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The Canadian Patent Office Record

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CONTENTS.

INVENTIONS PATENTED.

No. 6088. Improvements in the Legs of Stools, Tables, &c.

(*Perfectionnements dans les pieds de bancs, tables, etc.*)

Cornelius E. Haynes, Boston, Mass., U. S., 17th May, 1876, for 5 years.

Claim.—The semi-detachable leg C, consisting of the piece D, firmly secured to the seat in any suitable manner, and folding piece C_1, the said pieces D, and C_1, being connected together by the fixed or sliding ferrule E, with slot E, and staple F, or their equivalent.

No. 6089. Process for Separating Woollen from Cotton Fibre.

(*Procédé pour séparer la laine du coton.*)

Louis R. Broadbent and Charles F. Broadbent, Baltimore, Md., U. S., 17th May, 1876, for 5 years.

Claim.—1st. Steeping the fabric in cold water, then boiling it in hydrochloric acid solution of a specific gravity of from 1.015 to 1.19 for from three to twenty-five minutes and withdrawing it; 2nd. The treatment of the woollen fibre, after being withdrawn from the acid bath, in a bath containing cold water, Marseilles soap and ammonia, and subsequently washing in pure water.

No. 6090. Improvements on Plaiting Machines. (*Perfectionnements aux machines à plisser.*)

Samuel J. Anderson, Cazenovia, N. Y., U. S., 17th May, 1876, for 5 years.

Claim.—1st. The rack or frame *d*, in combination with the board *h*, and a blade for forcing the cloth through between the strips *g*; 2nd. The method of forming plaits by forcing the cloth through spaces and then ironing the plaits down; 3rd. In combination with a rack *d*, the knife *i*.

No. 6091. Hair Restorer. (*Restaurateur de chevelure.*)

James McCormack, Waverley, Iowa, U. S., 23rd May, 1876, for 5 years.

Claim.—The combination of aqua ammonia, sage and burdock mixed.

No. 6092. Binding Rods for Bridge Beams.

(*Barres d'assemblage des poutres de ponts.*)

Peter Bélyen, Sr., Prariton, Ill., U. S., 23rd May, 1876, for 5 years.

Claim.—The binding-rod C, with its securing bolts *c*, the cap A, and the joist B, with their notches *b*.

No. 6093. Clothes Ironing Board,

(*Planche à repasser le linge.*)

Adolphe Gibeau, Montreal, Que., 23rd May, 1876, for 5 years.

Résumé.—1o. La combinaison de la rainure B, et la languette D, avec la planche A, et l'élastique C, pour retenir et repasser le devant de la chemise; 2o. La combinaison des montants E, avec entailles F, pour ajuster sur le dos G, de la chaise; 3o. La combinaison de la patte H, attachée avec boutons I, le support L, lié avec couplets M, et la planchette O, avec dents à degrés N, pour supporter le bout de la planche A, se pliant par eux-mêmes ensemble; 4o. La combinaison des goussets P, recevant le bout de la table et des goussets J, s'appuyant sur le siége K, de la chaise, ainsi que la boîte Q, à l'extrémité de la planche A, qui repose sur le bout de la table.

Claim.—1st. The combination of the groove B, and the tongue D, with the board A, and the elastic C, to hold and iron the front of the shirt; 2o. The combination of the uprights E, with the notches F, to adjust upon the back G, of the chair; 3rd. The combination of the cramp H, fastened with bolts I, the support L, connected with the hinges M, and the board O, with graduated teeth N, to support the end of the board A, folding automatically; 4th. The combination of the stays P, receiving the end of the table and of the stays J, supported upon the seat K, of the chair, as well as the box Q, at the extremity of the board A, which rests upon the end of the table.

No. 6094. Improvements on Slide Valves and Pistons. (*Perfectionnements aux tiroirs et pistons à vapeur.*)

William G. Beattie, London, Eng., 23rd May, 1876, for 5 years.

Claim.—1st. Forming pistons and piston valves and D-valves of two or more sections, or parts with pistons packing rings *d*, between the said rings *d*, being held tight in place by means of an internal valve or piston rod *e*, outer sleeve *f*, with collars or shoulders *g*, and nut or nuts; 2nd. Forming pistons in two parts or sections with piston rings *d*, between the said rings *d*, being held tight by means of a nut e^1.

No. 6095. Improvements on Axle Boxes.

(*Perfectionnements aux boîtes d'essieux.*)

William G. Beattie, London, Eng., 23rd May, 1876, for 5 years.

Claim.—1st. The cylinder *a*, piston *b*, rod *c*, with knob *d*, and aperture *e*, *e*, and *f*, *f*; 2nd. The valve for supplying axle box with oil consisting of plug *g*, casing *h*, and spring the passage through the plug at *l*, and handle *m*; 3rd. The combination of diaphragm *n*, carriers *o*, *o*, wicks *p*, *p*, spiral springs and perforations *r*, *r*, in an axle box; 4th. The employment of shields for preventing the entry of dust to, or the escape of oil, from axle boxes.

No. 6096. Improvements on Ejector Condensers. (*Perfectionnements aux condensateurs éjecteurs.*)

James F. Guthrie, Sumerville, Mass., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The adjustable nozzle D, in combination with the combining nozzle F, and the induction tube G; 2nd. The stuffing box E, attached to the central adjustable nozzle D; 3rd. A hand hole H, through which the adjustable nozzle D, is regulated.

No. 6097. Improvements on Steam Boilers.

(*Perfectionnements aux chaudières à vapeur.*)

Henry F. King, Corry, Pa., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The upright water back A, having a series of vertical stay plates *g*, forming the water passage *d*, in combination with the blind tubes B; 2nd. A wrought iron boiler, an upright water back A, having a series of stay-bolts passing through it, in combination with the plates *g*, and blind-tubes B.

No. 6098. Puddling Furnace. (*Fourneau à réverbère.*)

Ananias Smith, Clifton, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of a puddling or reverbatory furnace A, with one or more combustion chambers B, having passages B_1, leading thereto and adapted for the combustion of liquid fuel; 2nd. The combination of a puddling furnace A, one or more combustion chambers B, adjacent thereto, one or more pipes for supplying the liquid fuel, steam or vapour and a suitable tank N, and steam boiler K, for holding and forcing the same; 3rd. A puddling furnace A, in combination with combustion chambers B, arranged on one or more sides, and chimneys or take ups H_1, arranged on two or more corners of the same, with flue entrances at or near the base.

No. 6099. Plate-Lifter. (*Porte-assiette.*)

Daniel M. Skinner and Ezra Gould, Sandwich, N. H., U. S., 23rd May, 1876, for 5 years.

Claim.—The combination of the jaws A, A, and their shanks and handle parts *a*, a_1, with the intermediate shank-clasp and plate supporter B, all being composed of wire bent.

No. 6100. Safety Lock for Houses of Detention. (*Serrure de sûreté pour les maisons de détention.*)

Joseph A. Quesnel, Arthabaskaville, Que., 23rd May, 1876, for 5 years.

Résumé.—1o. La combinaison de la détente M, avec le pêne supérieur J, pour le retenir à l'intérieur de la serrure; 2o. La combinaison de la détente M, et du pêne supérieur J, ayant l'entaille *a*, de la gorge *b*, avec la clef du pêne supérieur J, pour la retenir engagée et dormante dans la serrure lorsqu'on ouvre la porte d'une cellule; 3o. La combinaison du pêne inférieur

D. avec le pêne supérieur J, pour fermer la porte à clef à l'intérieur; 4o. La combinaison du ressort I, rivé au dos du pêne inférieur D, s'engageant dans l'encoche *d*, de la tête du pêne supérieur J, avec le pêne supérieur J, pour le rendre dormant; 5o. La combinaison particulière de la détente M, du pêne supérieur J, et de la gachette F1, du levier K, et de son ressort L, du pêne inférieur D, et de sa gachette F, du ressort I, s'engageant dans l'encoche *d*, de la tête du pêne supérieur J, avec la clef du pêne supérieur J, et celle du pêne inférieur D.

Claim.—1st The combination of the detent M, with the upper bolt J, for retaining it inside of the lock, 2nd. The combination of the detent M, and of the upper bolt J, having the notch *a*, of the groove *b*, with the key of the upper bolt J, to keep it engaged and fixed in the lock when the door of a cell is opened, 3rd. The combination of the lower bolt D, with the upper bolt J, to lock the door inside; 4th. The combination of the spring I, rivetted on the back of the lower bolt D, engaging in the slot *d*, of the head of the upper bolt J, with the upper bolt J, to make it dormant, 5th. The peculiar combination of the detent M, of the upper bolt J, and of the follower F1, of the lever K, and its spring L, of the lower bolt D, and of its follower F, of the spring I, engaging in the slot *d*, of the head of the upper bolt J, with the key of the upper bolt J, and that of the lower bolt D.

No. 6101. Electro-Harmonic Telegraph.

(Telegraphe electro-harmonique.)

Elisha Gray, Chicago, Ill., U. S., 23rd May, 1876, for 15 Years.

Claim.—1st. The art of telegraphically transmitting composite tones which consists in working a closed circuit with a continuous current from a main battery, proportions of the whole of which current are thrown into vibration at will by the transmitters; 2nd. The art of telegraphically transmitting and analyzing composite tones, which consists in working a closed circuit with a continuous current from a main battery, portions of the whole of which current are thrown into vibration at will by the transmitters, each set of vibrations being audibly reproduced by a corresponding receiver; 3rd. The combination of a series of transmitters each operated by a local battery, a main battery, an electric circuit through which a continuous current flows from said battery, and shunt or short circuits between the main battery and transmitters. 4th. The combination of a series of transmitters, a main battery connected therewith by short or shunt circuits, a closed electric circuit through which a current continuously passes from the main battery, and a series of analyzing receivers included in the circuit.

No. 6102. Safety Lock. *(Serrure de sûreté.)*

Joseph A. Quesnel, Arthabaskaville, Que., 23rd May, 1876, for 5 years.

Résumé.—La combinaison du pêne surnuméraire et vertical H, et sa gachette J, avec le petit pêne E, d'une serrure A, pour en faire une serrure dite de sûreté.

Claim.—The combination of the supernumerary and vertical bolt H, and its follower J, with the small bolt E, of a lock A, to make what is called a safety lock.

No. 6103. Blast Furnace for Reducing Ores.

(Fourneau coulant pour reduire les minerais.)

Ananias Smith, Clifton, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of the shaft A, combustion chambers C, pipes U1, and W, connecting through intermediate pipes with a steam boiler L, and fuel tank K, connected by a pipe M, 2nd. The combination of a superheater O, steam boiler L, pipe M, liquid fuel tank K, pipes U1, and W, with the combustion chambers C, and interior or shaft A, of the furnace; 3rd. The combination with the inside or shaft of the furnace, of one or more water slabs arranged within the same.

No. 6104. Composition of matter to be used Medicinally and as Food.

(Compose medecinal et alimentaire.)

John L. Johnston, Sherbrooke, Que., 23rd May, 1876, for 5 years.

Claim.—A mixed compound of Beef and other meats with Albumen.

No. 6105. Improvements on Root-Cutters.

(Perfectionnements aux coupe-racines.)

Nazaire Aubut, Trois-Pistoles, and Théophile Aubut, Ste. Flavie, Que., 23rd May, 1876, for 5 years.

Résumé.—La combinaison des couteaux à dents H, et des lunettes à dents G, avec la roue verticale F.

Claim.—The combination of toothed knives H and toothed holes G, with the vertical wheel F.

No. 6106. Improvements on Tobacco Pipes.

(Perfectionnements aux pipes.)

Mark Thomson, Cowansville, Que., 23rd May, 1876, for 5 years.

Claim.—1st The cylindrical tube B closed at one end by cork plug E, and at the other end by enlarged screw D, on end of mouth piece, 2nd. The combination with the cylindrical tube B, of the porous material F.

No. 6107. Improvements on Oscillating Valves. *(Perfectionnements aux soupapes oscillantes.)*

John Fairburn, Upton Station, Que., 23rd May, 1876, for 5 years.

Claim.—The oscillating valve A, receiving steam internally through pipe I, having a single port *a*, in combination with a cylinder having the steam inlet ports F, F, coinciding with the port *a*, and the ports G, G, exhausting above the valve and terminating in a passage E, leading toward each end of the cylinder

No. 6108. Improvements on Sewing Machines. *(Perfectionnements aux machines a coudre.)*

John C. Burton, St. Thomas, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The plate A, having pillars B, B, leaving the spindle C, provided with a grinding wheel D, and pulley E, 2nd. The provision of a rest G, branching from the pillar B, and bending over the grinder D; 3rd. The rest G, having hole H, for receiving the needle while being pointed.

No. 6109. Improvements on Cultivators.

(Perfectionnements aux cultivateurs.)

William Green, Brantford, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The radial links or chains 1, 2 and 3, and lateral links 4 and 5 in combination with a crank pin; 2nd. The cast iron plate D, with flanges E, and F, and the crank plate G, with helical teeth N, formed on the side or edge, and also strap M, between crank pin and pin I; 3rd. The gauge O on crank plate G, in connection with index S, on stay Q, the blocks X and bent lever Y.

No. 6110. Railroad Car Coupling.

(Attelage de wagons de railroute.)

George W. Green and Abraham D. Green, Greensville, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of the stop B, with pin D; 2nd. The combination of the link lifter E, E, with the coupling box A.

No. 6111. Improvements on Potato-diggers.

(Perfectionnements aux arrache-patates.)

James Kealy and Patrick Kealy, Gloucester, Ont., 23rd May, 1876, for 5 years.

The scoop C, and screen D, the combination of the crank shaft J, and rake bars I, provided with rake heads K.

No. 6112. Improvements on Steam Engine Exhausts.

(Perfectionnement des soupapes d'aspiration de vapeur.)

Henry D Decker North Hartland and James M Foss, St Albans, Vt U S 23rd May, 1876, for 5 years

Claim.—1st. The combination of the pipes A and A1, with the exhaust passages of a steam engine 2nd The combination of the conical shaped head B1, a series of movable plates F1, and the cap B, having a partially rotary movement upon said head to move the plates, 3rd. The combination of the conical shaped head B1, the movable plates F, the cap B, and the exhaust nozzle I.

No. 6113. Improvements on Seeding Machines. *(Perfectionnements aux machines à semer.)*

Peter Milne, Langton, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The seed box C, having a supplementary sliding bottom J, slotted, subdivided transversely, and both subdivisions operated by levers K, 2nd. The combination with the wheel A, having cam cylinders G, G, the levers E, E, and agitator D; 3rd. The provision to the seed box C, of the slide N.

No. 6114. Improvements in Railway Signals.

(Perfectionnements dans les signaux de railroutes.)

Thomas Sills, Fort Erie, Ont., 23rd May, 1876, for 5 years.

Claim—1st. The combination of the lamp I, and the shade J, 2nd. The combination of the lamp I, and the shade J, with the semaphore arm K, 3rd. The combination of the lamp I, and the shade J, with the semaphore arm K, also the switch fastener N.

No. 6115. Improvements on Metallic Roofs.

(Perfectionnements aux toitures métalliques.)

John Power, Kingston, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. A sheet metal roof that will allow of contraction and expansion in all directions, 2nd. The mode of applying sheet metal covering to roofs by strips C, secured at intervals to the sheeting A, and formed to lock slidingly with engaging rails D, interposed at suitable distances between and rivetted to the sheet B, up-turned at their edges, to form ridges with the pitch of the roof and the joints of the up-turned edges rivetted and soldered or otherwise made watertight, 3rd. The combination with the sheets B, of the rails D, and strips C, fixed to the roof sheeting A, 4th. The sheets B, B, rivetted and soldered to the rails D, and secured to the roof sheeting A, by strips C.

