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CONTENTS.

INVENTIONS PATENTED	55
INDEX OF INVENTIONS	XXXXVII
INDEX OF PATENTEEs	XXXXVIII
ILLUSTRATIONS	65

INVENTIONS PATENTED.

No. 7170. Improvements on Horse Rakes. (Perfectionnements aux râtaux à cheval.)

Thomas Galloway and John Larsen, Oshawa, Ont., 1st March, 1877, for 5 years.

Claim.—1st. Eccentric dog J, or its equivalent, pivoted upon the bracket E, in combination with the shoe K fitting into the groove L, cut in the hub of the wheel A; 2nd. The clutch M bolted to the bracket F, in combination with the groove I, cut in the hub of a wheel A revolving upon the axle-tree and B; 3rd. The shoe K wedged into the groove L, by the eccentric dog J in combination with the clutch or stop M; 4th. The foot lever Q working within the elongated staple R and provided with the double crans O, in combination with the chain or rope P connected to the cranked rod N, for the purpose of operating the dog K; 5th. The brackets E, E bolted to the axle-tree C and supporting the staple bar D, in combination with the brackets F F pivoted upon the axle-tree ends B B and supporting the shaft G; 6th. The teeth H having hooked ends, in combination with the brackets I bolted to the back of the axle-tree C.

No. 7171. Folding Washstand.

(Lavemoin brisé.)

Sidney Kinder, Amherst, N. S., (Assignee of David O. Parker,) 3rd March, 1877, (Extension of Patent No. 1357), for 5 years.

Claim.—The three detachable hinged pieces A a and the shaft B b, said parts A a B b being constructed and arranged, as described.

No. 7172. Improvements in Sparks Arresters. (Perfectionnements aux arrête-flammèches.)

Frank M. Stevens, Concord, N. H., Henry G. Holmes, New York, and John A. White, Concord, N. H., U. S., 6th March, 1877, for 5 years.

Claim.—1st. The combination of the elbow pipe G its partition I, the two branch ducts K K and the conduit E to be used with a chimney and spark receiver; 2nd. The steam jet tube h in two sections coupled and provided with a stop cock K, in combination with the boiler A and the spark receiver C hinged together and provided with the educt f; 3rd. The spark receiver C provided with a receiving mouth l (separate from the conduit E for the discharge of sparks into such receiver), and hinged or applied to the open end of the smoke-box B so as to be removable therefrom and the conduit E, each open end of the smoke-box being provided or not with a head; 4th. The combination of the spark receiver C and its discharge chimney or chimneys D with the smoke-box B, the chimney B, the elbow pipe G and its three educts E K K.

No. 7173. Combination of Processes for Making Syrups.

(Combinaison de procédés pour faire des sirups.)

Hugh W. Walker and Thomas L. Patterson, Greenock, Scot., 6th March, 1877, for 5 years.

Claim.—1st. The clear, bright fruit flavoured syrups made from the residual sweet liquids of syrups obtained in manufacturing or refining sugar the sweet liquids or syrups being treated with a solution of a suitable substance such as an alkaline bicarbonate or a soluble phosphate or a salt of alumina, which substance is subsequently precipitated and with impurities removed by filtration whilst the syrups are cooled rapidly after concentration and have fruit like essences combined with them; 2nd. Clear bright syrup made from the residual sweet liquids or syrups obtained in manufacturing or

refining sugar, the sweet liquid or syrups being treated with a solution of a suitable substance, which is subsequently precipitated and with impurities removed by filtration, whilst the syrups are cooled rapidly after concentration; 3rd. Clear, bright syrups made from suitable sweet liquids or syrups, and prevented from becoming dull or turbid by being rapidly cooled after concentration; 4th. Fruit flavoured syrups made from suitable sweet liquids or syrups by combining therewith natural or artificial fruit essence or fruit-like essences.

No. 7174. Improvements in the Manufacture of Porcelain.

(Perfectionnements dans la fabrication de la porcelaine.)

Abel d'Estampes, New Orleans, La., U. S., 6th March, 1877, for 5 years.

Claim.—Artificial kaolin when formed of shells, white sand and feldspath.

No. 7175. Improvement on Collars for Garments. (Perfectionnement des collets d'habits.)

George Farwell, Salem Mass. U. S. (Assignee of Alberta Riley,) 6th March, 1877, for 5 years.

Claim.—The detachable collar A consisting of parts a b and having holes l for coats, sacques, capes and similar other garments.

No. 7176. Improvements on the Manufacture of Steel.

(Perfectionnements dans la fabrication de l'acier.)

Alfred B. Mullett, Washington, D. C., U. S., (Assignee of Julius Baur,) 6th March, 1877, for 5 years.

Claim.—The combination with the steel-making iron, in suitable proportions, of an alloy of chromium, manganese and iron, or of the requisite proportions of ferro-chromium and ferro-manganese.

No. 7177. Improvements on Semaphore Signals. (Perfectionnements aux signaux sémaphores.)

Francis Cullham, Beverly, Ont., 8th March, 1877, for 5 years.

Claim.—The combination of the endless wire H H, signal arm A, shaft B, pulleys C C and pulley G.

No. 7178. Process for Making Oakum.

(Procédé pour faire de l'étoupe.)

William E. Geer, Chicago Ill U. S., (Assignee of Charles M. Winter,) 8th March, 1877, for 5 years.

Claim.—The process of making oakum by using a solvent made of sal soda or sun lab alkali and lime dissolved in water for cutting and holding in solution the tar and asphaltum with which the fibre is saturated, and cleansing of the said fibre with the acid solution.

No. 7179. Improvements on Nail Machines.

(Perfectionnements aux machines à clou.)

Isaac Briggs, Middleborough, Mass., U. S., 8th March, 1877, for 5 years.

Claim.—1st. In a feeding device for a nail machine the cam U bar I2 and lever C'. 2nd. In a feeding mechanism for a nail machine the plate L, levers M M2, shafts 15 K, rod K, lever q and cam K. 3rd. In a feeding mechanism for a nail machine the barrel D2, plate D1, plate H, coils E, rod H2, levers H1 H2, and rod C'.

No. 7180. Improvements on Trusses.

(Perfectionnements aux bandages herniaires.)

Philip Verum, Stryker Ohio, U. S., 8th March, 1877, for 5 years.

Claim.—1st. A truss pad composed of interlocking sections hinged together to form a safe receptacle for valuables. 2nd. The slotted back section having the button secured thereon between the slots. 3rd. The combination of the pad its slotted back, the button mounted thereon between the slots and the strap provided with a button hole and adjustable buckle whereby the pad is rendered adjustable and adaptable to either side of the body or to persons of different size, and one button fastens both ends of the strap.

No. 7181. Machine for Treading and Flanging Caps for Fruit Jars.*(Machine à fletter et rabotter les bouchons des pots à fruits.)*

John A. Gladwick, Hamilton, Ont., 8th March, 1877, for 5 years.

Claim.—1st. The female die E constructed with a series of grooves having sharp edges *e*, and the male die D constructed to fit inside and correspond therewith, only making due allowance for the thickness of sheet metal to intervene between them; 2nd. The construction of the female die E in two parts *a* and *a'*, the upper part *a* being hinged to lug *b*; 3rd. The construction of the handle F secured to the projection *d* and made adjustable by means of the rod *c* and nut *f*, in combination with the pieces *c* and upper half *a* of die E for operating said die and locking it; 4th. The construction and arrangement of a revolving finger G or a series of revolving fingers G, pivoted to the plate *i* and provided with projections *j*, notches K held in place by an elastic band L or its equivalent, and operated back and forth by a cone and its handle *m* for turning a flange on metal rings for fruit jars; 5th. In combination with one finger G or a series of fingers G, the arrangement of a movable cone *f*, impinging upon the same and operated back and forth by a handle *n*, for pressing in and out the opposite ends of the fingers for flanging metal screw caps or rings for fruit jars; 6th. The combination of the finger or fingers G, cone *f*, band L, handle *m*, male and female dies E D, handle F, shaft H and pulleys, all combined for threading and flanging metal rings for glass fruit jars.

No. 7182. Improvements on Coal Stoves.*(Perfectionnements aux poêles à charbon.)*

John W. Elliot, Toronto, Ont., 8th March, 1877, for 5 years.

Claim.—1st. In a fire pot for a coal-burning heating stove, the combination with an upper stationary section A of a lower movable section B capable of revolving horizontally a complete circle; 2nd. The stationary section A provided with the circular lugs A₁ and notches E E, in combination with the movable section B; 3rd. In combination with the movable fire pot section B, the grate C, arranged in such manner that the grate and movable section may be operated together or independently of each other; 4th. In combination with a grate supported at its circumference and provided with a central socket, the lever D provided with the tapering stud D₁; 5th. In combination with the grate C and movable fire pot section B, the lever D provided with the stud D₁ and upwardly projecting piece F; 6th. The combination of the grate C with a fire pot provided with an annular grate support B₂ with oppositely placed recesses G.

No. 7183. Rocking Horse, Sled, Carriage, Sled, High Chair and Step-Ladder.*(Cheval berçant, voiture, traineau, chaise haute et marche-pied.)*

David O. Parker, Liverpool, N. S., 10th March, 1877. (Extension of Patent No. 1372), for 5 years.

Claim.—The two horses A, the rockers K, the two wheels B, the two runners C, and the cross pieces D E F H J, the said parts A K B C D E F H J being constructed and arranged as shown.

No. 7184. Improvements on the Manufacture of Carbonates of Soda.*(Perfectionnements dans la fabrication des carbonates de soude.)*

Ernest Solvay, Brussels, Belgium, 10th March, 1877, for 5 years.

Claim.—1st. With reference to the mode of using carbonic acid in the manufacture of carbonates of soda the process of preliminary carbonation of the ammoniacal brine combined with, and in addition to, the processes and means in use hitherto for effecting the reaction of carbonic acid in the said manufacture; 2nd. With reference to the decomposition of the bicarbonate of soda, and the drying or calcination of the carbonate of soda produced, the process of dividing the operation into two distinct parts, so that the decomposition of the bicarbonate of soda into carbonate of soda is effected previously to the calcination of the said carbonate, the process of applying ordinary steam to the decomposition of bicarbonate of soda in such a manner that the bicarbonate will have numerous points of contact with the steam, and that the latent heat in the said steam may be utilized and the water of condensation may be used for effecting a first fixation of the bicarbonate of soda upon the filter, the process of applying industrially ammonia in the form of gas or liquid to the decomposition of bicarbonate of soda, also the combination of the rotatory cylinder A, tube B, chamber C, toothed gearing E, fire grate F, hopper T, door O and rollers *r r*, forming a continuous rotatory apparatus or furnace with open ends for the calcination of carbonate of soda.

No. 7185. Gas-Lighting Apparatus.*(Appareil à allumer le gaz.)*

John Ruthven, Ottawa, Ont., 10th March, 1877, for 5 years.

Claim.—1st. In combination with a stationary friction striking needle, an intermittently moving endless band provided with a series of friction explosive charges; 2nd. The adjustable ferrule C with socket L, roller D, and adjustable needle *h*, in combination with the band E having a series of explosive charges placed thereon; 3rd. The rod A provided with the fixed sleeve G and nut F, in combination with the ferrule C and band E; 4th. In combination with the roller H provided with the ratchet wheel I and the band E, the spring trigger piece J with pawl *h*; 5th. The combination with an endless band provided with a series of regularly placed explosive charges and a friction striking needle of a spring trigger with pawl and ratchet wheel connection arranged to communicate an intermittent movement to the said band for the purpose of igniting a single charge at each stroke of the trigger; 6th. The rod A with bore *a* and chamber A₁, in combination with the ferrule C and attachment bands E, and band operating mechanism; 7th. The detachable hollow handle B with turnkey attachment O, in combination with the rod A; 8th. In combination with the rod A provided with the chamber A₁ and the chamber cover X arranged as a taper box.

