stoves," 13th Sept., 1876.

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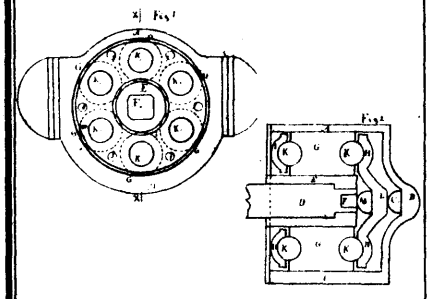

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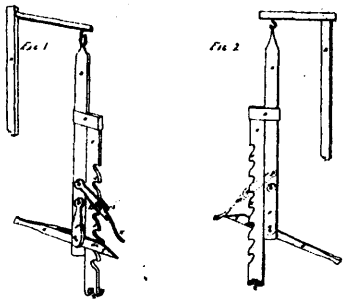

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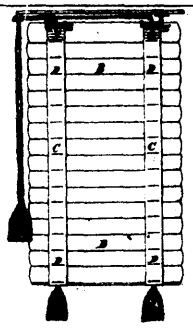

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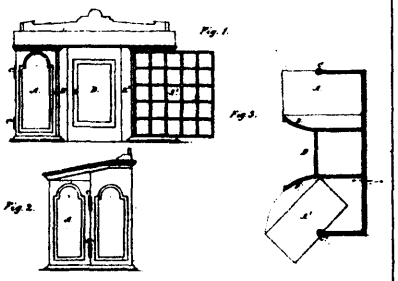

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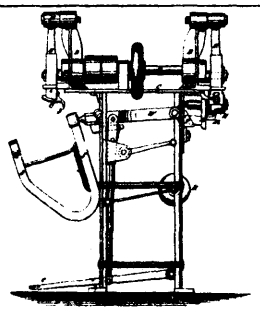

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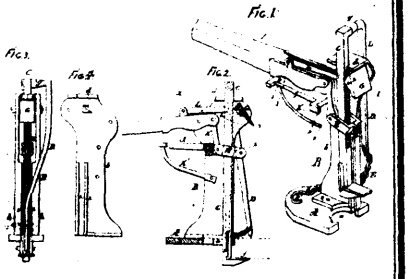

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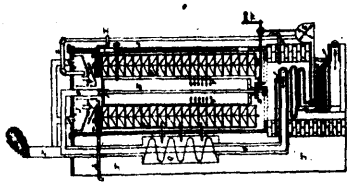

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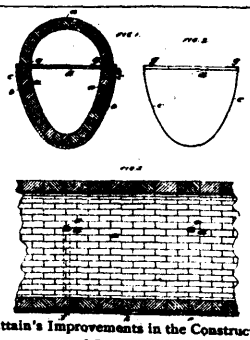

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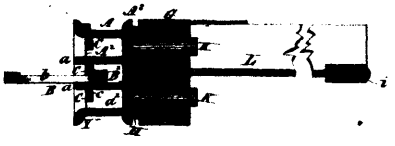

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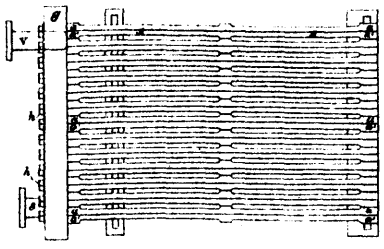

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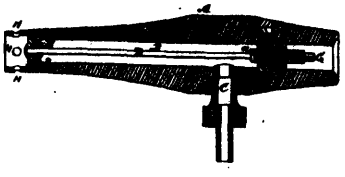

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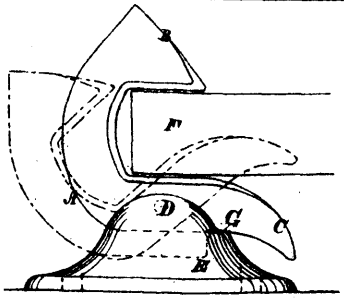

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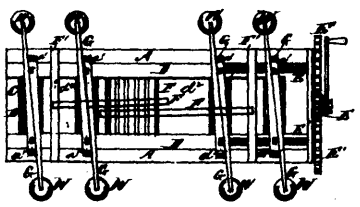

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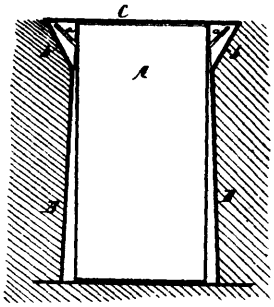

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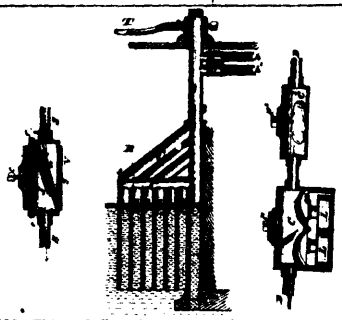

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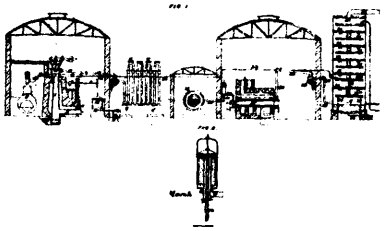

