Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- ☐ Coloured covers/ Couverture de couleur
- ☐ Covers damaged/ Couverture endommagée
- ☐ Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/ Le titre de couverture manque
- ☐ Coloured maps/ Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur
- ☑ Bound with other material/ Relié avec d'autres documents
- ☑ Tight binding may cause shadows or distortion along interior margin/ La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- ☐ Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/ Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

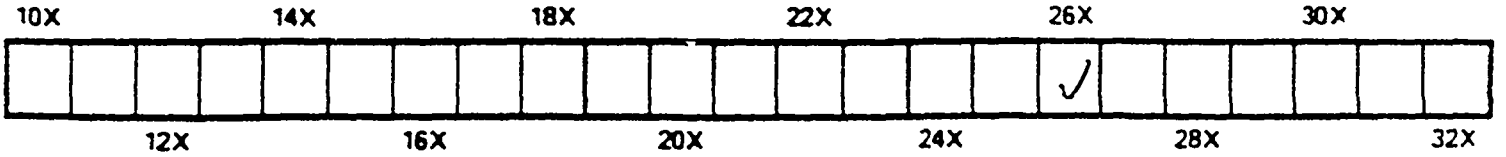
- ☐ Coloured pages/ Pages de couleur
- ☐ Pages damaged/ Pages endommagées
- ☐ Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached/ Pages détachées
- ☑ Showthrough/ Transparence
- ☑ Quality of print varies/ Qualité inégale de l'impression
- ☑ Continuous pagination/ Pagination continue
- ☐ Includes index(es)/ Comprend un (des) index

  Title on header taken from:/ Le titre de l'en-tête provient:

- ☐ Title page of issue/ Page de titre de la livraison
- ☐ Caption of issue/ Titre de départ de la livraison
- ☐ Masthead/ Générique (périodiques) de la livraison

☐ Additional comments:/ Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.



The Canadian Patent Office Record

Vol. I.—No. 7. OCTOBER, 1873. Price in Canada $1.50 per An. United States - $2.00 "

CONTENTS.

INVENTIONS PATENTED.

No. 2602. GILES H. CROSBY, Rome, Ohio, U. S., 12th August, 1873, for 5 years: "A Sled." (Un traîneau.)

Consists in the attachment of the runners to the sled beams by means of a free joint whereby a vertical vibratory movement is obtained.

Claim.—1st. The sled runner A, consisting of the part E, shoe F, and web G, provided with angular flanges H, H; 2nd. The stay I, in combination with the sled runner A, and beam B; 3rd. The wooden runner J, stay K, in combination with the stay I, and sled beam B.

No. 2603. JOHN BOYLE, New York, U.S., 12th August, 1873, for 15 years: "Wooden Soled Shoe." (Chaussure à semelle de bois.)

Claim.—In combination with textile or other similar fabric B, and a grooved or recessed sole A, the binding clamp C, for attaching the fabric firmly thereto as described.

No. 2604. JOSEPH C. TILTON Pittsburg, Penn., U. S., 12th August, 1873, for 5 years: "Steam Wash Boiler." (Chaudière de buanderie.)

The object being to make the false bottom water tight or nearly so and force the heated water to pass out through the pipes provided for that purpose.

Claim.—The false bottom B, having the V shaped sides D, D, in combination with the boiler A, having the grooves C, C, and hot water passages F, F, when arranged and operating as specified.

No. 2605. ALEXANDER ANDERSON, London, Ont., 12th August, 1873, for 5 years: "A Door Spring." (Un ressort de porte.)

Claim.—1st. A rubber or elastic strap A the one end of which is fastened to the door by the creased plate B and the other end thereof attached to the thumb screw C which is fastened by the side plate D to the side jamb of the door; 2nd. The combination of the thumb screw C and the side plate D which has notches on the upper surface thereof surrounding the hole through which the thumb screw passes.

No. 2606. JOSEPH BEAUDRY & GEORGE J. WILSON, Ottawa, Ont., 12th August, 1873, for 5 years: "A Turning Lathe." (Un tour.)

Claim.—1st. The cylindrical arrangement of the material to be turned between flanges C, secured to a revolving shaft B, whereby only a portion of the material is cut by the knife or tool, to form one side of a polygon; 2nd. In placing the material to be cut between rotary points in revolving flanges whereby the position of the material can be changed by a rotary motion to present a new face to the cutting tool; 3rd. A machine for turning polygonal sides to material the employment of flanges C, secured adjustably to a revolving shaft B; 4th. In combination with the revolving flanges C, and shaft B, the application intermediately of a removable cylinder E; 5th. In combination with the revolving flanges C, the arrangement and application of the rotary knives I, as set forth; 6th. In securing the cutting knives I, to a shaft revolving in journal boxes affixed to sliding blocks H, whereby their adjustment to or from the material to be cut may be effected by screws J, or other devices.

No. 2607. WILLIAM WEBSTER, Howick, Ont., 12th August, 1873, for 5 years: "Log Canting Machinery." (Appareil à retourner les billots.)

Relates to a device whereby saw or other logs can be easily and readily turned over in the process of sawing while on the feed carriage.

Claim.—1st. The combination of the purchase wheel F, having a rope G, shaft E, provided with a ratchet and pawl H, I, and chain and hook M, N, applied as set forth for turning the log on its carriage; 2nd. In combination with the wheel and shaft F, E, the arrangement of the rachet H, pawl I, and lever J, operating as described.

No. 2608. JOHN RITCHEY, Ottawa, Ont., 12th August, 1873, for 5 years: "Dyspepsia Cordial." (Remède contre la dyspepsie.)

Claim.—A medical compound or cordial prepared by boiling the bark of the spotted alder shrub, the bark of the prickly ash tree and the bark of the black cherry tree, in about the proportions specified, and mixing such obtained decoction with about an equal quantity by measurement of gin, and sweetening the same with loaf or crushed sugar, to render the mixture a palatable cordial.

No. 2609. WILLIAM S. FISH, Glasgow, Scotland, 12th August, 1873, for 5 years: "Asbestos Packing for Piston Rods, &c." (Garniture d'asbeste pour les tiges de pistons, &c.)

Claim.—The packing composed of asbestos or amianthus and constructed according to either of the modes described.

No. 2610. JOHN ROBERTSON, Nitshill, Scotland, 12th August, 1873, for 5 years: "Process of Generating and Communicating Heat." (Mode de produire et répandre la chaleur.)

The gases employed in this process are common coal gas, carburetted hydrogen, the vapour of hydro-carbons, hydrogen gas, carbonic oxide gas, or the mixture of hydrogen and carbonic oxide obtained by passing steam over heated coke or other carbonaceous material.

Claim.—1st. The mixing of air with any one of the several gases described, or with mixtures of any two or more of such gases under pressure in pipes or passages, vessels, or in gas holders, also supplying and using the same for the purposes of generating or communicating heat; 2nd. The respective combination of the pipes B, D, *a*, *b*, and *d*, with chambers A, *a*, and *b*, and burners C, *c*, and *b*, in combination respectively with any boiler, furnace, fire grate, cooking stove, or range, or singeing apparatus, as set forth.

No. 2611. WILLIAM WALKER, Fort Bridger Wyoming Territory, U. S., 12th August, 1873, for 5 years: "A Railway Snow Plough." (Une charrue à neige de chemin de fer.)

Claim.—1st. The platforms D, D, hinged to the frame A, at *b*, *b*, and the side plates *f*, *f*, hinged at their lower edges to the platforms D, D, and operated by suitable means as described, whereby said

plates form chute-extensions of the platforms, when the same are tilted as specified; 2nd. The levers E, E, and bar F, arranged in combination with the hinged sides *f*, and platforms D, to operate the same simultaneously; 3rd. The hinged check-plate G, arranged between the upright and projections *a*, *a*, of a "snow plough" as described.

No. 2612. ADDISON G. BRUSH, Susquehanna Depot, Penn., U. S., 12th August, 1873, for 15 years: "A Potato-digger." (Un extracteur à patates.)

Claim.—1st. The improved potato-digger, having the head A, with its end bent forward and holding the adjustable tines B; 2nd. The adjustable tines B, in combination with the head A, and wedges *d*; 3rd A potato-digger, the adjustable handles *a*, having the elongated depending arms A1, and applied to the head A; 4th. The vine clearer L, connected and supported by the chains K, as specified.

No. 2613. EDWARD W. CARTER, Hamilton, Ont., 12th August, 1873, for 5 years: "Combined Tobacco Case, Cutter and Match Box." (Boite coupe-tabac et porte-allumettes combinés.)

Claim.—1st. The arrangement of the cutter C, in combination with the upper and lower portions A, and B, of the box operated by a hinged handle E; 2nd. The moveable top or plate *d*, for feeding the tobacco to the knife as shown; 3rd. The sliding bottom H, in combination with the parts *a*, *b*, and knife C; 4th. The combination of the hinged handle F, with the cutter C, and opening K; 5th. The arrangement of the slots I, and J; 6th. The chamber E, combined with the other parts of the device.

No. 2614. CYRUS W. SALADEE, Pittsburg, Penn., U. S., 12th August, 1873, for 5 years: "Spring Tips for Carriage Poles, &c." (Embouts à ressort pour les timons, &c.)

Claim.—The ferrule A, provided with the spring hook C.

No. 2615. ALVA WORDEN, Ypsilanti, Mich., U.S., 12th August, 1873, for 5 years: "Attachment to Steam Engine Lubricators." (Régulateur des graisseurs de machines à vapeur.)

The object being to enable the engineer to regulate and control the flow of oil out of the cup.

Claim.—The *construction and arrangement of the cylinder A*, tubular stem *b*, nipple C, provided with the valve seat A, the regulator cap D, provided with the seat A1, the spherical valve *b*, stem C, piston *d*, and spring *c*, with relation to any suitable lubricator cup

No. 2616. JOHN H. ALLEN, Hinesburg, Vt., and FRED. W. BALDWIN, Potsdam, N. Y., U. S., 12th August, 1873, for 5 years: "Clothes Washing Machine." (Machine à laver le linge.)

Relates to an attachment to be placed in an ordinary wash boiler and consists in providing the central opening through which the water descends with raised or arched guards to elevate the clothes above said opening and also in the construction and arrangement of the guard plate, which lies below the same, thus preventing the water from rising except through the steam tubes.

Claim.—The improved clothes washer, consisting of the base A, having the central opening B, spanned by arched guards *b*, the concave water guard C, having flanges C1, and the bent or converging steam tubes D, all combined and arranged as herein specified.

No. 2617. JOHN S. KIDD & MARY L. MELVILLE, Brooklyn, N. Y., U. S., 12th August, 1873, for 15 years: "Culinary Pots." (Ustensiles de cuisine.)

Claim.—1st. In two or more pots nested or concentrated in a cluster and adapted for use in a single hole of a stove or in a cluster of special holes; 2nd The combination with the said cluster of pots, of a cover F, for ordinary pot holes or a stove plate, having a cluster of holes E, corresponding to the cluster of pots; 3rd. A stove pot having a cluster of special holes E, for a cluster of pots grouped or nested together in the manner described.

No. 2618. EBENEZER E. GILBERT, Montreal, Que., 12th August, 1873, 5 years: "Valve Motion." (Tiroir régulateur.)

Consists in the addition to the main steam valve of an auxiliary valve receiving its motion from the piston rod pump or other convenient moving part of the engine and working continuously with it.

Claim.—1st. The auxiliary valve E, attached and moving simultaneously with the piston or rod, or other principal part of the engine; 2nd. The auxiliary valve E, resting directly on the main slide valve C; 3rd. The arrangement of the passages *f*, *f1*, and *g*, through which the auxiliary valve E, distributes its steam in such a way that the action of the main valve C, cushions it by covering and opening the passages *f*, or *f1*, which are re-opened by the continuous motion of the auxiliary valve E; 4th. The arrangement of the main and auxiliary valves C, and E, in such a manner that the motion of the main valve increases or fully opens the area of the distributing passages *f*, *f1*, and *g*, of the auxiliary valve; 5th. The pistons D, D1, in combination with the main valve C, as described.

No. 2619. EUGENE CASGRAIN, L'Islet, Que., 12th August, 1873, for 5 years: "Stable Rack." (Râtelier d'étable.)

Claim.—Elle consiste dans un râtelier composé de la palissade A, des barreaux B, et des couverts D, construits de la manière et pour les fins décrites.

No. 2620. THOMAS TEMPLE, Fredericton, N. B., 12th August, 1873, for 5 years: "Railway Snow Plough." (Charrue à neige de chemin de fer.)

Claim.—1st. A snow plough having a slope from the nose *a1*, to the throat *b1*, of twenty-five degrees, constructed as set forth, 2nd. In combination with a "snow plough" the knives *b*, *b*, 3rd In combination with the scraper C, and triangle *d*, and grub *d1*; 4th. The mode of attachment of the rail-scraper C, and triangle *a*, under the frame of the plough.

No. 2621. GIDEON W. COTTINGHAM, St. Mary, Texas, U. S., 12th August, 1873, for 5 years: "Fish and Animal Trap." (Trappe à poisson et à bêtes.)

Claim.—1st. A trap door or gate in which each wire or rod is hinged separately so as to give them an independent movement; 2nd. The trap door or gate consisting of the wires and sleeves *c*, 3rd. The gates *b*, *c*, eccentrically pivoted so as to close by their own gravity.

No. 2622. GIDEON W. COTTINGHAM, St. Mary, Texas, U. S., 12th August, 1873, for 5 years: "Oscillating Churn." (Baratte oscillante.)

Claim.—1st. The box or churn A, constructed as described and provided with the neck C, and diamond shaped dash F, the several parts being combined and arranged as set forth, 2nd. In combination with the elements named in the foregoing claim, the handles D, D1, and B, B1, B11, B111, and suspending cord as set forth.

No. 2623. DEANE STANLEY, Manchester, Eng., 12th August, 1873, for 5 years: "Hydro-pneumatic Motive Power." (Moteur hydro-pneumatique.)

Claim.—1st. The novel combination of "turbine water wheels" or other water engines A, A, with air pumps *f*, *f*, for compressing air, and vessels or accumulators *h*, *h*, for storing up or accumulating the air so compressed; 2nd. The utilization of the power so obtained by conveying it through main and branch pipes *g*, *g*, to work compressed air engines, situated at a distance from the river or other source of water power employed; 3rd. The construction of the air vessels or accumulators *h*, *h*, as described.

No. 2624. DANIEL S. MERRITT, Bay City, Mich., U. S., 12th August, 1873, for 5 years: "Sheet Iron Cutter." (Coupoir à tôle forte.)

Claim—The combination and arrangement of levers E, F, and G, with the frame A and arm C for operating blade *d*, toward fixed blade B, as set forth.

No. 2625. CYRUS F. GILBERT, Sparta, Wis., U. S., 12th August, 1873 for 5 years: "Improvements on Brushes." (Perfectionnements aux brosses.)

Claim.—A brush consisting of two or more bars or strips A, secured together by bolts or screws C, and having the straw or bristles inserted between them as described.

No. 2626. M. JOHNSON, A. FEAS & W. G. HOATS, Three-Rivers, Mich., U. S., 12th August, 1873, for 15 years: "A Hoe." (Une houe.)

Consists in the construction of the head or blade with an upright cutter, a wing and mould board.

Claim.—The improved hand implement or hoe, having the side wings *b*, *b1*, arranged one in front of the other, and the upright cutter D, as specified.

No. 2627. JAMES S. HOWE, Santa Cruz, Cal., U. S., 12th August, 1873, for 5 years: "Adjustable Swage for Saw-teeth." (Rainette de scie mobile.)

Claim.—1st. A swage for widening and sharpening saw teeth consisting of the steel bar A, and wooden stock or base B; 2nd. The egg-shaped stock or base B, with its V shaped recess or groove in combination with the square steel-bar A, and bands or clamps D, D.

No. 2628. EDWARD MYERS, Jersey City, N. Y., U. S., 12th August, 1873, for 15 years: "Rotary Engine." (Machine rotatoire.)