No. 7186. Improvements on Saw Frames.*(Perfectionnements aux châssis de scies.)*

Jesse Kinney and John W. Smyth, London, Ont., 10th March, 1877, for 5 years.

Claim.—The saw frame composed of arched top A and handles B C in combination with thumb screws *a* and blade D.

No. 7187. Improvements in Church Benches.*(Perfectionnements aux bancs d'églises.)*

Charles Potter, Toronto, Ont., 10th March, 1877, for 5 years.

Claim.—1st. The seat A having chamfered corners, in combination with the wings B and C with corners correspondingly chamfered and hinged at *a* to the said seat A; 2nd. The slotted socket E and bracket F attached to the ends of the wings B and C, in combination with a hollow pillar D provided with one or more pins H and a spring roller carrying a curtain G; 3rd. The adjustable supports J pivoted to the ends of the seat A, in combination with the plates or pins K and L.

No. 7188. Improvements on Cross-cut Saws.*(Perfectionnements aux scies de travers.)*

Jerome C. Dietrich, Galt, Ont., 10th March, 1877, for 5 years.

Claim.—The long narrow cutting teeth C having parallel sides, separated by long narrow spaces D, cut transversely in the saw plate with the bridge connections L being used in combination with, or without, the clearing teeth B, separated therefrom by the chip spaces F.

No. 7189. Improvements in Mowers and Reapers.*(Perfectionnements aux faucheuses-moissonneuses.)*

Andrew G. Gray, St. John, N. B., 10th March, 1877 for 5 years.

Claim.—1st. The combination of a double lever working in opposite directions in a cam groove, formed in the periphery of a wheel mounted on the main axle and acting through suitable mechanism on the connecting rod of the knife bar; 2nd. The combination of the frame G rocked to and fro by levers H H, carried in it and working in the groove I formed in the wheel K, the rocking motion being imparted through lever M and disc N to the lever S to which is attached the connecting rod T; 3rd. The combination of the disc N, block N₁, sleeve Q, and frame carrying pins Q, all mounted loosely on spindle O with lever R pivoted to the platform of the machine, and lever S formed in one such spindle O; 4th. In combination with the lever M the elastic pieces M₁ M₂.

No. 7190. Improvements in Sheet Metal Pipes.*(Perfectionnements dans les tuyaux en feuilles métalliques.)*

Charles F. Hens, Philadelphia, Pa., U. S., 10th March, 1877, for 5 years.

Claim.—1st. The loop *c* in combination with the eccentric and eccentric plate; 2nd. The combination of the loop *c*, eccentric, eccentric plate and the sheet metal of which the coupling is composed; 3rd. The combination of the solid section *k* and the open section *l*, provided with clasps or their equivalents.

No. 7191. Improvements on Peach Parers.*(Perfectionnements aux peleurs de pêches.)*

George Bergner, Washington, Mo., U. S., 10th March, 1877, for 10 years.

Claim.—1st. A revolving and longitudinally sliding fork shaft and fork, a simultaneously turning and spring acted paring knife and a movable or stationary slicing knife; 2nd. The combination of the revolving and longitudinally movable fork shaft with a longitudinal rack rod connected thereto, and a mutilated base pinion of the turning knife stock; 3rd. The combination of the fork shaft B, having locking spring catch device, with the connecting standard D₁ of arch rod D; 4th. In peach and apple parers, the combination of the fork shaft having end screw with a detachable and interchangeable fork having a central screw socket; 5th. In peach parers, slicers and stoners, a spring fork provided with convex and recessed semi sections having front cutting edges; 6th. The combination of the revolving fork shaft, having projecting lug *c*, with the curved top extension *d* of the swinging and spring acted fork shaft holder F to throw the same out of gear with worm of fork shaft; 7th. The combination of the guided and movable fork shaft, having worm thread at one end with a swinging and spring acted fork shaft holder entering the worm to produce the backward motion of the fork shaft in the guide standard; 8th. The combination of the swinging and spring acted shaft holder F, having lug or arm *f* and sliding pivots *d* with the recess *d* of standard A₁ to retain the holder securely, when in or out of gear, with worm; 9th. The combination of the sliding rack rod D, having hook shaped end *g*, with the swinging and spring acted shaft holder I, having sliding pivots to throw the holder into gear with worm by the forward motion of fork shaft; 10th. The combination of a peach or apple fork with a longitudinally sliding and guided slicing knife; 11th. The combination of base frame A, having guide supports *h*, with slide rod H having adjustable screw nut *i* and knife standard G₁; 12th. The combination of base frame A, having support *i* and guide rail *l*, with slide rod H, and flanged base frame of knife standard G; 13th. The combination of the slicing knife G, having base flange *h* and screw *h*, with the slotted standard G and convex clamping knob G₂; 14th. The combination of the detachably pivoted and spring acted clearing arm I of the rack rod D with a stationary pin *n* of frame A, to produce the throwing off of the fruit from the fork by the forward motion of clearing arm fork shaft and rack rod; 15th. The fork shaft B, having spring catch *b* and lug *e*, with tapering ends, in combination with standard A₁ and standard D₁ of rack rod D, to automatically release or lock fork shaft to standard D₁ for the slicing and coring motion.

No. 7192. Improvements on Car Wheels.
(Perfectionnements aux roues de wagons.)

John K Sax, Pittston, Pa., U. S., 10th March, 1877, for 5 years.
Claim.—1st A car wheel produced by introducing the metal from below near the periphery of the mould in several streams flowing spirally from the centre and issuing upwards: 2nd The mode of casting car wheels, that is by introducing the metal from below near the periphery of the mould in several streams flowing spirally from the centre and issuing upwards nearly parallel to the periphery. 3rd. The mode of casting car wheels by introducing the entire body of metal at the periphery in a series of streams at regular intervals, each at such an angle as will impart a rotary motion to the entire body of metal until the mould is filled: 4th The regularly curved sprue rods C constructed to form curved channels leading spirally from the centre sprue to the rim of the mould. 5th The pattern block E adapted to form below the sprue D an enlarged central receiving basin communicating with the sprue channels c. 6th The combination of the central hollow core having an enlarged bottom portion with a mould having the basin c below the core and the sprue holes C radiating spirally from the basin to the lowest part of the rim. 7th. A chill provided with a vertical re-entrancing flange a permanently attached to and forming part of the chill and extending upwards to enclose the cope: 8th. The combination of the flanged chill and the cope I, enclosed by the flange.

No. 7193. Improvements on Screw Fastenings.
(Perfectionnements dans le passage des vis.)

John McCarthy, Syracuse, N. Y., U. S., 10th March 1877 for 5 years
Claim.—The screw s fitted loosely in the body B, and a movable catch or sectional nut b in channel c transverse in said body and held engaged with the threads of the screw by a spring.

No. 7194. Improvements on Hat Machines.
(Perfectionnements aux machines à chapeaux.)

Ambrose Hill, Yonkers N. Y. U. S. 10th March 1877, for 5 years.
Claim.—1st. The combination of the hinged frame B spring C shaft F pulley G fly wheel H turning wheel I, connecting rod D, treadle L, with each other and with the frame A, for luring hat brims. 2nd. The combination of the adjustable bar K, adjustable rest bar L, and detachable rest M with each other and with the frame A for supporting hat brims while being lured.

No. 7195. Improvements on Gang Plough Frames.
(Perfectionnements aux bâts de charrues a socs multiples.)

David W Vary Strathroy Ont., 10th March, 1877, for 5 years.
Claim.—Two or more holes D in gang plough frame A, in connection with movable centre pin C for the purpose of equalizing the draft of the plough, so that the plough will accommodate itself to hard or soft soil.

No. 7196. Improvements on Work Tables.
(Perfectionnements aux tables a ourrages.)

Mary F Scott, South Bend, Ind., U. S., 10th March 1877, for 5 years.
Claim.—1st. The construction of the rotating top, comprising the two oval boards a and the cylinder or socket B in combination with the triangular drawers C C C C C C C; 2nd. The combination with the rotating top and triangular drawers of the spiral springs (or rubber bands) E E E E E E; 3rd. The combination of the complete rotating top with the stem A and feet H.

No. 7197. Improvements on Boot and Shoe Tips.
(Perfectionnements aux caucres de chaussures.)

William Green, Montreal, Que 12th March 1877 for 5 years.
Claim.—1st. The tip B made of sole leather, trimmed and compressed to shape to prevent the wearing out of the vamp at the toe part of the shoe or boot in combination with the turn shoe or the turn boot. 2nd. The peculiar manner of securing the tip B made from the tip blank C, to turn shoes or to turn boots by sewing the tip blank in the same manner as and simultaneously with the vamp to the sole a hile the shoe or boot is being made.

No. 7198. Improvements on Fanning Mills.
(Perfectionnements aux turris)

William McKenzie Morrisburgh Ont 13th March, 1877, for 5 years.
Claim.—1st The combination of the parts A and B by the pivot d or its equivalent and hanging the combined shoe at the outer end by one set of hangings and hanging the parts separately at the inner ends. 2nd. The combination of the shaker C with the shoe A B, so that the same shaker at the same time shall make A and B shake equally, or either more or less than the other.

No. 7199. Improvements on Washing Machines.
(Perfectionnements aux machines a laver.)

Garret Seger and William Stanton Humberstone, Ont., 13th March 1877 for 5 years
Claim.—The combination of the ribbed roller B and the washboard C.

No. 7200. Improvement on Horse Car Pole Attachments.
(Perfectionnements dans l'ajustage des timons de voitures de courroyes)

Samuel A Otis Boston Mass. U. S., 13th March 1877 for 5 years
Claim.—1st The combination of the pin B hook D and lifting chain or strap H with the draw bar A. 2nd. The combination of the pin B, start M, screw U, and hook D.

No. 7201. Art of Drying Fish.
(Art de secher le poisson.)

Norman Durkee, Yarmouth, N. S., 13th March, 1877, for 5 years.
Claim.—1st The combination of railways with a fish store, so as to allow flakes to be rolled or slid upon them. 2nd The construction of the flake or flakes with rollers attached to the sides to roll upon the rails so that the flak s may be pushed easily over them out of, or into, the fish store when spread full of fish.

No. 7202. Improvements in the Process of Preserving Meat.
(Perfectionnements dans les procedes de conservation de viande.)

John Harvey, London, Eng 13th March 1877 for 5 years
Claim—Subjecting the substances to the action of sulphurous acid gas obtained from the combustion of bisulphide of carbon.

No. 7203. Improvements in Sap Spouts.
(Perfectionnements aux tuyaux de sucerres.)

Hubert R. Ives, (Assignee of Noah P. Leach), Montreal, Que, 13th March, 1877, for 5 years.
Claim.—1st. In many screwed sap spout, the combination therewith of a recessed or cut away portion, having aperture therein and being formed immediately in rear of a projecting ridge fitting the lower part of the bit hole. 2nd. In combination with the trough of any sap spout, the projections H H formed on its sides.

No. 7204. Improvement on Fences.
(Perfectionnement des clôtures.)

Cyrus J. Topplif, Brooklyn, N. Y., U. S., 13th March, 1877, for 5 years.
Claim.—1st. A barbed sheet metal plate having two rows of barbs formed by serrating its edges and turning them up at right angles to the body of the plate and parallel to each other.