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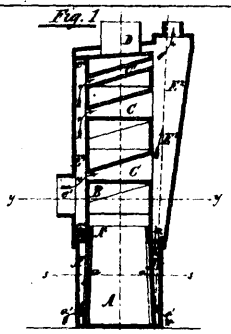

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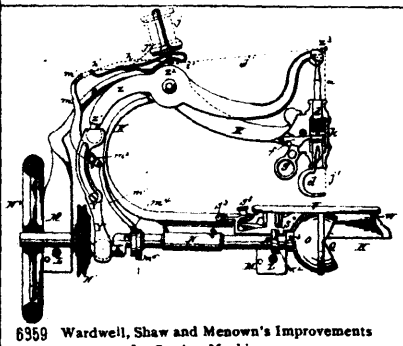

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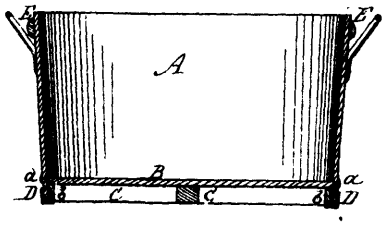

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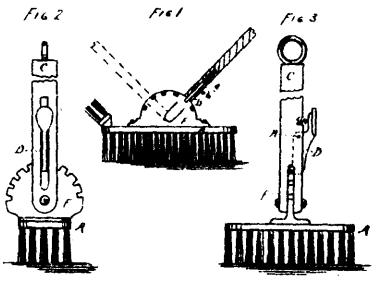

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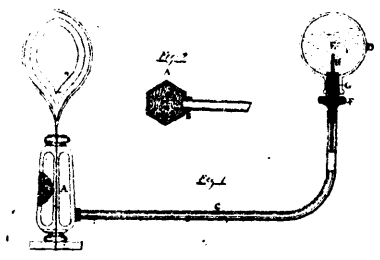

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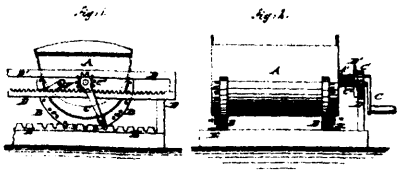

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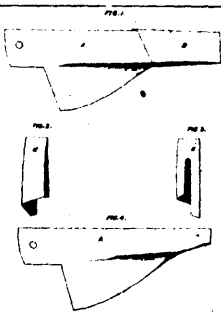

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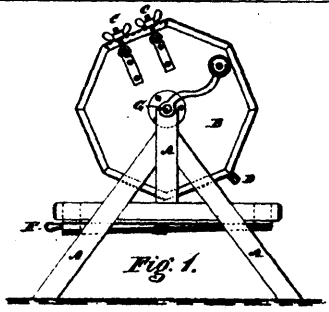

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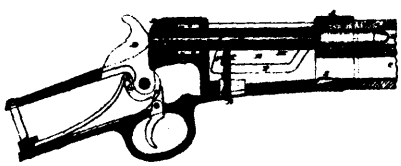

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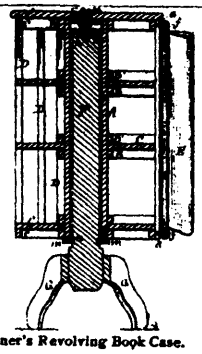

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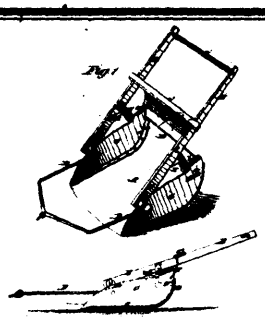

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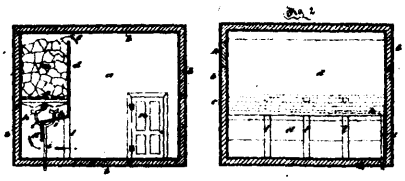

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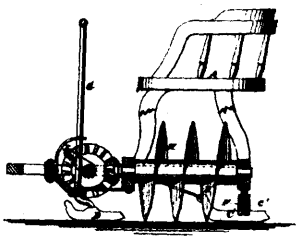

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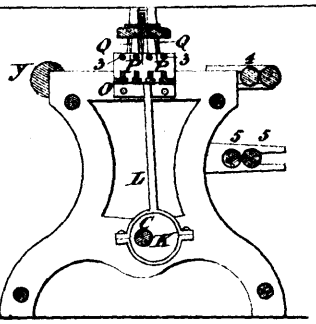

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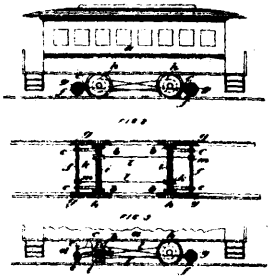

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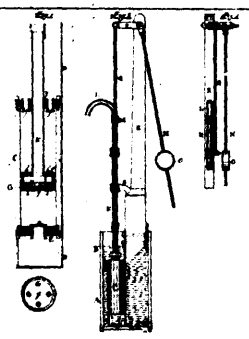

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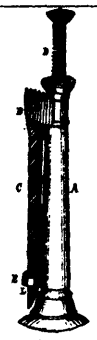