No. 6116. Apparatus for Walling Wells.

(Appareil à murer les puits.)

Azariah Moore, Shellsburg, Iowa, U. S., 23rd May, 1876, for 5 years.

Claim.—1st. A series of radius arms, upon the outer ends of which the wall may be supported, said arms being pivoted to a centre column and provided with a releasable detent contrivance capable of being operated from the top of the well to allow of the tilting of the arms when the implement is withdrawn from the well, 2nd. The combination with the pivoted radius arms A, of the column D, ring or collar E, and lever F, 3rd. The combination of the radius arms A, the adjustable bearings B, and collar E, provided with a detent contrivance whereby the apparatus may be adjusted to different diameters; 4th. A device for walling wells from the surface, a series of radial arms formed to support the wall while being lowered, and to be released, and withdrawn from beneath the same when the wall is in place, 5th. The combination with the radius arms A, of the cords or chains *z*, *z*, attached to the inner ends of the arms and congregated together at *z*1, 6th. The combination with the column D, and collar E, the spring catch N, inserted in the side of the column.

No. 6117. Manufacture of Grain Cradle Fingers. *(Fabrication des branches des faucilles.)*

Christopher P. Kelsey and James L. Multer, Richmondville, N. Y., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The application of a denticulated (or serrated) edged curved or straight knife, fastened in a rotary cutter head cylinder, to a tapering piece of timber, cutting or grooving it out so as to form a set more or less in number of grain cradle fingers, at the same time giving them an elliptical or other sectional form. 2nd. The bending of the fingers, before being entirely separated from each other at the sides or ends.

No. 6118. Saw Sharpening and Setting Machine. (*Machine à affûter et donner la voie aux scies.*)

Rudolph Hennsch and Louis Beyer, Washington, D. C., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The combination with the stand A, of the arm B, and socket A_1, the arm carrying the driving mechanism, and the socket supporting the table for holding the blade whether for sharpening or setting the saw; 2nd. The head H, part of which is the sharpeniug file H_1, and part the helical adjustable spring plate H_2, for first filing the inclined face of a tooth and then carrying the saw blade forward the width of a tooth; 3rd. In combination of the bed K, table L, gauge L_1, jaw L_1, for supporting the saw blade and clamping one edge, and the adjustable rod O, for confining the other edge; 4th. The combination of the stem P, hinged attachment R, gauge S, and jaw S_1, for clamping the saw blade and holding it at any required inclination, for giving the proper set to the teeth; 5th. In combination with the adjustable attachment R, and gauge S, for fixing the back of the blade, the gauge Q, also adjustable for fixing the serrated edge of the blade; 6th. In combination with the adjustable bed for supporting the saw blade at the required inclination, the hammer T, elastic helve T_1, arm V, set screws V_1, and cam G, for giving a regulated blow of the hammer; 7th. The elastic helical reversible blades X, and Y, in combination with the head W, and slide Z, and set screws Z_1, for regulating the pitch of the feed to correspond with the width of the teeth of the saw, and feed the width of two teeth at a time alternately each way.

No. 6119. Wax Thread Sewing Machine.

(*Machine à coudre avec du fil ciré.*)

John E. Wheeler, Lynn, Mass., U. S., (co-inventor with, and assignee of, Lyman L. Barber), 23rd May, 1876, for 5 years.

Claim.—1st. The wedge-shaped adjusting block D, rocking lever E, and presser bar A, in combination with the lever H, and projecting collar B; 2nd. The combination of the shoulder B, and lever H, with the variable adjusting-block D, and operating mechanism, whereby the said block is adjusted by the thickness of the work and the presser bar thereby caused to have an uniform lift from the surface of the work; 3rd. The combination of the presser bar A, and adjustable collar F, with the rocking lever E, and spring G; 4th. The wedge-shaped adjusting blocks D, E, and E_1, or their equivalents when operated by the presser bar, so as to diminish or increase the friction or restraint upon the tension spool thereby regulating the delivery of the thread.

No. 6120. Improvement on Horse Rakes.

(*Perfectionnement des râteaux à cheval.*)

Dennis P. Sharp, Ithaca, N. Y., U. S., 23rd May, 1876, for 5 years.

Claim.—The combination with the flange *a*, of the rocker B, provided with the two pins or lugs *d*, *d*, embracing the flange and adapted to produce friction upon the two opposite sides of the same.

No. 6121. Article of Manufacture for Textile and Fibrous Fabrics.

(*Article de manufacture pour les matières textiles et fibreuses.*)

Samuel Van Benschoten, Evanstown, Ill., U. S., 23rd May, 1876, for 5 years.

Claim.—Prepared algea or grass.

No. 6122. Process for Preparing Tan Bark.

(*Procédé de préparation de l'écorce de tan.*)

Jonathan Sherman, Chicago, Ill., U. S., 23rd May, 1876, for 5 years.

Claim.—Drying and grinding, and then compressing the bark sufficiently to crush the cells containing tannin, and at the same time to form small cakes of the ground material convenient for transportation.

No. 6123. Veneer Cutting Machine.

(*Machine à tailler le placage.*)

Henry T. Bartlett, Brooklyn, N. Y., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of the knife i_1, with the reciprocating frame and horizontal adjustable pressure bar; 2nd. The reciprocating knife carrying frame R, in combination with the gibs *z*, and vertical guide upon the uprights B, B; 3rd. The gibs *z*, provided with a recess and lugs o_1, for the purpose of guiding the knife frame in its reciprocations; 4th. The radial rods S, in combination with their adjusting devices; 5th. The reciprocating frame R_1, in combination with the mechanism by which it is operated; 6th. The cutting table J, in combination with the screws, gears and shafts by which it is rendered vertically adjustable; 7th. The vertically adjustable table in combination with the reciprocating knife frame R, and their operating mechanism; 8th. The vertically adjustable table in combination with the stay log Y, and the devices by which it is fed forward toward and retracted from the cutting knife; 9th. The stay log Y, in combination with the toggle and the mechanism by which it is operated; 10th. The shaft N_1, the cam a_{11}, lever x_1, and adjustable connections i_1, in combination with the pawl carrier t_1, ratchet wheel R_1, and screw o_1, for the purpose of feeding forward the stay log; 11th. The shaft N_1, cam m_{11}, arm l_{11}, vertical rock shaft i_{11}, sliding arm p_1, and connection q_{11}, in combination with the toggle and stay log for the purpose of retracting the latter during the ascent of the cutting knife; 12th. The shaft N_{11}, eccentric *a*, eccentric rod *b*, rock shaft *c*, arm d_1, and connection *e*, in combination with the reciprocating frame R_1, radial rods S, and cutting frame R, for the purpose of giving to the latter a horizontal movement or drawing cut; 13th. The shaft M, spur gears L, and O, the latter provided with the crank pins P, the connecting rods Q, and cutting frame R, in combination with the radial rods S, adjusting blocks U, and reciprocating frame R_1; 14th. The combination and arrangement of all the devices.

No. 6124. Improvements on Liquid Strainers.

(*Perfectionnements aux couloirs.*)

Henry Hassempflug, Huntingdon, Pa., U. S., 23rd May, 1876, for 5 years.

Claim.—The combination with a bucket A, of a tap B, provided with a guard E, and with a concave surface having eccentric perforations *d*, and a rim *e*, for the reception of one or more strainers.

No. 6125. Combination Lock.

(*Serrure à combinaison.*)

Robert P. Goucher, Lowellville, Ohio, U. S. (Assignee of John McCaskey), 23rd May, 1876, for 5 years.

Claim.—1st. The combination of the two sets of dials G_1, G^2, and D_1, D_2, tumblers G_4, D_4, having notches *x*, *y*, inclines *z*, slide H, with pins *h*, *h*, and h_1, latch I, and arm *m*; 2nd. The combination of the tumblers G_4, D_4, slide H, with pins *h*, *h*, and h^1, latch I, with arm *m*, and incline *n*, and the headed bolt C, with notch *a*.

No. 6126. Improvements on Refrigerators.

(*Perfectionnements aux réfrigérants.*

Edward L. Goold (Assignee of James W. Cuthbertson), Brantford, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. Making the refrigerator detachable by means of slot hooks K, K, and pins in hinges I, I, and trough in bottom G; 2nd. The detached ice box L, with the raised platform M.

No. 6127. Improvement on Logging Dogs.

(*Perfectionnement des clameaux de scieries.*)

Otis H. Smith, Waterville, Me., U. S., 23rd May, 1876, for 5 years.

Claim.—Logging dogs made with each spurred arm curved in two directions.

No. 6128. Improvement on Paint Dryers.

(*Perfectionnement des siccatifs.*)

Oscar Russell, Sycamore, Ill., U. S., 23rd May, 1876, for 10 years.

Claim—Boiling refuse paint; then adding turpentine in about the proportion stated; then reducing the compound to ashes, and then grinding said ashes to powder.

No. 6129. Improvements in Spring Equalizers.

(*Perfectionnements aux équilibrateurs des ressorts.*)

William Smith and John W. Rouse, Independence, Ky., U. S., 23rd May, 1876, for 5 years.

Claim.—A brace for spring vehicles consisting of the two links A, and B, of unequal length, and united together at E, said links being attached respectively to the body G, and reach F, by bearings D, E_{11}, and C, E_1, which bearings are located with reference to each other.

No. 6130. Self-discharging Ballasting Car.

(*Wagon à distribution automatique de ballast.*)

James W. McDonald, Campbelltown, N. B., 23rd May, 1876, for 5 years.

Claim.—1st. The supplimentary frame B_1, the rollers I, in the floor of the main car to carry the apron G, the peculiar way of connecting and placing the hand wheel of the brake on side of car and platform in combination with the main frame of an ordinary car to make a self-discharging ballasting car; 2nd. The sinking of the spiral springs in the bunks in combination with the supplementary frame B, in order to lower the apron G, to the level of the ordinary cars; 3rd. The combination of the grab pulleys D, D_1, and chains F, or their equivalent, the hexagonal rollers H, and their six cogged wheels, and the slotted endless apron G, and its chains with a car truck A; 4th. The combination of the locking device J, the locking crutches *f*, with the locking pulleys E, set on the axle of the car wheel to gear and out gear the apron G; 5th. The combination of the chute L, having slanting wings *h*, with the slotted apron G, to spread the gravel evenly; 6th. The combination of the self-revolving apron K, with the slotted apron G, to widen the dump.

No. 6131. Air Carburetting Apparatus.

(*Appareil à carburer l'air.*)

John F. Barker, Springfield, Mass., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of a pump driven by a descending weight or other equivalent mechanical power, with a generator buried in the earth and with a part of its periphery built into and exposed within a vault located at a distance from the building lighted, and both the pump and generator connected by pipes; 2nd. The combination of a generator buried in the earth with a portion of its periphery built into and exposed within a vault, and the tube I_1, provided with drawing off cocks; 3rd. In combination with a generator buried in the earth with a portion of its periphery built into and exposed within a vault, a pump connected therewith, and having the inlet air piece C_1, and arranged in one end of said pump through which air is admitted to said pump and generator; 4th. In combination with said generator, vault and pump the inlet air pipe C, connected with said pump and extending to a point outside the building in which the pump is located, whereby all danger of explosion in the apartment containing the pump, is entirely obviated; 5th. In combination with said generator the filling pipe and vent pipe provided with a valve *b*, common to both pipes; 6th. In combination with said generator, and pump, both connected by an air pipe the check valve disk *f*, located with its seat f_1, in said air pipe; 7th. In combination with the suction pipe C, and pump having the casting C_1, secured therein, the spring B_{11}, coiled around the shaft of said pump and secured thereto at one end and to the collar placed upon said shaft at the other end; 8th. In combination with the suction pipe C, the pump having the casting C_1, secured therein, the spring B_{11}, and the winding drum H.

No. 6132. Improvements on Saw-gummers.

(*Perfectionnements aux machines à affûter les scies.*)

Marvin O. Smith, New-Buffalo, Mich., U.S., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of the ring A^1, provided with the flange a_{11}, jaws A, having grooves *a*, and slotted a_1, carriage way B, provided with slides *c*, and cross head B^1, arbor C, worm wheel E, cutter C_1, boxes c_{11}, lug H, feed screw D, cam lever G, and cog wheel F; 2nd. The combination of the rim A_1, provided with the flanges a_{11}, with the jaws A, having the grooves *a*, and slots a_1, said rim A_1, being adapted for adjustment within the jaws A, to suit the different angles necessary in gumming saws; 3rd. The combination of the arbor C, having cutter C_1, and worm wheel E, with the cog wheel F, secured at the end of feed screw D; 4th. The combination

of the arm J, moving longitudinally with the arbor C, worm wheel E, and pitman K, with the cog wheel F, and feed screw D, whereby a rotary and longitudinal movement is given to the cutter; 5th. The rotary cutter C, having a combined rotary and longitudinal movement in gumming.

No. 6133. Car-coupler. (*Accoupleur de wagons.*)

Joseph King, Port Perry, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The draw-bar A, having a link B, permanently retained loosely therein ready for coupling; 2nd. The coupling pin D, operating to draw vertically out of the draw head A, in uncoupling and having a swinging motion in the draw head rearward to allow the passage of the opposite link in coupling; 3rd. The coupling pin D, hung on journal G, and attached to the end of a lever E, pivoted to the car for withdrawing the pin for uncoupling engagement without going between the cars.

No. 6134. Safety Valve. (*Soupape de sûreté.*)

Erastus B. Kunkle, Fort Wayne, Ind., U.S., 23rd May, 1876, for 5 years.

Claim.—1st. The cup or chambered valve H, the spiral spring J, and disks K, L, respectively provided with a point and recess and arranged within the valve, the pointed pressure adjusting screw M, and the steam pipe or casing A, having cap C; 2nd. The combination of the steam pipe cap C, having a socket S, and screw cap T, with the sealed pressure screw M, to permit the latter to be turned by a wrench.

No. 6135. Improvements on Coffee Pots.

(*Perfectionnements aux caféières.*)

George W. Hubbard, Windsor, Vt., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of curb K, with the funnel C, and percolating cup G; 2nd. A coffee pot having the funnel C, and pipe H, for the upward flow of the water, and the annular space *n*, for the downward passage, the bottom having the margin under said passage *n*, elevated above the portion *a*, under the funnel.

No. 6136. Improvements on Clothes Dryers.

(*Perfectionnements aux séchoirs à linge.*)

Napoléon P. Dion, Coaticook, Que., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of the lower slide D, having two eye-bolts *c*, c^1, and the upper slide G, having one eye-bolt *d*, with the staff B; 2nd. The combination of the cap or cover C, fastened by a chain to the block A, with a block A: 3rd. The combination of the capped pulley F, revolving on a washer at top of the staff B, and protected by the ferrule *e*.

No. 6137. Oven for Baking Bread, Biscuit, &c.

(*Four à cuir le pain, le biscuit, &c.*)

Henry L. Parkin, Chatham, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of furnace *f*, casing *x*, flues D, D, and E, in connection with passage Y, in such a manner that the heat from the furnace shall first pass over the top of the oven and return under the floor before passing out of the chimney; 2nd. The casing *x*, of any suitable material and flues D, D, and E, and arrangement of furnace *f*, and passage Y, as applicable to ovens.

