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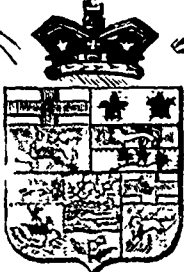
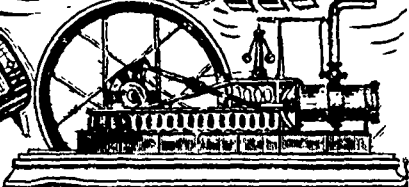
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RECORD

Vol. VI.—No. 11.

NOVEMBER, 1878.

(Price in Canada \$2.00 per An.
United States - \$2.50)

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INVENTIONS PATENTED.

No. 9210. Improvements in Gas Apparatus. (Perfectionnements dans les appareils à gaz.)

Thomas H. Hicks, London, Ont., 21th September, 1878, for 5 years.
Claim.—1st. The construction of drum L having six chambers D tubes & holes e, space z, tubes F and cylinder B, 2nd. The combination of two such drums L and K, with cylinder B on the one shaft, and having but one division X, forming one end of each drum, which necessitates the use of tubes F; 3rd. The mode or manner in which wicking C is suspended from H; 4th. The combination of drums L and K, as described with carburetter S.

No. 9211. Improvements in Railway Rails. (Perfectionnements dans les rails de railroites.)

Samuel Aldred, Charlton, England 30th September, 1878, for 15 years.
Claim.—1st. The use of a compound rail for trains or other roads split into two parts (duplicates), of which the bearing faces that come together are inclined at an angle with the perpendicular axis of the traffic pressure on the rail; 2nd. The making of the joint of the compound rail always in a chair and only for one half of the rail in any one chair, the joint to be secured without bolts through the webbing but by either a horizontal key or set screw; 3rd. The form of both the low and high pedestal chair, as described.

No. 9212. Improvements in Plaiting Machines. (Perfectionnements dans les machines à plisser.)

Richard M. Wanzer, Hamilton, Ont. (Assignee of Eugene W. Silsby Ottumwa, Iowa, U. S.,) 30th September, 1878, for 5 years.
Claim.—1st. An endless belt or apron K in combination with the rollers L J, and tucking plate C, 2nd. The combination of the endless belt or apron K, rollers L J, pressure roller P with offset P₁, inclined plate D, and tucking or crimping plate C and guide F, 3rd. The adhesive strips W W, in combination with any plaited material, 4th. In combination with a plaiting machine, of the guides V V and wire z, and the said guides provided with holes m m; 5th. The eccentric H, on the shaft B the central guide F, for driving the crimping plate and the latter also throwing it out of crimping order; 6th. The eccentric d and the main shaft B for elevating the crimping plate on its return movement, 7th. In combination with a plaiting machine, the ratchet wheel M and pawl, the notch bar N and eccentric O, 8th. In combination with the rollers, the journal frame c, rubber clips S S, plates j, lever R R and catch wire T.

No. 9213. Improvements on Organ Tops. (Perfectionnements aux dessus d'orgues.)

Elisha Draper, North Bridge, Ont., 30th September, 1878, for 5 years.
Claim.—The combination of arched top A, clock B, metronome C, frame D, wires E and bridges G G, in connection with an organ or piano.

No. 9214. Improvements in Bobbins. (Perfectionnements dans les bobines.)

Oscar E. Wait, Gardner, Mass., U. S., 30th September, 1878, for 5 years.
Claim.—A spool or bobbin having its head or heads, end or ends, covered with a ribbon or band of untanned skin, wound circumferentially around the same, and secured thereto by means of glue or other suitable adhesive material.

No. 9215. Machine for Cleaning Steam Boilers. (Machine pour nettoyer les chaudières à vapeur.)

Joseph Carter, Blyth, Ont., 3rd October, 1878, for 5 years.
Claim.—1st. In combination with a steam boiler the tubes B and C, 2nd. In combination with a steam boiler the filtering apparatus or reservoir A having the perforated disc G G, bottom I and tap J, 3rd. In combination

with a steam boiler and filter, the pipes D D and E, 4th. The arrangement and combination of a steam boiler with the filter H, and reservoir A and tubes B C D and E.