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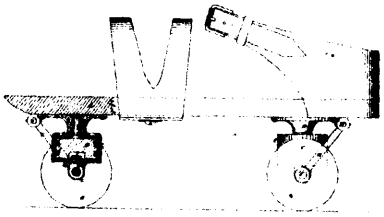

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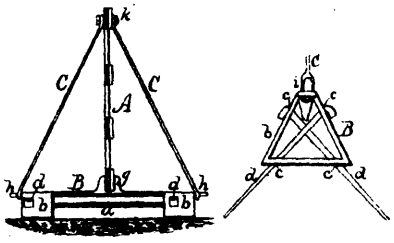

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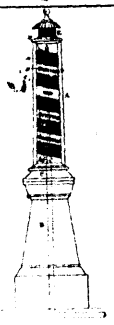

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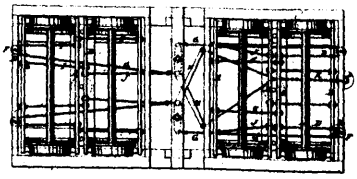
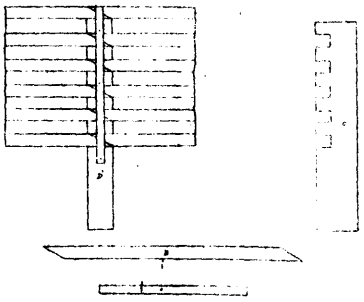
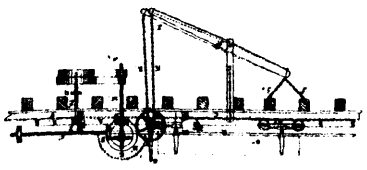


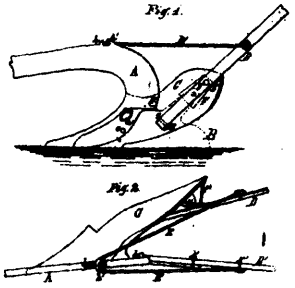
6384 Blanshan's Improvements on Car Brakes.



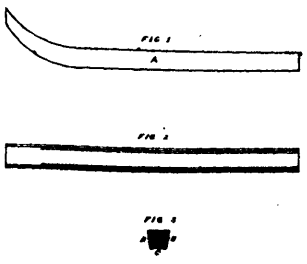
6385 Bagshaw's Improvements in Post and Rail Fences.



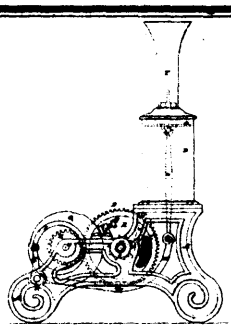
6386 Widdifield's Improvements on Saw-Mill Machinery.



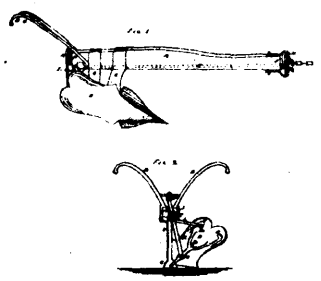
6387 Wiard and Hough's Improvements in Ploughs.



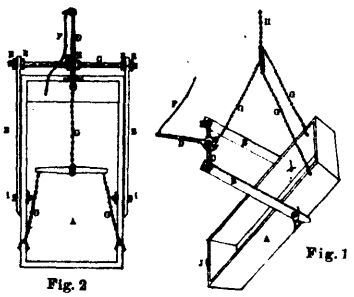
6388 Calkins' Sled Shoe.



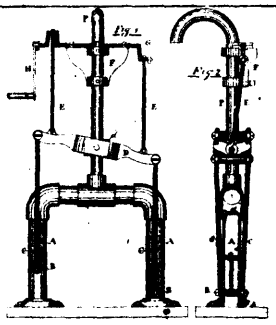
6389 Sweanor and Sewell's Fog Alarm.



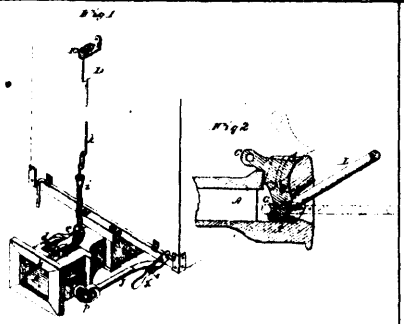
6390 Hubbell's Reversible Plough.



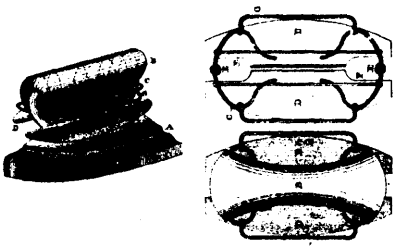
6391 Seger and Stanton's Improvements on Dumping Boxes.



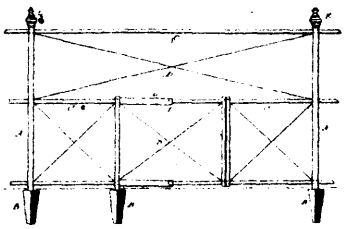
6392 Green's Force-Pump.