No. 6138. Improvements on Horse-shoes.

(*Perfectionnements aux fers à chevaux.*)

Jeremiah O'Sullivan, Quebec, Que., 23rd May, 1876, for 5 years.

Claim.—The combination of the sole-plate G, fitting in the rabbet D, of a horse-shoe with the horse-shoe A.

No. 6139. Gas Regulator. (*Régulateur à gaz.*)

Charles H. Edwards, Montreal, Que., and Lycurgus Laflin, Chicago, Ill., U. S., 23rd May, 1876, for 5 years.

Claim.—The cup or valve F, having vertical sides and an open top and a closed flanged bottom extending outward from the sides and provided with the perforations H, H, arranged in its sides, the said valve being freely suspended in the part or opening E, arranged between the receiving chamber N, and the discharging chamber K, and connected to the yielding diaphragm D, arranged across the latter chamber.

No. 6140. Process and Compound Preparation of Groats.

(*Procédé et préparation composée à gruaux.*)

Mathew Tindale, Saint Sophia, Que., 23rd May, 1876, for 5 years.

Claim.—1st. The process of preparing the barley for the flour, by drying the grain over perforated metal plates, tiles or stone slabs covered with sheet iron, paper or other material; 2nd. The mixing of the barley flour, in the proportions stated, with pure oatmeal groats.

No. 6141. Improvements in Barrel Machinery.

(*Perfectionnements dans les machines de tonnelleries.*)

Samuel Wallace, Seaforth, Ont., (Assignee of John D. McEachern), 23rd May, 1876, for 5 years.

Claim.—1st. The hollow cylinder B, supported upon the shaft C, by the divided spiders B_1, B_1, made from one piece of sheet metal in combination with the eccentric shaft B_2, boxes *b*, *b*, and arms b_1, b_1, set screws *d*, *d*, the lugs d_3, d_3, on the rings d_1, d_1, acting against the knees d_2, d_2; 2nd. The stopping bar 6, with a roller 5, which acts upon the stop *f*, in combination with the collar *q*; 3rd. The pulley V_2, provided with the dogs V_3, in combination with the pinion T_1, attached to the sleeve V, and having the recess T_2; 4th. The sliding block P, having angular grooves *p*, *p*, cut in its face in combination with the rods *o*, *o*, and sleeves N, N; 5th. The hinged arms E, E, with the pressure bar F, operated from the treadle J, by the rods K, and provided with the rollers G, H, and I, in combination with the rods K, K, and treadle J; 6th. The semi-circular support 12, held by the upright 13, in combination with the lever 14.

No. 6142. Improvements on Saw-Clamps.

(*Perfectionnements aux chevalets porte-scies.*)

Edson B. Cady, Sweetsburgh, Que., 23rd May, 1876, for 5 years.

Claim—1st. The form of the limbs or portions of the clamp B, D, and their connections by the uprights F, F, and the pivot G; 2nd. The form of the faces C, E, of the elongated jaws *j*, *j*, of the clamp; 3rd. The combination of the cam and lever I, and the fulcrums H, H, upon which it works.

No. 6143. Improvements on Fountain Lamps.

(*Perfectionnements aux lampes-fontaines,*)

Robert H. Webb, Brooklyn, N. Y., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The vent-tube *v*, in combination with the chamber C, the passage P, and reservoir R; 2nd. The valve K, in combination with the passage P, reservoir R, chamber C, and vent tube *r*; 3rd. The combination of the india rubber friction ring *a*, with the screw-threaded boss *b*, and the screw-threaded standard P.

No. 6144. Improvements on Skates.

(*Perfectionnements aux patins.*)

Percy D. Hedderwick, Glasgow, Scot., 23rd May, 1876, for 5 years.

Claim.—1s. The arrangement and construction of the skate or any mere modification thereof; 2nd. The disc or plate A, with eccentrically curved slots B, B, and a rack *e*, formed around a portion of its periphery; 3rd. The spring lever F, and the employment thereof; 4th. The combination and arrangement of the bars or blocks E, and side grippers D, and the employment of such bars or blocks in conjunction with skates of analogous construction; 5th. The combination or arrangement of the centre pin *a*, and washer *c*; 6th. The arrangement of heel gripper consisting of the saddle or rider *o*, rack *l*, spring *p*, pall m^1 and gripper *m*.

No. 6145. Manufacture of Dry Wood Pulp.

(*Fabrication de la pulpe de bois sec.*)

Isaac W. Bowers and David A. Curtis, Petersburgh, Mich., 23rd May, 1876, for 5 years.

Claim.—A revolving grinding cylinder to which the wood is fed, a pulp conducting hopper and endless rotating belt below the cylinder, exposing the wood to a rapidly revolving cylinder with grinding surface of glue, ground flint, quartz and emery; the combinatiion of the hopper and endless pulp conveying belt with an inclined reciprocating screen to separate the coarser and finer pulp particles.

No. 6146. Chains Pump Bucket.

(*Godet de chapelet.*)

William B. Wilcox, Ypsilanti, Mich., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of the solid body A, with hooks or open links B, at its ends and flange *a*, the springs *b* and bolts *d*; 2nd. The solid body A, with hooked or open ends B, and a flange *a*; 3rd. A nut D, of brass or other suitable material slipped over one end and screwed upon the body holding a rubber of any suitable shape; 4th. The bolt *d*, and spring *b*, working against the end of each hook.

No. 6147. Improvement on Saw-Mill Dogs.

(*Perfectionnements des clameaux de scieries.*)

John A. Fordon and James E. Thomas, Barrie, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The bar or strap L, in combination with the eccentric bolt G, and lever F; 2nd. The plates A, and B, in combination with slots E, and bolts D; 3rd. The combination of the plate B, with the eccentric bolt G, lever F, and roller I, I, head bar J, teeth K, and tooth guides C; 4th. The combination of the bar A, with the bar or plate B, guides C, bolts D, slots E, lever F, eccentric bolt G, rollers I, head bar J, and teeth K.

No. 6148. Improvements on Refrigerator Cars. (*Perfectionnements aux wagons réfrigérants.*)

James H. Wickes, New-York, U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The combination of an air distributor situated in the ice chamber below the bottom of the rail road car with an ice feeder extending up through the interior of a car and with an air forcing and suction blower situated below the bottom of the car and driven from one of the car axles; 2nd. The combination with a pulley *d*, mounted on the car axle H, of a gravitating frame H_1, attached to the boom of the car and carrying a shaft with a friction pulley *f*, and a pulley *g*, from which motion is transmitted to the blower shaft.

No. 6149. Machine for Lifting Heavy Weights.

(*Machine à soulever les fardeaux.*)

Charles O. Brown, Lawrenceville, Que., 23rd May, 1876, for 5 years.

Claim.—The combination of the lever B, and ratchet C, with wheel A, and axle F, also ratchet D, and bar E, with frame H.

No. 6150. Steam Engine Governor.

(*Gouvernateur de machine à vapeur.*)

John E. Wilson, Galt, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. metallic weight A, hollow spindle B, and suspension rod C; 2nd. The combination of the slip collar E, cross head F, connecting rods G, and bell crank H, for operating the cut off valves I.

No. 6151. Ditch Shovel. (*Pelle à fossoyer.*)

Louis Guyon, Verchère, Que., 23rd May, 1876, for 5 years.

Résumé.—1o. La combinaison de la douille B, recourbée en S, et fendue soit en avant, soit en arrière, avec le manche mobile D, vissé à la frette *b*, de la douille B; 2o. La combinaison, avec la pelle A, de la douille B, ayant la platine C, faisant corps avec elle, et posée à la pelle A, avec des rivets *c*, affleurés des deux côtés.

Claim.—The combination of socket B, bent into an S, and split either in front or behind, with the movable handle D, screwed to the hoop *b*, of the socket B; 2nd. The combination with the shovel A, of the socket B, having the plate C, solidly joined with it, and secured on the shovel A, with rivets *c*, flush on both sides.

No. 6152. Process for Treating Copper Pyrites and other Ores of Copper.

(Procédé de traitement des pyrites et autres minerais de cuivre.)

Thomas H. Cobley, Dunstable, Eng., and Joseph A. Dixon, Glasgow, Scot., 23rd May, 1876, for 15 years.

Claim.—1st. The process in its various alternative modifications for the extraction of copper from copper ores; 2nd. The use of auxiliary agents in the sulphatization of copper in connection with the process; 3rd. Forming bisulphide of magnesium and sulphuretted hydrogen, and for employment in obtaining sulphide of copper from copper ores; 4th. The use of lime or its compounds in the sulphatization of copper ores; 5th. The method or alternative methods or processes of treating copper ores disseminated through limestone and other rocks.

No. 6153. Improvements on Stoves or Furnaces. *(Perfectionnements aux calorifères.)*

Ezra Hawkes, Boston, Mass., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The separate double flaring fire pot portion *c*, of the fire-pot, and combined with the upper or throat carrying part *d*, and with the grate and ash-pit and the conical mouth F, extending down into the ash pit from its top; 2nd. The combination of a supporting chain and a notched or jawed bracket and its guide wheel applied to either the ash pit or fire place door and arranged therewith and with the part *p*, of the furnace; 3rd. The fire place door having the side wings and a supporting chain and notched bracket provided with a roller or wheel, the said chain being applied to the door and the said bracket being disposed in the front of the furnace.

No. 6154. Improvements on Ploughs and Planters.

(Perfectionnements aux charrues et aux planteurs.)

John Fay, Wayne, and William Chalmers, Detroit, Mich., U. S., 23rd May, 1876, for 5 years.

Claim.—1st. The pulley R, lever S_1, ratchet S_2, pawl T, and chains U, U, in combination with the tongue and ploughs beam of a sulky plough; 2nd. The combination of the bent swivel bolt G, swivel bar J, guide bars L, L, set screws K, eye bolt M, nuts N, and braces O, P, in combination with the axle and pole to receive and guide a plough beam; 3rd. The arms B, B, and set screws C, in combination with the axle and pole to carry the wheels of a sulky plough and regulate their height; 4th. In combination with the swivel bolt G, and swivel bar J, the spring H, and curved rack I; 5th. In combination with the sulky plough the bar W, hopper *a*, box X, revolving disc Y, spring *i*, *j*, recesses *d*, d_1, and chain *e*; 6th. In combination with the hopper and box, the legs *b*, *c*, blades Z^1 and roller Z^2.

No. 6155. Stand for Displaying Maps, Charts, &c.

(Appareil pour étaler les mappes, cartes, &c.)

James Browne, Toronto, Ont., 23rd May, 1876, for 5 years.

Claim.—1st. The horizontal bar F, supported by the two vertical bars or tubes D, passing through the cross bar E, and provided with a cross head guide G, having pivoted thereon a pawl K, or eccentric roller S, with a lever L, in combination with a stationary column B, with or without a ratchet-rack M; 2nd. The cross guide G, supporting the vertical bars D, and horizontal bar F, in combination with the cords or chain H, passing over the friction pulleys J, and attached to the weight L; 3rd. A rack N, provided with hooks I, and P, in combination with one or more hinged legs or supports; 4th. In combination with a horizontal bar F, two or more suspension hooks V, or such other form as shall permit two or more maps to be hung at the same time from the said horizontal bar F.

No. 6156. Improvements in Electric Telegraphs.

(Perfectionnements dans les télégraphes électriques.)

George Allan, and James W. Brown, London, Eng., 23rd May, 1876, for 5 years.

Claim.—A constructing a relay or pecker to act with a compound motion; B, constructing a relay or pecker with the parts *a*, a_1, and *f*; C, in constructing a relay or pecker with the parts *o*, *q*, and *r*, r_1; D, constructing a relay or pecker with the parts *u*, u_1, and *w*, w_1; E, the use of equilibrium or compensating springs in combination with relays or peckers.

No. 6157. Improvements in Nut Locks.

(Perfectionnements aux noix à brides)

Sterne Brunson, Benton Harbour, Mich., U. S., 23rd May, 1876, for 5 years.

Claim—The catch *g*, having both its ends bevelled on the same plane, and placed in a recess which is large enough to allow it to assume an inclined position when the nut is being screwed on, and a vertical position when the nut is being unscrewed,

No. 6158. Sole Channelling Machine.

(Machine à graver les semelles.)

John E. Wheeler, Lynn, Mass., U. S. (Co-inventor with and Assignee of James Dargan), 23rd May, 1876, for 5 years.

Claim.—1st. The revolving disk A, forming an adjustable guide, provided with the projecting guiding wall of unequal diameters; 2nd. In combination with the revolving disk guide A, the bearing blocks *a*, a_1, adjusted thereon by the set screws; 3rd. The combination of the disk guide with suitable restraining mechanism *c*, and C arranged to stop the disk at determined points in its revolution; 4th. The combination of the revolving guide B, with the lever D, arranged to operate the same to and from the cutting and grooving mechanism; 5th. The adjustable stops F, when arranged upon the rod E, to determine the limits of the movement of the guide to and from the cutting and grooving mechanism thereby regulating the location of the channel relative to the sole edge; 6th. The revolving guide B, arranged to have a movement to and from the cutting and grooving mechanism.

No. 6159. Composition of Matter for a Filtering Medium.

(Composé pour servir comme agent de Filtration)

George B. Stock and Andrew F. McPherson, Toronto, Ont., 23rd May, 1876, for 5 years.

Claim.—A compound of shells or shell marl pulverized and made anhydrous.

No. 6160. Improvements on Service and Force Pumps.

(Perfectionnements aux pompes aspirantes et foulantes.)

William McGuire, Uxbridge, Ont., 23rd May, 1876, for 5 years.

Claim.— 1st. The hallow piston head and shaft; 2nd. The service or delivery pipe screwed to side of air chamber and descending about two thirds of piston shaft; 3rd. The position of pump box and bottom valve in connection with piston head and valve; 4th. The attachment of leather flange or washer; 5th. The rubber or other flexible tubes Z, Z, in duplex pump.

No. 6161. Improvements on Wood-Screws, &c. *(Perfectionnements aux vis à bois, &c.)*

Edwin A. Leland, New-York. U. S., 26th May, 1876, for 5 years.

Claim.—1st. The wood screw in which the bottom of the groove or nick is made serrated or with a succession of alternating projections a_1, and recesses c_1; 2nd. The serrated traversing disk or die K, combined in relation with the nicking saw B; 3rd. The driver C, having the driving end c_1, serrated or constructed with a system of alternating teeth *c*, and recesses *f*.

No. 6162. Improvements on Hand Carts.

(Perfectionnements aux charettes à bras.)

Joseph M. Jones, Paris, Ky., U.S., 26th May, 1876, for 5 years.

Claim.—The combination of the sliding box D, and suitable supporting clips J, with frame B, axle C, wheels A, with or without rods H, the combination of a body D, springs L, sliding frame K, and cranked axle C, with or without rods H.

No. 6163. Improvements on Cracker Machines.

(Perfectionnements aux machines à biscuits.)

Daniel M. Holmes, New York, U. S., 26th May, 1876, for 15 years.