Claim.—1st. The rotating piston G, made with a flanged head and rigidly connected with the shaft; 2nd. The eccentric slotted drum and slotted cylinder or bearing in combination with the shaft B, cylinder A, a^1, a^2, a^3, and piston G; 3rd. The piston G, made with detached self-adjusting cap, and edge plates kept in place by dowel pins and held out against the inner surfaces of the heads and body of the cylinder by coiled springs inserted in the dowel holes and pressing against the inner ends of the dowel pins.

No. 2629. JOHN C. HUNT, Sioux City, Iowa, U. S., 12th August, 1873, for 5 years: "Apparatus for Steaming and Heating Grain." (Appareil à chauffer et à passer le grain à la vapeur.)

This invention is designed for use in connection with the grinding mechanism of a flouring mill for heating or steaming the grain before grinding.

Claim.—1st. The steam drum C, D, fitted with pipes E, E, perforated throughout a portion of their length, and furnished with a hopper G; 2nd. The diaphragm b, in conjunction with the steam drum, and pipes E, perforated as described; 3rd. The combination of the two steam induction pipes J, K, with the perforated pipes E, E, and the steam drum divided into two compartments; 4th. The cone H, in combination with the pipes E, E, and the hopper G.

No. 2630. HENRY F. WHEELER, Boston, Mass., U. S., 12th August, 1873, for 5 years: "Boot and Shoe Sole Trimming Machine." (Machine à finir les semelles des chaussures.)

Claim.—1st. The combination of a rotary head or disc, and a transverse carriage with a sliding jack-carrier or their equivalents so arranged that the carrier at times executes a movement independently, and transversely of the disc, for the purpose of operating upon the sides of a sole and at other times revolves in company with said disc when the toe or heel partition of the sole or of the boot is to be operated upon; 2nd. The combination of the rotary disc and transverse carriage, or their equivalents, and a sliding jack, under such an arrangement that the toe or heel portion of the jack shall execute a semi-rotary movement in the arc of a very small circle about or nearly about the axis of the disc, or support of such jack, by which means the operating tool acts powerfully and perfectly upon the boot; 3rd. The combination of a rotary disc and a transverse carriage or their equivalents, the latter carrying a sliding jack and so constituted and arranged that the jack is fed laterally with a straight, rigid and uniformly steady, and powerful movement to effect the work upon the sides of the sole and turned in the arc of a small circle to execute the work upon the toe and heel of the sole in an equally steady, powerful and unyielding manner, by which a smooth and perfect surface is effected upon the leather; 4th. The combination of a rotary head or disc, a carriage disposed transversely thereof and a jack applied to such carriage, the arrangement of the whole being such that the carriage at times is stationary and constitutes an immovable and rigid slide or guide upon which the jack slides, and at times constitutes in combination with the disc a point of rotation for said jack; 5th. The employment of the rods g, g, and spring catches C^1, or their equivalents in combination with the disc S, carriage U, and jack carrier D^1, whereby the carriage is locked in a rigid and unyielding position while constituting a guide or slide for the jack or its carrier; 6th. The employment of the tubular screw as a means of driving the jack carrier, and also the pinions of female clutches as a means of communicating the power of the rotary disc to the jack carrier; 7th. The employment of the rods g, g^1, clutches e, e^1, and sloping or crowning abutments B^1, or the mechanical equivalents of such devices, whereby at such times as the transverse carriage is locked in an immovable position, the proper pinion is engaged with the bevelled gear disc S, or the actuator of the feed screw, whatever it may be, in order to drive the jack carrier along the said carriage; 8th. The employment of the carriage U, or its equivalents so constituted, mounted and operated as to constitute at times a slide or guide for directing the movements of the sides of soles under the action of the tool, and at times constituting a turning point or pivot whereby the toe and heel describe a short sweep in the arc of a circle under the action of the tool; 9th. In combination with a carriage constituted and operated as last above named a jack or jack carrier mounted upon and sliding to and fro, from such carriage; 10th. The described jack or one of equivalent construction whereby the boot may be jacked without the insertion of a last within it prior to its introduction to the machine; 11th. The employment of the handle b, as applied to the standard or frame E; 12th. In combination with the mechanism which drives the rotary head or disc S, the bevelled gears I, I^1, and J, male clutches sleeve H^1, and swinging lever g^2, or the mechanical equivalents of such elements, whereby the direction of motion of the disc and the object carried or driven by it may be reversed; 13th. In combination with the last above named gears, clutch and lever, the knee shipping lever i^2; 14th. In supporting the swaging or vibratory crane or beam D, upon anti-friction rollers; 15th. The combination and arrangement of the gears I, I^1, and J, shaft or rod K, gears L, and O, shaft M, and gears P, and Q, as a driving mechanism, and a universal joint between the driving shaft F, and disc S; 16th. The employment of a tool-stop carrying two or more tools and so mounted as to be readily reversed in order to bring either tool into action; 17th. In mounting the tool carrier in the manner shown whereby it is susceptible of variable motions; 18th. In combination with the various elements of the machine, the shelf or tablet C; 19th. The general arrangement and organization of the various mechanical agents, hereinbefore named, whereby a working machine is produced.

No. 2631. ROLLIN R. GREGG, Buffalo, N. Y., U. S., 12th August, 1873, for 5 years: "Pneumatic Railroad." (Chemin de fer pneumatique.)

Claim.—1st. A pneumatic railway tube formed of the longitudinal stringers C, C, with cross ties A, A, and planks b, b, bolted thereto in combination with the circular arched shell composed of the sides d, d, and bands e, e; 2nd. In combination with the track, the stringers C, C, forming a continuous guard the entire length of the road to prevent the wheels jumping the track; 3rd. The inner guard stringers C^1, C^1, in combination with a pneumatic railway tube and track; 4th. In combination with the curved sides d, d, and longitudinal stringers C, C, the inclined water guard J, 5th. In combination with a pneumatic railway tube, a propelling car, a component portion of which forms a diaphragm or piston conforming to the transverse shape of said tube, but sufficiently less in size to ensure its clearing the inner walls thereof at all points, thus leaving a narrow space between the two; 6th. The diaphragm or piston of the draft car formed of the frame K, and the series of segmental sections or valves h, h, h, h; 7th. In combination with the segmental sections h, h, auxiliary valves i, i, 8th. The angular ribs j, j, in combination with the flat rubber strips l, l, for excluding air from the pneumatic tube when the doors L, L, are closed.

No. 2632. CHARLES B. CLARK, Buffalo, N. Y., U. S., 12th August, 1873, for 5 years: "A Blind Hinge." (Une charnière de persienne.)

Relates to the class of hinges which are self-fastening when opened.

Claim.—1st. The incline a, b, and plane d, on the part B, in combination with the double inclines e, f, on the part A; 2nd. The bevel i, on the latch C, in combination with the inclines e, f, and a, b; 3rd. A self-locking hinge, the elongated slot j, in combination with the bevelled latch C; 4th. In self-locking hinges the raised bead r, r.

No. 2633. NATHAN B. ABBOTT, Brooklyn, N. Y., U.S., 12th August, 1873, for 5 years: "Composition pavement." (Pavage en composition.)

Claim.—A surface for pavements and walks composed of a bituminous compound consisting of pitch and crude creosote, in combination with small stones, prepared and laid as specified.

No. 2634. JOHN R. CROSS, New York, U. S., 12th August, 1873, for 5 years: "Process of Transferring the Grain Marks of Wood and other Configurations." (Procédé d'imitation du bois et autres objets.)

Claim.—1st. The roller or curved surface B, with a smooth elastic surface, as a means of transferring configurations or designs when employed in the manner described; 2nd. The process described of transferring configurations or designs.

No. 2635. JOHN N. WALLIS & THEODORE WALLIS, Fleming, N. Y., U. S., 12th August, 1873, for 15 years: "A Coffin." (Un cercueil.)

Claim.—A burial casket, the sides a, a, provided with the vertical flanges d, and clasps e, respectively inter-locking, as described.

No. 2636. JOHN CONNOR, Philadelphia, Penn., U.S., 12th August, 1873, for 5 years: "Saw Tooth Swage." (Presse à dents de scie.)

Claim.—A saw-tooth-swage, composed of a block A, notched, drilled and slotted and combined with a tapering ferrule B.

No. 2637. BRAY WILKINS, Fairfield, Me., U. S., (Assignee of Joseph L. True,) 12th August, 1873, for 5 years: "A Potatoe Planter." (Traceur-butteur à patates.)

Claim.—1st. The combination of the hopper E, with the bed piece A^1, by means of the projections E^1, and ear pieces d; 2nd. The combination with the rotary dropping plate F, provided with one or more openings K, of one or more curved potato forcing arms i,

and inclined cutter M; 3rd. The inclined cutter M. provided with projections upon its under side; 4th. The bushing ring T, provided with a top flange side fin t, and inclined bottom, in combination with the rotary dropping plate F.

No. 2638. JOHN W. DAVY, Georgetown, Ont., 13th August, 1873, for 5 years: "Potato and Turnip Extractor." (Extracteur à patates et à navets.)

Claim.—The combination of the revolving teeth with the frame A, drums B, and C, chains D. D, and slats F, F, F, pinions G, driving wheels H, H, ground wheels I, I, and shaft or axle J

No. 2639. GUSTAVE MOLT, Milbury, Mass., U. S., 13th August, 1873, for 15 years: "Indigo Blue Dye." (Teinture d'indigo.)

Claim.—A compound composed of lime and soda-ash, and called composition No. 1, also the compound composed of muriate of tin, crystals and soda-ash called composition No. 2, also the composition composed of compositions Nos. 1 and 2, and called composition No. 3, the whole mixed in the proportions set forth, also in the mode of using the composition No. 3, as described.

No. 2640. JOHN B. VERNEY, Guelph, Ont., 13th August, 1873, for 5 years: "Organ Sounding Chamber." (Chambre de résonnance d'orgue.)

Claim.—The combination of a concave tubular sounding chamber with the case A, and the partitions B, B, B, forming a tube C, to each reed as set forth.

No. 2641. ONEZIME ST. AMANT & JOSEPH WOODLEY, Quebec, Que., 13th August, 1873, for 5 years: "A Sewing Machine." (Une machine à coudre.)

Consists in so arranging the presser foot that in addition to performing its own functions it gives the required feed in the direction of the pattern intended to be described by the stitches

Claim.—1st. The wheels c_1, or m^2, having projections, indentations and plane surfaces; 2nd. The wheel C_1, or m^2, in combination with the levers g_1, and b_1, link g^1, and spiral springs m_1, and O_1, for actuating the presser foot V, 3rd The wheel c_1, or m_1, in combination with lever r_1, slide t^1, bell crank lever U^1, and rod W_1, caused to move as described, and actuating the presser foot V; 4th. The cam m, in combination with lever n, actuating the presser foot V, 5th The wheel C_1, having projections, indentations and plane surfaces, in combination with pinion b_1, 6th. The wheel m_2, actuated by the cam wheel b^2; 7th. The wheel m^2, in combination with pawls l_2, and n^2, bent bar K_2, arm i_2, and link f_2, 8th The rod u, with presser foot V, in combination with the stud S, yoke W, and spring X; 9th. The presser foot V, and rod u, arranged to move by the action of the springs m^1, and z^1; 10th. The presser foot V, caused to push or pull the material to be sewn; 11th The combination of the double cam wheel d, lever c, and needle slide g.

No. 2642. EDWARD MYERS, Jersey City, N. J., U. S, 13th August, 1873, for 15 years: "A Graduated Spring." (Un ressort gradué.)

Claim.—1st. The concentric graduated springs C, each inner spring being made shorter than the next outer one arranged in the spaces between concentric flanges, formed upon the end plates of one of both parts of the case, and to be operated upon by a similar set of concentric ring flanges formed upon the end plate of the other part of the case; 2nd. The combination of a central draft rod D, with the double concentric graduated springs A, B, C.

No. 2643. JOHN J. HOOKER, Oswego, N. Y., U.S., 13th August, 1873, for 5 years: "Timber Splice for Bridges." (Epissure de ponts en bois.)

Consists in the construction and arrangement of cast iron clamps to be used in splicing bridge timbers.

Claim.—The clamp plate a, provided with ribs a, a, and flanges B, B, and d, d, all cast in one piece, and used in combination with the bolts f, f, as set forth.

No. 2644. THOMAS REXFORD, Magog, Que., 13th August, 1873, for 5 years: "Manner of Joining Stove-pipes." (Manière de raccorder les tuyaux de poêles.)

Consists in the peculiar formation of the connecting joint which is constructed in such a manner as to render the pipe air tight and fire-proof.

Claim.—The combination of fold or lap B, lip c, and section d.

No. 2645. GEORGE BOLTON, Arnprior, Ont., 13th August, 1873, for 5 years: "Ventilating Hot Air Drum." (Poêle-sourd à ventilation.)

Claim.—1st. The taper open tube E. arranged and combined with the walls A and B; 2nd. Providing the damper with a counterbalance weight; 3rd. The scrapers I; 4th Informing a rim K of a double O G moulding on the upper edge of the drum.

No. 2646. SANDFORD M. EASTMAN, St. Mary's, Ont, 13th August, 1873, (Extension of Patent No. 2419, Ont. and Que., for 5 years: "Foot-Stove and Lantern." (Chauffe-pieds et lanterne.)

Claim.—The peculiar manner in which the heat is circulated under the surface on which a person's feet may be placed, the whole as specified.

No. 2647. ALEXANDER H. DIXON, Toronto, Ont., 13th August, 1873, for 5 years: "A Show-card." (Une pancarte.)

Claim.—A show-card formed of letters cut from fabric mounted on paper and transferred to paste board, as a new article of manufacture.

No. 2648. MICHAEL WHITE & JOHN BIRD, Ottawa, Ont., 13th August, 1873, for 5 years: "Adjustable Creeper." (Un crampon mobile.)

Claim.—The disposal of shoulders D, D, which when required remain stationary in squares C, C, when adjusted or not, as the case may require by the regulating key.

No. 2649. WILLIAM M. JAMESON & ROBERT CARROLL, Toronto, Ont., 13th August, 1873, for 5 years: "Machine for Making Mortar." (Machine à faire le mortier.)

Claim.—Two or more tanks A, and B, each tank having a horizontal shaft G, with arms m, in combination with the vertical shaft C, bevel gears E, E, F, F, gates n, and n, eccentric stud P, and sieve S.

No. 2650. PROSPÈRE LEMOINE, Chambly, Que., 13th August, 1873, for 5 years: "A Trench Spade." (Une bèche à rigole.)

Claim.—1o. La forme de la pelle F, et sa combinaison avec les écussons C, E, rivés à la pelle F, et aux douilles B, D; 2o. La combinaison des douilles B et D, rivées au manche A, de la pelle F, 3o. La combinaison des écussons C, E, attachés aux douilles B et D et rivés à la pelle F, 4o. Une pelle à rigole, la combinaison d'une pelle F, en acier ou en fer, ou en fer avec le tranchant en acier, avec les écussons C et E, rivés à la pelle F, et aux douilles B et D, ou soudés aux douilles B et D, et rivés à la pelle F.

No. 2651. JOSEPH MATTHIAS, New York, U. S., 13th August, 1873, for 5 years: "A Glue Pot." (Un poêle à colle.)

Claim.—1st. The glue pot A, having a round or oval bottom provided with feet or legs R, and external projecting rims M, with notches or jogs E, and lips or openings T, at its rim; 2nd. The water pot B, having lips or openings O, in its rim and opposite thereto knobs or projections L, on its sides, with or without elevations or projections r, on its bottom; 3rd The combination of a water pot B and glue pot A, constructed as described, so that the latter can be elevated in the former for the purposes set forth.

No. 2652. GEORGE ANSLEY, Guelph, Ont., 16th August, 1873, for 5 years, "Double Action Engine." (Machine à double effet.)

Relates to the combination of pistons with a double crank in such a manner that the steam enters between said pistons thereby causing double action and increasing the effective power of the steam.