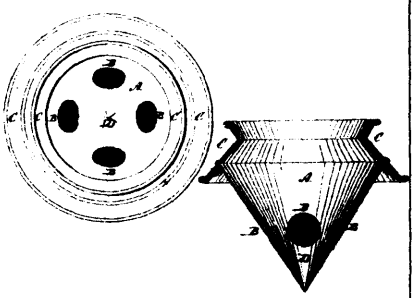
6393 Perry's Improvements on Car-Couplings.



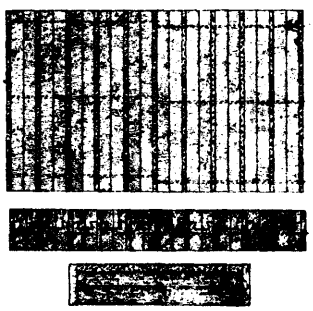
6394 Ward's Sad Iron Holder and Guard.



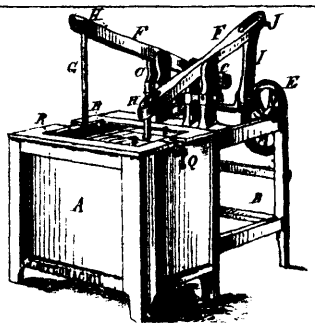
6396 Kinney's Improvements on Fences.



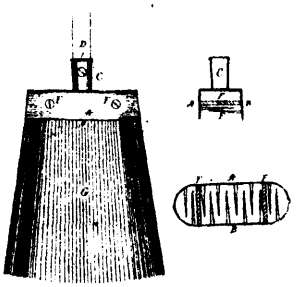
6397 Ryan's Improvements on Milk Strainers.



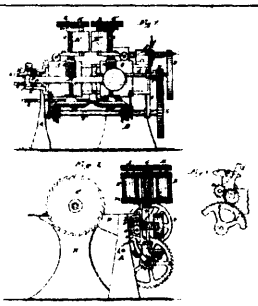
6398 Ewart's Composite Wood-Block Pavement.



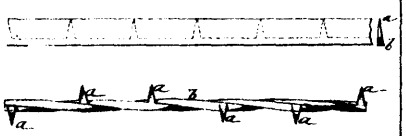
6399 McConachie's Improvements in Churns.



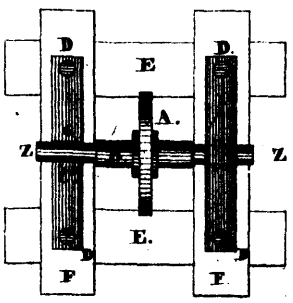
6400 Cuthbertson's Improvements on Corn Brooms.



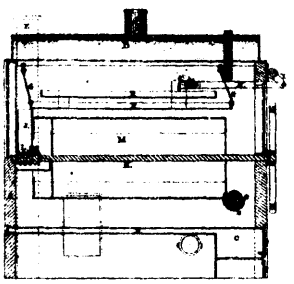
6401 Benjamin's Machine for Re-Sawing Lumber.



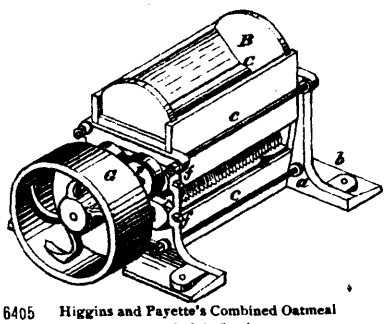
6402 Sims and Peak's Improvements on Fences.



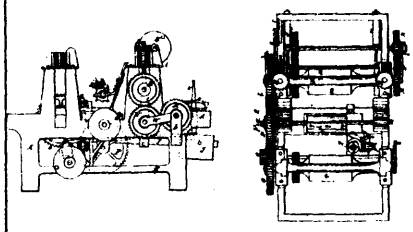
6403 Morris' Car Axle Journal Lubricator.



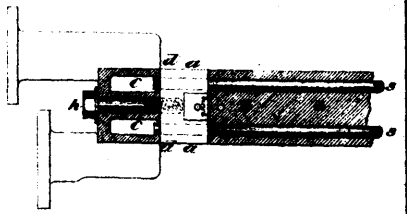
6404 Stewart, Blake and Woolley's Grain Drying Kiln.



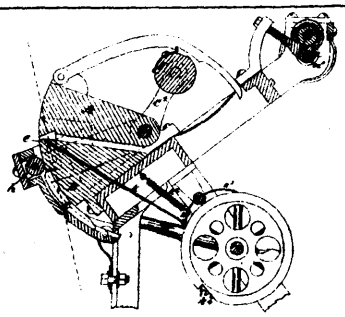
6405 Higgins and Payette's Combined Oatmeal Cutter and Malt Crusher.



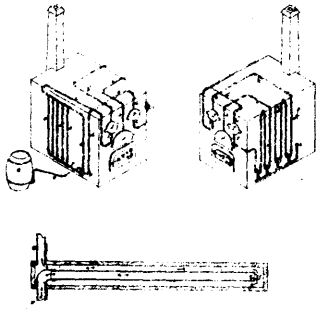
6406 Benjamin's Machine for Planing and Matching Lumber.