Claim.—1st. A dough-box B, made with an extension and off-set E, to receive the cutters and enable them to operate at right angles with the plungers D; 2nd. A dough-box made with its discharge openings at right angles with the line of motion of the plungers D, that force out the dough; 3rd. A dough-box divided by partitions b_1, into two or more compartments, each provided with a discharge opening and with a plunger D; 4th. The combination of the detachable and exchangeable cutter head *z*, with the dough-box B, and its extension and off-set E; 5th. In combination of the cross bar A_1, and its guide pins B_1, and springs C_1, the push bars D_1, levers E_1, and cams F_1, with the detachable head blocks *z*, the cutters G, Y, and the driving shaft T; 6th. A cake machine having the cutters adapted to work within the dough-box, said cutters being surrounded with and embedded in the dough when at work; 7th. The combination with a plunger and dough-box of cutters made with bevelled edges and cutter plates having openings with bevelled edges; 8th. Two endless carriers working in line with each other, and with a space or opening between them beneath the discharge opening of the dough-box.

No. 6164. Boot and Shoe Sewing Machine.

(Machine à coudre les chaussures.)

Charles Goodyear, Jr., (Assignee of Christian Daucel), New York, U. S., 26th May, 1876, for 5 years.

Claim.—1st. A sewing machine having an awl and a circular needle combined so arranged relatively to the channel guide and to the support for the work as to place the loop or chain formed by the stitch upon the welt instead of in the channel in the out sole; 2nd. A sewing machine in which a straight awl and a circular needle are combined with a suitable rest or support for the edge of the welt and sold to slide upon; 3rd. Mounting the awl and channel gauge or presser foot upon an oscillating plate or lever in such a manner that the feed is effected by the vibratory motion of said plate or lever; 4th. The combination of this oscillating vibratory awl with the channel gange and an intermittent locking device so arranged that the channel gauge shall be intermittently rigidly locked and released at the proper intervals; 5th. In a sewing machine for stitching soles of boots and shoes to welts, the combination of a piercing instrument or awl for feeding the work with a table or support for the work which is solid beneath the piercing point of the awl, but open at the point where the awl and needle meet; 6th. The combination of the table or rest for the work, with a hooked needle arranged to operate without a cast off.

No. 6165. Improvements on Fire Places.

(Perfectionnements aux foyers.)

Andrew A. Putz, Simmering, near Vienna, Austria, 26th May, 1876, for 15 years.

Claim.—1st. The construction of a firing apparatus with free continuous admission of air through horizontal and vertical passages; 2nd. The combination of a grate box A, with a supply chamber B, plate F, and ring E; 3rd. The construction of the supply chamber B, and the appliances for raising or lowering it; 4th. The construction of the stoves when in combination with the firing apparatus.

No. 6166. Improvements on Horse Shoe Machines. *(Perfectionnements aux machines à fers à cheval.)*

Henry H. Gilmore, Cambridge, Mass., U. S., 26th May, 1876, for 5 years.

Claim.—1st. The combination of the shoe lifter and discharger M, with the stationary recessed former receiver I, and the movable rebated former H, creaser D, and the pair of benders K, K; 2nd. The former carrier G, provided with the inclined slot *p*, and the segmental recesses *q*, *r*, arranged to receive and operate with the crank of the driving shaft; 3rd. The combin-

ation for operating the creaser such consisting of the toggles C C1, furcated pitman E, stops *g, g*, projections *f, f*, and the cams *h, h, k*, the latter being fixed on the driving shaft.

No. 6167. Improvements on Butter Workers.

(Perfectionnements aux appareils à apprêter le beurre.)

James Macnee, Webster City, Iowa, U.S., 26th May, 1876, for 5 years.

Claim.—1st. The combination with a suitable kneading board or table, of the removable hand lever C, the same being connected to the table in a manner so that either side of such lever may be used, 2nd. The combination with the table A, and revolving kneading board B, provided upon its outer periphery with teeth or projecting pins e, of the swivelled hand lever C, having near its outer end pins *g, g*.

No. 6168. Boot and Shoe Sewing Machine.

(Machine à coudre les chaussures.)

Charles Goodyear, Jr (Assignee of Christian Dancel), New York, U. S., 26th May, 1876, for 5 years.

Claim.—1st. In a machine designed and adapted to sew inseams or welts and turns, the use of an awl, or piercing instrument to penetrate the sole transversely to the path of the awl or needle, so as to pin the sole in its place and hold the between substance of the sole firmly while the needle is piercing the work and tightening the stitch. 2nd. The combination with an awl and needle of a third piercing device operating transversely to the others, and near the path of the same to prevent the stitch from pulling through or breaking out and to keep the seam in place, 3rd In combination with a circular needle operating from the outer edge of the work, an awl working concentrically or nearly so, with said needle piercing the work in the inside channel and operating as an awl feed in connection with the channel gauge; 4th. The combination of a curved awl, and a channel guide operating together in a channel to feed, guide and hold the work; 5th. Giving to the welt guide a positive motion away from the shoe intermittently between each stitch; 6th. So regulating said motion of the welt guide that it shall move away from the shoe a uniform distance irrespective of variations in the thickness of the upper 7th The arrangement of the locking devices for locking and releasing the back, or edge and welt gauges; 8th. The arrangement for regulating the length of the loop according to the thickness of the work to be sewn, 9th. In combination with a circular awl and needle mounting the edge or welt guide upon a slide moving to and from the work at a suitable angle with reference to the last instead of concentrically with the needle; 10th. In mounting the awl in such a manner that it will have an independent oscillating or tipping motion.

No. 6169. Process of Manufacturing Artificial Stone. (*Procédé de fabrication de la pierre artificielle.*)

William H Smith, Philadelphia, Pa., U. S. 1st June, 1876, for 5 years.

Claim.—The mode or process of manufacturing artificial stone, that is to say: subjecting granulated or pulverized mineral substances, while in the damp condition and while in a mould, first to comparatively slight pressure or light blows, and then to heavy blows.

No. 6170. Improvements on Tallies.

(Perfectionnements aux compteurs.)

John French, St. Columban of Sillery, Que., 1st June, 1876, for 5 years.

Claim.—1st. The combination of the wire C, walking beam D, and its sprag E, hook F, and its sprag I, tally wheel G, and its cog *a*, and spring H, with sliding pall B, tally circle Q, and its hand c, of the tally box A, to count one tally, 2nd. The combination of the large wheel J, its series of pins K, and its cog *h*, sprag I, striking apparatus L, with the gong M, the tally circle S, and its hand *g*, of the tally box A, to count fifty tallies, 3rd. The combination of the wheel N, and its pins *m*, with circle R, and its hand *p*, of the tally box A, to count up to six thousand pieces.

No. 6171. Hoop Cutting Machine.

(Machine à tailler les cercles.)

George V Griffith Huntington Ind U S 1st June 1876 for 5 years

Claim —1st. The combination of a reciprocating knife E, with an oscillating table G whose inner edge forms the axis of oscillation, for the purpose of supporting the hoop planks close to the cutting edge of the knife, 2nd. The oscillating table G, adapted for adjustment to and from the knife, 3rd. The oscillating table operated from the main shaft, through the medium of the gearing, the cams M the pivoted arms J, and the connecting rods and links L K, 4th The oscillating table having the extent of its oscillations adjustable by means of the screw rods L, and pivoted links K, 5th. The yielding stop or gage Q, combined with the reciprocating knife and oscillating table 6th The yielding stop or gage Q adapted for adjustment to regulate the thickness of the hoops.

No. 6172. Improvements in Eye Glasses.

(Perfectionnements aux pince-nez.)

Isaac Alexander, Washington, D. C., U. S., 1st June, 1876, for 5 years.

Claim.—1st. The spring clamp for eye glasses made adjustable by a set screw; 2nd. The spring A, for eye glass clamps, made adjustable.

No. 6173. Improvements on Charcoal Furnaces.

(Perfectionnements aux fourneaux à charbon de bois.)

Edwin G. Adams, Cohoes, N. Y., U. S., 1st June, 1876, for 5 years.

Claim.—The combination in a case having grate C, and a closed top of the flue F, with or without the hood E, and the inclined sides D, of the fire box.

No. 6174. Combined Milk Cooler and Pan.

(Boîte-réfrigérateur à lait.)

Nelson D. Ferguson, Carthage, N. Y., U. S., 1st June, 1876, for 5 years.

Claim.—1st. The combination with a milk pan B, of an ice cooler consisting of the cylinder C removable in receptacle K, perforated bottom tubes G, cover H, with tube I, and valve or cap B; 2nd. The perforated bottom J, connecting with the cylinder C, and with heating pipes L, under the pan B, 3rd The frame A, having a canvas bottom, in combination with the pan B.

No. 6175. Fare Registering Apparatus.

(Appareil à enregistrer les billets de passage.)

Henry T. Davis, London, Eng., 1st June, 1876, for 5 years.

Claim.—1st. A glazed opening B, in the front lid and display plate for displaying a figure or figures denoting the value of fare or monies received whether in combination with a lamp or otherwise; 2nd. The handles 1,2,3,4 and parts in connection therewith for actuating the registering wheels G, H I, and bell plate K, to strike the bell, and register, and display the figure, 3rd The bell plate K with studs *f*, or serratures, and stud *b*, for actuating the hammer of the bell simultaneously with the displaying of the figure, and the actuating of the registering parts.

No. 6176. Improvement on Lap Robes.

(Perfectionnement les tabliers de voitures.)

James Milwain, Albany, N. Y., U.S., 1st June, 1876, for 5 years.

Claim —The combination of the lap robe A, with the foot pocket B.

No. 6177. Improvement on Carriage Rugs.

(Perfectionnement des tapis de voitures.)

James Milwain, Albany, N. Y., U. S., 1st June, 1876, for 5 years.

Claim.—The combination of the carriage rug A, with the foot pocket B

No. 6178. Bosom Pad. (*Trompe-Poil.*)

John C Tallman, New York and Fluvel W Sullivan Newark, N J, U S 1st June, 1876, for 5 years.

Claim —A bosom pad made of thin sheets of cork covered with muslin moulded or pressed into proper shape as also in the gusset, connection or centre piece and cover A,B,C,D.

No. 6179. Improvements on Anchors.

(Perfectionnements aux ancres.)

Thomas J. Whitecar and John M. Powell, Philadelphia, Pa., U. S., 1st June 1876, for 5 years.

Claim.—1st. The double ended tripper, engaging with the arch B, and limiting the movement of the arms B, B, by impinging against the block F, or band G, 2nd. The combination of the wedge block F, with the bifurcated shank A, and tripper E; 3rd. The combination with the notched fluke arms B, of the separately formed notched palms D, inserted in the notches *b*, and receiving the arms B, in the notches *da*, 4th. The combination of the bifurcated shank A, inserted tripper E, encircling fluke arms and arch, 5th. The combination of the shank A, fluke arms B, B, arch B4, double ended tripper E, and wedge block or band.

No. 6180. Improvements on Volta-electric Appliances.

(Perfectionnements aux procedés électro-voltaïques.)

John E Hetherington, Cincinnati, Ohio, U. S., (Assignee of Isaac L. Pulvermacher), 1st June, 1876, for 5 years.

Claim.—1st. A voltaic electric chain or belt constructed of alternately arranged zinc or copper strips or plates A, B, notched or looped, and strung upon twine or cord, 2nd. Arranging the strips or plates A, B, in alternate order, in two series upon a suitable backing so as to be folded together upon an interposed wet conductor

No. 6181. Improvements on Volta-electric Appliances.

(Perfectionnements aux procedés électro-voltaïques.)

John E Hetherington Cincinnati Ohio U S (Assignee of Isaac L Pulvermacher), 1st June, 1876 for 5 years.

Claim.—1st. The arrangement of a series of copper and zinc disks, dished or coned in alternate order with a fibrous absorbent material interposed between members of the same element upon a hollow central stem supplied with the exciting fluid and slitted or perforated to cause the passage of the exciting fluid from the tube to the absorbent material between the disks, the whole to form a battery, 3rd. The combination of a flexible tube C, and a rigid fluted or corrugated central cone D, with concave or dished copper and zinc disks A, B, to form a battery, 3rd. The radially slotted disks, provided with tongues c, c, at intervals for the opposite metal disk of the adjoining element to rest upon, 4th. The disk having a slot F, from the periphery to the centre and thread sewed into it in concentric circles 5th. Batteries formed of disks on a hollow central stem, the disk constructed of thread wrapped wire wound spirally until a suitable diameter is attained, and an aperture left at the centre to engage the central stem.

No. 6182. Improvements in Tube Wells.

(Perfectionnements dans les puits forés.)

David H. Zavitz and Edward Milner (Assignees of William Milner), Strathroy, Ont., 1st June, 1876 (Extension of Patent No. 1014), for 5 years.

Claim.—The tube-well having wire screen pockets *a, b,c,d,b,c, d,f,e,g,f,h* these pockets extending into the centre or hollow of the tube and having clear and unobstructed but narrow and oblong orifices or opening into these pockets at the circumference of the tube, these orifices or openings being *mn, no, op*, into which sand or other suitable material may be inserted to allow the water to filter through, also in the application or insertion of coarse sand or any other suitable material into these pockets to filter the water passing through the pockets being adapted to retain the sand.

No. 6183. Improvements in Wood Planing Machines.

(Perfectionnements aux machines à raboter le bois.)

Charles H. Warren, Toronto, Ont., 12th June, 1876, for 5 years.

Claim.—1st. The horizontal knives C, C, finished with a regularly serrated cutting edge forming angular or curved cutting teeth, 2nd The saws F or their equivalent mounted upon the shaft E, either in front or in rear of the knives C, C, or attached to the horizontal head B, in combination with the heads D, D, provided with knives having a concave cutting edge, 3rd The combination of the horizontal head B, having knives C, provided with a

straight or a regularly serrated cutting edge, the side heads D, D, provided with knives having a concave cutting edge and the saws F, F, or their equivalent.

No. 6184. Improvements in Chronometric Locks.

(Perfectionnements aux serrures à mécanisme d'horlogerie.)

John Burge, Circleville, Ohio, U. S., 12th June, 1876, for 5 years.

Claim.—1st. A seven day dial provided with notches; 2nd. The combination of two notched dials and a connecting yoke or detent plate; 3rd. The combination of two notched dials, a connecting yoke, and adjusting disks, by means of which perfect adjustment of the dials with respect to the yoke can be effected so as to secure the unlocking action at any desired time; 4th. The combination of the dial time mechanism and the direct acting locking and unlocking mechanism; 5th. The combination of an automatic unlocking lever operated by clock work, and a connecting device for attachment to the bolt work of a safe or vault door; 6th. The combination of a connecting device, for attachment to the bolt work of a safe or vault door and a fixed shoulder or block, disconnected from the time mechanism against which the connecting device automatically abuts, and secures the bolt work in the locked position, the instant it is thrown into that position by the usual means; 7th. A connecting device adapted to be attached to the bolt work of a safe or vault door, and to be automatically adjusted in position for receiving (and for releasing) the bolt work; 8th. The combination of the yoke or detent plate and the clapper lever and ratchet secured to the same shaft; 9th. A chronometric lock working in combination with a non time lock, both attached to the same string bar, bolt or bolt work of a safe or vault door.

No. 6185. Machine for Applying the Insole Lining to Boots.

(Machine à poser la basane dans les chaussures.)

Charles Monahan and Joseph H. Valpey, St. John, N.B., 12th June, 1876, for 5 years.

Claim.—1st. The combination of the last B, to the upright post A; 2nd The combination with the last B, and the post A, of the spiral spring E, the support D, and the spring acted guard piece C.

No. 6186. Improvements on Car-couplers.

(Perfectionnements aux accoupleurs de wagons.)

James C. Mitchell and Charles W. Roby, Lancaster, N. H., U. S., 12th June, 1876, for 5 years.