No. 9216. Combined Chair and Lounge. (Fauteuil et causeuse combinés.)

Elizabeth Hill and Samuel Burland, (Assignees of David Vass,) Montreal, Que. 3rd October, 1878, (Extension of Patent No. 2782.) for 5 years

No. 9217. Combined Chair and Lounge. (Fauteuil et causeuse combinés.)

Elizabeth Hill and Samuel Burland, (Assignees of David Vass,) Montreal, Que., 3rd October 1878, (Extension of Patent No. 2782.) for 5 years.

No. 9218. Improvements on Thill Couplings. (Perfectionnements aux ferrures des limoniers.)

David W. Copeland, Theresa, N. Y., U. S., 4th October, 1878, for 5 years.
Claim.—The combination with the thill iron D of the plate B, having arms F G, plate H, rubber pad I and set screw J.

No. 9219. Improvements in Reapers and Mowers. (Perfectionnements dans les faucheuses-moissonneuses.)

Samuel Crawford, London Ont., 5th October 1878 (Extension of Patent No. 2783.) for 5 years.

No. 9220. Improvements in Wall Protectors. (Perfectionnements dans les garde-murs.)

Abner Woodward, Shelburne Falls, Mass., U. S., 9th October, 1878, for 5 years.

Claim.—1st. A frame of any suitable size and shape, which frame has applied to its front or rear, a backing or covering capable of repelling water; 2nd. The extensions C C₁, of the vertical rails C C₁, to enable the attachment of the device to any article of furniture, 3rd. In flexible spring or straps H, applied to a wall protector for the purpose specified, 4th. In combination with a wall protector, one or more pockets I or J, for the purpose stated, 5th. Swinging arms for towels, cloths, &c. in combination with a wall protector with hook in top for rings or brackets.

No. 9221. Improvements in Steamboats. (Perfectionnements dans les bateaux à vapeur.)

John Rourke, Kingston, Ont. 19th October, 1878 (Extension of Patent No. 2788.) for 5 years.

No. 9222. Improvement on Cross-Cut Saws. (Perfectionnement aux scies de trawers.)

Jerome C. Dietrich, Galt, Ont., 10th October, 1878. (Re-issue of Patent No. 7182.) 4 years and 5 months.

Claim.—1st. A raised section D of the saw blade having cutting teeth A constructed with V-shaped points and parallel or nearly parallel sides, said teeth being shorter than the chip spaces E, separating them from the clearing teeth with which the saw is provided, 2nd. The slot perforations C, cut transversely with the saw blade.

No. 9223. Improvements on Fences. (Perfectionnements aux clôtures.)

George W. Wheeler Ogdensburg, N. Y., U. S., 10th October, 1878, for 5 years.

Claim.—1st. In a fence panel having locking notches a a, the slot b. A fence post constructed of two vertical side bars C C, two inclined legs D D connected by two laterally projecting intervening bars E E, nailed thereto horizontally; 3rd. A fence post composed of the bars C C, legs D D, and bars E E, having a supplementary vertical bar F, connected by locking bars G G to one of the bars C, at a square angle to the bars E E, for supporting a corner panel, 4th. A fence composed of the bars C C, legs D D and bars E E, having a block H hinged to the bar E, for locking the panel and post together.

No. 9224. Improvements on Accoustic Telephones. (*Perfectionnements aux téléphones acoustiques.*)

James R. Holcomb, York, Ohio, U.S., 14th October, 1878, for 5 years.

Claim.—1st. The mouthpiece having a flaring opening, and conveying to the lower end in open relation to, and in combination with, the recess diaphragm chamber and line. 2nd. The recess H, and mouthpieces arranged in combination with the diaphragm chamber I and line.