Claim.—The combination of the piston D, and F, by the rods G, and H, with the double crank I, the connection I, and the cylinder A.

No. 2653. CHARLES S. BARRY, Providence, R. I., U. S., and ROBERT G. MUNRO, Digby, N. S., 16th August, 1873, for 5 years: "Steam Piston Packing." (Garniture de piston à vapeur.)

Claim.—1st. The packing rings D, and D_1, in combination with a piston head and follower, constructed and arranged as described, in order that the direct pressure of the steam within the piston will not only cause the rings to move out radially and pack with the cylinder, but also to press at right angles to the radial line, and pack with the piston head and follower; 2nd. The combination of the outer packing rings C, and C_1, the inner packing rings D, and D_1, and the piston A, B.

No. 2654. LEANDER BAKER, (Administrator of the late James Martin), and ABEL GAY, Morenci, Mich., U. S., 16th August, 1873, for 5 years: "A Sleigh." (Un traîneau.)

Claim.—1st. The runners A, supporting the beam B, by means of the socket joints C, in such a manner that the said runners may have a free rocking or oscillating motion; 2nd. In combination with the runners A, beam B, and socket joints C, the semi-circular bars E, and plates D, 3rd. In combination with the bounds H, and

beam B, when the latter is supported on oscillating runners, the pole I, or shafts: 4th. A sleigh, wherein the runners A, beam B, socket joints C, plates D, semi-circular bar E, hounds H, and poles and shafts I, are constructed, arranged and combined to operate in the manner set forth.

No. 2655. WILLIAM J. DICKSON, Truro, N. S., 16th August, 1873, for 5 years: "Machine for Washing Clothes." (Machine à laver le linge.)

Claim.—1st. The combination of the large rollers A, with the smaller beaded rollers B, B, B, as connected by springs C, C, and links D, D, in frame E, E, and base F; 2nd The beaded shape of small rollers B; 3rd The links D, D.

No. 2656. JOHN P. LONG, Peterborough, Ont., 16th August, 1873, for 5 years: "Bevel Lath Mill." (Moulin à latte chanfreinée.)

Claim.—The arrangement of the feeding and cross rollers F, and G, and the stand connected with them at an angle with the lath saws E.

No. 2657. JOHN CLARK & GEORGE B. MATHEWS, Pontiac, Mich., U. S., 16th August, 1873, for 5 years: "Method for Venting Beer Casks." (Mode de mise en perce des pièces de bière.)

Claim.—The process of venting beer casks and preserving their contents by carbonic acid gas artificially generated and exerted to fill the vacuum in the casks as set forth.

No. 2658. ALFREDM. SPINK, Kingston, Ont., 16th August, 1873, for 5 years: "Steam Feather Renovator." (Machine à vapeur pour rafraîchir la plume.)

Claim.—1st. The cylinder A, A, elevator C, hollow gudgeons K, K, K; 2nd. The drying pipe B, hung in the lower part of cylinder A, A, throwing the heat (while drying) into the body of the feathers, by which with the help of wind they are quickly dried, 3rd. The steam pipe *d*, *d*, *d*, together with branch steam pipes *e*, *e*, *e*, and the steam pipe *f*; 4th. The wind pipe *g*, *g*, *g*, *g*, together with branch wind pipes *g*, *g*, *g*, the combination of the cylind r A, A; dryer B, elevator C, steam pipe *d*, *d*, *d*, branch pipes *e*, *e*, *e*, steam pipe *f*, wind pipe *g*, *g*, *g*, *g*, branch pipes *g*, *g*, *g*, faucet *h*, condensed steam pipe *i*, hollow gudgeons K, K, K.

No. 2659. HENRY P. MADILL, New Market, Ont, 16th August, 1873, for 5 years: "A Well Auger." (Une sonde de puits.)

Claim.—1st. The application of the steel cutter or lip H, to well augers of the kind described: 2nd. The application and use of the slip hingers D, D, to the auger door by means of the wire rod K; 3rd. The application to well augers of the staples E, E, the slots F, F, and the rod L; 4th. The use and application of the second rimmer knife N^2 to the shafting of well augers, 5th. The upward inclination of the rimmer knives N^1, and N_2; 6th. The application and arrangement of the ventilating tube G; 7th. The application and use of the leather tip *a*, *a*, to the valve I, 8th. The application, use and arrangement of the moulded rimmer knife *b*, *b*, to well augers.

No. 2660. EDWARD J. DEUROCHE & HENRY G. W. KITTREDGE, Petrolia, Ont., 16th August, 1873, for 5 years: "Process for Manufacturing Salt." (Procédé de fabrication du sel.)

Claim.—The process of manufacturing salt by the use of petroleum or tar as fuel.

No. 2661. RODOLPHUS DECKER & WILLARD BELLOWS, Oshawa, Ont., 16th August, 1873, for 5 years: "Carriage Shaft and Pole Coupler" (Ajustage de limonières et de timons de voitures.)

Possesses the advantage over machinery usually adopted for that purpose inasmuch as it does not require bolts on which nuts are screwed, thereby removing the danger of the parts being separated by the nuts coming off.

Claim.—1st The combination of the bars A, and B, constructed with slots, shoulders and holes with a pin firmly attached and passing through them; 2nd. The application for couplers, hinges and other similar contrivances of disconnecting bars A, and B, constructed with shoulders *a*, slots *b*, and holes C, with a pin C, firmly attached to one of the bars and passing through the other bar so that it may freely oscillate upon it, and the shoulders *a*, entering the slots *b*, the whole forming a joint or hinge quickly separated and united as set forth.

No. 2662. JOHN S. ROSENTHAL, Philadelphia, Penn., U. S., 16th August, 1873, for 5 years: "Mode of Producing Asbestos Fibre." (Mode de fabrication de la fibre d'amiante.)

Claim.—1st. The treatment of asbestos or amianthus with alkali; 2nd. The treatment with hydro-carbons, of asbestos or amianthus; 3rd. A new article of manufacture and commerce, in a tough and elastic asbestos or amianthus fibre obtained by the chemical treatment described, or any equivalent to the same; 4th. A tough elastic, and disintegrated asbestos or amianthus fibre produced by a chemical and mechanical treatment; 5th. The treatment of asbestos and amianthus fibres with acid; 6th. A new manufacture of asbestos and amianthus fibre obtained from the crude mineral by the alkali and acid treatments described or any equivalent to the same; 7th. In yarn composed of the disintegrated, combed, carded and otherwise-treated fibres of asbestos or amianthus.

No. 2663. JOHN S. ROSENTHAL, Philadelphia, Penn., U. S., 16th August, 1873, for 5 years: "Treatment of Asbestos." (Traitement de l'amiante.)

Claim.—1st. The utilizing of asbestos and amianthus by disintegrating the fibres, separating the same from earthy and other foreign matter and converting the cleansed fibres into pulp; 2nd. A pulp made of the described disintegrated and cleansed fibres of asbestos or amianthus.

No. 2664. JOHN HOLLEN & ROBERT HOLLEN, Allemans, Penn., U. S., 16th August, 1873, for 5 years: "Railroad Switch." (Aiguille de chemin de fer.)

Consist in the use with the rails, of two intersecting railroad tracks of a moveable section of track and a moveable rail, having an arm fastened thereto at an acute angle with itself.

Claim.—1st. The moveable rail of the track A, with the arm or branch rail a^3, constructed and arranged as specified; 2nd. In combination with the intersecting rails of the tracks A, A^1, the moveable rail with the arm or branch rail a^3; 3rd. In tracks or rails A, a^3, A^1, A^2, bars B, B^1, lever C, arm C^1, and rod D, all combined and arranged as described.

No. 2665. JEAN FÉLIBIEN, Montreal, Que., 16th August, 1873, for 5 years: "A Foot Muff." (Un manchon de pieds.)

Claim.—1o. Un manchon de pied, la combinaison de la boîte A, construite en bois, ou en métal, ou en carton, avec le rembourrement D, en fourrures ou en étoffe laineuse.

No. 2666. NEWTON A. PATTERSON, Cleveland, Tenn., U.S., 16th August, 1873, for 5 years: "A Propeller." (Un propulseur.)

Adapted by the peculiar formation of its blades to impart to the water which it turns a longitudinal motion in a direction co-incident or parallel with the axis of the screw, avoiding lateral or tangential motion.

Claim.—A screw propeller having concavo-convex blades of helicoidal form; 2nd. A concavo-convex propeller blade, a portion of whose concave surface has a curvature at equal or nearly equal radius in an inward, outward, and rearward direction, from a point at or near the forward or cutting-edge, 3rd. A screw propeller having blades of concavo-convex form connected to the shaft through the medium of arms; 4th. A screw propeller having concavo-convex blades with peripheries concentric or nearly so with the axis of rotation.

No. 2667. CHARLES A. STEWARD, Toronto, Ont., 16th August, 1873, for 5 years: "Clothes Line Holder." (Porte-ligne d'étendage.)

Relates to the combination of a tongue working on an axle within an outer case in such a manner that when the clothes line is drawn through the holder from one side the holder will grasp it firmly, the object being to prevent the line from slipping out again.

Claim.—The combination of the tongue B, the axle C, and the frame A.

No. 2668. CARL A. HANSEN, & GEORGE HARLEY, Guelph, Ont., 16th August, 1873, for 5 years: "Button Holes and Embroidery worker for Sewing Machines." (Machine à coudre faisant les boutonnières et la broderie.)

Claim.—1st. The angle piece C, having a projecting arm D, travelling in a cam slot E^1, around a spring tongue F, for the operation of the mechanism by the needle-bar; 2nd The cam E, having an oscillating side and backward motion; 3rd. The spring tongue F, operating in the cam slot E^1, and provided with an arm extending rearward and operating as set forth; 4th The combination of the carrier lever P, guide T, pin R, and slot connection S, with the cam E; 5th. The combination of the hook M, lever Q, cam L, spring O, and picker K, with the cam E, and operated by the arm D.

No. 2669. JAMES MCNAB, Bosanquet, Ont., 20th August, 1873, (Extension of Patent No. 787, Province of Canada): "A Car Coupler." (Attelage de voitures de chemin de fer.)

Claim.—A hook system or latching horizontally from right to left, or from left to right In the use of two latches to answer each other without an intermediate link. On the herewith drawing No. 1 is a plate, case or box, in which the latch, tongue or hook, works made of boiler iron from half to three quarters of an inch and to be twenty-four inches long, ten inches wide, brought together and welded at the head, it may be extended on the draw-head far enough to receive the three bolts No. 2 is a band of iron passing round above the upper plate and under the lower plate, welded into the side plate of the box, No. 3 is a trigger which turns with the Sun, in order to unlatch when the latches hook from right to left or against the Sun, if they latch from left to right; The front side extends 1 and ½ of an inch from the centre. The rear is to extend 2 and ½ of an inch from the centre of the rods. The rod is to be 1 and ½ of an inch thick, and or, freight cars may rise to the top of the car and be turned as the break wheel. Another wheel may be placed on the same rod below, so as to disconnect without going on the top of the car On Express cars, the disconnecting wheel may be near the break wheel and connected to the trigger with a small chain or bar on two eccentrics on the rod. No. 4 is the latch, sixteen and a half inches long, three and a half inches deep, one and three fourths thick at the hook, two and a half at the hinge, where it forms a circle of three inches, swinging on a pin of one and a fourth of an inch with two washers, number 9, to prevent its rubbing on the plates. No. 5 is a spring fastened into a bolt No. 10, which passes through the plates, or it may be bolted on the side of the draw-head. No. 6 represents the bolts which fasten the plates to the wooden draw-head. No. 7 represents the bolt on which the latch with its two washers works. No 8 represents the wooden draw-head, which will require two bolts of ½ of an inch to pass through it horizontally at right angles with No 6. This invention requires no third link, hook or bar, as every car carries with it all that it requires to connect with any car on the track.

No. 2670. JAMES MCLEOD, JOHN V. NEWTON & THOMAS C. GLADMAN, Orillia, Ont., 23rd August 1873, for 5 years: "A Tuyere." (Une tuyère.)

Claim.—A tuyere iron having a core blast pipe B, to form with the outer shell a cylinder A, an annular space C, in which a circulation of water is maintained by means of induction and eduction pipes D, E, connecting with a cistern as set forth.

No. 2671. JOHN RIORDAN, St. Catharines, Ont., (Assignee of G. Ames, S. B. Dean & W. T. Nicholson), 23rd August, 1873, for 5 years: "Machine for Cutting Teeth on Cylindrical Surfaces." (Machine à tailler les dents sur des surfaces cylindriques.)

Claim.—1st. In combination with the mechanism for cutting the necessary file-like teeth or serrations upon the face of the cylinder or ring, the means for supporting the cylinder in such a manner that it may be fed along and moved both circumferentially and in the direction of its axis; 2nd. The placement or arrangement of the cutting device relatively to the carriage and axis, on which the cylinder is mounted and moved in such a manner that the chisel will strike the cylinder at an angle to a radius terminating at the point of contact of the chisel with the surface to be cut, 3rd. In combination with the cutting mechanism and the cylinder supporting device, the means for automatically feeding the cylinder in the several directions as described.

No. 2672. HENRY D. PHILLIPS, Trenton, N. J., U. S., 25th August, 1873, for 15 years: "A Brick Machine." (Une machine à brique.)

Claim.—1st. The combination of the hollow plungers S, with the adjustable gate U; 2nd In constructing the moulds with perforations W, and channels X; 3rd. In providing the mould wheel M, with a lubricating device Q, for oiling the followers O, 4th. In providing the cylinder A, with a box P, for receiving stones; 5th. In providing the clod box with bars V, for preventing stones escaping to the moulds; 6th. The combination of the hollow plunger S, with the levers G, and cam E, 7th. The levers G, in combination with the hollow plunger S, and adjustable gate U, 8th. The combination of the mould wheel M, plunger S, with the pitman H, levers G, stud R, and cam E; 9th. The combination of the levers G, with the gate U, pitman H, and slide bar I; 10th. The inclined plates L, and star wheels N, for operating the followers; 11th. The combination of the mould wheel M, follower O, inclined plate L, and star wheels N, with the cylinder A, of a brick machine.

No. 2673. ELIAS BURNHAM, Peterborough, Ont., 27th August, 1873, for 5 years: "Railway Snow Cleaner." (Chasse-neige de chemin de fer.)

Claim—The platform A, figures 1, 2, 3, and 4, the upright cutter or coulter B, figures 1, 2, 3, and 4, and the instrument D, figures 1, 2, 3, and 4, also in the application and use of the instrument C.

No. 2674. THOMAS D. KINGAM, Indianapolis, Ind., U. S., 27th August, 1873, for 5 years: "A Meat Cooler." (Un refrigérant à viande.)

Relates to that class of inventions, whereby an entire room is cooled by means of a continual circulation of air.

Claim—The tubes *a*, and *a*¹, having both horizontal and vertical arms, and the blank tubes *f*, *g*, *h*, *k*, *l*, *i*, in combination with the box *c*, *m*, *d*, for holding a refrigerating mixture, all to be constructed, arranged and used as set forth.

No. 2675. GEORGE FORSYTH, Seaforth, Ont., 27th August, 1873, for 5 years: "A Wire Fence," (Clôture métallique.)

Claim—The arrangement of the posts A, brace B, side brace C, and straining brace D, and the mode of setting up the fence as set forth.

No. 2676. HENRY HENLEY, Bloomington, & JOHN F. ALLISON, Worthington, Ind., U. S, 27th August, 1873, for 15 years: "A Fire Extinguisher." (Un extincteur d'incendie.)

Claim—1st. A fire extinguisher having separate chambers or compartments to contain the acid and alkali, when said chambers or compartments are open at the top, or otherwise so constructed that they can be recharged as often as necessary without stopping the operation of the machine, 2nd The combination of the boxes or compartments A, A, double acting force pump B, pipes D, D, gas chamber C, and discharge-pipe E, all constructed and arranged as set forth.

No. 2677. JOHN MCGIRR, Orillia, Ont., 27th August, 1873, for 5 years: "Dog or Car-Lifter." (Elévateur de voitures de chemin de fer.)