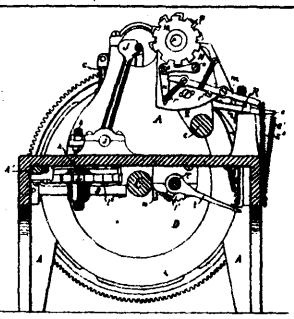
6407 Ellis' Expansion Joint for Tubular Water Fire Bars.



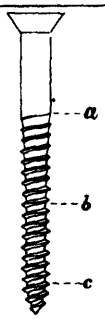
6408 Moffit's Manufacture of Counters for Boots and Shoes.



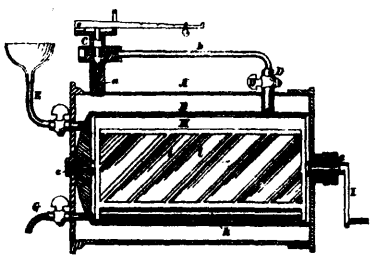
6409 Hicks, Stevens, Turner and Burns' Portable Gas Machine.



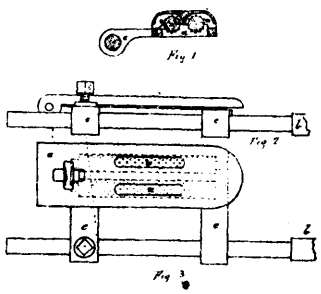
6410 Rogers' Wood Screw Machine.



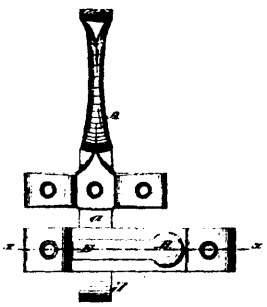
6411 Rogers' Improvements on Wood Screws.



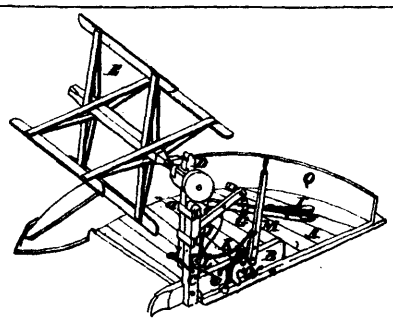
6412 Palmer's Soap Boiling Apparatus.



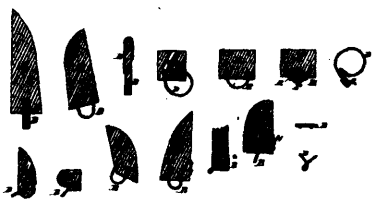
6413 Paton's Improvements in Weaving Temples.



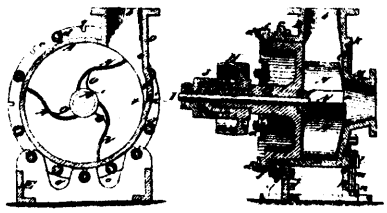
6414 Hill's Waggon Seat Lock.



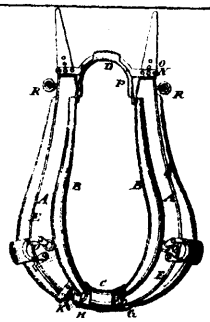
6415 Hebert's Improvements on Mowers and Reapers.



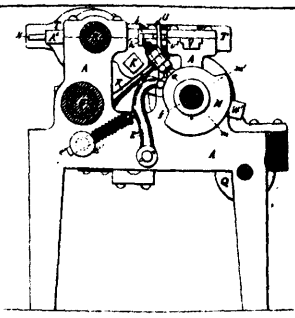
6416 Johnston's Improvements in Weather Strips.



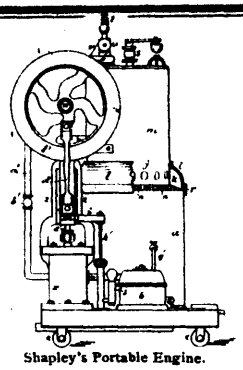
6417 Andrews' Improvements on Centrifugal Pumps.



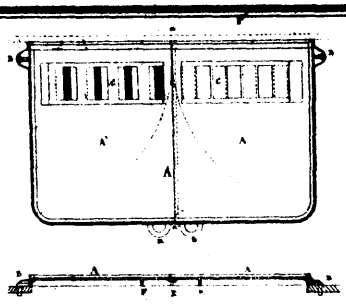
6418 Strond's Combined Hame and Horse Collar.



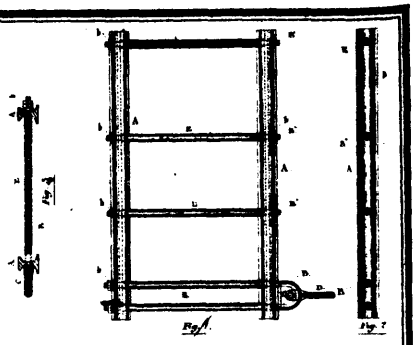
6419 Rogers' Screw Machine.



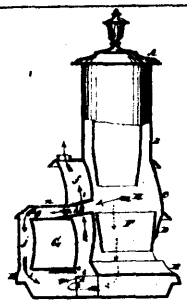
6420 Shapley's Portable Engine.