No. 7205. Improvements on Wash-boards.
(Perfectionnements aux planches a savonner.)

George Groom, Hamilton, Ont., 13th March, 1877, for 5 years.
Claim—A wash board having two rubbing corrugated sides B, one side corrugated finer than the other.

No. 7206. Improvements in Plane Guides.
(Perfectionnements aux guide-sabots.)

Andrew J. Teamer, Evansville, Ind., U. S., 13th March, 1877, for 5 years.
Claim.—1st. The combination of the hinging and clamping bolts d with the plane A and plate F having ears e e, and with the guide B and plates D having projection b. 2nd The plate e having slots g with enlarged openings i, in combination with the guide B and its set screw a. 3rd. The combination of the guide B and the plates D, having a graduated segmental projection b, with the plane A and the plate F having ears e e.

No. 7207. Improvements on Stove-pipe Elbow Blanks.
(Perfectionnements aux ebauches de coudes de tuyaux de poels.)

Green Choate, East Saginaw, Mich., U. S., 13th March, 1877, for 5 years.
Claim.—A blank for a four piece elbow cut on three similar, but oppositely arranged, reversed curves from a rectangular sheet of metal and punched for receiving rivets.

No. 7208. Improvements on Match Splints.
(Perfectionnements aux ebois d'allumettes.)

George Hargreaves, Detroit, Mich., U. S., 13th March, 1877, for 5 years.
Claim.—1st. A match splint having a reduced blunt end adapted to receive the dip, 2nd. A match splint provided with a reduced blunt piece or block at its dipping end, and with a tapering part which connects said block to the main body of said splint. 3rd. A match splint having a tip a, which is similar in cross section to the main part of said splint and an intermediate tapering part a'. 4th. A match splint having a curved tapering portion extending from the body of said splint to a diminished blunt dip end.

No. 7209. Improvements on Spring Bed Bottoms.
(Perfectionnements aux fonds de lits a ressorts.)

Porter Williams, London, Ont., 13th March, 1877, for 5 years.
Claim.—Rods FF coil springs G G caps H H and nuts I I contained in arbors E L in the blocks C. D, in combination with the bed bottom constructed of longitudinal slats A A and cross pieces B B.

No. 7210. Improvements on Inhalers.
(Perfectionnements aux inhalateurs.)

Jeremiah S Letts, Ripon, Wis., U. S., 13th March, 1877, for 5 years.
Claim.—The bottle C connected with the bottle B by means of the tube S, so arranged that one end shall be above the liquid in the bottle C and the other end below the surface of the liquid in the bottle B in combination with a bottle A, valve O and tube X connecting the bottles A and B and arranged to contain cotton or other porous substance, said bottles A B and C being fitted with stoppers perforated to receive the tubes S and X, the mouth piece e and the vent i, and supplied with rubber and metal caps.

No. 7240. Improvements on Stove-pipe Cleaners.*(Perfectionnement aux nettoyeurs de tuyaux de poêles.)*

Hiram Welbanks, Gammoque, Ont., 19th March, 1877, for 5 years.

Claim.—1st. The stock A, wings B B hinged thereto, sliding retaining rods C C and extension springs L E. 2nd. The stock A having rods G to extend.**No. 7241. Instrument for Indicating the Number of Spectacle Glasses.***(Appareil pour indiquer le nombre des verres de lunettes.)*

Ambrose Kent and Benjamin Kent, Toronto, Ont., 19th March, 1877, for 5 years.

Claim.—1st. A ball or disc C carried upon the spindle D within the tube B, and having letters painted or otherwise upon its periphery, in combination with the numbered disc E and pointer plate G. 2nd. The pierced partition L and slide M, provided with a hole N and fitting into the tube B, in combination with the ball or disc C having on its periphery letters or figures graduated from small to large. 3rd. The tube B provided with holes K, in combination with the lettered disc or ball C. 4th. The spindle D, carrying the discs C E and F and fitting into a slot on one end of the tube B, in combination with the collar I and screwed cap H.**No. 7242. Art of Manufacturing Artificial Marble Coffins.***(Art de fabriquer les cercueils en marbre artificiel.)*

Taylor E. Daniels, Detroit, Mich. U. S., 19th March 1877, for 5 years.

Claim.—1st. An artificial marble coffin, 2nd. A metal strengthening frame C adapted to receive the strain of the handle; 3rd. A metal strengthening frame C and wooden blocks, to receive the handle fastening screws, 4th. The exterior surface of the coffin grained in imitation of wood; 5th. The leaden thimbles D seated in the lid of the coffin, 6th. The leaden blocks E seated in the coffin walls, 7th. The combination of the body A provided with the leaden blocks E, the lid B and pointed wood screws inserted through the lid into the blocks. 8th. The metallic edging e provided with the lips or spurs f.**No. 7243. Improvements on a Baking Side-board.***(Perfectionnements à un buffet de boulangerie.)*

Robert K. M. McCulloch and John McCulloch, Port Elgin, Ont., 19th March, 1877, for 5 years.

Claim.—1st. The cover B sliding into the grooves C and resting when drawn forward on the open doors L, L, the cover B to be used as the dough board, in combination with a baking chest A having casters to move it about. 2nd. The chamber or space H, in combination with an immovable bread tray F to heat the dough and assist its fermentation. 3d. The pin board I, in combination with the bread tray F to provide a space J to set the sponge in; 4th. The combination of the under compartment or cover K with the bread tray F in which to put a vessel filled with hot water to assist the raising of the dough.**No. 7244. Improvement on Smoke Consuming Furnaces.***(Perfectionnement des fourneaux fumivores.)*

Charles B. Bryant, Stoneham, Henry Young, jr., Woburn, and Theophilus King, jr., Quincy, Mass., U. S., 14th March, 1877, for 5 years.

Claim.—The bridge wall C provided with one or more flues or interior passages in communication with the external air, and with a series of inclined discharge orifices J at or near the top of the wall, in combination with the combustion chamber D having its bottom elevated nearly to a level with the upper edge of the bridge wall.**No. 7245. Improvement in Window Blind Fixtures.***(Perfectionnement des ajustages de rideaux de fenêtres.)*

William N. Miller, (Assignee of John F. Lash), Toronto, Ont., 19th March, 1877, for 5 years.

Claim.—1st. The use of the weight G to counterbalance the blind B when at rest; 2nd. The use of the movable guide J to regulate the coiling of the cord F; 3rd. The use of the friction wheel K.**No. 7246. Improvement on a Butter Package.***(Perfectionnement d'un paquet.)*

Andrew J. Finnegan, Minneapolis, Ma. U. S., 21st March, 1877 for 5 years.

Claim.—1st. The annular rubber H formed with interior and exterior ribs e d in combination with the grooved cover E G and package A having bead b; 2nd. The combination with a butter package A having head b, of the wooden grooved disks E G the rubber H with ribs e d. 3rd. A butter package A with bottom B, auxiliary bottom C and inclined flange D.**No. 7247. Device for Preventing Pipes from Bursting from Frost.***(Appareil pour empêcher les tuyaux de crever par la gelée.)*

Alfred Bajac, Washington, D. C., U. S., 23rd March, 1877, for 5 years.

Claim.—In combination with a water pipe A having two openings in its side, a rubber tube B with both of its ends passing through said openings and fastened water-tight.**No. 7248. Improvements in Step-Ladders.***(Perfectionnements aux échelles à queue.)*

Silas C. Blauvelt, Blauveltville, N. Y., U. S., 23rd March, 1877, for 5 years.

Claim.—The blocks or plates C provided with the semicircular rear end and the notches G, the pin b and the slot b, when used in connection with the pivot D and the parts A B of a step-ladder.**No. 7249. Machine for Making Paper Bags.***(Machine à faire des sacs de papier.)*

James Donnelly and Thomas C. Taylor, Hamilton, Ont., 23rd March, 1877 for 5 years.

Claim.—1st. The combination with the wheels B B, the formers E (any number) attached thereto. 2nd. In combination of the endless belt C consisting of the moulds D, plate Z, hinged together and at such space apart as to fit around the formers E, in the wheel B, and press the paper between them in the required shape. 3rd. In combination of the side folders L L hinged to the moulds D. 4th. In combination of the end folders N O, right and left, hinged to the moulds D and constructed with loop c in side fold shaped roll a, 5th. The combination of the side folders L L, end folders N O, and the arrangement of operating them consisting of the pin e, rod f, plate g, slot d, twisted rods P passing through said slot d, loop c and rod a the same time. 6th. In combination of the bottom end folder L and the top end folder M, for finishing and folding the top and bottom ends respectively of a paper bag. 7th. In combination of a hand cam R with slot g for operating the folders at each end. 8th. In combination with the folders D of the slots u u in each for the pins a, &c., to pass through; 9th. In combination of the cog wheels B, pinions G H and cutter K. 10th. In combination of the bottom paste pot T with roller U, paster h attached to shaft i, and paster h attached to shaft j. 11th. The device for discharging a bag when finished consisting of the rod W in formers, sliding in the opening V a pin X (attached to said rod W) made to slide in a groove p, and operated back and forth by the cam V, attached to the machine.**No. 7250. Improvements in Bag-Holders.***(Perfectionnements aux accroche-sacs.)*

Edward Collins, Dundas, Ont., 23rd March, 1877, (Extension of Patent No. 1408) for 5 years.

Claim.—The expanding frame A, consisting of a bent or coiled spring B and curved arms or bows C, connecting with bent holders D, provided with horizontal prongs E.**No. 7251. Machine for Rocking Cradles.***(Machine à remuer les berceaux.)*

John W. Miller, Charles Barlow and Charles Pennoyer, Cookshire, Que., 23rd March, 1877, for 5 years.

Claim.—The combination of the case a, bulge b, and shaft support f, the combination of the spring A, drum B, fusee or equalizer C, rod U, wheels D and E, handle F, pinion and ratchet G, dog g, and the train of gear wheels H I J, the combination of the weight shaft K, weight arm L, sliding weight M and spiral spring governor N; the combination of the brake O and the set screw P, the combination of the rollers Q, bearings R, and collars a flanges S on the rollers.**No. 7252. Improvement in Window Blinds.***(Perfectionnement dans les persiennes.)*

Jacob Behel, Rockford, and Wilber F. Behel, Chicago, Ill., U. S., 23rd March, 1877, for 5 years.

Claim.—1st. Stiles and cross rails rabbeted on its inner edges, framed and bored, constituting a frame for the reception of vibrating slats. 2nd. A blind slat provided with tenons f, on both ends, and shoulders g on both sides of the tenon in the same plane, the slat above the point h reduced in length at both ends about equal to the depth of the rabbet on the inner edge of the stiles, forming a double shouldered slat. 3rd. The combination of the rabbeted blind frame and the double shouldered blind slats pivoted therein. 4th. In combination with the rabbeted blind frame and double shouldered blind slats pivoted therein, the blind rod E hinged to the blind slats, for the purpose of adjusting the slats and locking them in a closed position by forcing the end of the rod outward on the upper edge of the lower and intermediate cross rails. 5th. The metallic capped rubber spring, in combination with a pivoted blind slat for the purpose of holding the slats in adjusted position to control the admission of light. 6th. The metallic capped rubber spring as an article of manufacture.**No. 7253. Improvements on Carriages.***(Perfectionnements dans les voitures.)*

John McBride Strathroy, Ont., 23rd March, 1877, for 5 years.