No. 9225. Boot and Shoe Sole Press. (*Presse à semelles de chaussures.*)

Thomas J. Gifford and Thomas H. Gifford, Salem, Mass., U.S., 14th October, 1878, for 5 years.

Claim.—1st. An apparatus for pressing the soles of shoes against the uppers, composed essentially of an elastic or yielding diaphragm forming a support for the sole, a water or air space under said diaphragm and suitable devices for supporting the last and upper against pressure directed against or upon the sole; 2nd. The combination of the elastic or yielding diaphragm E, the bed F, the space P and suitable clamping devices L L'; 3rd. The elastic or yielding diaphragm E provided with the elastic bed F having the stuff; 4th. The base A having the space B, the diaphragm E, the block F and the inlet and outlet pipe. 5th. The combination with the diaphragm E and means for imparting pressure thereto, the independently adjustable clamps L L'. 6th. The clamp L combined with the pivoted upwardly im- peded lever m and stop adapted to limit the upward movement of the lever. 7th. The combination of the clamp L, lever m, stop s and wedge w. 8th. The combination of the clamp L, the movable block m and the lever m. 9th. The combination of the clamp L, the arm v and the slotted stand- ard n.

No. 9226. Improvements on Lumber Wag- gons. (*Perfectionnements aux wagons à bois.*)

Joseph Appieby, Palmerston, Ont., 14th October, 1878, for 10 years.

Claim.—The equalizer D, and the mode in which it is attached to the axle by chains G.

No. 9227. Improvements in Vehicle Wheels. (*Perfectionnement dans les roues des voitures.*)

John B. Armstrong, Guelph, Ont., 14th October, 1878, for 5 years.

Claim.—1st. The tire provided with the V-shaped ridge on the under and outer edge, and having the edges outwardly rounding. 2nd. The tire B, with ridge 1, in combination with the felloe A provided with corresponding recess or face to receive and retain said ridge.

No. 9228. Machine for Working Sheet Metal. (*Machine pour travailler les feuilles métalliques.*)

John F. Ross, Toronto, Ont., 14th October, 1878, for 5 years.

Claim.—1st. A rotary rolling head constructed in two sections, which sections are arranged to be moved laterally in opposite directions, for the purpose of enabling their working faces to be moved towards each other in action. 2nd. The rolling head D with projecting collar D' and blade I, in combination with the head E, the working faces of which head are arranged to close upon the blade I, in working from the contact of the collar D' with the bevelled faces c c'. 3rd. The rolling head E with oppositely movable working sections mounted on a shaft, whose bearings will permit the distance between the rolling heads to be varied as desired; 4th. In rotary heads for sheet metal working, the combination of two rotary heads, one of which is provided with a projecting blade and the other constructed in sections, so arranged that as the heads are forced together, the working faces of said sections will move towards each other on each side of said blade; 5th. The shaft O with pin L and spring J, in combination with the head section E, with slot L', 6th. The combination of the head section E, and set screw M, with the head section E', with slot M', 7th. The combination of the adjustable swinging form G, with the rolling heads D and E.

No. 9229. Improvements in Brick Kilns. (*Perfectionnements dans les fours à brique.*)

William H. Brush, Buffalo, N.Y., U.S., 14th October, 1878, for 5 years.

Claim.—1st. The combination with the arch of a brick kiln, of the grates C C arranged within the arch near the ends thereof, and an intermediate fuel space C' arranged below the plane of the grates C C, and made accessible from the outside by the means described, so that the combustion of the fuel in the space C' can be regulated, either by means of air currents admitted to the fires upon the grates C C or independent of the grate fires. 2nd. The combination with the grates C C and intermediate fuel space C' arranged below the plane of the grates C C of the hinged aprons E arranged under the rear portion of the grates; 3rd. The combination with the grates C C and intermediate fuel space C', of the hinged apron E and the fire doors G provided with openings g and slotted deflecting plates H.

No. 9230. Perforated Wrapping Paper. (*Paper à enveloppe percé.*)

Seth Wheeler, Albany, N.Y., U.S., 14th October, 1878, for 5 years.