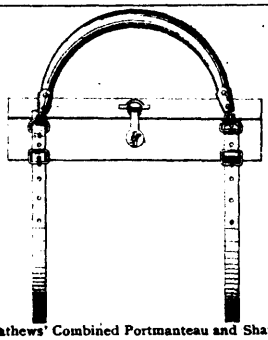
6421 Armstrong's Improvements on Stoves.



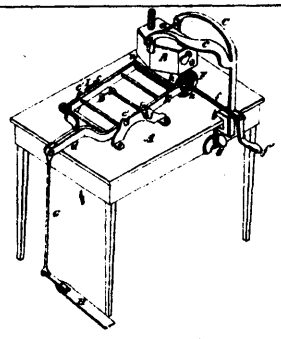
6422 Haggas' Improvements on Switch Rails.



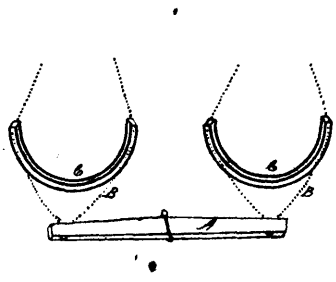
6423 Doyle's Improvements on Stoves.



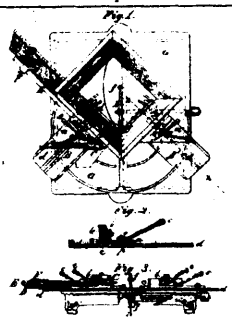
6424 Mathews' Combined Portmanteau and Shawl Straps.



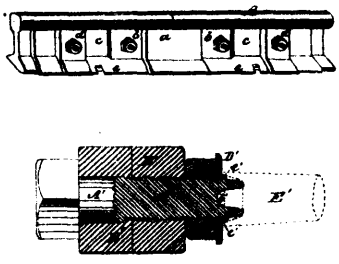
6425 Martin's Ironing Machine.



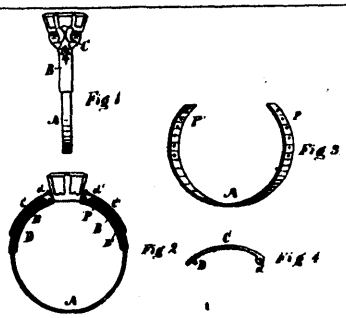
6426 Coleman's Improvements on Plough Harness.



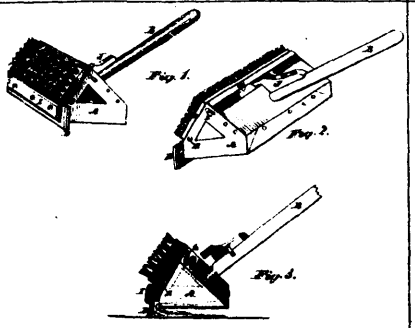
6427 Eastman's Picture Frame Machine.



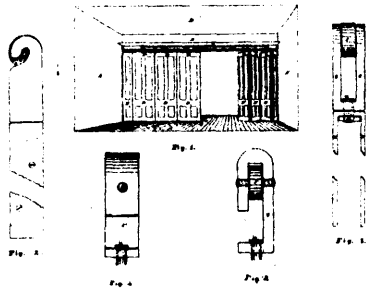
6428 Long's Railroad Rail Joints and Bolts and Nut Locks.



6429 Eisele's Improvements in Finger Rings.

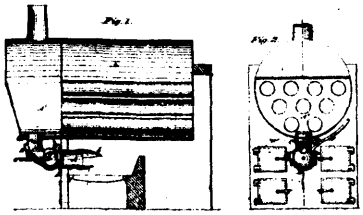


6430 Balch's Improvements on Floor Scrubbers.

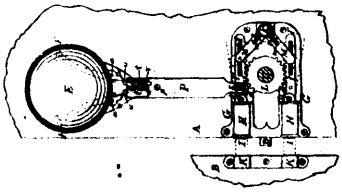


6431 Sandford's Sliding Folding Doors or Shutters.

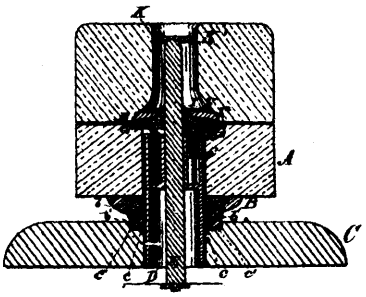
6432 Voight's Improvements on Chronometer Escapements.



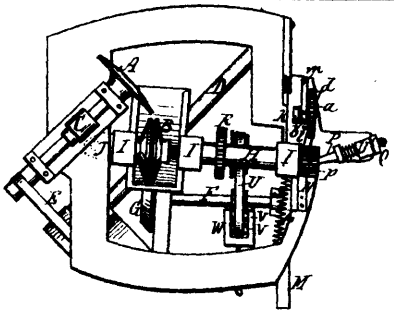
6434 Boynton's Apparatus for Burning Hydrocarbons.