Claim.—The arrangement of the long horizontal straight spring or spring reach B C.**No. 7254. Improvements on Cuspadores.***(Perfectionnements aux crachoirs.)*

James C. Moore, Philadelphia, Pa., U. S., 23rd March, 1877, for 5 years.

Claim.—A self-righting cuspador having a deep rounded base flattened at a funnel the mouth of which is in diameter equal to or greater than said base, and a flattened breast uniting said base and funnel, the said breast approximating the planes of the centers of gravity and figure, which lie nearly in the plane of the cusp or salient angle of the body.**No. 7255. Improvements in Eaves Troughs, &c.***(Perfectionnements aux dalles de toitures, &c.)*

William F. Moulton, Burlington, Vt., U. S., 23rd March, 1877, for 5 years.

Claim.—1st. The wooden trough A formed with a true outside circle of edges X X moulded, and an increased swell from the edges to the centre. 2nd. The metallic coupling C formed tapering from the centre towards both ends, and provided with flanges a a along its edges. 3rd. The metallic

No. 7339. W. H. Murphy, Syracuse, N. Y., U. S. A., "Joint for Paper Packages," 11th April, 1877.

No. 7340. W. H. Murphy, Syracuse, N. Y., U. S. A., "Paper Barrel and Apparatus," 11th April, 1877.

No. 7341. S. G. Crow, Arthur, Ont., "Quilting Frame," 11th April, 1877.

No. 7342. O. Charland, Gently, Que., "Furnace," 11th April, 1877.

No. 7343. A. T. Button and S. J. Lundy, Unbridge, Ont., "Gang Plow," 14th April, 1877.

No. 7344. J. Piché and B. Littv, Pembroke, Ont., "Bond Brick," 14th April, 1877.

No. 7345. J. C. Buck, Dayton, Ohio, U. S. A., "Grain Drill," 14th April, 1877.

No. 7346. J. Milne, Hamilton, Ont., "Cooking Stove," 14th April, 1877.

No. 7347. W. S. Soule, Boston, Mass., U. S. A., and J. Sherriff, Dedham, Mass., U. S. A., "Trunk or Packing Case," 14th April, 1877.

No. 7348. O. Girard, Three Rivers, Que., "Tub Coffin Lifter," 14th April, 1877.

No. 7349. D. S. Cornell, Warwick, Ont., and E. B. White, Arkona, Ont., "Window Blind," 14th April, 1877.

No. 7350. B. Kulus and C. F. Kneisly, Dayton, Ohio, U. S. A., "Spring Hoe," 14th April, 1877.

No. 7351. W. S. Davis and W. L. Parks, Pittsfield, Maine, U. S. A., "Pump," 14th April, 1877.

No. 7352. G. W. Wood, New York, U. S. A., "Improvements on Exercising Apparatus," 14th April, 1877.

No. 7353. A. Crosby and A. Vivartas, New York, U. S. A., "Means of Propelling and Steering Vessels," 14th April, 1877.

No. 7354. W. H. Wright, Tarrytown, N. Y., U. S. A., "Car and Axle Lubricator," 14th April, 1877.

No. 7355. G. G. Keith, Verulam, Ont., "Bob Sleigh," 14th April, 1877.

No. 7356. R. McConnell, Mattawa, Ont., "Animal Trap," 14th April, 1877.

No. 7357. E. Posselt, Bradford, England, "Manufacture of Woven Fabrics," 14th April, 1877.

INDEX OF INVENTIONS.

Augers, post, C. W. Pool..... 7258
 Bag holders, E. Collins..... 7250
 Bags, paper, J. Donnelly et al..... 7249
 Baking sideboard, R. K. M. & J. McCullock..... 7243
 Bed bottoms, E. N. Forsyth..... 7231
 " " P. Williams..... 7209
 Benches, church, C. Potter..... 7187
 Blind fixtures, W. N. Miller..... 7245
 Blinds, window, J. & W. F. Behel..... 7252
 Boiler heads, R. C. Nugent..... 7218
 Boot and shoe tips, W. Geen..... 7197
 Box machines, J. Kisor..... 7273
 Bush cutters, O. Pickering..... 7261
 Butter manufacture, L. B. Arnold..... 7222
 " package, A. J. Finnegan..... 7246
 Button fasteners, M. M. Shur..... 7238
 Cane cutters, O. Pickering..... 7261
 Caps for jars, J. A. Chadwick..... 7181
 Carbonate of soda, E. Solvay..... 7181
 Car pole, S. A. Otis..... 7200
 Carriage, &c., D. O. Parker..... 7183
 " canopy, E. Miller..... 7274
 " J. M. McBride..... 7253
 Car wheel, J. K. Sax..... 7192
 Chair, &c., D. O. Parker..... 7183
 " dentist, G. W. Archer..... 7292
 Cheese manufacture, L. B. Arnold..... 7222
 Churn, A. McCauley et al..... 7286
 " T. Whaley..... 7279
 " W. Wilson..... 7257
 Clothes dryers, F. M. Earle..... 7231
 " J. P. Hill..... 7235
 Coffins, marble, T. E. Daniels..... 7237
 Collars for garments, G. Farewell..... 7175
 Cradles, rocking, J. W. Miller et al..... 7251
 Cryptography, A. Berghold..... 7270
 Caspadores, J. C. Moore..... 7254
 Dish warmers, N. Clark..... 7275
 Door hanger, J. Day et al..... 7281
 Dress platters, S. J. Seymour et al..... 7225
 Dryers, clothes, F. M. Earle..... 7231
 " J. P. Hill..... 7235
 Envelopes, safety, A. Christley..... 7233
 Fanning mill, J. Bennett..... 7280
 " W. McKenzie..... 7198
 Fences, C. L. Topliff..... 7204
 Fish drying, N. Durkee..... 7201
 Forging hammers, D. Maydole..... 7228
 Freezers and refrigerators, A. Adams..... 7214
 Fruit jars, J. A. Chadwick..... 7181
 Funnels, J. Pindlay et al..... 7217
 Furnaces, R. L. Walker..... 7278
 " smoke consuming, C. B. Bryant et al..... 7244
 Furniture legs, W. W. Tice..... 7261
 Garments, collars for, G. Farewell..... 7175
 Gas lighting, J. Ruthven..... 7185
 " manufacture, F. H. Date..... 7227
 " retorts, W. Karr..... 7282
 Gate pivots, L. & J. R. Baldwin..... 7212
 " lock, T. B. Townsend..... 7265
 " railway, J. S. Winsor..... 7232
 Glasses, spectacle, A. & B. Kent..... 7241
 Grain binders, E. R. Whitney et al..... 7201
 Hammers, forging, D. Maydole..... 7228
 Harrows, wheel, F. Bruner..... 7130
 " E. R. Powell et al..... 7236
 Ha vester powers, S. Noxon..... 7269
 Hat machines, A. Hills..... 7194
 Hoist'r apparatus, M. Pennypacker..... 7239
 Horse, H. G. P. Clapp et al..... 7223
 " W. Keys..... 7221
 " r-king, D. O. Parker..... 7183
 Inhalet., S. J. Letts..... 7210
 Injectors, steam boiler, J. Fergus..... 7256
 Iron heaters, M. Little et al..... 7229
 Ladder, step, D. O. Parker..... 7183
 " S. G. Blauvelt..... 7248
 Lamps, L. H. Olmsted..... 7288
 " signal, S. Coxon..... 7287
 Lock gates, T. B. Townsend..... 7265
 Locomotive feed, H. N. Waters..... 7216
 Match splittin', G. Hargreaves..... 7208
 Meat preserving, J. Harvey..... 7202
 Mowers and reapers, A. G. Gray..... 7180

Nail, horse, G. P. Clapp et al..... 7223
 " " W. Keys..... 7221
 " machines, J. Briggs..... 7179
 Oakum process, W. E. Geer..... 7178
 Oil tanks, C. A. Munger..... 7211
 Organ, reed, W. Bell..... 7277
 Peach parers, G. Bergner..... 7191
 Picture frames, J. W. Grote..... 7268
 Pipes from bursting, preventing, A. Bujac..... 7247
 " metal, C. F. Henis..... 7190
 Piano guides, A. J. Tenner..... 7206
 Plaster, electric, R. P. Hall..... 7272
 Plough frames, D. W. Vary..... 7195
 " " E. G. Whiting..... 7229
 Pole attachments, S. A. Otis..... 7200
 Porcelain manufacture, A. d'Estampes..... 7174
 Propellers, screw, J. Barson..... 7280
 Pulleys, loose, W. H. Esery et al..... 7215
 Railroad gates, S. Winsor..... 7232
 Rakes, horse, T. Galloway et al..... 7170
 " R. Wilson..... 7271
 Refrigerators, A. Adams..... 7214
 Sap spouts, H. R. Ives..... 7203
 Saw frames, J. Kinney et al..... 7186
 Sawing machines, C. N. Trump et al..... 7284
 Saws, circular, J. J. Squire..... 7276
 " cross-cut, J. C. Dietrich..... 7188
 Screw fastening, J. McCarthy..... 7163
 " propellers, J. Barson..... 7280
 Semaphore lenses, C. F. Houghton..... 7264
 Sewing machines, T. A. Macaulay..... 7263
 Sideboard, baking, R. K. M. & J. McCullock..... 7243
 Signal lamps, S. Coxon..... 7287
 " semaphore, F. Culham..... 7177
 Skate holder, E. C. Henderson et al..... 7293
 Soda, carbonate of, E. Solvay..... 7184
 Sowers, seed, E. R. Powell et al..... 7236
 Spark arresters, F. M. Stevens et al..... 7172
 Spectacle glasses, A. & B. Kent..... 7211
 Splittoons, J. C. Moore..... 7254
 Steam boiler injectors, J. Fergus..... 7256
 " boilers, H. S. Coleman..... 7260
 " H. Purdy..... 7219
 Steel manufacture, A. B. Mullett..... 7176
 Stove legs, W. W. Tice..... 7262
 Stove-plpe, G. Choate..... 7207
 " cleaners, H. Welbanks..... 7240
 Stove, coal, J. W. Elliott..... 7182
 Sulkies, trotting, J. W. Wood et al..... 7290
 Syrups, making, H. W. Walker et al..... 7173
 Tables, work, M. P. Scott..... 7196
 Taper lights, J. Scollie et al..... 7224
 Tire upsetting, D. W. Copeland..... 7283
 Tobacco, plug, A. Pearl..... 7213
 Troller, H. C. Brush..... 7266
 Troughs, &c., eaves, W. F. Moulton..... 7255
 Trusses, J. R. Alexander..... 7259
 " P. Werum..... 7180
 Valves, governor, J. Judson..... 7285
 " safety, J. Hoffman..... 7267
 Wash-boards, G. Groom..... 7205
 Washing machines, G. Seger et al..... 7199
 Washstand, folding, S. Kluder..... 7171
 Wheels, car, J. K. Sax..... 7192
 Wind mills, E. Stata et al..... 7226
 Window blind, W. N. Miller..... 7245
 " " J. & W. F. Behel..... 7252

INDEX OF PATENTEES.