Claim.—Printed and perforated wrapping paper wound in continuous length to a roll form.

No. 9231. Improvements on Coffee Pots. (*Perfectionnements aux cafetières.*)

Armstrong B. Place, Denver, Col., U.S., 14th October, 1878, for 15 years.

Claim.—1st. The vessel B, having the conical bottom forming the chamber a, the central tube f, the suit sheet metal upper and lower portions b b', and perforated intermediate portion or belt b', in combination with a strainer or coffee holder and a pot, kettle or boiler; 2nd. The perforated vessel cup or coffee holder C, having the perforated tube h and flange i, in combination with the vessel B, and its tube f and flange j. 3rd. The combination of the perforated cup or vessel C, the vessel B having the trough l formed by the conical bottom, and the portion b' of the sides and the coffee pot or boiler A.

No. 9232. Improvements on Egg Beaters. (*Perfectionnements aux batteurs d'œufs.*)

Alonzo Forrest, Belleville, Ont., 14th October, 1878, for 5 years.

Claim.—The combination of the tube A, handle B, piston C, stopper D and holes F.

No. 9233. Improvements on Saw Sets. (*Perfectionnements aux fers à contourner les scies.*)

George W. Bugbee, Cincinnati, Ohio, U.S., 14th October, 1878, for 5 years.

Claim.—1st. The combination of the hammer beive, the cam, the stud through which the cam acts on the beive, and the screw for adjusting the stud; 2nd. The combination of the hammer laterally adjustable on its fulcrum pin, and the temper screws for maintaining the hammer in position after adjustment; 3rd. The combination of the feed lever constructed with two oppositely projecting arms, the cam acting on one of said arms, the set screw in the other arm for regulating the feed, the reacting spring, and the pawl adjustable in, or about the line of feed; 4th. The combination of the adjustable lever feed arm, the pawl, the adjustable pivot-pin thereof passing through a slot in said arm, and the temper screw bearing on said pivot pin.

No. 9234. Improvements on Barrel Stands. (*Perfectionnements aux chantiers à futailles.*)

James Kirk, Stockport, Eng., 14th October, 1878, for 5 years.

Claim.—1st. The construction of a cask stand, so that the cask and stand may be tilted bodily together, whether the stand is formed with rockers or with a straight bottom; 2nd. The application to such cask stand of a diagonal self-acting sliding prop (or props) constructed as described; 3rd. The application to such cask stand of a self-acting rack and sliding catch or prop.

No. 9235. Improvements on Feather Renova- tors. (*Perfectionnements aux appareils à rafraîchir la plume.*)

Isabella F. Cowles, Findlay, Ohio, U.S., 14th October, 1878, for 5 years.

Claim.—1st. A feather renovator in which the steam passes through the steam chamber, prior to its admission to the steaming or feather chamber. 2nd. The steaming or feather chamber I provided with the doors Q Q, hinged perforated screens S S and outlet pipe U having valve V; 3rd. The steaming or feather chamber I provided with the corrugations K and the door H; 4th. In combination with the feather-chamber I, the doors Q Q, and screens S S provided with pockets Z; 5th. A feather-chamber, the shell of which is composed of the hinged sections A and B, the removable agitator N O, and the removable semi-cylindrical shell C; 6th. The steam chamber F provided with the doors G G; 7th. The steam chamber F provided with the inlet T and the perforated opening L having slide M, in combination with the feather chamber I having corrugations K, doors P H and Q Q, perforated screens R and S S, outlet and valve U V and the agitators N O.

No. 9236. Improvements in Portable Fences. (*Perfectionnements dans les clôtures portatives.*)

John Shuttleworth, Weston, Ont., 14th October, 1878, for 5 years.

Claim.—A portable self-supporting reversible fence constructed of panels A, which panels are constructed and arranged to lock one with the other.

No. 9237. Process for Curing Hops. (*Procédé pour apprêter le houblon.*)

Charles B. Terry, Waterville, N.Y., U.S., 14th October, 1878, for 5 years.