Which is capable of being reversed so as to suit whatever side the car may be off on.

Claim.—1st. The use of the curved rail A, and the curving of the chair B; 2nd. The joining of the rail A, and chair B, by the counter sunk bolt C.

No. 2678. JAMES H. PATTEE, Monmouth, Ill. U. S., 27th August, 1873, for 5 years: "Improvement in Steam Vacuum Pumps." (Perfectionnement dans les pompes atmosphériques.)

Claim.—1st. A steam vacuum pump, the cylinder C, when placed in such a position and so connected by passages *a*, *a*¹, to the pump cylinders A, B, that a current of water will pass from one pump cylinder to the other at each alternate emptying of said cylinders and carry with it the valve *b*, to operate the steam valve K; 2nd. The valve seats *c*, *d*, and valve *b*, when arranged to close the passages *a*, *a*¹, at each stroke of the valve *b*; 3rd. The combination of the condense pipes G, G, H, and cross pipe *g*, the valve box *m*, and discharge pipe J, constructed and arranged as described.

No. 2679. THEODORE R. SCOWDEN, Cincinnati, Ohio, U. S., 27th August, 1873, for 15 years: "Furnace for Converting Iron into Steel," (Fourneau pour convertir le fer en acier.)

Claim.—The combination and arrangement of the retort, fire-boxes, and supply pipes for the hydro carbon; also, the combination and arrangement of the retort, fire-boxes, supply pipes for the hydro carbon, and supply pipes for deoxygenated air.

No. 2680. ADAM CANT, Galt, Ont., 27th August, 1873, for 5 years: "Improvement on Wood Planing Machines." (Perfectionnement des machines à raboter le bois.)

The object of the invention is to dispense with the gearing and shaft placed above the feed for operating the roller and substituting therefor an improved arrangement which enables the shaft and gearing to be placed beneath the bed of the machine.

Claim—The horizontal shafts K, placed beneath the bed of the machine in combination with the bevel wheels I and J, vertical screw H, adjustable dog G, guided by the standards F, and supporting the upper bed roller box E, the whole being operated by the lever L.

No. 2681. ADAM CANT, & JOHN GOURLAY, Galt, Ont., 27th August, 1873, for 5 years: "Chainless Rotary Bed for Planer or Saw Table." (Table rotative de raboteur ou de scieries, sans chaîne.)

Claim.—1st. In having the teeth O, cast or fastened to the bed plates J, the said teeth O, being formed on a circle describe from the centre of the circular ends of the groove L, the whole being arranged as shown; 2nd. The groove L, with circular ends into which the end of the bed plates J, are inserted; 3rd. The

combination of the tightening screw N, nut O, and the slide M: 4th. The self oiling recesses *f*, which contain the packing, cut into the bottoms and ends of the bed plates J.

No 2682. ALEXANDER RODGERS, Muskegon, Mich., U. S., 27th August, 1873, for 5 years: "Improvement on Saw-Mill Head Blocks." (Perfectionnement des poupées de scieries.)

The object being to afford a ready means of adjusting the log after each cut of the saw to the proper position for making another cut.

Claim.—1st. The dogs N, and M1, in combination with their operating mechanism and the setting-jack C; 2nd The chain tightener F; 3rd The side dog S; 4th. The setting shaft D, fusee E, and chain *e*, in combination with the setting jack C; 5th. The gauge cylinder F, in combination with the setting racks *b*, and *b1*, and the indicator *h*, and movable arc *h1*; 6th. The reciprocating racks *b*, and *b1*, and their operating mechanism in combination with stationary rack *a*; 7th. The rack G, in combination with the eccentric P, and pa. *is n, m*; 8th. The setting-jack e, provided with the two setts of dogs S, and *m, m1*, and the mechanism for operating the same in combination with the block B, and carriage A, all the parts being constructed and operating as specified.

No. 2683 DANIEL FORWARD, Rochester, N. Y., U. S., 27th August, 1873, for 5 years: "Process of Tanning Hides." (Procédé de tannage des peaux.)

Claim.—1st. The process of tanning, the saturation of the hides or pelts with petroleum or its distilled products after being prepared to absorb the same by treatment with a chemical or alkaline solution; 2nd. The process of tanning, the treatment of the hides or pelts with a solution of alum, salt and white vitriol dissolved in water in about the proportions stated, and saturating the hides or peltries after such treatment with crude petroleum or its distilled products to be afterwards removed by evaporation.

No. 2684. THOMAS MCVEIGH, Litchfield, Que., 27th August, 1873, for 5 years: "Illuminating Oil." (Huile d'éclairage.)

Claim.—An illuminating oil composed of naptha and potatoes, salt, oil of sassafras, gum, camphor, sal soda, alum, cream of tartar and alcohol, mixed together, in about the proportions stated.

No. 2685. GEORGE F. DEAN & FREDERICK Y. C. HILL, Montreal, Que., 27th August, 1873, for 5 years: "Combined Chair and Lounge." (Chaise et causeuse combinées.)

Claim.—1st. The combination of the side pieces A, bent pieces D, legs H, and connecting bars K; 2nd The combination of the links M, and N, with the bent pieces F, and side pieces A; 3rd. The combination of the side pieces A, and bars B, B1, and B2, bent pieces D, with bars E, legs H, connecting bars K, and links M, and N.

No. 2686. WILLIAM A. P. RHODES, Kingston, N. B., 27th August, 1873, for 5 years: "Horse Collar Pad." (Bourrage de collier à cheval)

Claim.—A horse collar pad manufactured from woollen textile material quilted and sewn together and having an elastic inserted piece D, and roll portion C, as set forth.

No. 2687. HENRY CARTER & DANIEL STEWART, Aylmer, Ont., 27th August, 1873, for 5 years: "Machine for Cutting Bolts." (Machine à couper les boulons.)

Relates to an improved machine or tool for cutting off the ends of bolts &c., above the nut by the operation of a chisel-edged cutter operated by a pair of levers constituting the handles of the implement.

Claim.—The combination of the stock A, having a chisel edge B, and chisel block C, provided with a chisel D, sliding therein and operated by the levers F, eccentrically pivoted to the head stock and chisel block, in the manner set forth.

No. 2688. THOMAS MAXON, Springfield, Ohio' U. S., 28th August, 1873, for 5 years: "A Lifting Jack." (Un cric.)

Claim.—The combination of the slotted post A, rack bar C, with grooved foot D, roller G, swinging arms K, lever I, with hook J, pawl F, with thumb piece *m*, and the springs *d, h*.

No. 2689. JOSEPH LISLE, Lindsay, Ont., 28th August, 1873, for 5 years: "A Rocking Churn." (Une baratte à bascule.)

The rocking motion being centred on pivots and assisted by the spring attachment.

Claim.—The combination of the pivot F, and springs B.

No. 2690. HENRY H. WAINWRIGHT, Philadelphia, Penn., U. S., 28th August, 1873, for 5 years; "A Gas Apparatus." (Un appareil à gaz.)

Claim.—1st A gas apparatus in which two or more acid reservoirs are combined with a single generating chamber E, containing scrap metal; 2nd. The shelf or grate *b*, arranged in the generating chamber E, above the communications between the said chamber and the acid reservoirs; 3rd The combination with the generating and acid chambers of valves D, D, or tubes D, D1, with cocks; 4th. The combination of the air pipe F, and gas pipe F1, with the chambers E, and G; 5th The gas distributing perforated ring *h*, or its equivalents, attached to the pipe F1, and contained within the carburetting chamber G; 6th. The check valve Y, in the pipe *f*; 7th. The combination of the acid reservoirs with evaporating pans.

No. 2691. WALTER C. CHURCH, London, Eng., 28th August, 1873, for 5 years: "Improvements on Steam and Hydraulic Engines partly applicable to Steam Hammers and to Valves for regulating the Flow of Fluids under Pressure." (Perfectionnements aux machines à vapeur et hydrauliques applicables, en partie, aux marteaux à vapeur et aux soupapes pour régler la chute des fluides en pression.)

Claim.—1st. The construction and use of a circular equilibrium slide valve B, for steam and hydraulic motive power engines and steam hammers provided with an internal bearing surface C, in the centre of the exhaust opening in the valve in combination with an isolated bearing surface A, in the centre of the exhaust port flush with the port face as described and illustrated on sheets 1 and 2 of the drawings; 2nd. The making an isolated bearing surface A, in the centre of the exhaust port of the cylinder and flush with the port face as described and illustrated on sheets 1 and 2 of the drawings; 3rd. The use of the before mentioned loose cap D, held by a spring F, in contact with the valve chest cover E, or central plate when the steam or fluid pressure is shut off in combination with a loose piece C1, in the manner described and illustrated on sheets 1 and 2 of the drawings; 4th. The use of a valve with two distinct bearing surfaces A, and B, the one A, being in contact with the port face, and the other B, in contact with a raised bearing surface C, secured to an isolated bearing surface or support D, in the centre of the exhaust as described and illustrated on sheets 3 and 4 of the drawings; 5th. In reducing the pressure on circular regulator or other valves for controlling and regulating the flow of fluids under pressure by making them with an annular valve face C, working in conjunction with an annular port or opening *a*, and providing apertures B, *d*, *d*, in the back of the central part of the valve for the admission of steam or other medium of pressure into a chamber formed between the back of the valve and the surface over which it works as described and illustrated on sheet 5 of the drawings; 6th. In making the before mentioned circular regulator or other like valves so as to rotate freely within the buckle C, of the valve spindle as described and illustrated on sheet 5, of the drawings.

No. 2692. JOHN WEEKS, Woodstock, Ont., 28th August, 1873, for 5 years: "Bug Exterminator." (Exterminateur de punaises.)

Claim.—1st. The application of steam for the purposes set forth; 2nd. The machine for applying the steam composed of the furnace A, boiler B, steam tube C, steam valve D, and safety valve E.

No. 2693. CYRUS KINNEY, London, Ont., 28th August, 1873, for 5 years: "A Mop Handle." (Un manche de balai à laver.)

Claim.—The combination of hinge joint E, attached to head or ferrule B.

No. 2694. JOHNSON M. GROVER, Montreal, Que., 29th August, 1873, for 5 years: "A Churn." (Une baratte.)

Claim.—1st. The auger shaped dasher E; 2nd. The spindled dovetailed casting *e*, and corresponding piece *f*, 3rd. A combination of the dasher E, dovetail piece *e*, and *f*, with the frame, body and gearing of the churn.

No. 2695. SOLOMON W. KIRK, Philadelphia, Penn., and WILLIAM R. GRIFFITH, New York, U. S., 29th August, 1873, for 5 years: "Process for Separating Metals from their Ores." (Procédé pour séparer les métaux de leurs minérais.)

Claim.—1st. The method or process of separating and obtaining the precious or other metals from the matrix, by subjecting the mixed pulverized ore, and mercury to heat in *vacuo*; 2nd. The method or process of separating the precious metals and recovery of the mercury as described, viz., subjecting the ore previously roasted and pulverized mixed with a sufficient quantity of mercury to heat in *vacuo*, and retaining and condensing the vapour given off as specified.

No. 2696. LOUIS LEBINS dit FRÈRE, Ste. Thérèse de Blamville, Que., 1st September, 1873, for 5 years: "Improvements in "Buckeye and Moodie's Mowing and Reaping Machines." (Perfectionnements aux "faucheuses-moissonneuses Buckeye et Moodie.")

Claim.—1o. La grande oreille figure 1, avec son châssis en bois A, recouvert en zinc ou autre métal B, et renforcé par la bande M; 2o. La petite oreille figure 2, avec son châssis en bois A, recouvert en zinc ou autre metal B, et renforce par la bande M; 3o La combinaison de la fleche Q, et ses deux dents *a*, *b*, avec la scie de la faucheuse; 4o. La combinaison de la bande de garde I, avec la maille G, pour s'attacher la grande oreille à la faucheuse; 5o. La combinaison avec la faucheuse Buckeye de la broche mobile S, avec œil pour écarter le grain et l'empêcher d'être mâché par la scie; 6o. La combinaison de la broche recourbée T, avec son chas U, attachée à la dernière dent O, de la scie, 7o La combinaison des oreilles figure 1, et figure 2, et des autres parties avec les faucheuses et moissonneuses Buckeye et Moodie, tel que decrit.

No. 2697. JAMES WOTHERSPOON & WILLIAM FOULIS, Glasgow, Scotland, 1st September, 1873, for 5 years: "Retort Lid and Packing." (Couvercle et garniture de cornue.)

Claim.—1st. In constructing retort lids or the mouth of retorts or both with a groove to receive packing material as described or any mere modification thereof 2nd. The arrangement and construction of apparatus for opening and closing the lids of retorts as described or any mere modification thereof; 3rd. The packing of the joints between retorts and retort lids with a packing composed of a soft metal or alloy, cement or with asbestos or amianthus in either of the modes described.

No. 2698. JAMES SPENCER, Welland, Ont., 1st September, 1873, for 5 years: "Railway Lamp Screen." (Ecran de lampe de chemin de fer.)

The object being to protect railway switch lamps from wind during the process of lighting.

Claim.—The combination of the frame B, with its aperture K, sleeve I, and window H, as set forth.

No 2699. GEORGE SINCLAIR, Leith, Scotland, 8th September, 1873, for 5 years: "Apparatus for Boiling and Evaporating Liquids and Pulping Fibrous Substances" (Appareil pour bouillir et vaporiser les liquides et décortiquer les substances pyroligneuses.)

Claim.—1st. The general arrangement and construction of high pressure steam generator described and shewn at figures 1, 2 and 3, sheet 1, of the drawings, and the employment thereof in conjunction with boilers for reducing wood, esparto, straw and other fibrous substances to pulp and for other purposes in which a high pressure of steam is required; 2nd The methods of closing the holes formed in the larger tubes of the steam generator for the purpose hereinbefore set forth, by means of conical or tapered plugs passed into their positions from the interiors of the tubes described and shewn at figures 1, 2 and 3, and more particularly at figure 3, sheet 1, of the drawings. 3rd. The employment of the conical or tapered plugs in conjunction with tubular high pressure steam generators generally; 4th. The arrangement and construction of pulping boilers described and shewn at figures 1 and 3, sheet 1, of the drawings or any mere modification thereof: 5th The arrangement of evaporators described and shewn on sheets 1, and 2, of the appended drawings or any mere modification thereof.

No. 2700. WILLIAM S. MEAD, New York, U. S., 8th September, 1873, (Re-issue of Patent No. 1649.) "A Sewing Machine." (Une machine à coudre.)

Claim.—1st. The combination of the bar c, provided with hook *d*, link *e*, and crank *o*, for causing the hook to travel as described; 2nd. The lever *r*, constructed as described in combination with the thumb and finger pieces *m*, and *n*, 3rd. The combination of the thumb piece *m*, and finger piece *n*, pin *q*, and spring *p*; 4th. The combination of the lever *r*, projection *t*, pin *u*, and lip *v*; 5th. The combination of the eccentrics *w*, feed plate *x*, and feed *y*; 6th. The feed plate *x*, in combination with the strap b^4, and bar d^4, 7th. The novel arrangement of the bar f^1, at the bottom of the shuttle holder; 8th The combination of the needle bar g^1, needle arm h^1, pin i^1, and washer k^1; 9th. The friction pulley m^1, guard n^1, eyes o^1, and p^1, in combination with the thread arranged as described; 10th The novel arrangement of the shuttle and shuttle case, in combination with the hook *d*, whereby the loop is held without any other device until the next is formed.

No. 2701. WALTER S. SHRAPNEL, Orillia, and HUGH KIDD, Toronto, Ont., 10th September, 1873, for 5 years: "A knife Sharpener." (Un rémouleur de couteaux.)

Claim.—1st. The combination of the wheels A, A, and washers B, B; 2nd The combination of the wheels A, A, and washers B, B, frame D, bars E, E

No. 2702. SAMUEL WRIGHT, London, Ont., 10th September, 1873, for 5 years: "A Railway Car-coupler." (Un attelage de voitures de chemin de fer.)