Adams, A. freezers and refrigerators..... 7214
 Alexander, J. R. trusses..... 7259
 Archer, G. W. dentist chairs..... 7222
 Arnold, L. B. butter and cheese..... 7222
 Badger, O. wheel barrows..... 7230
 Baldwin, L. & J. R. gate pivots..... 7212
 Barlow, C. et al, rocking cradles..... 7251
 Baur, J. manufacture of steel..... 7176
 Behel, J. & W. F. window blinds..... 7252
 Bell, W. reed organ..... 7277
 Bennett, J. finning mills..... 7289
 Berghold, A. cryptography..... 7270
 Bergner, G. peach parers..... 7191

Blauvelt, S. C., step ladders.....	7218	McCauley, A., et al., churn.....	7286
Bramer, P., wheel harrows.....	7230	McCullock, R. K. M. & J., baking side-board.....	7.43
Briggs, J., nail machines.....	7179	McDonald, T., et al., funnels.....	7217
Brown, A. G., et al., taper lights.....	7224	McKenzie, W., fanning mills.....	7198
Brush, H. C., troller.....	7266	Macaulay, T. A., sewing machines.....	7263
Bryant, C. B., et al., furnaces.....	7244	Manville, M. W., et al., taper lights.....	7224
Bulac, A., preventing pipes from bursting.....	7247	Maydole, D., forging hammers.....	7228
Burns, G. A., et al., funnels.....	7217	Miller, E., carriage canopy.....	7274
Burrows, W., et al., wind mills.....	7226	" J. W., et al., rocking cradle.....	7251
Burson, J., screw propellers.....	7280	" W. N., blind fixtures.....	7245
Chadwick, J. A., caps for jars.....	7181	Milligan, J., et al., dress platters.....	7255
Choate, G., stove-pipe.....	7207	Moore, J. C., cuspadores.....	7254
Christley, A., safety envelopes.....	7233	Moulton, W. F., caves troughs, &c.....	7255
Clapp, G. P., et al., horse nail.....	7223	Mullett, A. B., steel manufacture.....	7176
Clark, M. J., et al., sad iron heaters.....	7220	Munger, C. A., oil tanks.....	7211
Clark, N., dish warmers.....	7275	Noxon, S., harvester powers.....	7269
Coleman, H. S., steam boilers.....	7260	Nugent, R. C., boiler heads.....	7218
Collins, E., bag holders.....	7250	Olmsted, L. H., lamps.....	7285
Conant, T., et al., grain binders.....	7291	Ott, S. A., pole attachments.....	7200
Copeland, D. W., tire upsetting.....	7283	Parker, D. O., rocking horse, &c.....	7183
Coxon, S., signal lamps.....	7287	" " wash stand.....	7171
Cullum, F., semaphore signals.....	7177	Patterson, T. L., making syrups.....	7172
Daniels, T. E., marble collins.....	7247	Pearl, A., plug tobacco.....	7213
Date, F. H., gas manufacture.....	7227	Pennoyer, C., et al., rocking cradles.....	7251
Day, J., et al., door hanger.....	7281	Pennypacker, M., hoisting apparatus.....	7239
D'Estampes, A., manufacture of porcelain.....	7174	Pickering, O., bush cutters.....	7161
Dietrich, J. C., cross cut saws.....	7188	Pillow, J. A., horse nail.....	7223
Donnelly, J., et al., paper bags.....	7249	Pool, C. W., post augers.....	7258
Dunspaugh, W., et al., funnels.....	7217	Potter, C., church benches.....	7187
Durkee, N., fish drying.....	7201	Powell, E. R., et al., wheel harrows.....	7235
Earle, F. M., clothes dryers.....	7231	Purdy, H., steam boilers.....	7219
Elliott, J. W., coal stoves.....	7182	Redhead, J., gas manufacture.....	7227
Essery, W. H., et al., loose pulleys.....	7215	Riley, A., collars for garments.....	7175
Farewell, G., collars for garments.....	7175	Robertson, W., et al., door hanger.....	7281
Fergus, J., steam boiler injectors.....	7256	Ruthven, J., gas lighting.....	7185
Findlay, J., et al., funnels.....	7217	Sax, J. K., car wheels.....	7192
Finnegan, A. J., butter package.....	7246	Schoen, C., et al., trotting sulkes.....	7290
Forsyth, E. N., bed bottom.....	7234	Scolliek, J., et al., taper lights.....	7224
Fraser, H., et al., skate holder.....	7293	Scott, M. F., work tables.....	7196
Frederick, C., et al., scroll sawing.....	7284	Scratch, B., et al., churn.....	7266
Galloway, T., et al., horse rakes.....	7170	Seger, G., et al., washing machines.....	7199
Geen, W., boot and shoe tips.....	7197	Seymour, S. J., et al., dress platters.....	7225
Geer, W. E., oakum process.....	7178	Shur, M. M., button fasteners.....	7233
Gray, A. G., mowers and reapers.....	7189	Smyth, J. W., et al., saw frames.....	7186
Groom, G., wash boards.....	7205	Solvay, E., carbonate of soda.....	7183
Grote, J. W., picture frames.....	7268	Squire, J. J., circular saws.....	7276
Hall, R. P., electric plaster.....	7272	Stanton, W., et al., washing machines.....	7199
Hargreaves, G., match splints.....	7208	Stata, E., et al., wind mills.....	7226
Harvey, J., meat preserving.....	7202	Stevens, F. M., et al., spark arresters.....	7172
Henderson, E. C., et al., skate holder.....	7293	Taylor, T. C., et al., paper bags.....	7249
Henis, C. F., metal pipes.....	7190	Teamer, A. J., plane guides.....	7206
Hersey, R., horse nail.....	7223	Tice, W. W., stove legs.....	7262
Hill, J. P., clothes dryers.....	7235	Topliff, C. L., fences.....	7204
Hills, A., hat machine.....	7194	Townsend, T. B., lock gates.....	7265
Hoffman, J., safety valves.....	7267	Trump, C. N., et al., scroll sawing.....	7284
Holmes, H. G., et al., spark arresters.....	7172	Vary, D. W., plough frames.....	7195
Houghton, C. F., semaphore lenses.....	7264	Walker, H. W., et al., making syrups.....	7173
Ives, H. R., sap spouts.....	7203	Walker, R. L., furnaces.....	7278
Judson, J., governor valves.....	7285	Waters, H. N., locomotive feed.....	7216
Karr, W., gas retorts.....	7282	Webster, S., et al., loose pulleys.....	7215
Kennedy, F. C., et al., wheel harrows.....	7236	Welbanks, H., stove-pipe cleaners.....	7240
Kent, A. & B., spectacle glasses.....	7241	Werum, P., trusses.....	7180
Keys, W., horse-shoe nail.....	7221	Whaley, A. T., churn.....	7279
Kinder, S., folding wash-stand.....	7171	White, J. A., et al., spark arresters.....	7172
King, T., et al., furnaces.....	7244	Whiting, E. G., ploughs.....	7229
Kinney, J., et al., saw frames.....	7186	" E. R., et al., grain binders.....	7291
Kisor, J., box machines.....	7273	Williams, P., bed bottoms.....	7208
Larsen, J., et al., horse rake.....	7170	Wilson, R., horse rakes.....	7271
Lash, J. F., blind fixtures.....	7245	" W., churns.....	7257
Leach, N. P., sap spouts.....	7203	Winsor, J. S., railroad gates.....	7237
Letts, J. S., inhalers.....	7210	Winter, C. M., oakum process.....	7178
Little, M., et al., sad iron heaters.....	7220	Wood, J. W., et al., trotting sulkes.....	7290
McBride, J., carriages.....	7253	Young, H., Jr., et al., furnaces.....	7244
McCarthy, J., screw fastenings.....	7193		

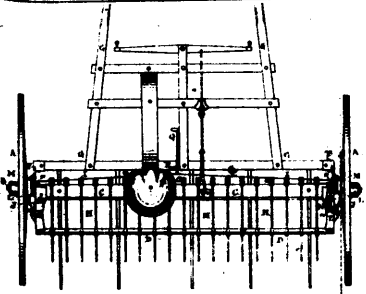
CANADIAN PATENT OFFICE RECORD.

ILLUSTRATIONS.

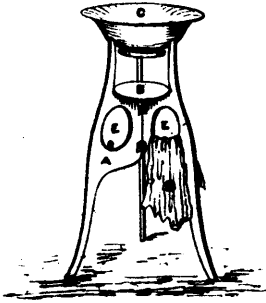
Vol. V.

APRIL, 1877.

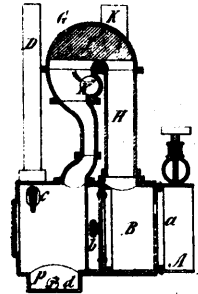
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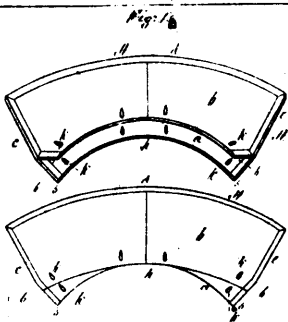
7170 Galloway & Larsen's Improvements on Horse Rakes.



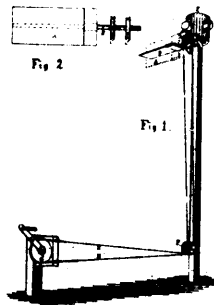
7171 Parker's Folding Washstand.



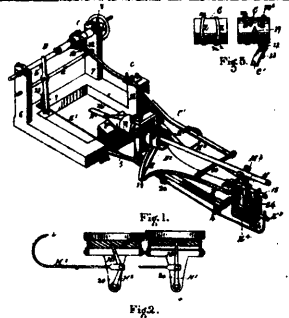
7172 Stevens, Holmes & White's Improvements in Spark Arresters.



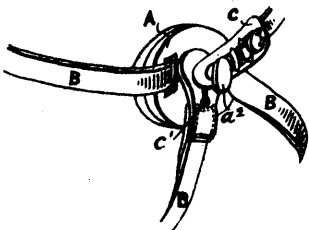
7175 Riley's Improvement on Collars for Garments.



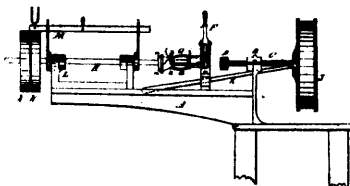
7177 Culham's Improvements on Semaphore Signals.



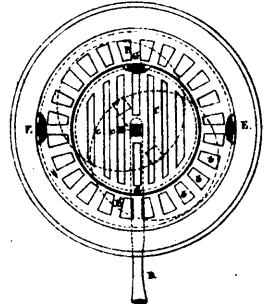
7179 Briggs' Improvements on Nail Machines.



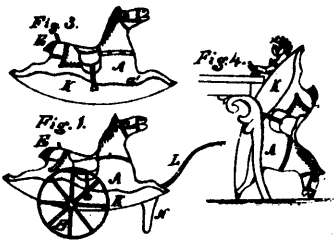
7180 Werum's Improvements on Trusses.



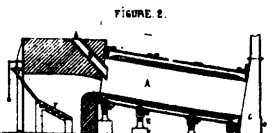
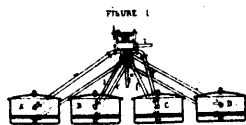
7181 Chadwick's Machine for Treading and Flanging Caps for Fruit Jars.



7182 Elliot's Improvements on Coal Stoves.



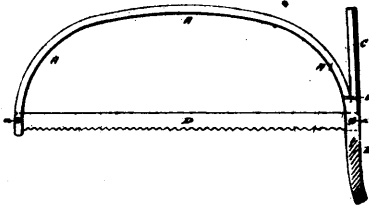
7183 Parker's Rocking Horse, Carriage, Sled, High Chair and Step-Ladder.



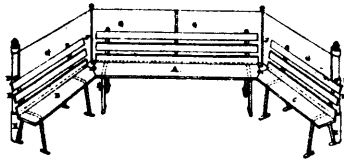
7184 Solvay's Improvements on the Manufacture of Carbonates of Soda.