Claim.—Subjecting hops to the action of the cold fumes of sulphur in their freshly picked cold state and afterward drying them by heated air.

No. 9238. Machine for Planing Wood. (*Machine à raboter le bois.*)

William H. Doane, Cincinnati, Ohio, U.S., 14th October, 1878, for 5 years.

Claim.—1st. The frame or stand, the sides and ends thereof being composed of a single piece of casting, and slots being formed in the sides for the ways or guides of the table arranged and moving between such sides. 2nd. The combination of the connectedly cast housings or sides of the frame provided with slots, the table arranged and moving between such housings and the detachable ways or guides fixed in such slots. 3rd. The combination of the side or housing of the frame having a slot, the detachable way or guide inserted in said slot, and set screws to fix the guide in the slot. 4th. The combination of the side or housing having a slot, the detachable way or guide inserted in said slot, set screws to fix the guide in the slot, and backing screws to bear against the back of the guide. 5th. The combination of the side or housing of the frame having a slot, the detachable way or guide inserted in said slot, set screws to fix the guide in the slot, a plate to cover the guide, and backing screws to bear against the back of the guide.

No. 9239. Improvements in Copying Ink. (*Perfectionnements à l'encre communicative.*)

Lars L. G. Sjöström, Sherbrooke, Que., 14th October, 1878, for 5 years.

Claim.—In any of the colours mentioned in combination with the proportions of gum arabicum and glycerine.

No. 9240. Improvements on Fence Posts. (*Perfectionnements aux pieux des clôtures.*)

Robert E. Stephens, Toronto, Ont., 14th October, 1878, for 5 years.

Claim.—1st. The post A, strut B and horizontal cross-bar D, framed loosely to intersect rectangularly and secured immovably at their intersection by diagonally forcing and nailing the upper end of the strut to the post. 2nd. A fence post composed of the post A, strut B and horizontal bar D framed together, whereby the bar D crosses the post A and strut B laterally, the ends projecting from the intersections as shown.

bale the receptacles or grooves $a_1 a_2 a_3$ on one side, and holes or slots a_5 in one edge; 25th. The combination with the follower block J, of the handle a_1 ; 26th. The follower block J having a vertical groove o in one edge; 27th. In combination with the lever O and pitman W, the universal joint composed of the knuckle post Q and S, and the bolt U, said bolt operating in an elongated slot t ; 28th. The universal joint Q S, constructed with a ball and socket pressure joint between the knuckles of the pitman part S, and the end of the knuckle Y, of the other part Q, and further constructed with an elongated slot t in the knuckles of the part S and provided with a bolt U, in combination with a balancing press and power mechanism; 29th. The ratchet wheel B₂ combined with the crank shaft B₅ B₁, pitman W and lever O, with the universal joint Q S, and operated by a loosely pivoted sweep or lever B₃ and pawls B₄ B₄, to move the traverser forward as the sweep is moved round, and at the same time permit the rebound of the traverser as the crank B₂ turns its front centre to instantly reverse the crank, thereby producing nearly two strokes forward of the traverser to one round of the sweep; 30th. The ratchet B₂ and crank shaft B₅ B₁, combined with the loosely pivoted lever B₃ having pawls B₄ B₄; 31st. In combination with the grooves a_6 formed in the yielding metallic sectional plates F₁ F₂, the longitudinal grooves a_7 formed in the inner side of the bale-expanding chamber C.

No. 9253. Mill Dog. (*Clameau de scierie.*)

Joseph Chew, Midland, Ont., 15th October, 1878, for 5 years.

Claim.—1st. The curved teeth A, fitting into correspondingly shaped stationary guides made in the frame or body piece B, in combination with the sliding form C having diagonal slots E, which engage with the projecting blocks F on the teeth A, the teeth A being operated through the said form C, by the lever G; 2nd. The curved teeth A, having recess a cut in the back of these points a .

No. 9254. Foundation for Honey Bees.