Claim.—1st. The combination of the draw bar A, recessed so as to form shoulders *a*, with the coupling plate C, and pivoted to the draw bar; 2nd. In combination with the draw bar A, and coupling plate C, the coupling link B, provided with shoulder *b*; 3rd. In combination with the draw bar A, the coupling plate C, operated by means of lever E; 4th. The combination with any car of the draw bar A, furnished with shoulder A_1, and spindle D.

No. 6187. Horse-rake. *(Râteau à cheval.)*

Charles Lundy, Newmarket, and George Blake, Whitby, Ont., 12th June 1876, for 5 years.

Claim.—1st. The ratchet wheel A, cast or otherwise fastened the sheaf wheel B, or its equivalent, fitting upon the axle C, in combination with the pawl E, pivoted to the hub D; 2nd. The shaft G, supported upon and extending across the frame of the machine and provided with sheaf wheels H_1, or their equivalent, in combination with the sheaf wheels B; 3rd. The lever M, pivoted to the frame of the machine and provided with a disc T, in combination with the friction strap S, operated by the foot lever R; 4th. The tooth bar W, divided in the centre in combination with the teeth V; 5th. The crank lever H_1, pivoted upon the shaft G, and having forked-shaped end within which the friction wheel I_1, fits and being provided with a crank buckle J_2, and crank arm K_1, with roller I_2, in combination with the lever L_1, rod P_1, and treadle O_1, arranged and operated for the purpose of raising the staple bar.

No. 6188. Machine for Making Tackle Blocks.

(Machine à faire les moufles de poulies.)

Frederick S. Burr, Brooklyn, N. Y., U. S., 12th June, 1876, for 5 years.

Claim.—1st. The combination of plates Q, with removable plates having differential bearings; 2nd. A tackle block machine having five borers, four of which are adjustable with respect to the fifth or central one, the former making the end holes while the latter makes the pin hole; 3rd. The combination with formers fastened to a movable table beside the work of the guide-rolls carried with the work, and admitting the formers to pass them; 4th. The combination in a tackle block machine of two sets of knives and formers working simultaneously on the same piece of wood, the one on top and the other on bottom.

No. 6189. Machine for Attaching Shafts to Buggies and Cutters.

(Machine à ajuster les limonières de voitures.)

William M. Wilcox, Port Perry, Ont., 12th June, 1876, for 5 years.

Claim.—1st. The use of the burr A, rivetted to bolt C; 2nd. The use of the shoulders D, and E, on the axle clip yoke B; 3rd. The openings in draw jack F, and bolt C, in which the shaft coupler T, is inserted, being adapted for the admission of a crooked shaft coupler.

No. 6190. Ironing Board. *(Planche à repasser.)*

Jacob K. Butler, Yarmouth, N. S., 12th June, 1876, for 5 years.

Claim.—1st. In combination with the board A, the screw D; 2nd. The hinged adjustable support C, in combination with the board A; 3rd. The notches H, H, in combination with the frame B; 4th. The pins G, G, and I, I, in combination with the adjustable support C; 5th. The iron stand E, clamp L, in combination with the screw D.

No. 6191. Bolt Cutter. *(Cisailles à boulons.)*

James Dawson, Greenwood, Ill., U. S., 12th June, 1876, for 5 years.

Claim.—The reversible jaw D, in combination with handle B, stirrup F, set screw *e*, and cam lever A.

No. 6192. Improvements on Overall Trousers.

(Perfectionnements aux pantalons de voyage.)

John L. Griffin, Eastport, Me., U. S., 12th June, 1876, for 5 years.

Claim.—1st. The provision of the elastic strap D, secured to the waist band; 2nd. The reinforcing elastic pieces C, secured at the bottom of the pocket slits; 3rd. The bib E, attached removably to the waist band of the overall, and having a steap F, for its support in wearing.

No. 6193. Draft Equalizing Harness,

(Harnais régulateur de la tire.)

Cornelius Cole, Castleton, Ont., 12th June, 1876, for 5 years.

Claim.—The draft equalizing bar A, having the U-shaped bars C, C, attached at each end to connect with the short tugs of the teams harness.

No. 6194. Apparatus for Burning Kerosine and other Oils in Lamps without Chimneys.

(Appareil pour brûler la Kérosène et autres huiles dans les lampes sans cheminées)

Cornelius Godfrey, Huntington, N. Y., U. S., 12th June, 1876, for 5 years.

Claim.—1st. In combination with a lamp having an opening at or near the lower part thereof which connects with an air passage leading to the flame, a nozzle or nipple, of any suitable construction through which air is forced under pressure; the said nozzle being located at some distance below the said opening for the purpose of drawing into the lamp a column or columns of air from the atmosphere surrounding the lamp together with the jet of air emitted from the nozzle; 2nd. In combination with a lamp having an air passage which leads to the flame, and connects with an opening at the lower part of the lamp, the air pipe C, and a conical nozzle D, the said nozzle being secured to the said pipe C, and placed at some distance below the said opening; 3rd. An aerometer or air reservoir, the main portion of which is made from paper or paste board, and the top and bottom of which are secured respectively to covers *o*, and *p*, of wood or other unyielding material; 4th. In combination with the hinged sides *q*, *q*, and hinged tapering end pieces P, P, the flexible gussets *m*, *m*; 5th. The aerometer consisting of the top *o*, bottom *p*, hinged sides *q*, *q*, and tapering end pieces P, P, the said end pieces being connected with the main body *o*, by flexible gussets *m*, *m*; 6th. In an aerometer, the combination with the top *o*, bottom *p*, and hinged sides *q*, *q*, of the ribs *s*, *s*, and bars *t*, *t*; 7th. The method of increasing the brilliancy of the light of kerosene and other oil lamps by forcing oxygen gas through pipes to the lamps.

No. 6195. Improvements on Extension Ladders. *(Perfectionnements aux échelles à rallonge,)*

Joseph Gagné and Jean B. Peloquin, Montreal, Que., 12th June, 1876, for 5 years.

Claim.—1st. The combination of the extendible legs *a*, *i*, and *b*, *d*; 2nd. The combination of the extendible legs *a*, *i*, and *b*, *d*, and pin *c*, arranged so that the said pin may be removed, and the legs either all used together, or the legs *b*, and *d*, used alone.

No. 6196. Improvements on a Car-Coupling.

(Perfectionnements à un attelage de wagons.)

Ninian H. Dolson, Chatham, Ont., 12th June, 1876, for 5 years.

Claim.— 1st. The concave mouth piece B, either pressed from a sheet, welded, rivetted or otherwise fastened together so as to form a flaring mouth piece or buffer of wrought iron for the purpose of guiding the link into its place when it strikes it at an angle; 2nd. The pin C, and bent bar D, fastened on pin C, carrying rollers E, E; 3rd. In hinged bent lever *f*, in connection with bent bar D, and rollers E, E, also flat guide piece G, and mortises H, H, the flat guide piece being to keep the pin from turning as well as to aid by its weight in connection with pin C, bent bar D, and hinged bent lever *f*, to balance the link and hold it in a horizontal position always ready for coupling; 4th. The hook I, pieces J, and K, springs L, and M, and gate N, in connection with bent lever *f*, for the purpose of keeping the pin in position when raised up to uncouple, and for letting the pin drop when the link is inserted into the opening in mouth piece B; 5th. The side pieces *o*, *o*, bent in such a manner that when bolted together, they will fit tightly between top and bottom pieces P, P, for the purpose of strengthening them from unequal height of cars, the strain from bumping does not come in direct line with axis of coupling; the whole forming a complete automatic car-coupler which may be uncoupled from either side or from top of car.

No. 6197. Combined Cane and Umbrella (Frame. *(Canne-Parapluie.)*

Monroe M. Copp, Rochester, N. Y., U. S., 12th June, 1876, for 5 years.

Claim.—1st. The combination of the hollow handle or cane H, in two parts connected by the screw slip joint J, of any style of finish and covered with any material, having the threaded tube finial F, provided with the sloped shoulder S, lug *l*, and screw plug P; 2nd. The screw rod D, to which is solidly joined the notch ring N, and the guide rod *r*, and having the horizontal groove *v*, in combination with the ribs B, stretchers *t*, and runner R; 3rd. The combination of the runner R, provided with the groove *g*, bent stretchers *t*, ribs B, guide rod *r*, and screw rod D, with the handle case H, having the slip screw joint J.

No. 6198. Improvements on Steam Engines for Economising Fuel.

(Perfectionnements aux machines à vapeur pour économiser le combustible.)

James Metcalfe, Edward Hamer and Richard Metcalfe, Aberyswith, Wales, 12th June, 1876, for 5 years.

Claim.—1st. The use and applications of Apparatus in connection with the blast pipe and injector for the purpose of utilizing the exhaust steam by returning it to the boiler with the feed water either in the form of steam or condensed and forming part of the feed water; 2nd. The use and application of apparatus in connection with the exhaust pipe or steam ports and the injector for the purpose of utilizing exhaust steam; 3rd. The use and application of apparatus in connection with the blast pipe or exhaust pipe and a steam feed pump for utilizing exhaust steam; 4th. The use and application of catch valve and back pressure valves; 5th. The use and applica-

tion of apparatus in connection with the injector or feed pump for supplying hot water to the boiler; 6th The use and application of an extra combining cone in connection with the injector inserted above the ordinary lowest cone of the injector.

No. 6199. Improvements on Volta-Electric Appliances.

(Perfectionnements aux appareils électro-voltaïques.)

John E. Hetherington, Cincinnati, Ohio, U. S. (Assignee of Isaac L. Palvermacher), 12th June, 1876, for 5 years.

Claim.—1st. In voltaic bands formed of wire spun upon edge cords, the combination of a series of insulating buttons placed at intervals upon one face and a groove or indentation A, in the other face, 2nd. The construction of voltaic bands formed of wire spun upon edge cords, the gutta percha strips or cords B, B; 3rd. The construction of voltaic band formed of wire spun upon edge cords, the arrangement of two gutta percha cords or strips B, B, near the said edge cords and a third at the centre, or near the center of the width of the bell bearing pieces of porous absorbent material C, C; 4th. The pole plate consisting of two cheeks D, D, a tie *c*, and suitable hinge loops *d*, *d*, adapted to be folded and secured to the end of the band.

No. 6200. Improvements on Grates for Stoves and Furnaces.

(Perfectionnements aux grilles de poêles et de fourneaux.)

George W. Swett, Julius F. Quimby and Samuel W. Perry (Assignees of William Morand), Troy, N. Y., U. S., 16th June, 1876, for 5 years.

Claim—1st. The combination with the supporting bar B, of the stirrup B1, and pivot block C, supported by trunnions from said stirrup, and having a central hole for supporting a grate; 2nd. The supporting bar B, screw thread bush D, supported from said bar directly or indirectly, and having a central opening *n*, for the pivot of the grate and recesses *m*, *m*, permitting a play of feathers *n*, of the pivot of the grate; 3rd. The grate A, having a central pivot for its rotation, and radial feathers *z*, *z*, and with holes or recesses *b*, or their equivalents made with its outer rim, screw-threaded bush D, provided with its recesses *m*, pivot block C, supported by trunnions from the supporting bar B, 4th The combination with the pivot block C, pivoted with the stirrup B1, of the stops *o*, *o*; 5th. The combination with the pivot block C, pivoted from the stirrup B1, of the stop *r*.

No. 6201. Improvements in the Art of and in the Apparatus for Transmitting Musical Sounds Telegraphically.

(Perfectionnement dans l'art et les appareils de transmission des sons musicaux télégraphiquement.)

Elisha Gray, Chicago, Ill., U. S., 16th June, 1876, for 15 years.

Claim.—1st. The art of transmitting musical sounds telegraphically by reproducing such sounds at the receiving end of the line by means of a vibrating reed and a sounding box of corresponding pitch; 2nd. The combination of an electro-magnet, a vibrating reed and a sounding box of corresponding pitch united at the receiving end of an electric circuit; 3rd. The combination with an electric circuit of a series of electro-magnets, a series of vibrating reeds producing musical tones of different pitch and a series of correspondently tuned, sounding boxes, whereby each box is caused to sound its own note while rejecting all others; 4th. The vibrating reed constructed with parallel sides and recesses near its fixed end whereby its tendency to vibrate in unison with tones other than its own is prevented; 5th. The combination of an electro-magnet, a vibrating reed a sounding box of corresponding pitch and a local circuit breaking apparatus actuated by the vibrations of a column of air in said sounding box; 6th. The combination of a sounding box, the column of air contained in which is thrown into vibration by tones transmitted through an electric circuit, an adjustable box or chamber across which a diaphragm is stretched and a local circuit breaking mechanism mounted on said adjustable section; 7th. The combination of a sounding box, a diaphragm, a local circuit and a circuit breaking lever vibrating more slowly than the diaphragm, by which said local circuit is controlled.

No. 6202. Improvements on Driving Reins.

(Perfectionnements aux guides de harnais.)

Peter Nerney, Attleborough, and Benjamin S. Wright, Boston, Mass., U. S., 16th June, 1876, for 15 years.

Claim.—1st. The slide A, consisting of the frame *a*, the two small end bars *b*, *b*, and the thick or large central bar *c*; 2nd. In combination with the slide A, provided with cross-bars *b*, *b*, *c*, the rein B, looped or doubled on itself and passed through said slide.

No. 6203. Machine for Making Wires for Soda Water and other Bottles.

(Machine à faire les fils métalliques pour les bouteilles à eaux gazeuses et autres.)

Leonard Perrin, London, Ont., 16th June, 1876, for 5 years.

Claim.—The combination of points B jaws E, E, arm F, threadle G, metallic spring H, jaws I, sliding jaws K, bits L, and levers C, D, J.

No. 6204. Improvement in Sash-holders.

(Perfectionnement des arrête-croisées.)

Henry Lear and James F. Wilson, Simcoe, Ont., 16th June, 1876, for 5 years.

Claim.—The combination of the spring D, and the lever C.

No. 6205. Improvements on Advertising Devices. *(Perfectionnements aux appareils de publicité.)*

Cullen W. Reed, Chagrin Falls, Ohio, U. S., 16th June, 1876, for 5 years.

Claim.—1st. The combination in a cylindrical frame supported upon a fixed axis, of a series of side panels tangentially connected with the frame for receiving and displaying characters, advertisements, &c.; 2nd. The combination of a series of buckets for receiving currents of air with the cylindrical frame work constructed for displaying characters, advertisements, &c and a central axis or standard for supporting the frame; 3rd. The combination with a cylindrical or polygonal shaped frame-work for displaying characters advertisements, &c., of a rotary guard for conducting currents of air upon surfaces or buckets projecting laterally from the frame-work; 4th. The guard constructed with a concave receiving and conducting face and with a guide vane in combination with a cylindrical or polygonal shaped frame constructed for displaying characters, advertisements, &c.

No. 6206. Improvements in Steam Boilers.

(Perfectionnements dans les chaudières à vapeur.)

Joseph H. Killey and Walter Muirhead, Hamilton, Ont., 16th June, 1876, for 5 years.

Claim.—The combination of the receiver A, the circulating pipes B, and the collecting funnels C.

No. 6207. Improvements in Lamps.

(Perfectionnements dans les lampes.)

Grenville M. Stevens, Deering, Me., U. S., 16th June, 1876, for 5 years.

Claim.—A lamp made and composed of the base *d*, stock *e*, the wooden cup or bowel *f*, the wooden top *b*, and metal receptacle *a*, the said receptacle *a*, being attached to the cover or top *b*, by the metallic neck *c*, held suspended in the cup *f*, from said wooden cover *b*, and removable from the cup *f*, with said top.