Claim.—The combination of the coupling pin C, with the catch D and the weight H, H, as set forth.

No. 2703. HENRY ROGERS, Chippewa, Ont., 10th September, 1873, for 5 years: "A Railway Spike." (Une chevillette de rail de chemin de fer.)

Claim.—The shoulder projecting on the sides and back of spike for the purpose described.

No. 2704. AI B. SHAW, Medford, Mass., U. S., and NATHANIEL H. SHAW, Bedford, Que., 10th September, 1873, for 5 years: "A Sewing Machine Treadle." (Une marche de machine à coudre."

Claim.—1st. A mechanism actuated by a treadle or treadles and running upon the same stud as the balance wheel when said mechanism is connected with the balance wheel by a clutch or coupling, 2nd. The pulley *m*, held in suitable position by the standard *k*, fixed to the stud *a*; 3rd The arrangement with either of the pulleys B, C, of the pawl or lever *g*, and the pads S, attached as set forth.

No. 2705. ELISHA W. HUNT, London, Ont., 10th September, 1873, for 5 years: "A Safety Lamp Tube." (Un tube de lampe de sureté.)

Claim.—The application of tube B, upper rim A, holes D, and the space for escape of gas C, for the purpose of preventing the gas entering the burner E, and making the burning of petroleum, coal oil, or any other gaseous oils safe and free from danger.

No. 2706. D'ARCY PORTER, Cleveland, Ohio, U. S., 10th September, 1873, for 5 years: "Improvements on Sewing Machines." (Perfectionnements aux machines à coudre.)

An adjustable device for operating the shuttle of a sewing machine, and it consists of a vibrating stay having an arm extending therefrom in the extreme end of which the shuttle is carried.

Claim.—1st. The reciprocating stay D, as arranged in relation to and in combination with the eccentric C, co-operating in the manner described; 2nd. The reciprocating stay E, and spindle G, *in combination with the adjustable step H, as set forth.*

No. 2707. JOSEPH BENSON & ALBERT H. WATKINS, Boston, Mass., U. S., 10th September, 1873, for 10 years: "Reservoir for Street Vapour Burner Lamp." (Réservoir de réverbere de rue.)

Claim.—A tank or reservoir E, adapted to be secured to a lantern frame; in combination with the above claim, the air space *c*, between the tank E, and its holder *a*.

No. 2708. JOSEPH BENSON & ALBERT H. WATKINS, Boston, Mass., U. S., 10th September, 1873, for 5 years; "A Gas Burner." (Un bec à gaz.)

Relates particularly to that class of vapour burners in which is employed a supplementary jet to assist the generation of vapours from the illuminating medium.

Claim.—1st. The vapour burner having the double conical shaped supplementary chamber H, communicating at its top with the mixing chamber D, by the aperture or apertures C, as described, in combination with the jet hole or holes *b*, and the cup shaped disk F, having the inwardly flaring edge *a*, and sleeve G, the several parts constructed, arranged, and operating in respect to each other as set forth, 2nd. The vapour burner having the vertical chamber or chambers *m*, communicating at its upper end with the mixing chamber D, by the aperture or apertures *n*, as described in combination with the jet hole or holes *o*, and the cup shaped disk F, having the inwardly flaring edge *a*, and sleeve G, the several parts constructed, arranged and operating in respect to each other as set forth.

No. 2709. EDWARD FLYNN, Kintore, Ont., 10th September, 1873, for 5 years: "Process for Hardening Wrought Iron." (Procédé pour durcir le fer forgé.)

Claim.—The process of hardening wrought iron by means of a coating of cast iron as described.

No. 2710. DAVID B. DAVIDSON, Brantford, Ont., 10th September, 1873, for 5 years: "Fly Catcher." (Attrappe-mouche.)

Claim.—The application of double ring H, as set forth.

No. 2711. WALTER MARSHALL, Stratford, Ont., 10th September, 1873, for 5 years: "An Evaporator." (Un appareil évaporatoire.)

Claim—The arrangement of the tubular cross heads E, E, and series of steam pipes H, in combination with a vat or pan I, and condensor C, whereby exhaust steam from an engine can be utilized for evaporating and drying purposes in the manner set forth.

No. 2712. WILLIAM H. SPENCER, New York, U. S., 10th September, 1873, for 5 years: "Illuminating Gas." (Gaz d'éclairage.)

Claim.—1st. The combined processes of first decomposing liquid hydro carbons by direct heat and hot in the presence of steam, and the subsequent mixing of the rich gas so formed with aqueous vapour and subjecting the mixture to a heat sufficient to effect the double decomposition described; 2nd A counter-weighted gas holder receiving the rich gas from the retorts, in combination with a forcing apparatus that passes a regulated quantity of such gas through retorts and in contact with steam at a high temperature, 3rd. The combination of a regulator with a forcing apparatus, a gas holder, and a retort for superheated steam, when said regulator is placed between the pump or forcing apparatus and said retorts; 4th A gas apparatus in which the rich gas is passed through a retort with superheated steam, a connecting cock between the pipe from the holder containing such rich gas and the conveying main, to regulate the illuminating power of the gas as set forth.

No. 2713. DAVID J. B. HAXTON & ROBERT F. SHURTLEFF, Toronto, Ont., 10th September, 1873, for 5 years: "Machine for Stamping Letters and Obliterating Stamps." (Machine à timbrer les lettres et biffer les timbres-postes.)

Consists of a system of rollers operated by motive power. The machine being self acting.

Claim—1st. The application of a self-acting postage stamp obliterator and letter stamper to a letter-box E: 2nd. The combination of the rollers C, C, and ink cylinder B, B, held and working within a frame A, as specified.

No. 2714. WILLIAM J. LINCOLN, St. Thomas, Ont., 10th September, 1873, for 5 years: "Thill Coupling." (Ajustage de timon de voiture.)

Relates to a coupling device for attaching the thills to the axle clip of carriages.

Claim.—1st. The circular locking piece H, having a radial notch I, and rotating in a circumferential projection G, formed on the clip F, to receive the thill irons B, in the manner set forth. 2nd The thill irons B, for attachment to the thills A, having a slot C, and notch D, and interlocking with the locking piece H, and circumferential projection G, when the thills are brought to a horizontal position.

No. 2715. GEORGE F. PARKER, St. Stephens, N. B., 10th September, 1873, for 5 years: "Manufacture of Moccasins." (Fabrication de mocassins.)

Claim—The boot moccasin A, and the shoe moccasin B, constructed as described.

No 2716. JAMES BROWNE, Toronto, Ont., 10th September, 1873, for 5 years: "Chart Stand and Illustrator." (Porte-carte interprète.)

Relates to the combination of a metal tube or bar having attached to it at its upper end a horizontal bar and sliding telescopically through an upright stand, with bracket and slot, pulleys, cords, weight and levers in such a manner that a chart or other form of illustration suspended from the horizontal bar may be raised or lowered at will.

Claim.—The combination of sliding tube or bar A, carrying cross bar B, upright stand C, C', metal bracket D, working in slot S, friction and foot lever F, G, with spring Z, pulleys H, H, and K, cord *l*, and weight W.

No. 2717. GEORGE SLEEMAN & THOMAS STEELE, Guelph, Ont., 11th September, 1873, for 5 years: "A Fermenting Tub." (Une cuve de fermentation.)

Relates to the combination of a fermenting tub with an outer tub, the object being to surround the inner tub in which is contained the fermenting liquor with water flowing or stationary as required, ice or other suitable substance for keeping the fermenting liquor at a proper temperature.

Claim.—1st The combination of the fermenting tub A, and the exterior tub C, with the space F, between A, and C; 2nd. The combination of the supply cocks C, the overflow pipe H, arranged for the purpose of regulating the supply and discharge of the cooling substance E.

No. 2718. THOMAS R. HAGERMAN, Hamilton, (Northumberland Co.), Ont., 11th September, 1873, for 5 years: "A Cultivator." (Un cultivateur.)

Claim.—1st The use of a tongue attachment in connection with a three wheeled cultivator and the mode of the attachment; 2nd The use of a front wheel governed by a tongue, and the position of the front wheel with reference to the front teeth, and the mode of attachment of the front wheel, 3rd. The attachment of the draw iron (which sustains the draught of the cultivator) to the main frame, at the points J, and K, in figure 1, and the mode of its attachment; 4th. The method of construction and bracing of the main frame as shown in figure 1, and its being in its action, independent of the draw iron, except when the cultivator is being drawn forward through the ground and the arrangement of the handle, and the spring regulating the catch in the handle; 5th The arrangement and use of the set screws N, N, for raising and lowering the main frame and levelling the cultivator; 6th The position of the hind wheels in line with the points of the back teeth whereby the action of the latter is governed; 7th. The circular shape of the front of the teeth, and their front being an unbroken circular sweep; 8th. The manner of regulating the hold in the ground given to the teeth by means of the nuts screwed on the braces of the teeth at the points S, in figure 2: 9th The extra adjustable points for the teeth.

No 2719. HENRY CLARKE, Baltimore, Md., U. S., 11th September, 1873, for 5 years: "Combination Locks." (Serrures à combinaisons.)

Claim—1st. A keyless lock in which slotted tumblers, arranged in an annular inclosure within the lock and capable of only a sliding movement are elevated by the pulling outward of an exterior band C, certain of the tumblers constituting a known combination being adapted to be pushed back to their original place, bringing them to such position with relation to the eccentrically formed plate that certain teeth thereon can pass through slots in the depressed tumblers, and allow of the movement of the said plate, and the shooting out or in of the bolt on the releasing of the spring hook, 2nd. The moveable eccentrically formed toothed plate *b*, *b'*, sleeve B, tumblers *d*, *d'*, and case A, relatively arranged as described, 3rd The case A, and bolt E, in combination with the sleeve B, band C, disk D, and tumblers *d*, *d'*, having the pins *h*: 4th In combination with the tumblers *d*, *d'*, the spring G, disk D, circular plate F, and washer H: 5th The spring hook I, mounted within the case at K, and catch K, in combination with the plate *b*, *b'*, adapted to be made stationary or moveable by means of the tumblers *d*, *d'*, operating with it as set forth.

No. 2720. BENJAMIN REDDEN, Windsor, N. S., 11th September, 1873, for 5 years: "Improvement on Inserted Saw Teeth." (Perfectionnement des dents de scies mobiles.)

Provides a means of removing the teeth, insertin new ones and keeping the latter in place.

Claim.—1st The saw-teeth *g*, and revolving plate *d*, constructed as described in combination with aperture *b*, and slot *c*, in saw *a*, as set forth; 2nd The revolving plate *d*, saving openings *e*, and *f*, or *f*, only, in combination with the tooth *g*.

No. 2721. DAVID BUCKLER, Guelph, Ont., 11th September, 1873, for 5 years: "A Carriage Top." (Un Soufflet de voiture.)

Claim—1st. In connecting the bows B, having rectangular corners, by rib C, pivoted near the angles, and having intermediately folding joints whereby the ribs conjointly form an arched bearing for supporting the roof; 2nd. The provision of slats D, bearing on the ribs C, for supporting the covering E; 3rd The provision of an elastic strap F, applied as set forth, whereby the arched ribs are maintained in position as described.

No. 2722. THOMAS R. KEITH, Haverhill, and AUGUSTUS SEAVER, Milford, Mass., U. S., 11th September, 1873, for 5 years; "Thread Measurer for Sewing Machines, &c." (Mesure-fil de machine à coudre et autres.)

Claim—1st In combination with a mechanism for winding thread upon spools, or using thread from spools, a measuring mechanism for denoting or registering the length of thread, 2nd The combination of the worm-wheel *a*, gear and worm-wheel *i*, and gear-wheel *m*, constructed and arranged as described.

No. 2723. HENRY CARTER, Aylmer, Ont., 11th September, 1873, for 5 years; "A Pruner." (Un sécateur.)

Claim.—The conjunction of the shank A, and cutter B, by bending, overlapping, and riveting and intersecting the bifurcated parts of the shears thus formed to operate loosely on the pivot C, as described.

No. 2724. CHARLES KENISTON, Somerville, Mass., U. S., 11th September, 1873, for 5 years: "Staple Seam for Leather Work." (Assemblage métallique du cuir.)

As applied to the outer and inner soles and the uppers of boots and shoes.

Claim.—In leather work, the parts of which are united by metal fastenings *d*, formed of parallel shanks, pointed by bevelling outwardly and inserted as described.

No. 2725. ELIAS BURNHAM, Peterboro, Ont., 11th September, 1873, (Extension of Patent No. 1808, for a 2nd period of 5 years.) "A Process of Roofing." (Composition à toiture.)

Claim.—The infusion into boiling coal tar of coarse sharp sand so as to form a preparation to be applied to the roofing of houses.

No. 2726. ELIAS BURNHAM, Peterboro, Ont., 12th September, 1873, (Extension of Patent No. 1808, for a 3rd period of 5 years): "A Process of roofing." (Composition à toiture.)

No 2727 CHARLES WILTON, Haldimand, Ont., 17th September, 1873, for 5 years: "An Adjustable Gate." (Une barrière mobile.)

Claim.—1st. The application of the slot H, in the post to make it adjustable at all seasons of the year; 2nd. The application of the block and sheaves for the purpose of opening and shutting the gate

No. 2728. JOHN AWFORD, (Assignee of John L. Secomb), Hamilton, Ont., 17th September, 1873, for 5 years: "A Spring Bed Bottom." (Un fond de lit à ressorts.)

Claim.—A spring bed bottom wherein the slats A, screws B slats or bars C, C', springs D, bars E, spring slats F, stiffeners G, and diagonal spring braces H, are arranged as set forth.

No. 2729. JOHN H. YOUNG, Hillier, Ont., 17th September, 1873, for 5 years; "Reaping Machine Pea Lifter." (Soulève-pois de moissonneuse.)

Consists in an appliance to be attached to the fingers and guards of reaping machines.

Claim.—The joint at B, the fenders I, J, and in combination therewith the peculiar form of the piece from A, to C.

No. 2730. JAMES T. PAGE & SAMUEL A. HAIGHT, Oshawa, Ont., 17th September, 1873, for 5 years; "A Stove-pipe Shelf." (Une tablette à tuyau de poele.)

Claim.—The application of a stove pipe shelf constructed as described, with clasps A, rim B, radiating arms c, c, c, and moveable shelf C, the extremities *a*, *a*, of the clasps A, being secured as described.

No. 2731. WARDEN KING, Montreal, Que., 17th September, 1873, for 5 years: "Header for Hot Water Boilers." (Disposition des chaudières de chauffage à vapeur.)

Claim.—1st The combination of the outer water space *g*, the elbows *f*, and the cone *e*; 2nd The boiler constructed of the outer shell *a*, the inner shell *b*, and the other parts as shewn and described in combination with the flanged water branches *c*, *c*, and the smoke outlet *d*; 3rd. In combination with the water branches *c*, *c*, and the smoke outlet *d*, the header consisting of the outer shell A, and B, with its flanges A1, B1, C1, D1, the flanged branches *h*, *h*, smoke pipe *i* the flanged branches K, K, and smoke pipe *l*, constructed by rust joint to the inner shell *c*, which consists of the faucets E1, E1, water spaces *m*, *n*, smoke and heat chambers O, P, plate *r*, and the stoppers *s*, and *t*.

No. 2732. HENRY CARTER & DANIEL STEWART, Aylmer, Ont., 17th September, 1873, for 5 years: "A Milking Machine." (Une machine à traire le lait.)

Claim.—In providing the tubes B, of a milking machine with longitudinal incised slots C.

No 2733. LYMAN LITCHFIELD, Gouverneur, N Y., U. S., 17th September, 1873, for 5 years: "A Horse Rake." (Un râteau à cheval.)

Claim.—1st. The combination of the end tooth B, of a horse rake rigidly attached to the rake head C, of the tooth A, next at the outer ends of the rake so that both teeth A, B, will have the same play or movement in raking; 2nd. The body or curve of the end tooth B, of a horse rake arranged in advance of the other A; 3rd. The points of the teeth of a horse rake, the end ones of which are a little raised from the horizontal plane of the other teeth.