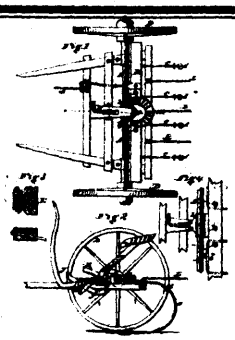
6435 Kislingbury's Door Bolt and Burglar Alarm.



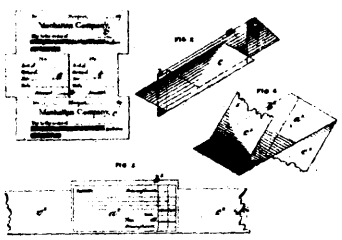
6436 Wallace's Improvements in Mill Trams.



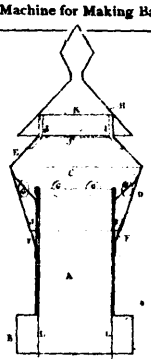
6437 Frevor's Machine for Making Barrel Heads.



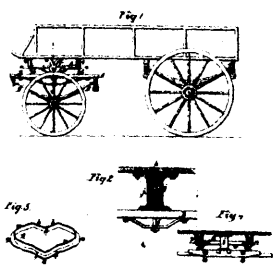
6438 Dow's Improvements on Horse-rakes.



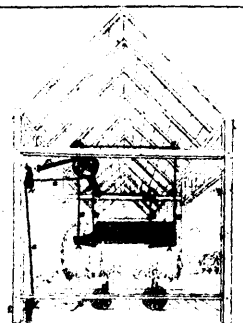
6439 Waring's Cheque Book.



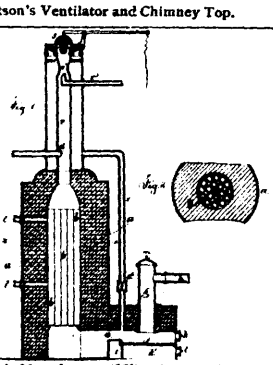
6440 Robertson's Ventilator and Chimney Top.



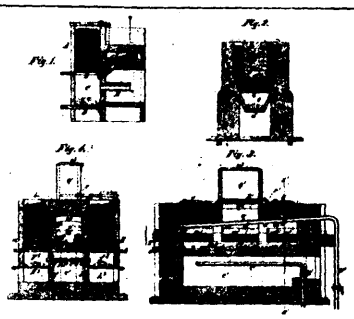
6441 Cunningham's Vehicle Fifth Wheel.



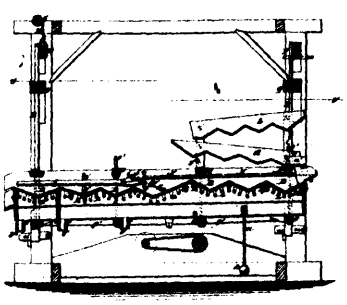
6442 McLennan's Machine for Elevating the Rack from a Waggon.



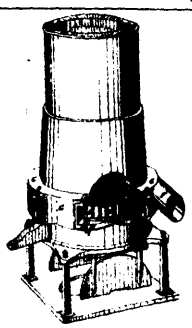
6443 Strong's Manufacture of Illuminating Gas.



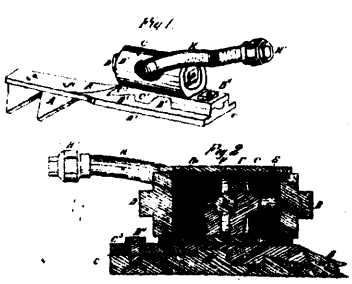
6444 Bonta's Smokeless Furnace.



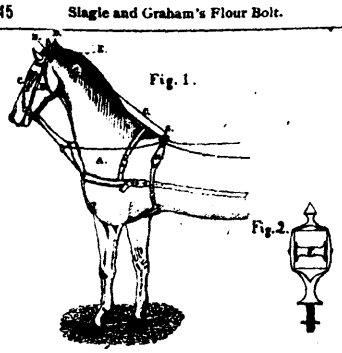
6445 Slagle and Graham's Flour Bolt.



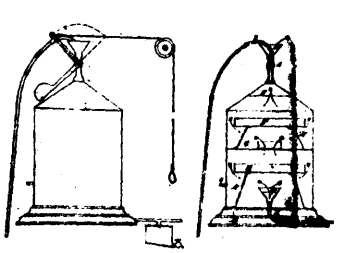
6446 Blackeney's Improvement in Cupola Furnaces.



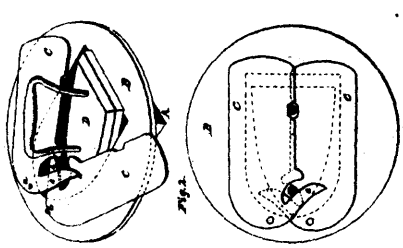
6447 Harrison's Improvements on Knife-heads for Harvesters.



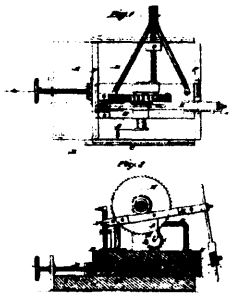
6448 Walsh's Improvements on Harnesses.