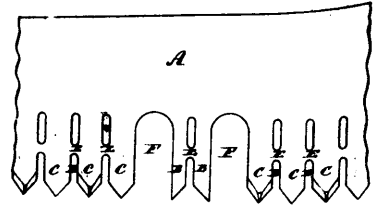
7185 Ruthven's Gas-Lighting Apparatus.



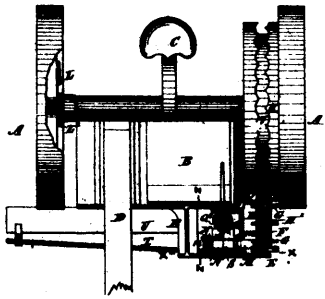
7186 Kinney & Smyth's Improvements on Saw Frames.



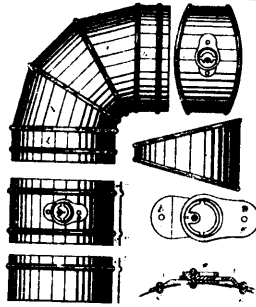
7187 Potter's Improvements in Church Benches.



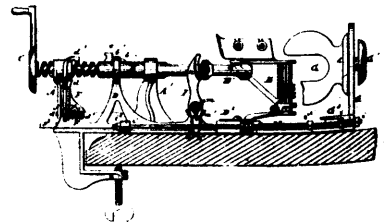
7188 Dietrick's Improvements on Cross-cut Saws.



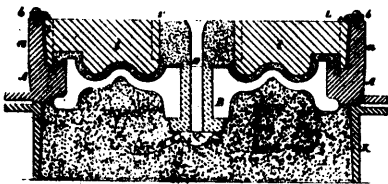
7189 Gray's Improvements in Mowers and Reapers.



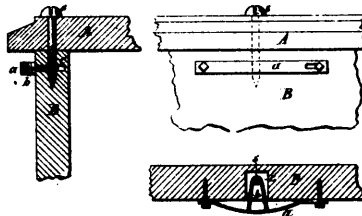
7190 Henis' Improvements in Sheet Metal Pipes.



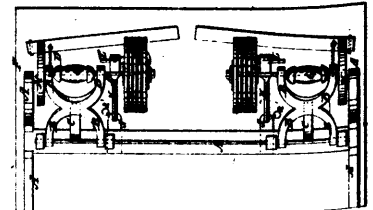
7191 Bergner's Improvements on Peach Parers.



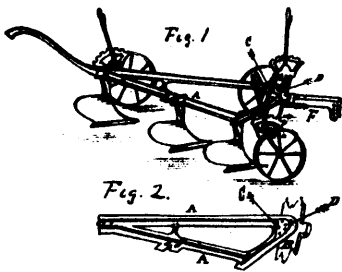
7192 Sax's Improvements on Car Wheels.



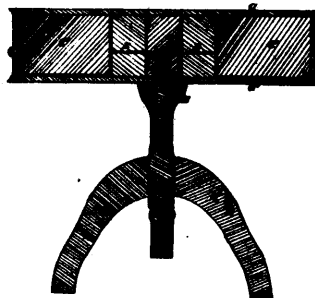
7193 McCarthy's Improvements on Screw Fastenings



7194 Hill's Improvements on Hat Machines.



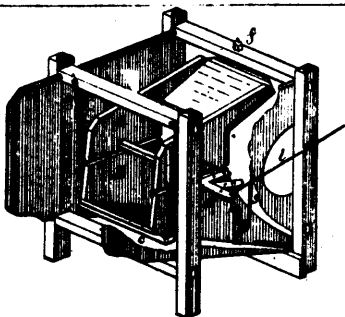
7195 Vary's Improvements on Gang Plough Frames.



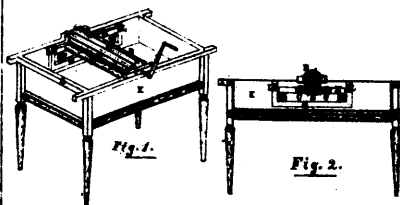
7196 Scott's Improvements on Work Tables.



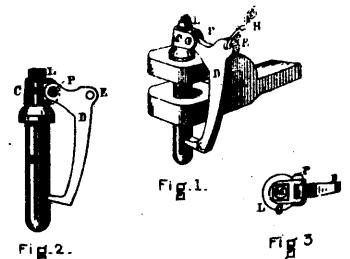
7197 Geen's Improvements on Boot and Shoe Tips.



7198 McKenzie's Improvements on Fanning Mills.



7199 Seger & Stanton's Improvements on Washing Machines.



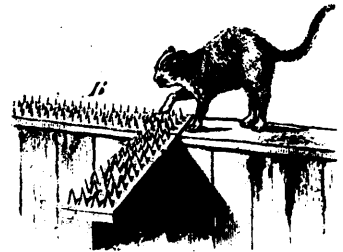
7200 Otis' Improvement on Horse Car Pole Attachments.



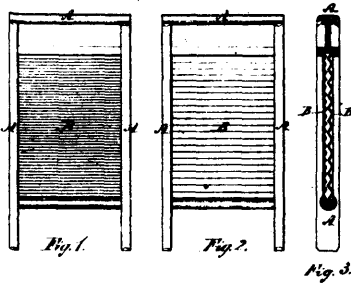
7201 Durkee's Art of Drying Fish.



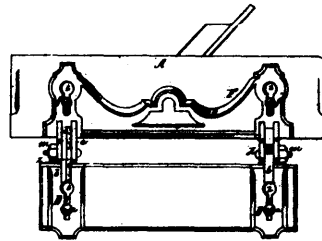
7203 Leach's Improvements in Sap Spouts.



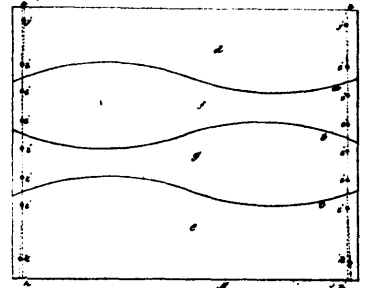
7204 Toplif's Improvement on Fences.



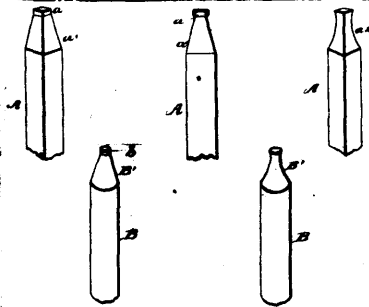
7205 Groom's Improvements on Wash-boards.



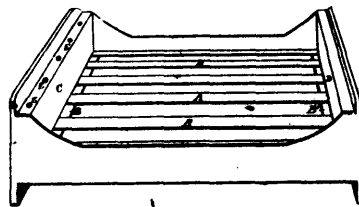
7206 Teamer's Improvements in Plane Guides.



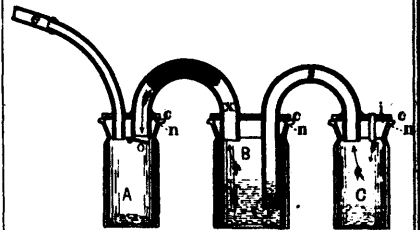
7207 Choate's Improvements on Stove-pipe Elbow Blanks.



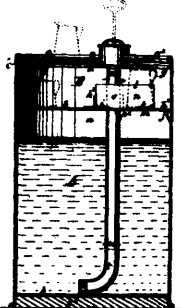
7208 Hargreaves' Improvements on Match Splints.



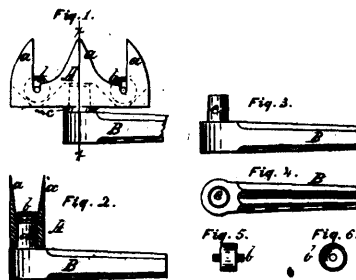
7209 Williams' Improvements on Spring Bed Bottoms.



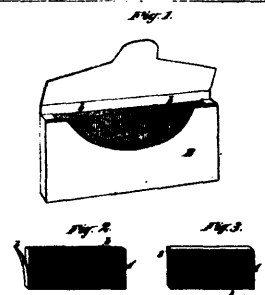
7210 Letts' Improvements on Inhalers.



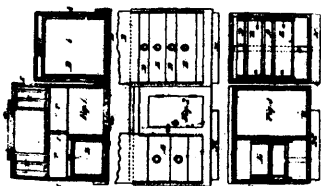
7211 Munger's Improvements on Oil Tanks.



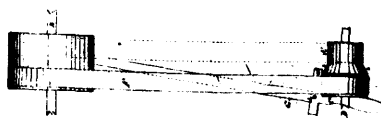
7212 Baldwin's Improvement in Gate Pivots.



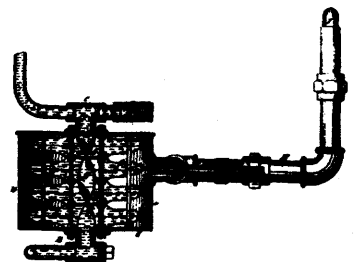
7213 Pearl's Improvement on Plug Tobacco.



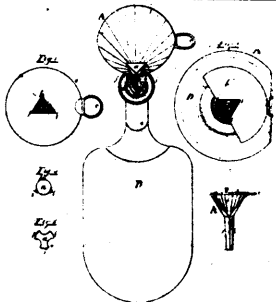
7214 Adams' Improvements on Freezers and Refrigerators.



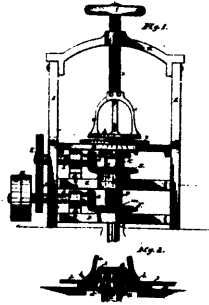
7215 Essery & Webster's Improvement in Loose Pulleys.



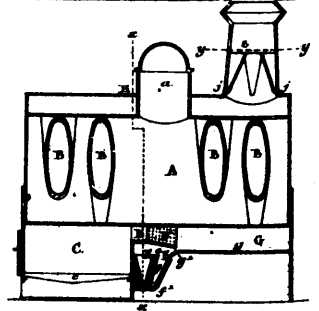
7216 Waters' Locomotive Feed Water Heaters.



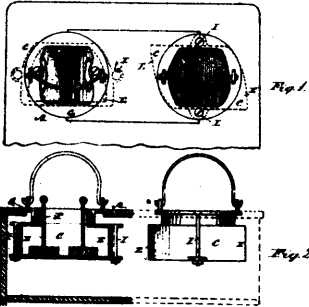
7217 Findlay, McDonald, Dunspaugh & Burns' Improvements on Funnels.



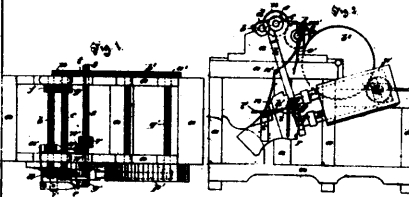
7218 Nugent's Machine for Flanging Boiler Heads.



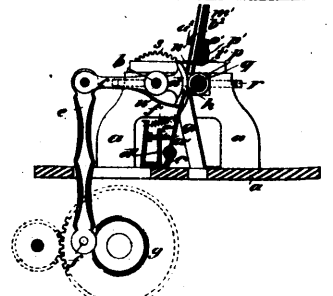
7219 Purdy's Improvements in Steam Boilers.



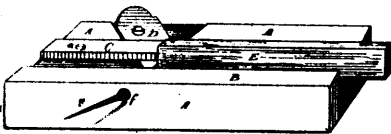
7220 Little & Clark's Improvements in Sad Iron Heaters.