INDEX OF INVENTIONS.

INDEX OF PATENTEES.

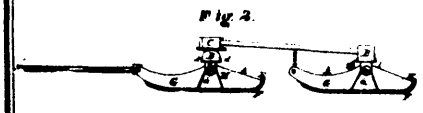
Forward, D., process for tanning hides 2683
Fowlis, W., & S. Wotherspoon, retort lid and packing 2697
Gilbert, E. E., valve motion 2618
Gillett, C. F., brushes 2625
Gladman, T. C., J. McLeod, & J. V. Newton, tuyere 2670
Gourlay, J., & A. Cant, chainless rotary bed for planer 2681
Gregg, R. R., pneumatic railroad 2631
Griffith, W. R., & S. W. Kirk, process for separating metals from ores 2695
Grover, J. M., churn 2694
Hagerman, T. R., cultivator 2718
Haight, S. A., & J. T. Page, stove pipe shelf 2730
Hamilton, J. L., spring bed bottom 2728
Hansen, C. A., & G. Harley, button holes and embroidery worker 2668
Harley, G. & C. A. Hansen, button holes and embroidery worker 2668
Haxton, D. J. B., & R. F. Shurtleff, machine for stamping letters and obliterating stamps 2713
Henley, H., & J. F. Allison, fire extinguisher 2670
Hill, T. Y. C., & G. T. Dean, combined chair and lounge 2685
Hoats, W. G., A. Feas, & M. Johnson, hoe 2626
Hollen, J., & R., railroad switch 2664
Hooker, J. J., timber splice for bridges 2643
Howe, J. S., swage 2627
Hunt, J. C., steaming and heating grain 2629
Hunt, E. W., safety lamp tube 2705
Jameson, W. H., & R. Carroll, mortar making machine 2649
Johnson, M., A. Feas, & W. G. Hoats, hoe 2626
Keith, T. R., & A. Seaver, thread measurer for sewing machine 2722
Kenlston, C., staple seam for leather work 2724
Kidd, H., & W. S. Shrapnel, knife sharpener 2701
Kidd, J. S., & M. L. Melville, culinary pots 2617
King, W., header for hot water boilers 2741
Kingam, T. D., meat cooler 2674
Kinney, C., mop handle 2693
Kirk, S. W., & W. R. Griffith, process for separating metals from ores 2695
Kitteredge, H. G. W., & E. J. Denroche, salt process for manufacturing 2660
Lemoine, P., spade 2650
Lebins dit Frère, L., mowing and reaping machine 2696
Lincoln, W. J., thill coupling 2714
Lisle, J., a rocking churn 2689
Litchfield, L., horse rake 2733
Long, J. P., lath mill 2656
Madill, H. P., well auger 2659
Marshall, W., evaporator 2711
Mathew-, G. B., & J. Clark, venting beer casks method for 2657
Matthias, J., glue pot 2651
Maxon, T., lifting jack 2688
Mead, W. S, sewing machine 2700
Melville, H. L., & J. S. Kidd, culinary pots 2617
Merritt, D. S., sheet iron cutter 2624
Molt, G., indigo blue dye 2639
Myers, Ed., rotary engine 2628
Myers, Ed., spring 2642
McGirr, J., dog or car lifter 2677
McLeod, J., J. V. Newton, & T. C. Gladman, tuyere 2670
McNab, J., (extension), car coupler 2669
McVeigh, T., illuminating oil 2684
Newton, J. V., J. McLeod, & T. C. Gladman, tuyere 2670
Nicholson, W. T., S. B. Dean, & G. Ames, cutting teeth on cylindrical surfaces 2671
Page, J. T., & S. A. Haight, stove pipe shelf 2730
Parker, G. T., manufacture of mocassins 2715
Pattee, J. H., steam vacuum pumps 2678
Patterson, N. A., propeller 2666
Phillips, H. D., brick machine 2672
Porter, D., sewing machine 2706
Redden, B., saw teeth, improvement on inserted 2720
Rexford, T., stove pipes 2644
Rhodes, W. A. P., horse collar pad 2686
Riordan, J., (assignee), cutting teeth on cylindrical surfaces 2671
Ritchey, J., dyspepsia cordial 2608
Robertson, J., generating heat 2610
Rodgers, A., saw mill head blocks 2682
Rogers, H., railway spike 2703
Rosenthal, J. S., treatment of asbestos 2663
Rosenthal, J. S., mode of producing asbestos fibre 2662
Saladee, C. W., spring tips for carriage poles 2644
Scowden, T. R., furnace for converting iron into steel 2679
Seaver, A., & T. R. Keith, thread measurer for sewing machine 2722
Shaw, A. B., & N. H., sewing machine treadle 2704
Sharpnel, W. S., & H. Kidd, knife sharpener 2701
Shurtleff, R. F., & D. J. B. Haxton, machine for stamping and obliterating stamps 2713
Sinclair, G., apparatus for boiling and evaporating liquids and pulping fibrous substances 2699
Sleeman, G., & T. Steele, fermenting tub 2717
Spencer, J., railway lamp screen 2698
Spencer, W. H., illuminating gas 2712
Spink, A. M., feather renovator 2658
Stanley, D., hydro-pneumatic motive power 2623
Steele, T., & G. Sleeman, fermenting tub 2717
Steward, C. A., clothes line holder 2667
Stewart, D., & H. Carter, machine for cutting bolts 2687
Stewart, D., & H. Carter, milking machine 2732
St. Amant, O., & J. Woodley, sewing machine 2641
Temple, T., railway snow plough 2620
Tilton, J. C., steam wash boiler 2604
Verney, J. B., organ sounding chamber 2640
Wainwright, H. H., gas apparatus 2690
Walker, W., railway snow plough 2611
Wallis, J. N., & T., coffin 2635
Watkins, A. H., & J. Benson, reservoir for street vapour burner lamp 2707
Watkins, A. H., & J. Benson, gas burner 2708
Webster, W., log canting machinery 2607
Weeks, J., bug exterminator 2692
Wheeler, H. F., sole trimming machine 2630
White, M., & J. Bird, creeper 2648
Wilkins, B., potato planter 2637
Wilson, G. J., & J. Beaudry, turning lathe 2606
Wilton, C., gate 2727
Woodley, J., & O. St. Amant, sewing machine 2641
Worden, A., steam engine lubricator 2615
Wotherspoon, J., & W. Foulis, retort lid and packing 2697
Wright, S., car coupler 2702
Young, J. H., reaping machine pea lifter 2729

THE

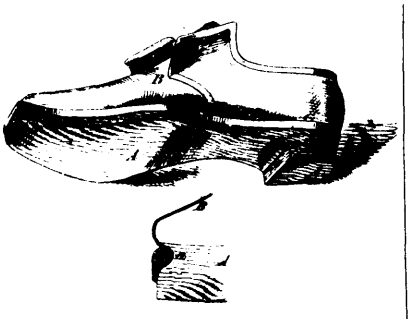
CANADIAN PATENT OFFICE RECORD.

ILLUSTRATIONS.

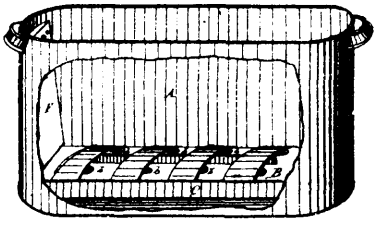
Vol. I. OCTOBER, 1873. No. 7.



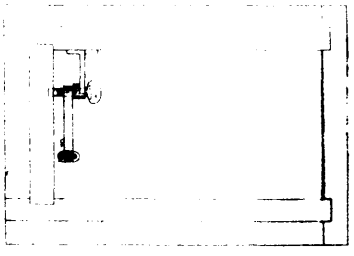
2602 Crosby's Sled.



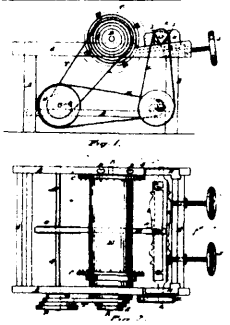
2603 Boyle's Wooden Soled Shoe.



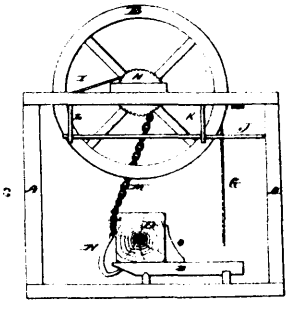
2604 Tilton's Steam Wash Boiler.



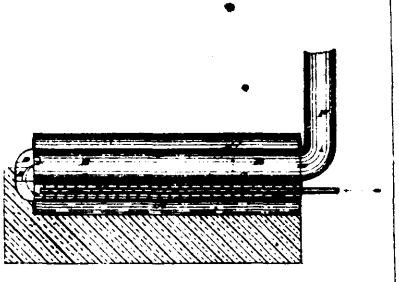
2605 Anderson's Door Spring.



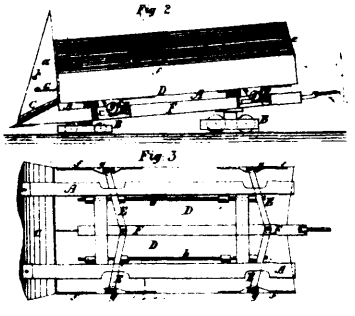
2606 Beaudry & Wilson's Turning Lathe.



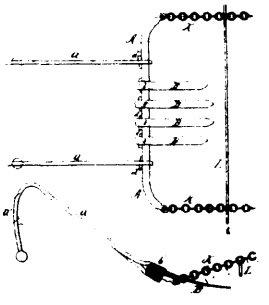
2607 Webster's Log Canting Machinery.



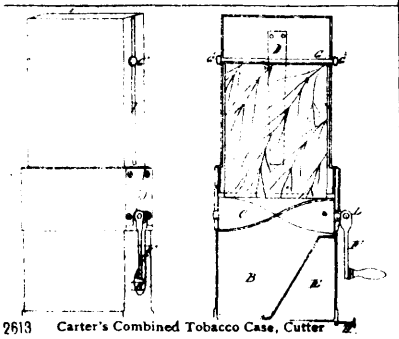
2610 Robertson's Process of Generating and Communicating Heat.



2611 Walker's Railway Snow Plow.

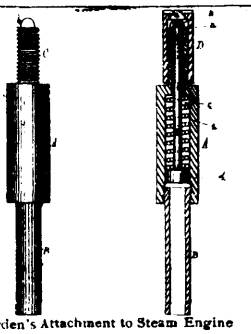


2612 Brush's Potato-digger.

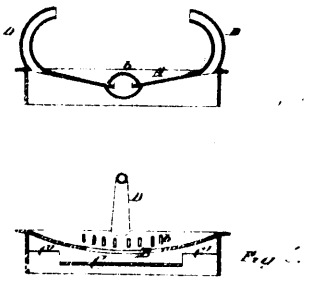


2613 Carter's Combined Tobacco Case, Cutter and Match Box.

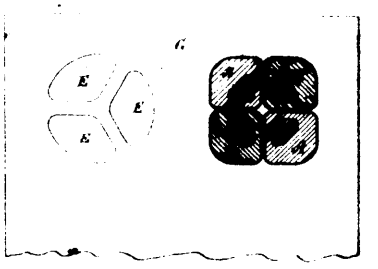
2614 Saladee's Spring Tips for Carriage Poles, &c.



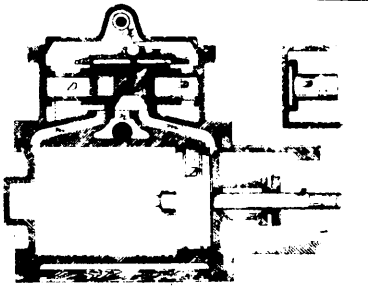
2615 Worden's Attachment to Steam Engine Lubricators.



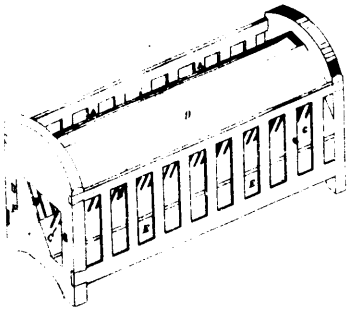
2615 Allen's Clothes Washing Machine.



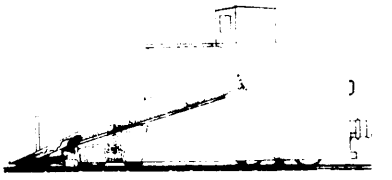
2617 Kidd & Melville's Culinary Pots.



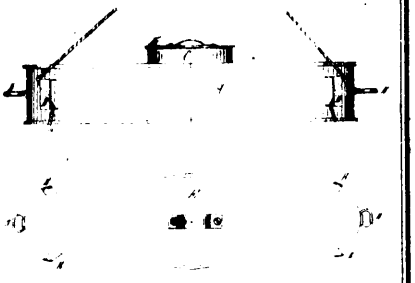
2618 Gilbert's Valve Motion.



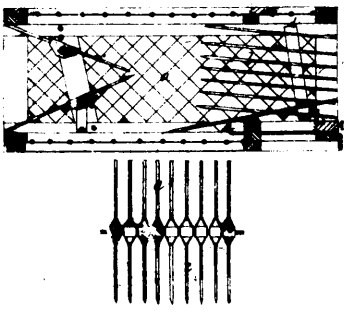
2619 Casgrain's Stable Rack.



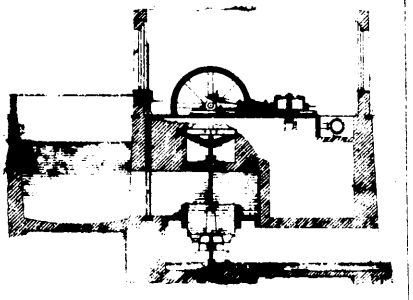
2620 Temple's Railway Snow Plow.



2621 Cottingham's Fish and Animal Trap.

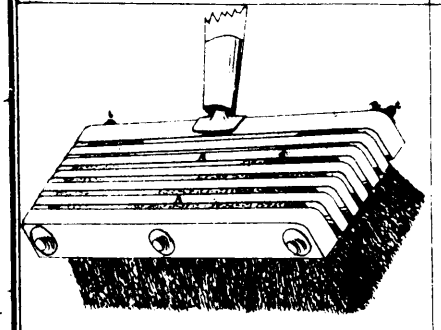


2622 Cottingham's Oscillating Churn.

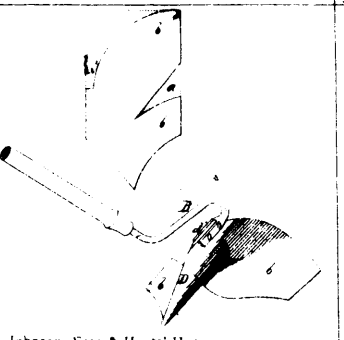


2623 Stanley's Hydro-pneumatic Motive Power.

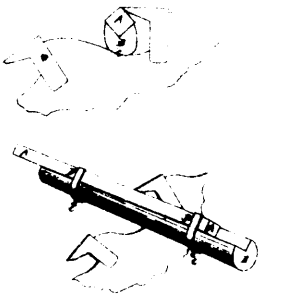
2624 Merritt's Sheet Iron Cutter.



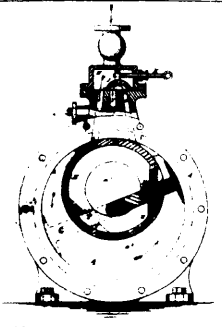
2625 Gillett's Improvements on Brushes.



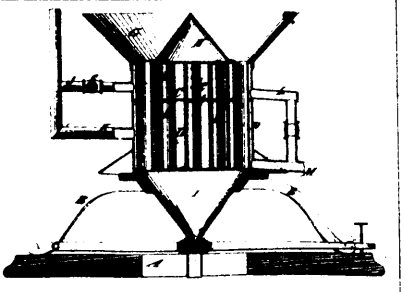
2626 Johnson, Feas & Hoats' Hoe.