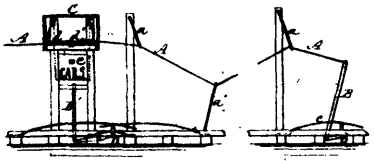
6449 Drolet's Gas Apparatus.



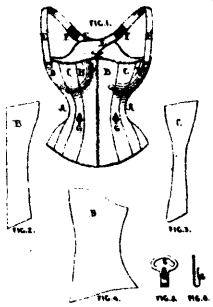
6450 Christian's Sad Iron Heater.



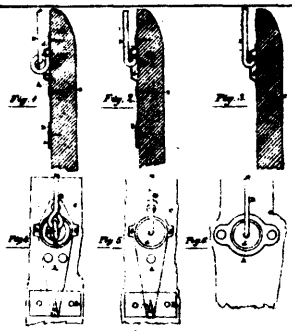
6451 Defor's Millston Dresser.



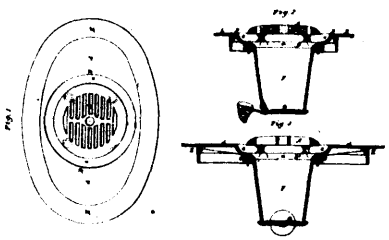
6452 Hawley's Improvement on Railroad and other Signals.



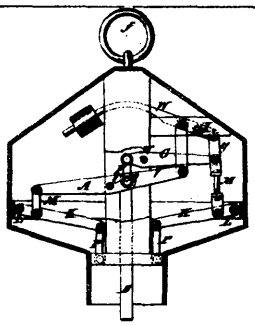
6453 Clark's Improvements in Corsets.



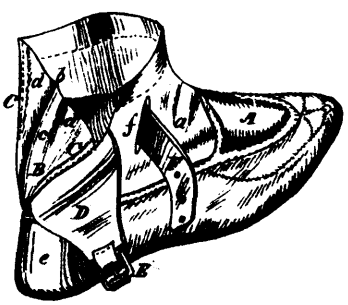
6454 McMurray's Improvements in Pails and Tubs.



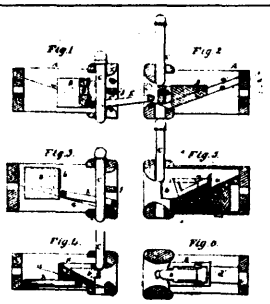
6455 Clapp's Sewer or Cesspool Inlet Cover and Grating.



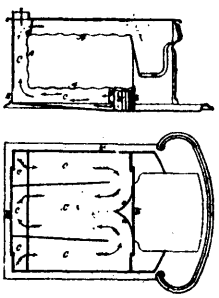
6456 Willard's Improvements on Weighing Scales.



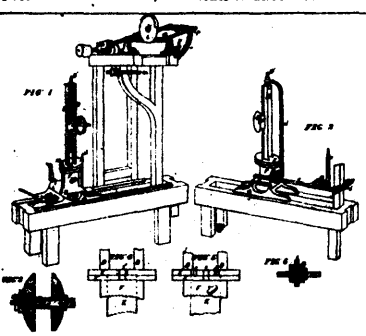
6457 Durocher's Improvements on Shoe Hooks.



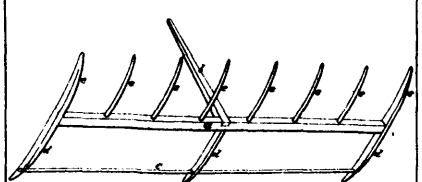
6458 Singer's Car-coupling.



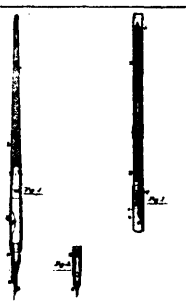
6459 Johnston's Improvements in Cooking Stoves.



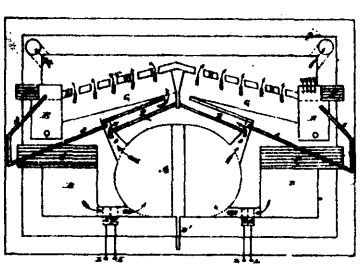
6460 Miller's Saw Sharpening Machine.



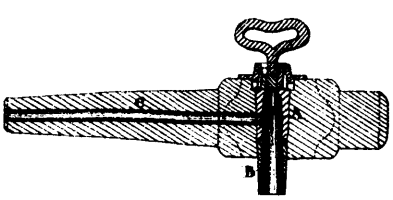
6461 Ford's Implement for Weeding Land.



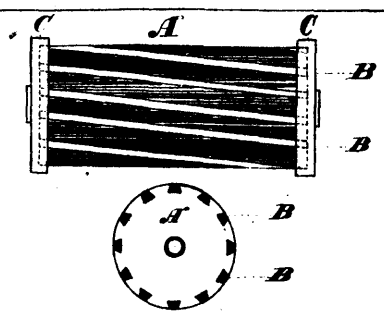
6462 Might and Taylor's Self-feeding Pen.



6463 Sturdy and May's Improvements on Smelting Furnaces.



6464 Carroll's Combined Wood and Metal Tap.



6465 Hillman's Improvements on Straw-cutters.