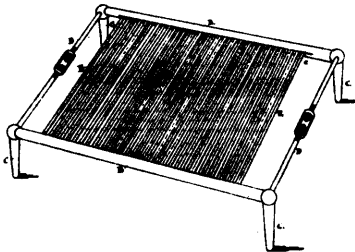
7221 Keys' Horse Shoe Nail Machine.



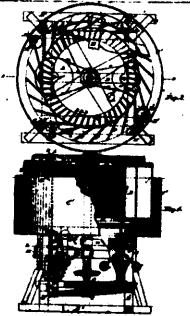
7223 Clapp, Pillow & Hersey's Improvements on Horse Shoe Nail Machines.



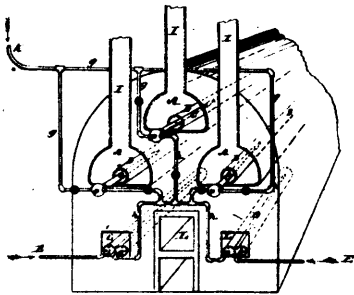
7224 Scollick, Manville & Brown's Machine for Manufacturing Twisted Taper Lights.



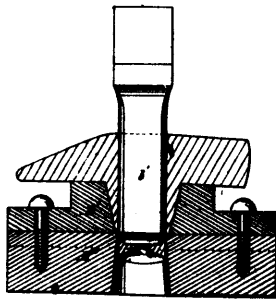
7225 Seymour & Milligan's Improvements in Plaiters for Dress Making.



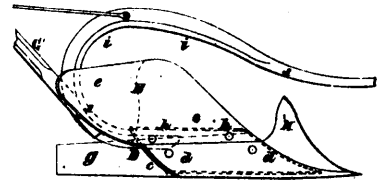
7226 Stata & Burrows' Improvements on Wind Mills.



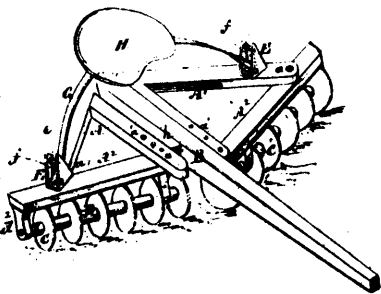
7227 Redhead's Process and Apparatus for the Manufacture of Illuminating Gas.



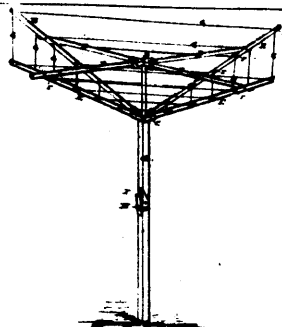
7228 Maydole's Improvement on the Art of Forging Hammers.



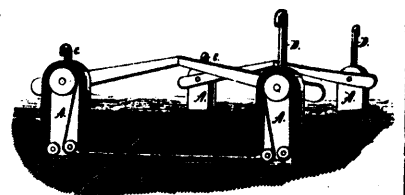
7229 Whiting's Improvements on Ploughs.



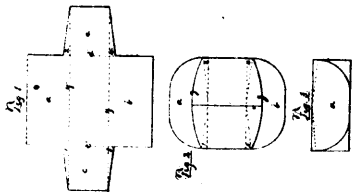
7230 Esser's Improvements on Wheel Harrows.



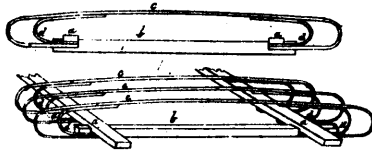
7231 Earle's Improvements on Clothes Dryers.



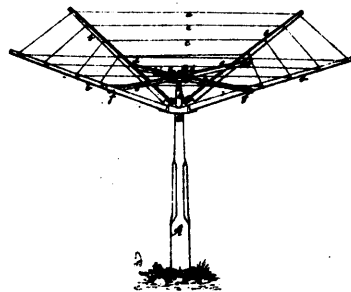
7232 Winsor's Improvements in Railroad Gates.



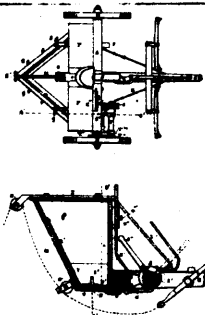
7233 Christey's Improvements on Safety Envelopes.



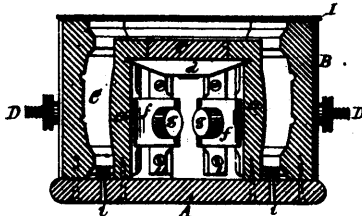
7234 Forsyth's Improvements on Spring-bed Bottoms.



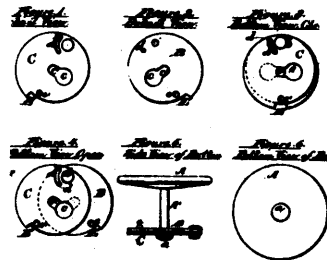
7235 Hill's Improvements in Clothes Dryers.



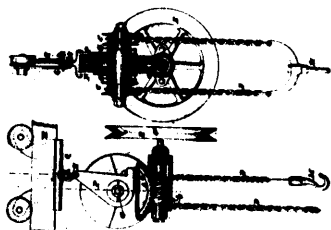
7236 Powell & Kennedy's Improvements in Combined Wheel Harrows and Seed Sowers.



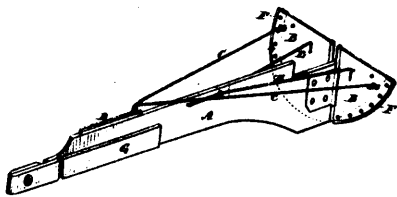
7237 Daniels' Method of, and Moulds for, Manufacturing Artificial Marble Coffins.



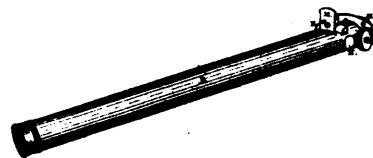
7238 Shur's Improvements on Button Fasteners.



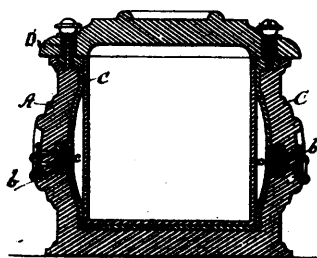
7239 Pennypacker's Improvements on Hoisting Apparatus.



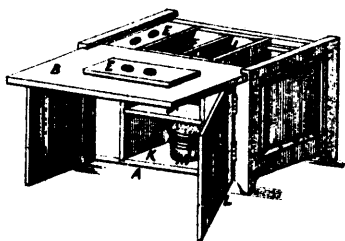
7240 Welbanks' Improvements on Stove-pipe Cleaners.



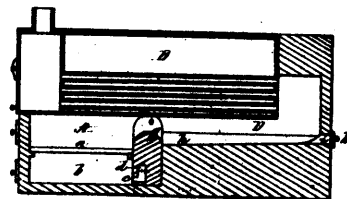
7241 Kent's Instrument for Indicating the Number of Spectacle Glasses.



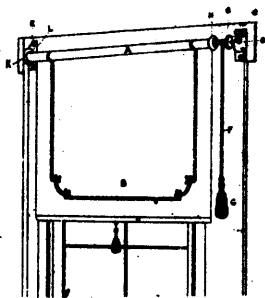
7242 Daniels' Art of Manufacturing Artificial Marble Coffins.



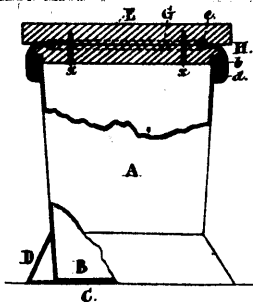
7243 McCulloch's Improvements on a Baking Side-board.



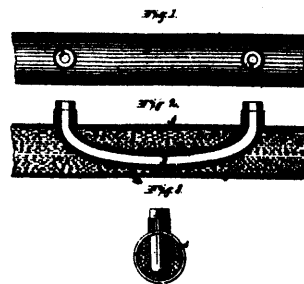
7244 Bryant, Young & King's Improvement on Smoke Consuming Furnaces.



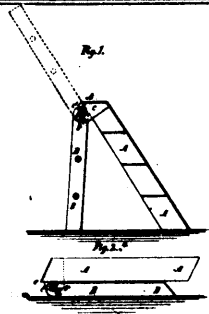
7245 Lash's Improvement in Window Blind Fixtures.



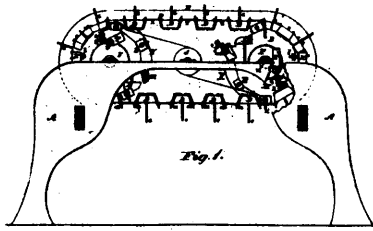
7246 Finnegan's Improvement on a Butter Package.



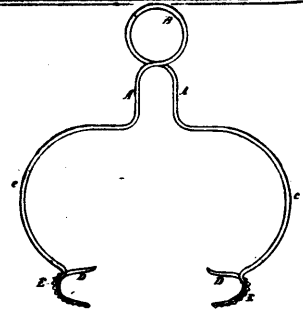
7247 Bujac's Device for Preventing Pipes from Bursting from Frost.



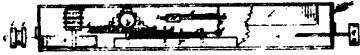
7248 Blauvelt's Improvements in Step-Ladders.



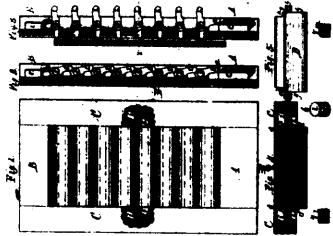
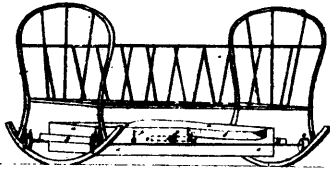
7249 Donnelly & Taylor's Machine for Making Paper Bags.



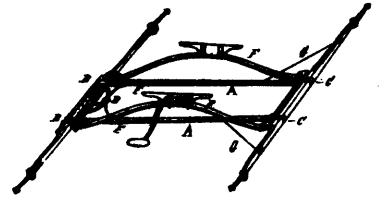
7250 Collins' Improvements in Bag-Holders.



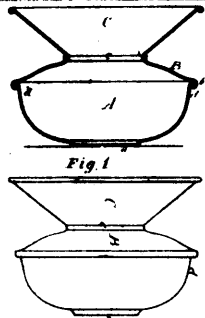
7251 Miller, Barlow & Pennoyer's Machine for Rocking Cradles.



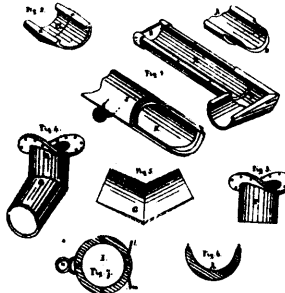
7252 Behel's Improvements in Window Blinds.



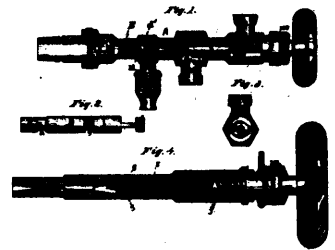
7253 McBride's Improvements on Carriages.



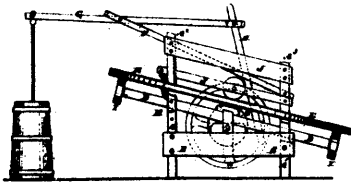
7254 Moore's Improvements on Cuspadores.



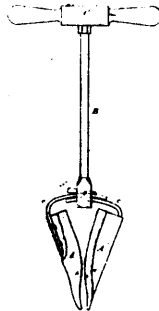
7255 Moulton's Improvements in Eaves Troughs, &c.