No. 6208. Sap Spout. *(Tuyau de sucrerie.)*

Hiram A. Lawrence, East-Farnham, Que., 16th June, 1876, for 5 years.

Claim.—1st. A sap spout having its holding or fastening point above, in rear of, and independent of the channel whereby weight of bucket suspended to it will not only retain the spout in position but restore it to place when dislodged, 2nd. In combination with any sap spout a purchase hook to secure it to the tree, 3rd. In combination with any sap spout the purchase hook D, having longitudinal edge or heel *d*1, and transverse upper edge or horn *d*' 4th. A sap spout having its rear end provided for three-fourths of its circumference with a sharp edge arranged to slightly enter into the bark of the tree for the purpose of preventing leakage; 5th. The combination of the trough A, the turned up end B, and purchase hook D.

No. 6209. Mechanism for Propelling Wheeled Vehicles and Boats.

(Appareil de propulsion des voitures à roues et des bâteaux.)

Marmaduke Mathews, Toronto, Ont., 16th June, 1876, for 5 years.

Claim.—1st. The toothed quadrant plates E1, and D1, pivoted on the standards B1, or at any other convenient point and provided with the levers E2 and D2, in combination with the toothed wheels F, loosely mounted on the axle or shaft A; 2nd. The toothed wheels F, provided with the spring pawl H, in combination with the ratchet wheel G, on the axle or shaft B; 3rd. The axle or shaft A, constructed in two pieces and provided with the clutch coupling A1.

No. 6210. Portable Bath. *(Baignoire portative.)*

Arnold Seligsberg, New-York, U. S., 16th June, 1876, for 5 years.

Claim.—1st. A bath tub composed of a flexible body A, and a skeleton supporting frame B, C, D, E; 2nd. The combination with the flexible body A, of the head and foot braces B, C, and interposed side braces D; 3rd. The combination with the side props or supports E, of the cross heads or T-pieces G, for the connection of the upper frame of the bath tub with said props; 4th. The combination with the flexible folding tub body A, and its head brace B, of the air cushion or pillow N.

No. 6211. Improvements in Nailing Machines.

(Perfectionnements aux machines à clouer.)

Charles T. Brandon, Toronto, Ont., 16th June, 1876 for 5 years.

Claim.—1st. The face plate D, provided with the side flanges D, and D2, and adjustable bevelled stops D3, in combination with the hammer B; 2nd. The form E, provided with the adjustable gauge pieces F, F, and filling piece E3; 3rd. In combination with the form E, and hammer B, the sliding blocks C1, E1, and strap E2; 4th. The pivoted clamping irons K, K, with pressure bar K2, in combination with the form E, provided with the adjustable set screws L1 and springs L2; 5th. The dies G2 finished with a bevelled face on the underside to correspond with cap of the wash-board; 6th The stop brackets I, in combination with the die boxes G3; 7th. The spring cap holder M, in combination with the bevelled dies G3, and stop-brackets I; 8th. Punch-blocks J2, provided with the projecting arm J3, and fitted with the punches J4, whose points are finished on a bevel to correspond with the cap in combination with the double die boxes G3, and bar G1; 9th. The combination of the spring cap holder M, with spring N, and pressure bar K2; 10th. The combination of the hammer B, with face plate D, and notched table B1, form E, sash C, clamping irons K, die boxes G, and G3, and punch blocks J, and J2.

No. 6212. Improvements on a Churn.

(Perfectionnements à une baratte.)

William H. Hoyt, St. John, N. B., 16th June, 1876, for 5 years.

Claim.—1st. The combination of the dasher and air tube C; 2nd. The combination with the dasher and air tube C.

No. 6213. Improvements in Gang Ploughs.

(Perfectionnements aux charrues à socs multiples.)

Archibald Filshie, Elora, Ont., 16th June, 1876, for 5 years.

Claim.—1st. A plough head provided with a double tenon B, B, having projecting side flanges B1, B1; 2nd. The filling rib or web piece A1, projecting forward of the usual position of the head of the plough; 3rd. The combination and arrangement of the bars E, E1, and E2, braces F, F1, F2, and tenons B, B; 4th. The pivoted lever J, connecting rods I, and I1, in combination with the crank shafts G2, G2, provided with the radial arms H, H.

List of Patents issued up to 22nd July, 1876, but not yet Officially published in the Patent Office Record.

No. 6340. W. S. Mead, San Francisco, California, U. S. A., "Journals and Boxes," 20th July, 1876.

No. 6341. W. H. Solomon, Stukely, Que., "Stone Lifter," 21st July, 1876.

No. 6342. E. Metcalf, Port Huron, Mich., U. S. A., Window Shade and Blind," 21st July, 1876.

No. 6343. W. S. Worton Indianapolis, Indiana, U. S. A., Office Desk," 21st July, 1876.

No. 6344. L. Graf, Newark, New Jersey U. S. A., "Heel and Sole Polishing Machine," 21st July, 1876.

No. 6345. G. W. Hunter, J. P. Norris, U. L. Chase, Philadelphia, Penn., U. S. A., and H. M. Baker, Washington, U. S. A., "Lifting Jack," 21st July, 1876.

No. 6346. A. J. Reynolds, Chicago, Ill., U. S. A., "Fruit and Vegetable Evaporator," 21st July, 1876.

No. 6347. A. Brittain, Montreal, Que "Sewer Cradle Rib," 21st July, 1876.

No. 6348. J. C. Mitchell, and C. W. Roby, Lancaster, N. Hamp, U. S. A., "Car-Coupler," 21st July, 1876.

No. 6349. G. Haworth, Saint Michaels Hamlet, Lancaster Co., England, (Assignee of R. J. Ellis, Liverpool, England). Water Circulating Fire Bar and Bearer," 21st July, 1876.

No. 6350. J. Collins & W. O'Connor, Guelph, Ont., "Stop Cock," 21st July, 1876.

No. 6351. P. A. Peer, Comstock, Mich., U. S. A., Barn-Door Fastening," 21st July, 1876.

No. 6352 J. T. Averill, St. Paul Minn., U. S. A., Paper Pulp Process," 21st July, 1876.

No. 6353. D. Drill, Spring, Penn., U. S. A., Nut Lock, 21st July, 1876

No. 6354. J. Nearing, Sherburn, N. Y., U. S. A., Wine and Cider Press," 21st July, 1876.

No. 6355. A. Schmitt, Williamsburgh, N. Y., U. S. A., "Garbage and Street Refuse Receptacle," 21st July, 1876.

No. 6356. W. T. J. Thiers, New York, U. S. A., M. C. Jeffers, New-York, E. T. Beecher, Brooklyn, N. Y., and A. P. Armstrong, New York, U. S. A., "Disinfecting Ship Ventilator and Fog Alarm," 21st July, 1876.

No. 6357. H. Aitken, Talkirk, Scotland, and W. Young, Clippens Scotland, "Illuminating Gas Process," 21st July, 1876.

No. 6358. H. Purdy, Burlington, Iowa, U. S. A., "Heat Extracting Apparatus," 21st July, 1876.

No 6359 S. W. Wardwell, jr., G. W. Shaw, and H. Menown, St. Louis, Min., U. S. A., "Sewing Machine," 21st July, 1876.

No. 6360. J. Stevens, Port Byron, N. Y., U. S. A., "Paper Vessel," 21st July, 1876.

No. 6361. O. Jenness, Boston, Mass., U. S. A., Brush Handle," 21st July, 1876.

No 6362 L. J. Hewitt, Toronto, Ont. Illuminator, 21st July, 1876.

No. 6363. J. W. Hiatt and W. F. Beck, Iowa Falls, Iowa, U. S. A., "Dumping-Box," 21st July, 1876.

No 6364 T. Ramsay, (Assignee of J. B. Orr, Glasgow, Scotland), "White Enamel Paint," (Extension of No. 4038,) 21st July, 1876.

No. 6365. T. Ramsay, (Assignee of J. B. Orr,) Glasgow, Scotland, "White Enamel Paint," (Extension of No. 4038), 22nd July, 1876.

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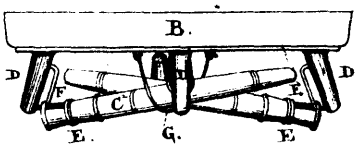

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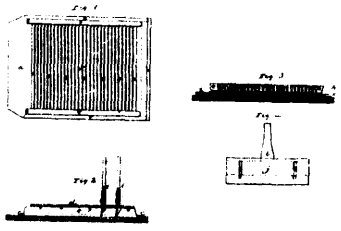

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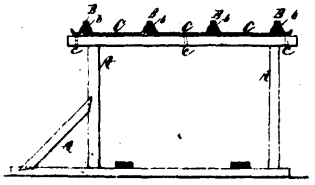

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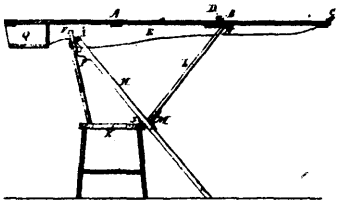

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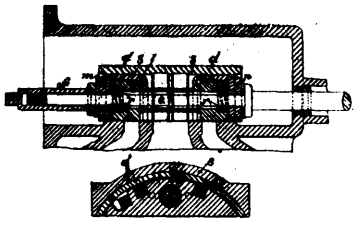

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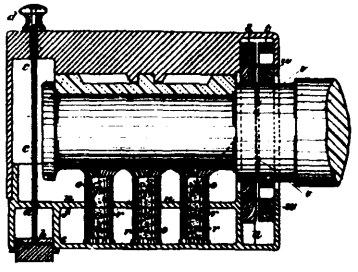

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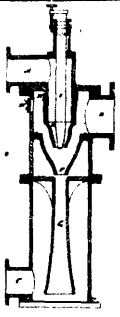

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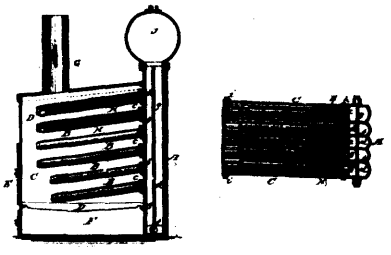

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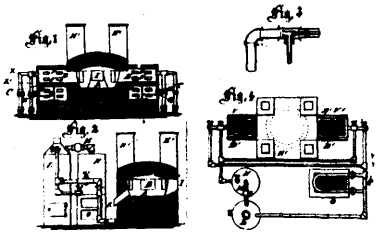

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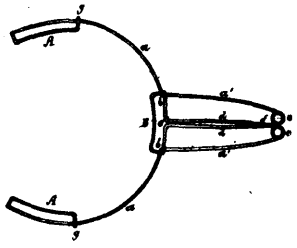

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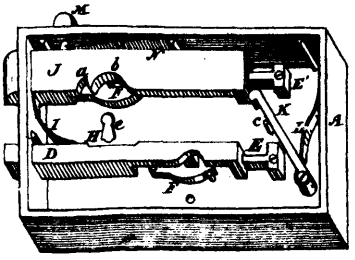

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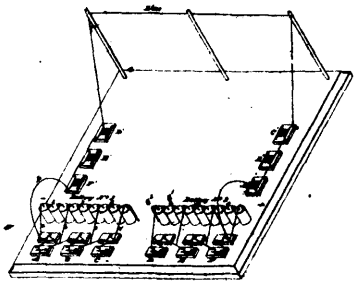

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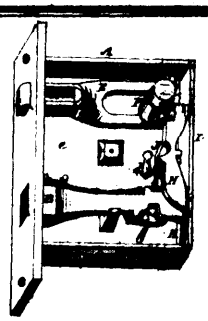

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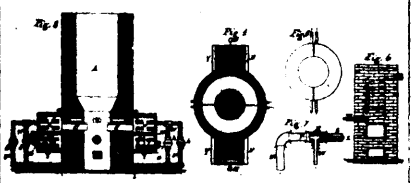

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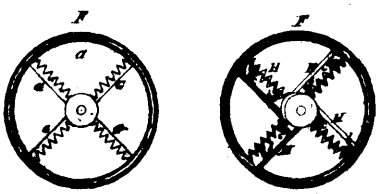

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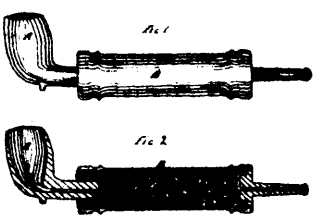

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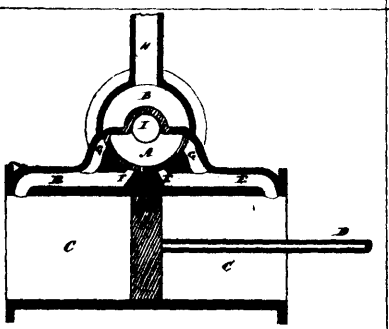

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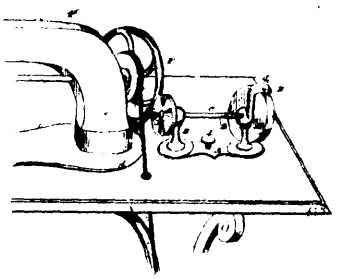

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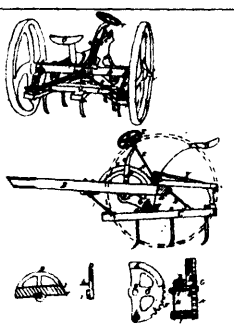

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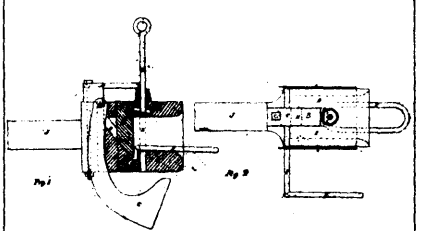

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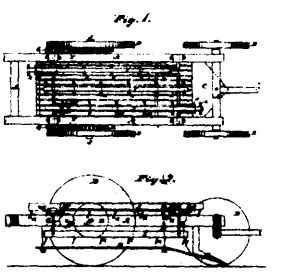

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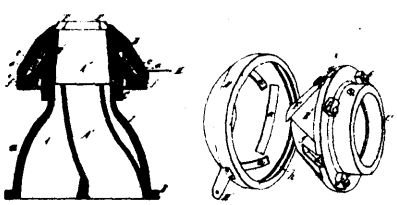

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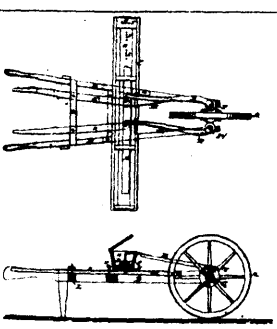

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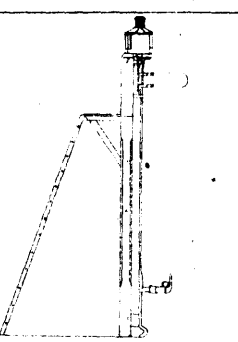

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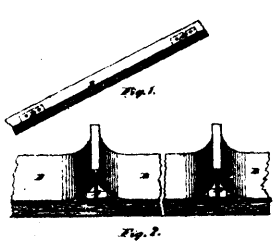

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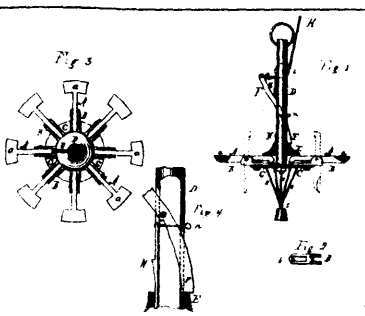