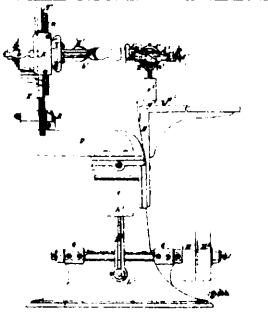
2627 Howe's Adjustable Swage for Saw-teeth.



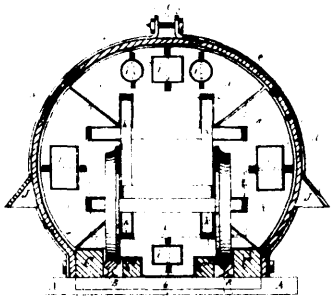
2628 Myers' Rotary Engine.



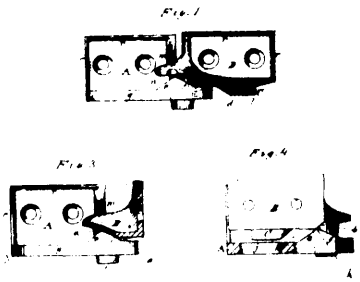
2629 Hunt's Apparatus for Steaming and Heating Grain.



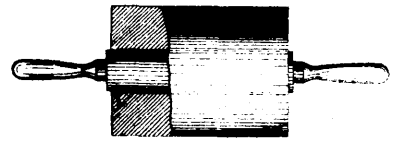
2630 Wheeler's Boots and Shoe Sole Trimming Machine.



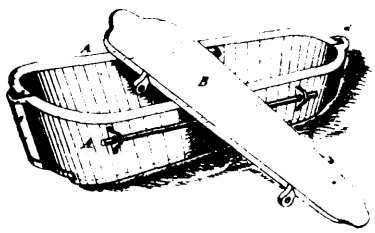
2631 Gregg's Pneumatic Railroad.



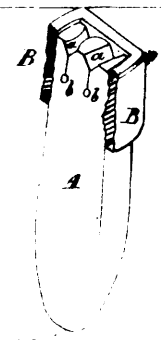
2632 Clark's Blind Hinge.



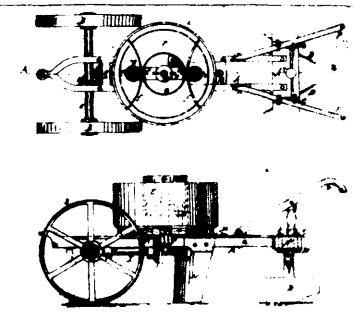
2634 Cross' Process of Transferring the Grain Marks of Wood and other Configurations.



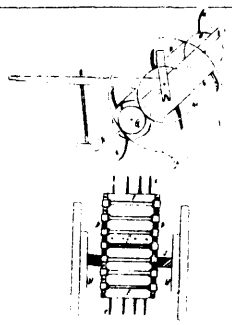
2635 Wallis' Coffin.



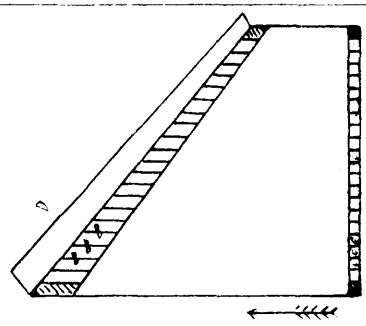
2636 Connor's Saw Tooth Swage.



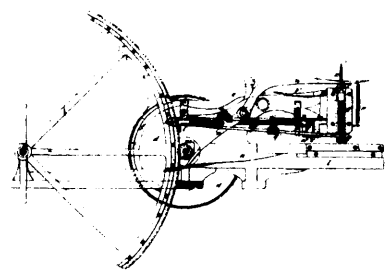
2637 True's Potato Planter.



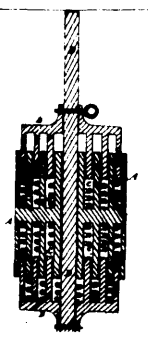
2638 Davy's Potato and Turnip Extractor.



2640 Verney's Organ Sounding Chamber.

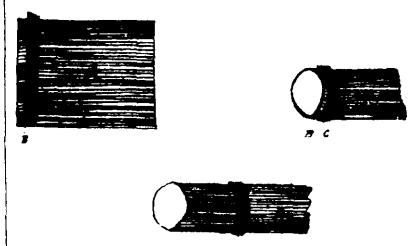


2641 St. Amant & Woodley's Sewing Machine.

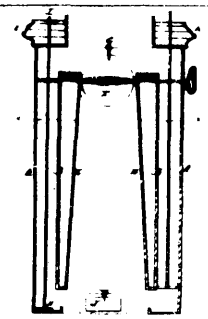


2642 Myers' Graduated Spring.

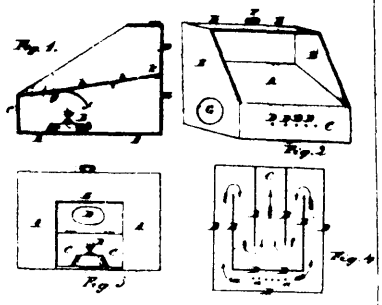
2643 Hooker's Timber Splice for Bridges.



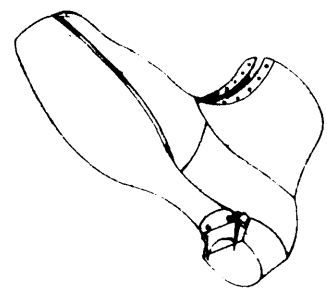
2644 Rexford's Manner of Joining Stove-pipes.



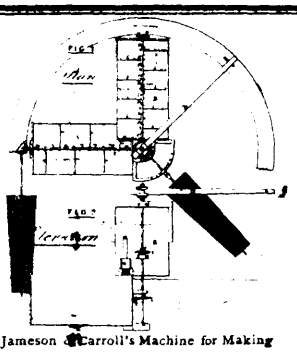
2645 Bolton's Ventilating Hot Air Drum.



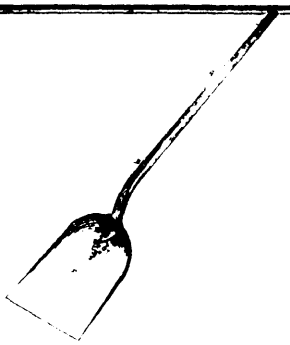
2646 Eastman's Foot-stove and Lantern.



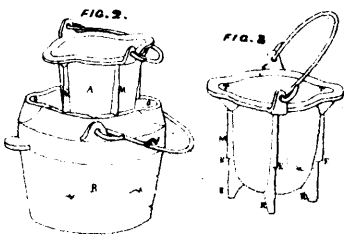
2648 White & Brett's Adjustable Creeper.



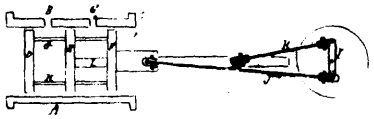
2649 Jameson & Carroll's Machine for Making Mortar.



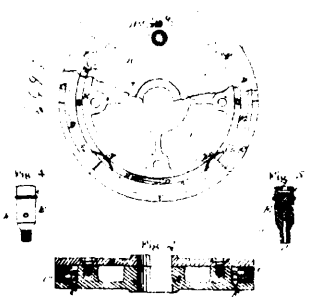
2650 Lemoine's Trench Spade.



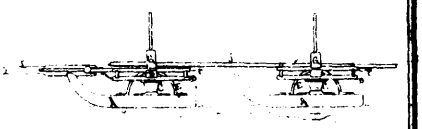
2651 Matthias' Glue Pot.



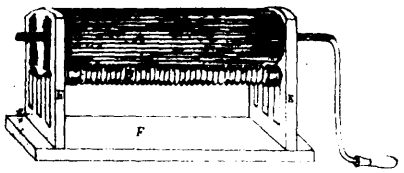
2652 Ansley's Double Action Engine.



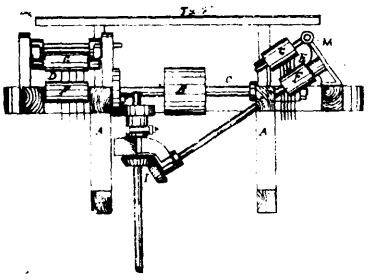
2653 Barry & Munro's Steam Piston Packing.



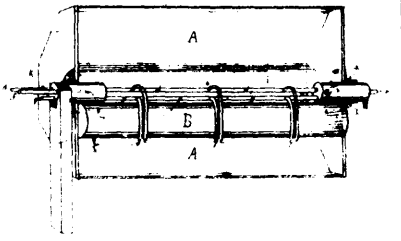
2654 Martin's Sleigh.



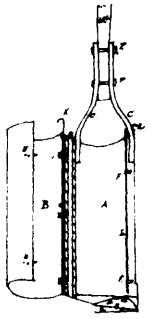
2655 Dickson's Machine for Washing Clothes.



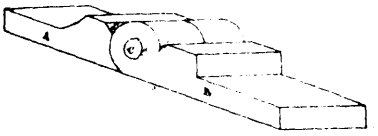
2656 Long's Bevel Lath Mill.



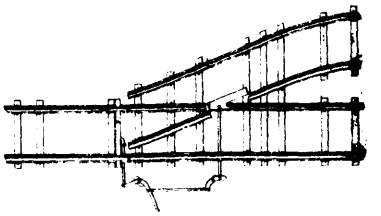
2658 Spink's Steam Feather Renovator.



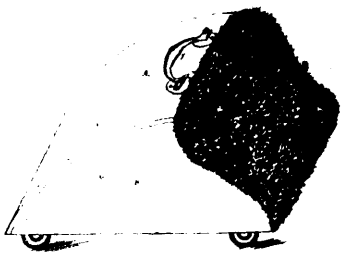
2659 Madill's Well Auger.



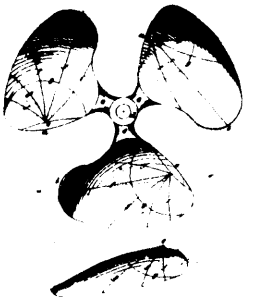
2661 Decker & Bellows' Carriage Shaft and Pole Coupler.



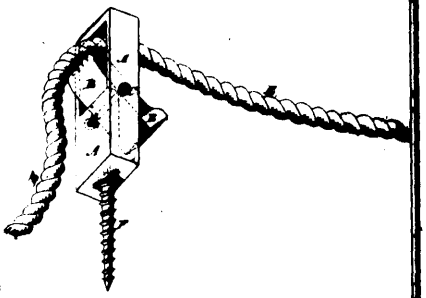
2664 Hollen's Railroad Switch.



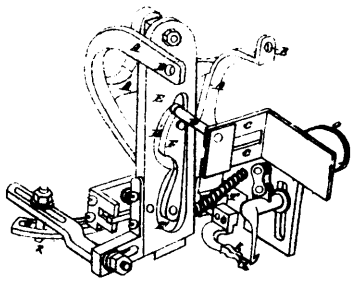
2665 Felibien's Foot Muff.



2666 Patterson's Propeller.

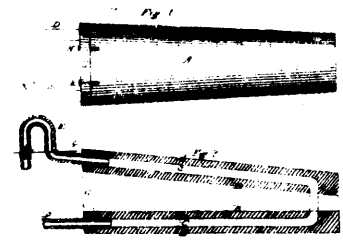


2667 Stewart's Clothes Line Holder.

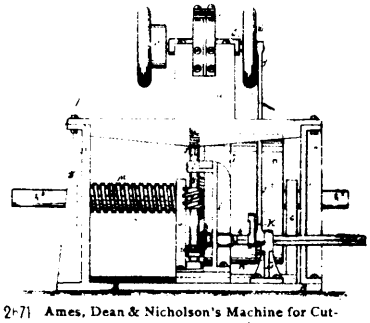


2668 Hansen & Harley's Button Holes and Em broidery Worker for Sewing Machines.

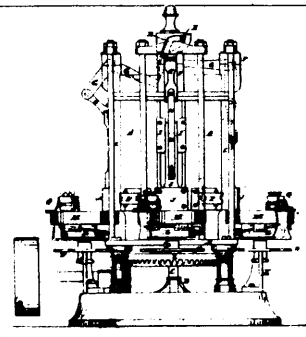
2669 McNab's Car Coupler.



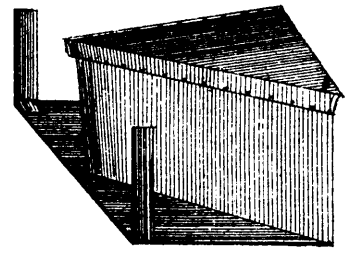
2670 McLeod, Newton & Gladman's Tuyere.



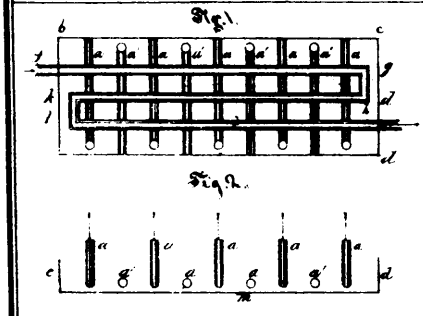
2671 Ames, Dean & Nicholson's Machine for Cutting Teeth on Cylindrical Surfaces.



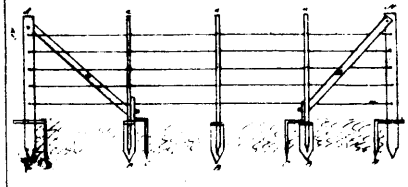
2672 Phillips' Brick Machine.



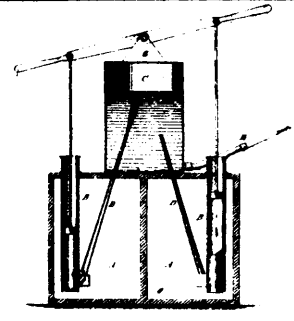
2673 Burnham's Railway Snow Cleaner.



2674 Kingham's Meat Cooler.

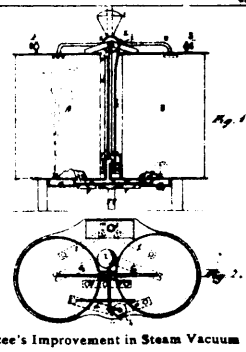


2675 Forsyth's Wire Fence.

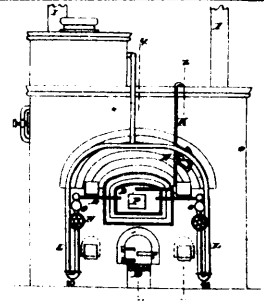


2676 Henley & Allison's Fire Extinguisher.

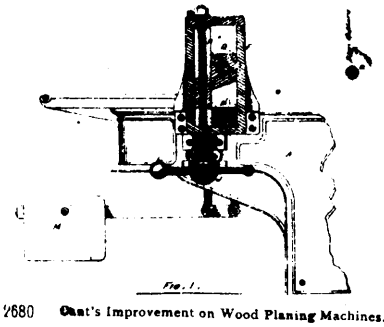
2677 McGirr's Dog or Car Lifter.



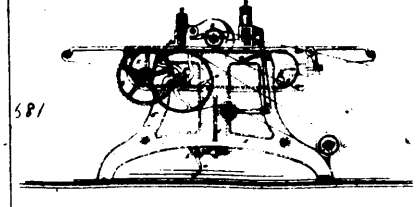
2678 Pattee's Improvement in Steam Vacuum Pumps.



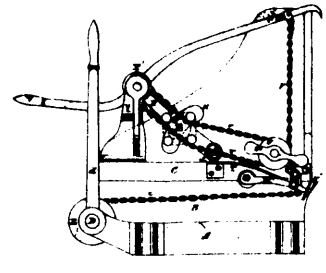
2679 Scowden's Furnace for Converting Iron into Steel.