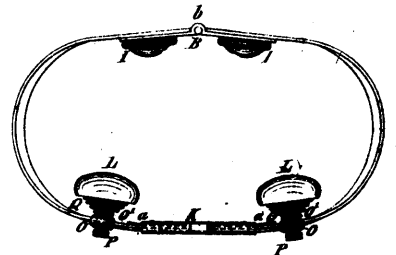
7256 Fergus's Improvements on Steam Boiler Injectors.



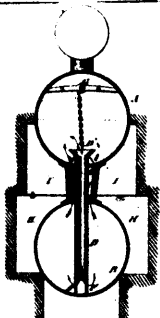
7257 Wilson's Improvements in Churns.



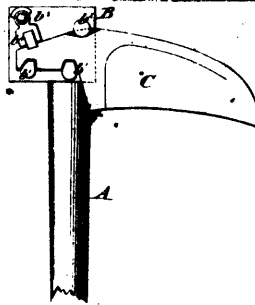
7258 Pool's Improvements on Post Augers.



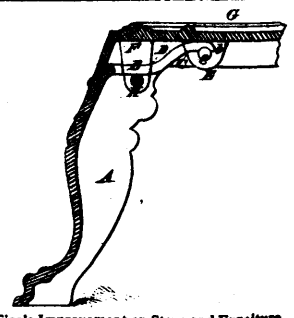
7259 Alexander's Improvements in Trusses.



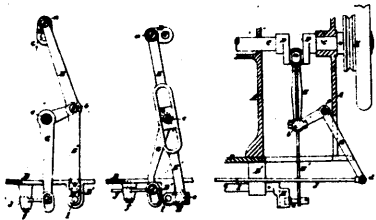
7280 Coleman's Improvements on Steam Boilers.



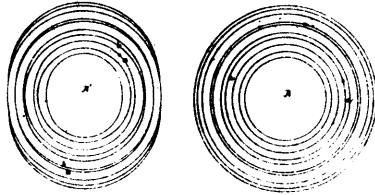
7261 Pickering's Improvements on Bush and Cane Cutters.



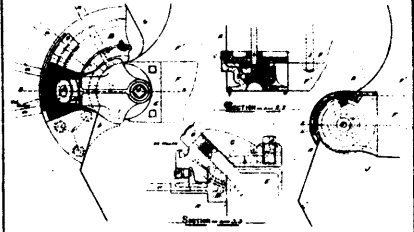
7262 Tice's Improvement on Stove and Furniture Legs.



7263 Macauley's Improvements on Sewing Machine s



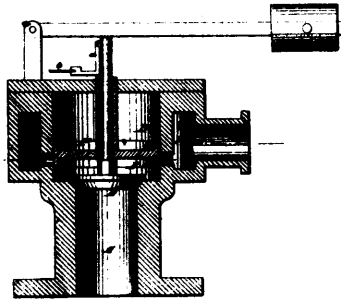
7264 Houghton's Improvements on Semaphore Lenses.



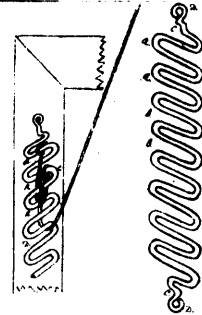
7265 Townsend's Improvements for Hanging Lock Gates.



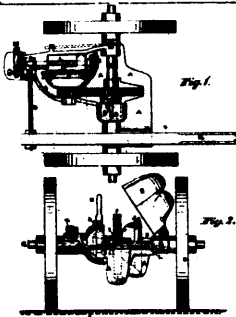
7266 Brush's Improved Troller.



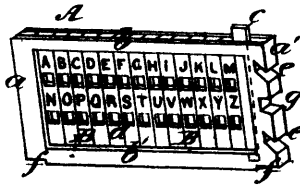
7267 Hoffman's Improvements on Safety Valves.



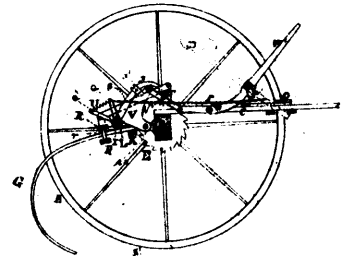
7268 Grate's Improvement on Picture Frames.



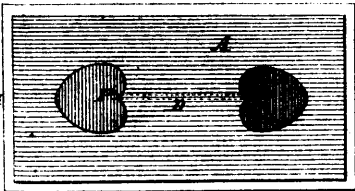
7269 Noxon's Improvements on Harvester Powers.



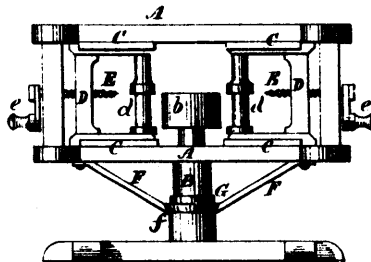
7270 Berghold's Improvement on Cryptography.



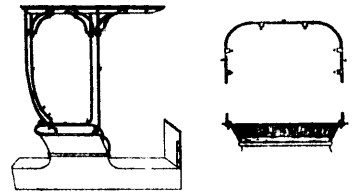
7271 Wilson's Improvements on Horse Rakes.



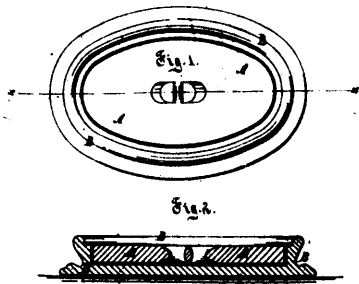
7272 Hall's Galvanic Electric Plaster.



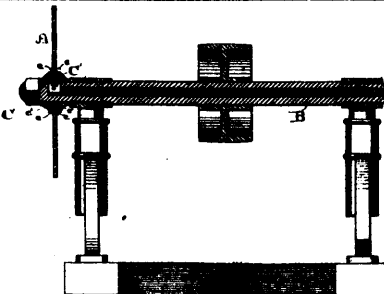
7273 Kisor's Improvements on Box Machines.



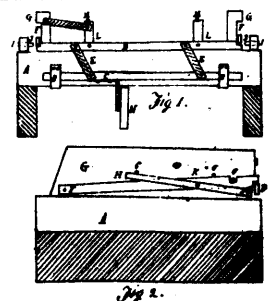
7274 Miller's Improvements on Carriage Canopy Tops.



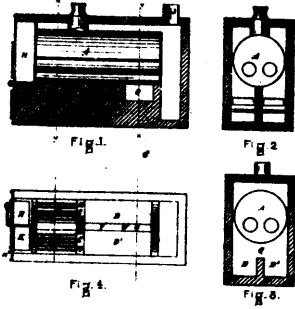
7275 Clark's Improvements on Dish Warmers.



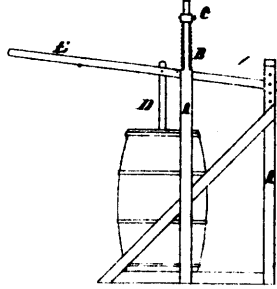
7276 Squire's Mode of Cooling and Lubricating Circular Saws, &c.



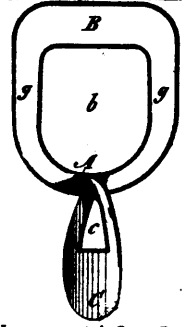
7277 Bell's Improvements on a Reed Organ.



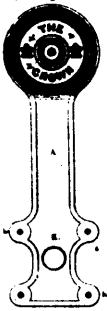
7278 Walker's Improvements on Furnaces.



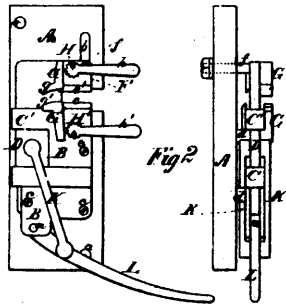
7279 Whaley's Improvements on a Churn.



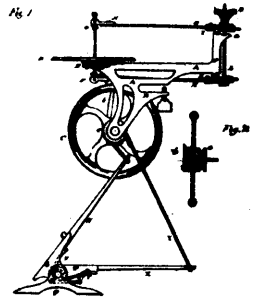
7280 Burson's Improvements in Screw Propellers.



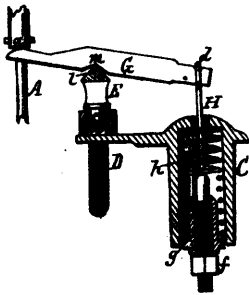
7281 Dayer & Robertson's Door Hanger.



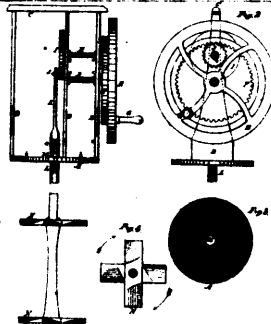
7283 Copeland's Tire Upsetting Machine.



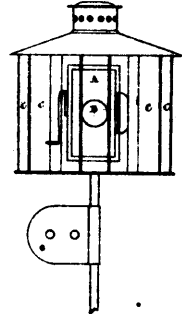
7284 Trump & Frederick's Improvements on Scroll Sawing Machines.



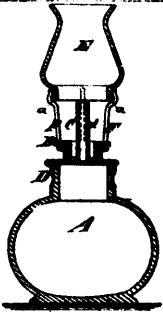
7285 Judson's Improvement on Governor Valves



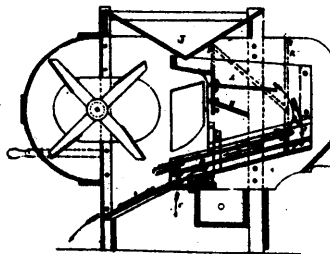
7286 McCauley & Scratch's Churns.



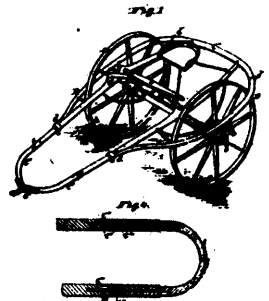
7287 Coxon's Improvements in Signal Lamps.



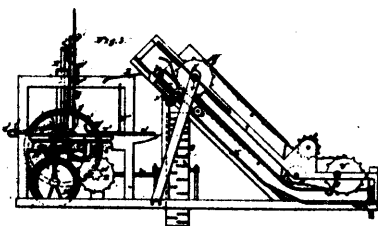
7288 Olmsted's Improvements on Lamps.



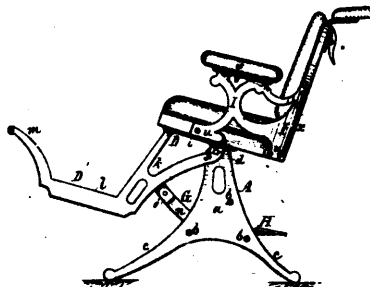
7289 Bennett's Improvements on a Fanning Mill.



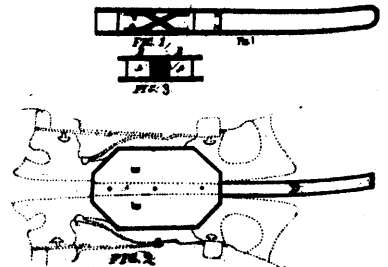
7290 Wood & Schoon's Improvements on Trotting Sulks.



7291 Whitney & Conant's Improvements on Goin Binders.



7292 Archer's Improvement on Barber and Dental Chairs.



7293 Henderson & Fraser's Skate Holder.