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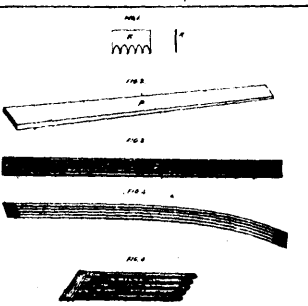

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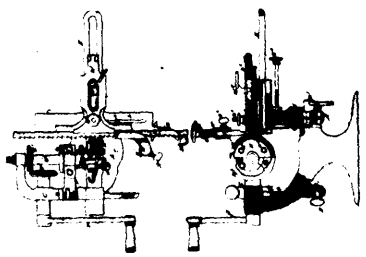

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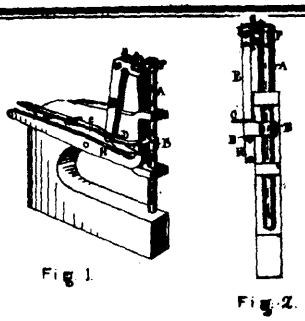

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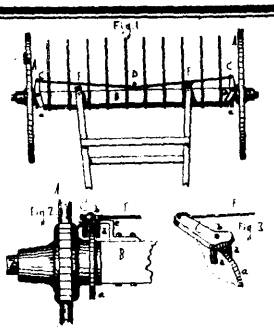

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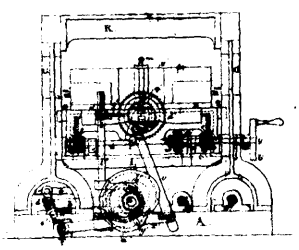

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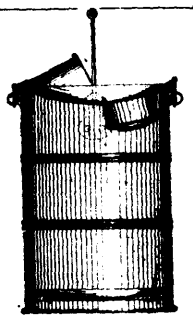

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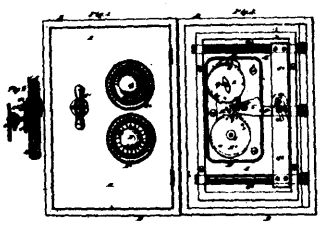

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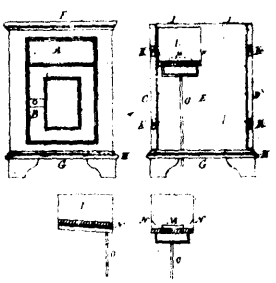

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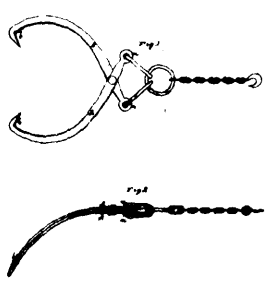

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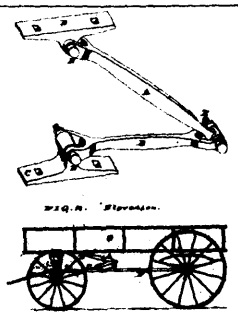

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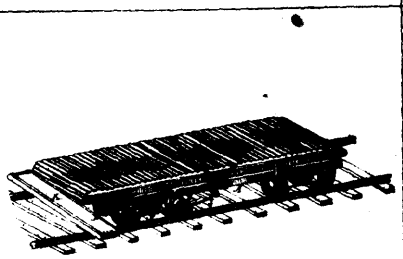

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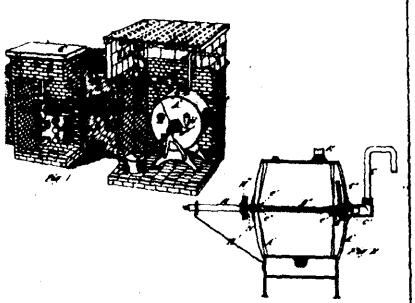

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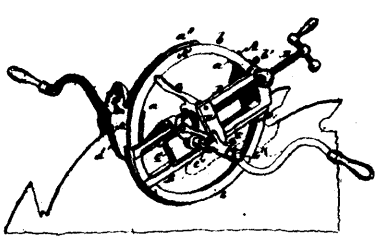

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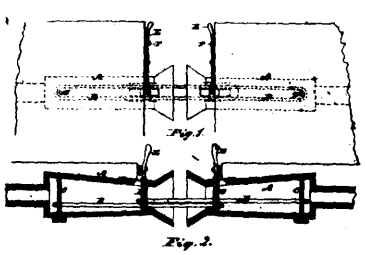

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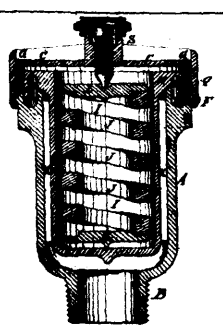

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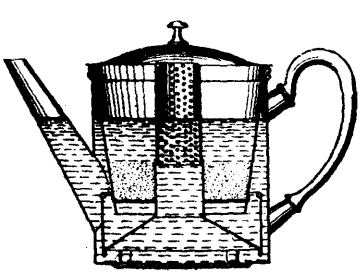

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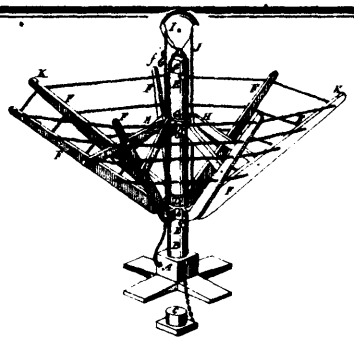

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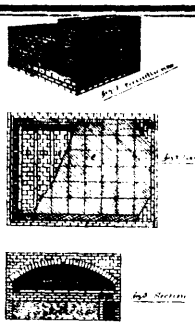

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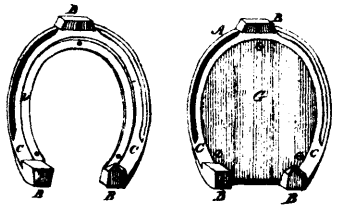

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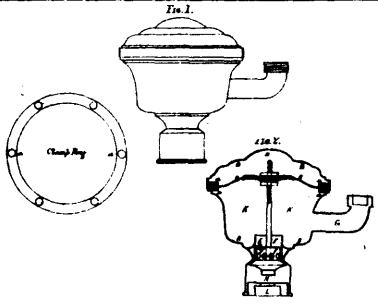

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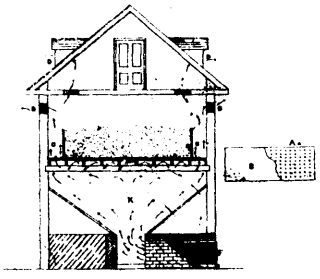
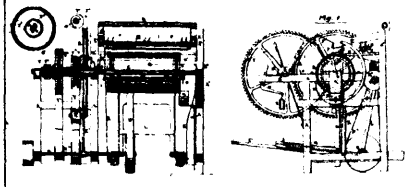
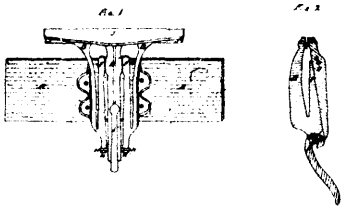


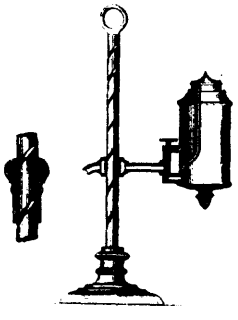
6140 Tindale's Process and Compound Preparation of Groats.



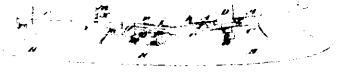
6141 McEachern's Improvements in Barrel Machinery.



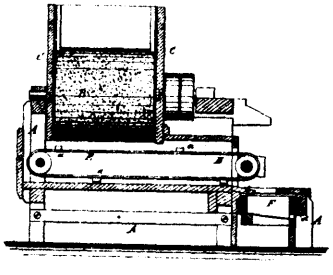
6142 Cady's Improvements on Saw-clamps.



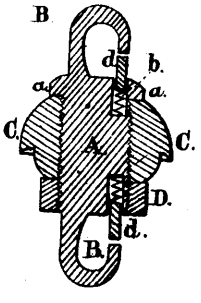
6143 Webb's Improvements on Fountain Lamps.



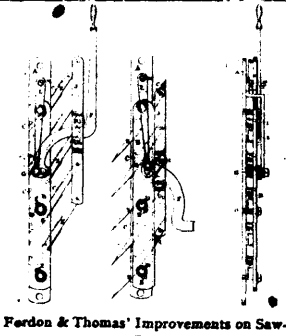
6144 Hedderwick's Improvements on Skates.



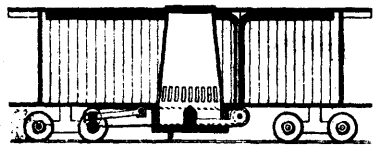
6145 Bowers & Curtis' Manufacture of Dry Wood Pulp.



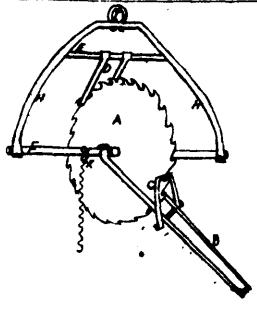
6146 Wilcox's Chain Pump Bucket.



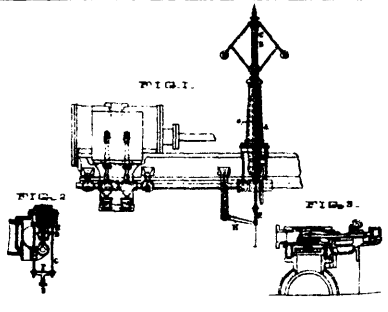
6147 Fordon & Thomas' Improvements on Saw-mill Dogs.



6148 Wickes' Improvements on Refrigerator Cars.

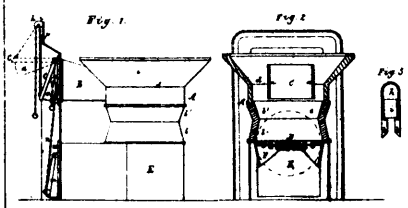


6149 Brown's Machine for Lifting Heavy Weights.

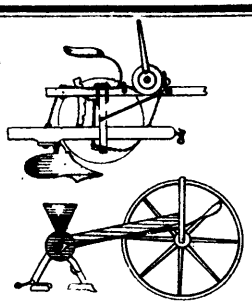


6150 Wilson's Steam Engine Governor.

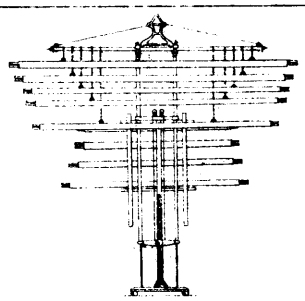
6151 Guyon's Ditch Shovel.



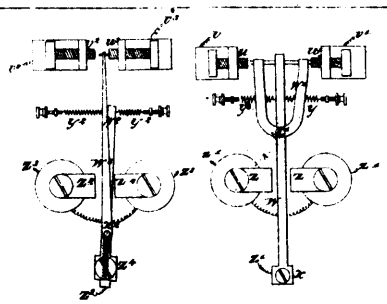
6153 Hawkes' Improvements on Stoves or Furnaces.



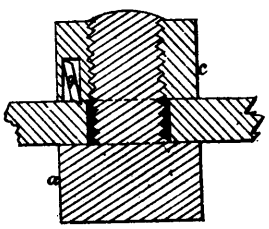
6154 Fay & Chalmers' Improvements on Ploughs and Planters.



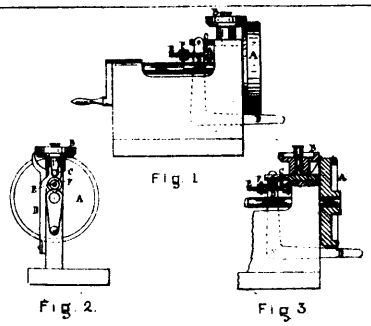
6155 Browne's Stand for Displaying Maps, Charts, &c.



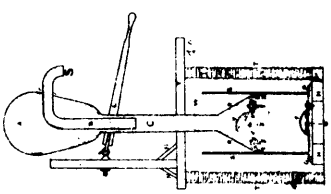
6156 Allan & Brown's Improvements in Electric Telegraphs.



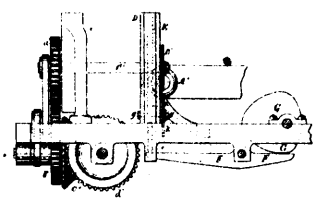
6157 Brunson's Improvements in Nut Locks.



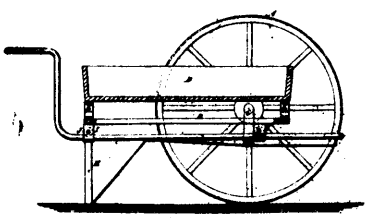
6158 Wheeler's Sole Channelling Machine.



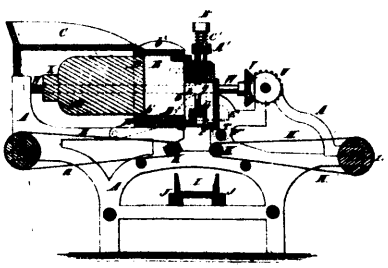
6160 McGuire's Improvements on Service and Force Pumps.



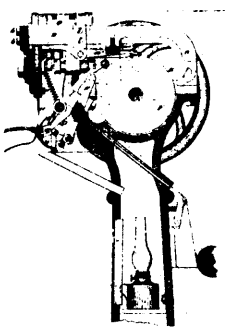
6161 Leland's Improvements on Wood-screws, &c.



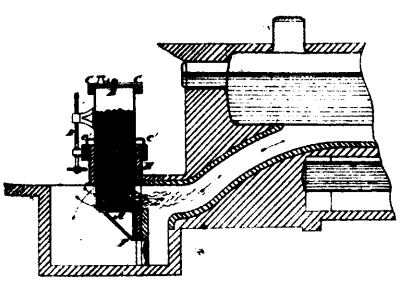
6162 Jones' Improvements on Hand-carts.



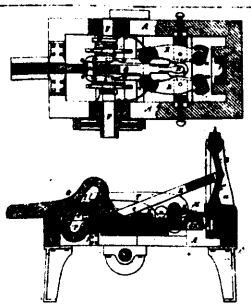
6163 Holmes' Improvements on Cracker Machines.



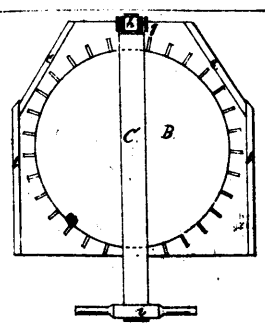
6164 Goodyear's Boot and Shoe Sewing Machine.



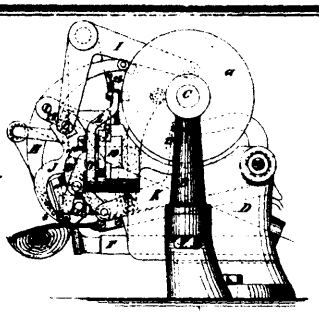
6165 Putz's Improvements on Fire Places.



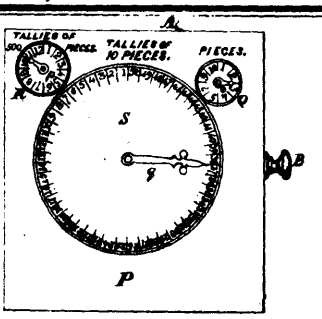
6166 Gilmore's Improvements on Horse Shoe Machines.