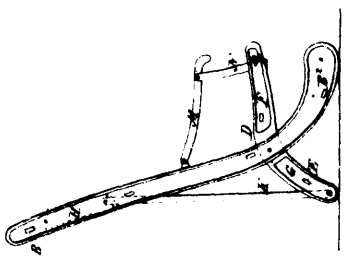
2680 Cant's Improvement on Wood Planing Machines.



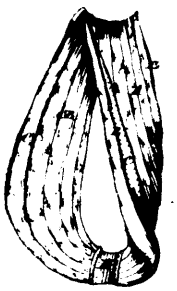
2681 Cant & Gourlay's Chainless Rotary Bed for Planer or Saw Table.



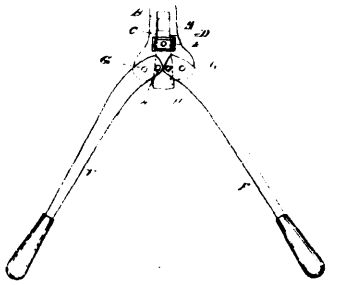
2682 Rodgers' Improvement on Saw Mill Head Blocks.



2685 Dean & Hill's Combined Chair and Lounge.

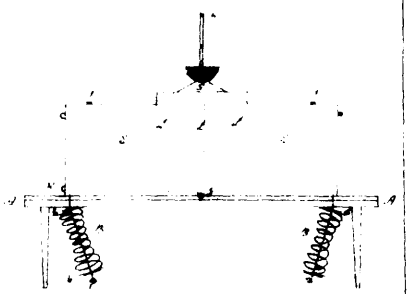


2686 Rhodes' Horse Collar Pad.

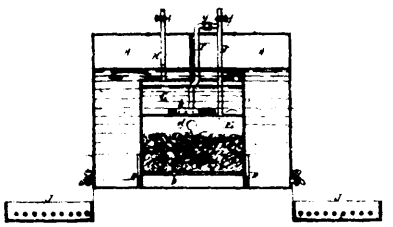


2687 Carter & Stewart's Machine for Cutting Bolts.

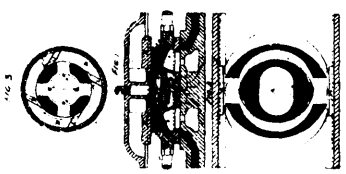
2688 Maxon's Lifting Jack.



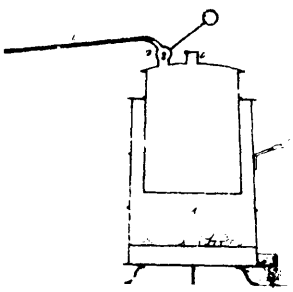
2689 Lisle's Rocking Churn.



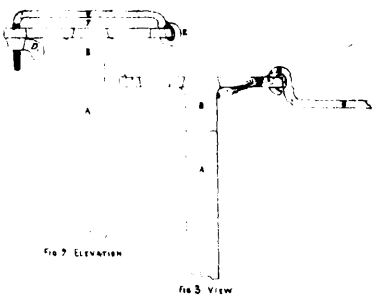
2690 Wainwright's Gas Apparatus.



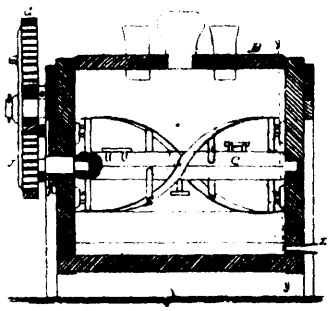
2691 Church's Improvements on Steam and Hydraulic Engines partly Applicable to Steam Hammers and to Valves for Regulating the Flow of Fluids under Pressure.



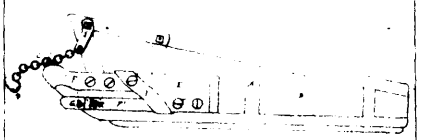
2692 Weeks' Bug Exterminator.



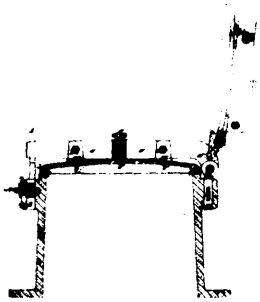
2693 Kinney's Mop Handle.



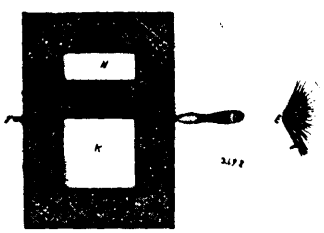
2694 Grover's Churn.



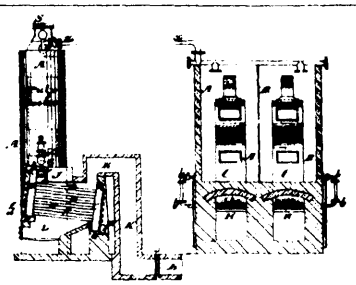
2696 Lebins dit Frere's Improvements in "Buckeye and Moodie's Mowing and Reaping Machines."



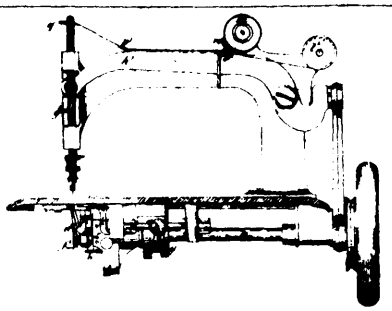
2697 Wotherspoon & Foulis' Retort Lid and Packing.



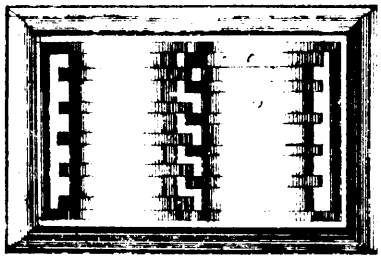
2698 Spencer's Railway Lamp Screen.



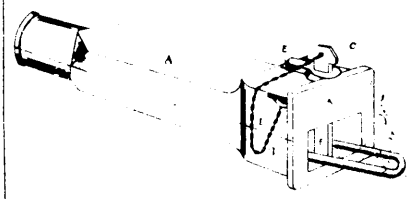
2699 Sinclair's Apparatus for Boiling and Evaporating Liquids and Pulping Fibrous Substances.



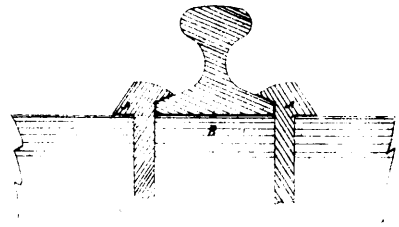
2700 Mead's Sewing Machine.



2701 Shrapnel & Kidd's Knife Sharpener.



2702 Wright's Railway Car-coupler.



2703 Rogers' Railway Spike.

2704 Shaw's Sewing Machine Treadle.

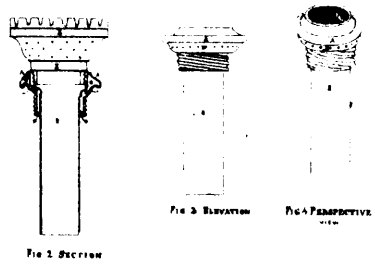
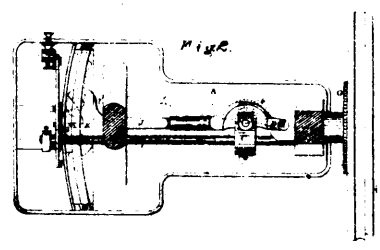
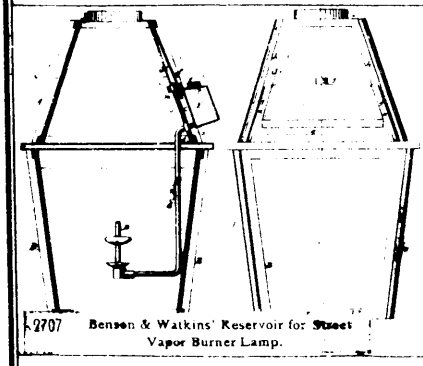


Fig 1. Section Fig 2. Elevation Fig 3. Perspective

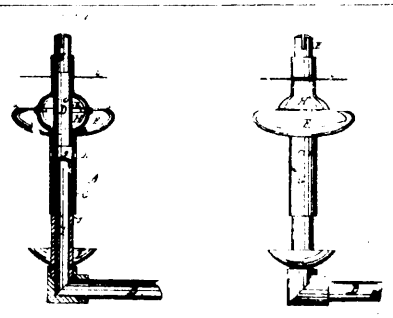
2705 Hunt's Safety Lamp Tube.



2706 Porter's Improvements on Sewing Machines.

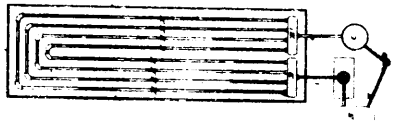


2707 Benson & Watkins' Reservoir for Street Vapor Burner Lamp.

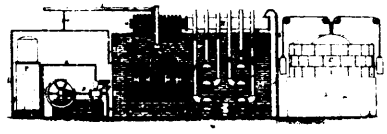


2708 Benson & Watkins' Gas Burner.

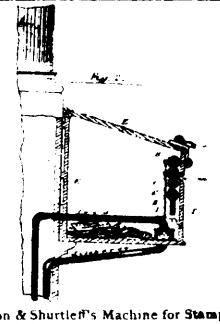
2710 Davidson's Fly Catcher.



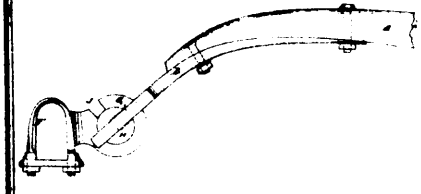
2711 Marshall's Evaporater.



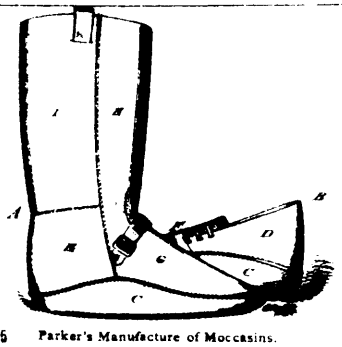
2712 Spencer's Illuminating Gas.



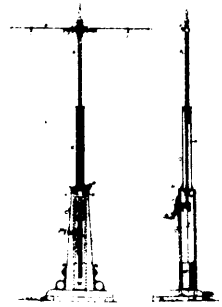
2713 Haxton & Shurtleff's Machine for Stamping Letters and Obliterating Stamps.



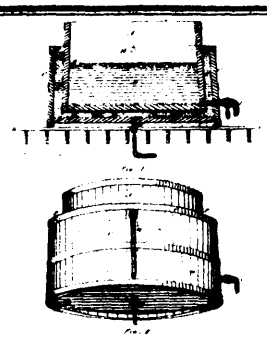
2714 Lincoln's Thill Coupling.



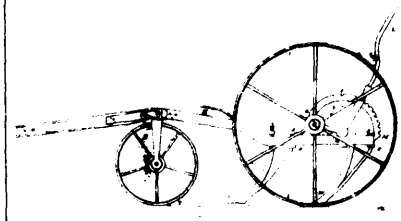
2715 Parker's Manufacture of Moccasins.



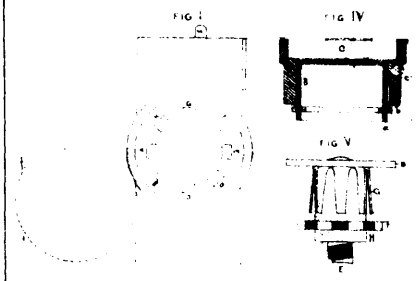
2716 Browne's Chart Stand and Illustrator.



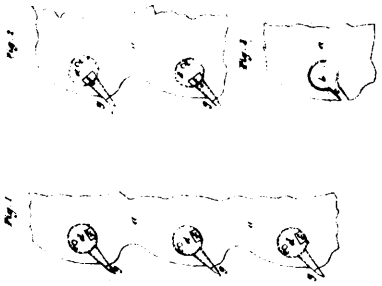
2717 Sleeman & Steele's Fermenting Tub.



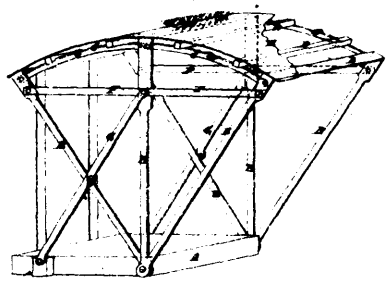
2718 Hagerman's Cultivator.



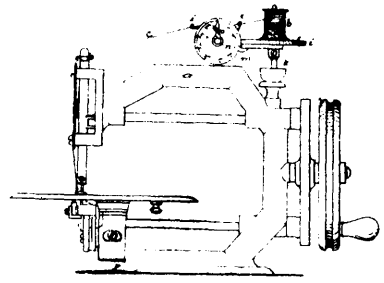
2719 Clarke's Combination Locks.



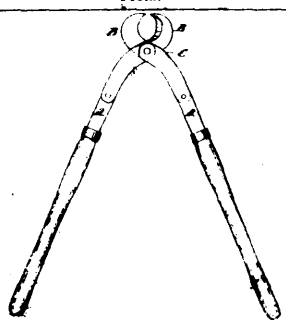
2720 Redden's Improvement on Inserted Saw Teeth.



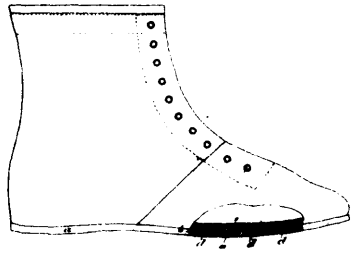
2721 Buckler's Carriage Top.



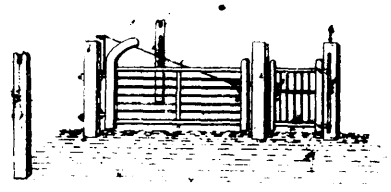
2722 Keith & Seaver's Thread Measurer for Sewing Machines, &c.



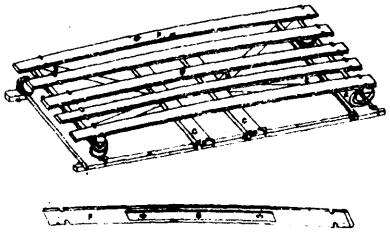
2723 Carter's Pruner.



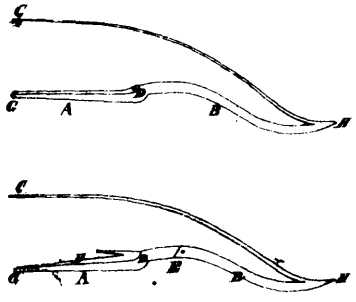
2724 Keniston's Staple Seam for Leather Work.



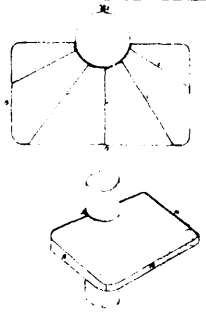
2727 Wilton's Adjustable Gate.



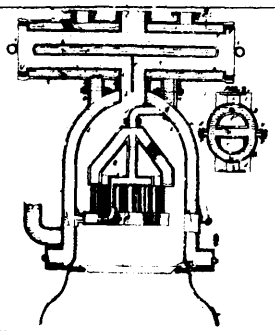
2728 Awford's Spring Bed Bottom.



2729 Young's Reaping Machine Pea Lifter.

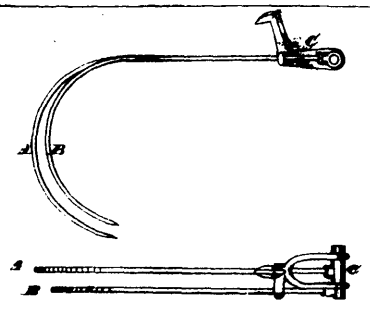


2730 Page & Haight's Stove-pipe Shelf



2731 King's Header for Hot Water Boilers.

2732 Carter & Stewart's Milking Machine.



2733 Litchfield's Horse Rake.