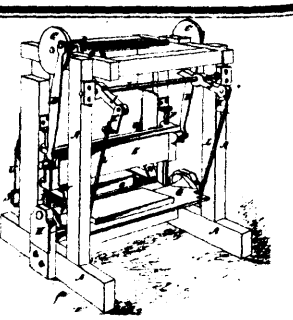
6167 Macnee's Improvements on Butter Workers.



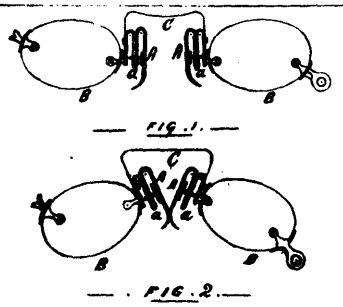
6168 Goodyear's Boot and Shoe Sewing Machine.



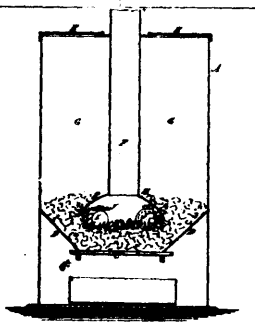
6170 French's Improvements on Tallies.



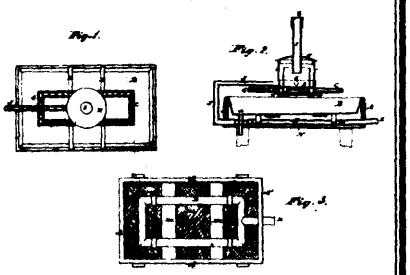
6171 Griffith's Hoop Cutting Machine.



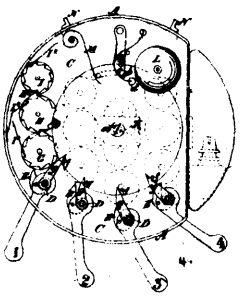
6172 Alexander's Improvements in Eye Glasses.



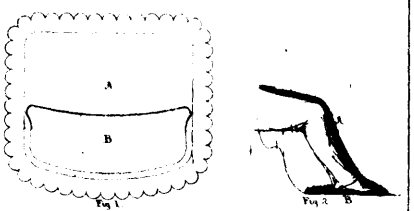
6173 Adams' Improvements on Charcoal Furnaces.



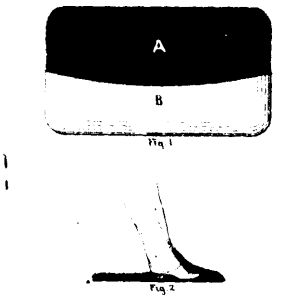
6174 Ferguson's Combined Milk Cooler and Pan.



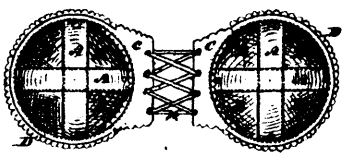
6175 Davis' Fare Registering Apparatus.



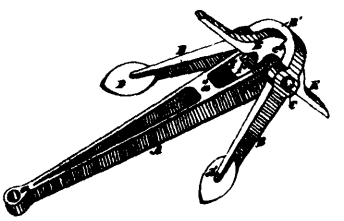
6176 Milwain's Improvement on Lap Robes.



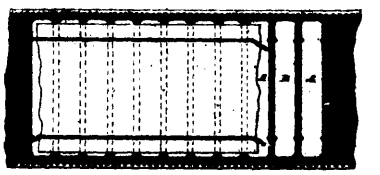
6177 Milwain's Improvement on Carriage Rugs.



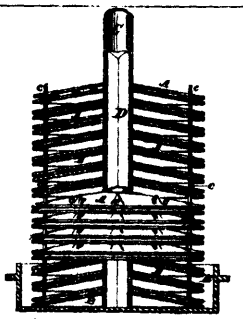
6178 Tallman & Sullivan's Bosom Pad.



6179 Whitecar & Powell's Improvement on Anchors.

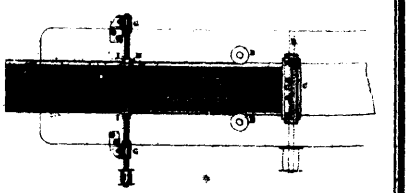


6180 Pulvermacher's Improvements on Volta-electric Appliances.

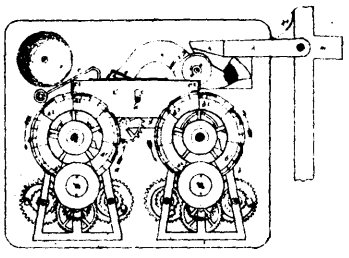


6181 Pulvermacher's Improvements on Volta-electric Appliances.

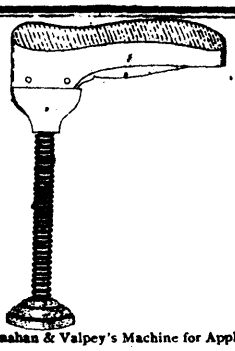
6182 Milner's Improvements in Tube Wells.



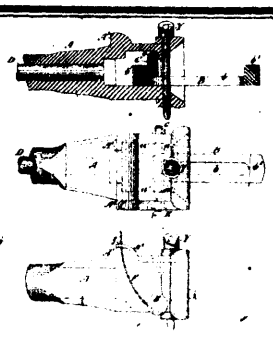
6183 Warren's Improvements in Wood Planing Machines.



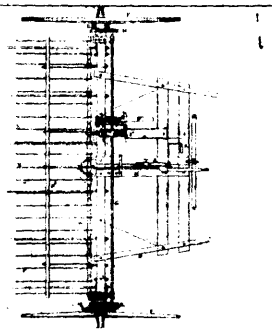
6184 **Burge's Improvements in Chronometric Locks.**



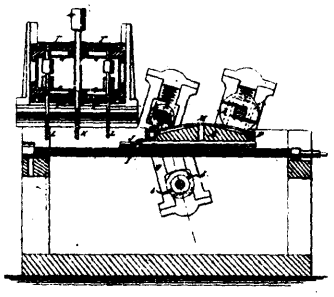
6185 **Monahan & Valpey's Machine for Applying the Insole Lining to Boots.**



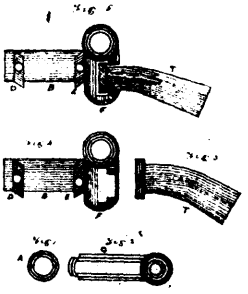
6186 **Mitchell's Improvements on Car-couplers.**



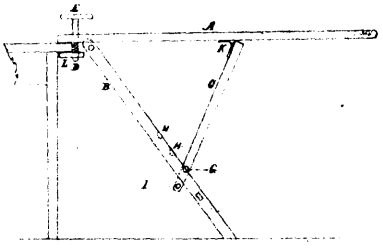
6187 **Lundy's Horse-rake.**



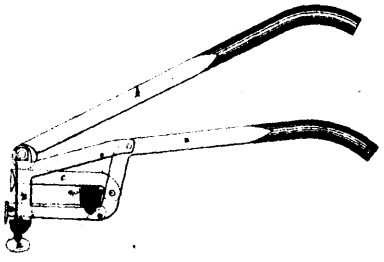
6188 **Burr's Machine for Making Tackle Blocks.**



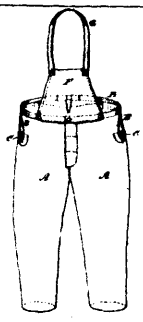
6189 **Wilcox's Machine for Attaching Shafts to Buggies and Cutters.**



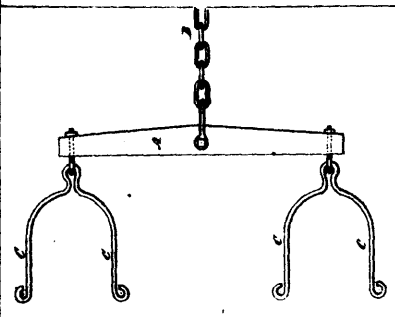
6190 **Butler's Ironing Board.**



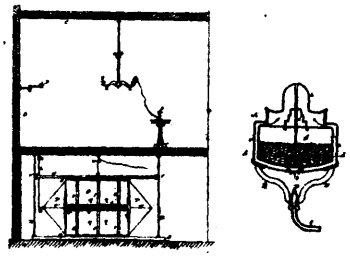
6191 **Dawson's Bolt Cutter.**



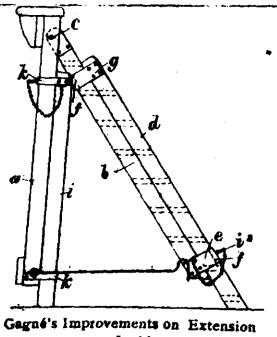
6192 **Griffin's Improvements on Overall Trousers.**



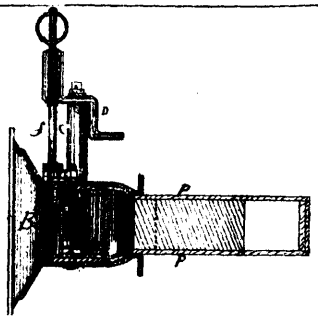
6193 **Cole's Draft Equalizing Harness**



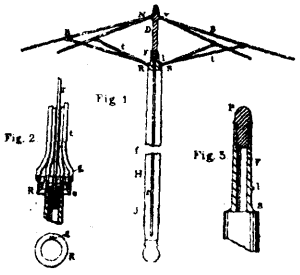
6194 **Godfrey's Apparatus for Burning Kerosene and other Oils in Lamps without Chimneys.**



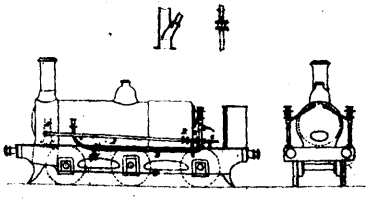
6195 **Gagné's Improvements on Extension Ladders.**



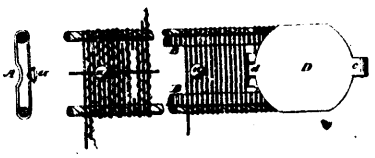
6196 **Dolson's Improvements on a Car-coupling.**



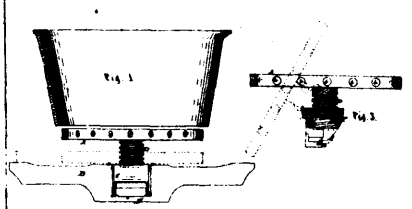
6197 **Copp's Combined Cane and Umbrella Frame.**



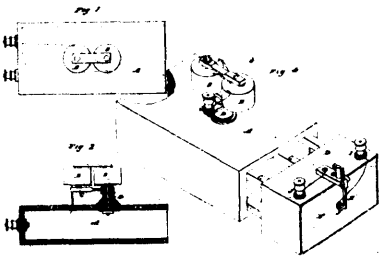
6198 **Metcalfe's Improvements on Steam Engines.**



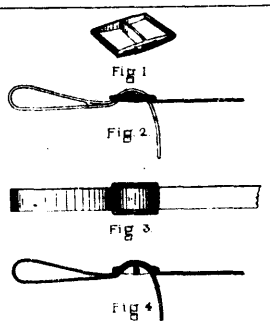
6199 Pulvermacher's Improvements on Voltaelectric Appliances.



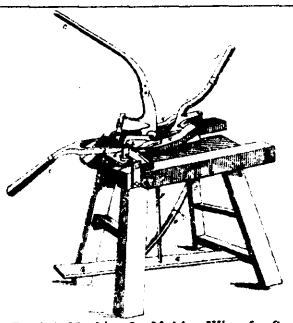
6200 Morand's Improvements on Grates for Stoves and Furnaces.



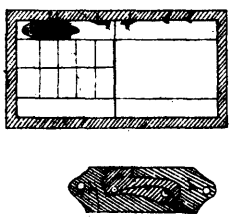
6201 Gray's Improvements in the Art of and in the Apparatus for Transmitting Musical Sounds Telegraphically.



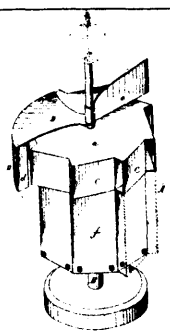
6202 Nerney's Improvements on Driving Reins.



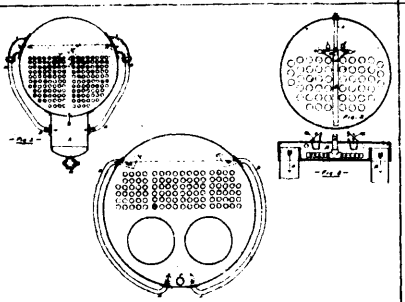
6203 Perrin's Machine for Making Wires for Soda Water and other Bottles.



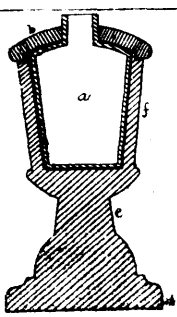
6204 Lear's Improvement in Sash-holders.



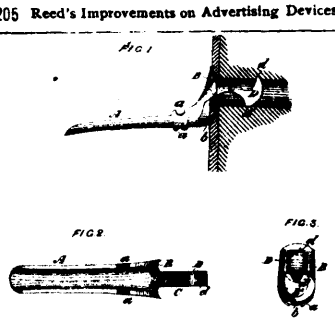
6205 Reed's Improvements on Advertising Devices.



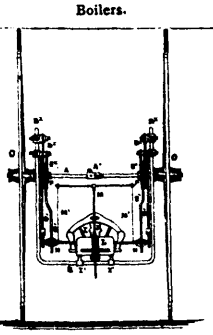
6206 Killey & Muirhead's Improvements in Steam Boilers.



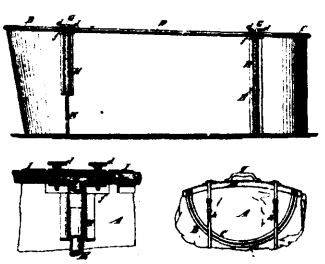
6207 Stevens' Improvements in Lamps.



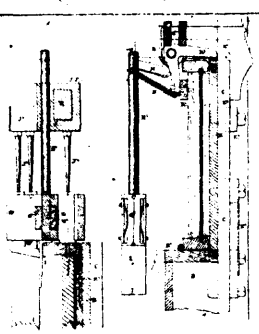
6208 Lawrence's Sap Spout.



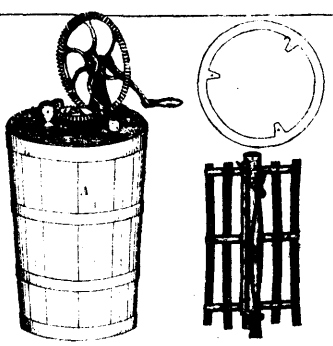
6209 Mathews' Mechanism for Propelling Wheeled Vehicles and Boats.



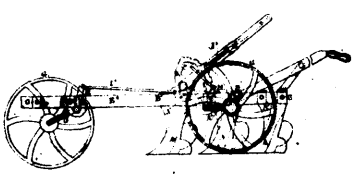
6210 Seligsberg's Portable Bath.



6211 Brandon's Improvements in Nailing Machines.



6212 Hoyt's Improvements on a Churn.



6213 Filshie's Improvements in Gang Ploughs.