(*Système d'amorce des ruches.*)

Alexander E. McConnell, New-Orleans, La., U.S. 15th October, 1878, for 5 years.

Claim.—A bee hive frame A, provided with thin strips or sheets of wax

No. 9255. Improvements on Grindstones.

(*Perfectionnements aux meules à repasser.*)

Alexander Cameron, London, Ont. 15th October, 1878, for 5 years.

Claim.—1st. A recessed knife bearer M, 2nd. The levers E E₁, 3rd. The cog wheels C D, pitman J with holes d , levers E E₁, recessed knife bearer M and rests O O₁, which give a rocking or curved motion to the knife; 4th. The combination of the frame A, stone B, cog wheel C D, levers E E₁, bearer M and rests O O₁.

No. 9256. Improvements in Railway Brakes.

(*Perfectionnements dans les freins des railrotes.*)

John Woods, Melbourne, Australia, 15th October, 1878, for 15 years.

Claim.—1st. The construction of railway brakes in which hydraulic pressure stored in carriage accumulators is held in check by a counter pressure in a main line of piping common to all such accumulators, so that when such counter pressure is withdrawn, that in the accumulators is free to apply the brake blocks to the wheels; 2nd. The engine accumulator A, main piping B, branch pipes D, carriage accumulators E, check valve D₁, branch pipe F, self-acting reversing valve pipes G₂ and G₄, cylinder H and plunger H₁; 3rd. In supplying the hydraulic pressure to the brake mechanism by means of either the engine pump or injector.

No. 9257. Improvement in Bologna Sausage.

(*Perfectionnement dans le saucisson de bologne.*)

Giuseppe Pisati, Kingston, Ont., 15th October, 1878, for 5 years.

Claim.—A compound composed of beef hinds, pork hinds, pepper, salt, salt-petre and the best old pure Italian red grape wine, and the process whereby the said compound can be so treated as that it will continue pure and good in all climates for an indefinite period of time.

No. 9258. Improvements on Ploughs.

(*Perfectionnements aux charrues.*)

Horatio Gale, Albion Mich. U.S. 15th October, 1878, for 5 years.

Claim.—1st. A plough beam composed of three or more draught rods D, terminating at their forward end in a common eye, or other device, to engage with a clevis, while their rear ends are secured to the standard of a plough; 2nd. A plough beam of three or more draught rods D, and adjustably secured to the standard of a plough; 3rd. In combination with a plough standard B, and a plough beam constructed of three or more draught rods D, the plate C on the standard; 4th. The combination with the standard B, of a plough of the plate C, at the top thereof, and three or more draught rods D, attached to such plate by means of screw nuts placed in each side of the said plate.

No. 9259. Corset and Skirt Supporter.

(*Bretelle de corset et de japon.*)

Moses K. Bortree, Jackson, Mich., U.S., 15th October, 1878, for 5 years.

Claim.—1st. Springs formed of whalebone or horn in two strips, one being placed upon the other; 2nd. A corset spring constructed of two strips of whalebone or horn, one laid upon the other, in combination with a metallic socket b , to hold the ends of the strips; 3rd. The combination with the front pieces B B of the gores a in pairs for the purpose of joining the bust swells; 4th. The hip openings D, cut in the sides of the lower adjoining edges of the laced sides, said openings being provided with adjustable straps E and buckles F; 5th. In combination with the hip openings D, the springs in the side or hip pieces diverging from a point under the arms to the front and rear to avoid pressure upon the hips; 6th. In combination with bust swells formed by the gores a , in pairs in the front pieces B, the adjustable straps G; 7th. In combination with the back piece A and front pieces B B, provided with the gores a , the shoulder straps H secured to the corset at one of their ends, and provided with means for adjustably securing their opposite ends to the corset; 8th. The back A and front pieces B B, provided with buttons d and the gores a , lacing cords C, hip openings D, straps E, buckles F, straps G and shoulder straps H.

No. 9260. Improvements on Buckles.

(*Perfectionnements aux boucles.*)

Alexander T. McConnell, New Orleans, La., U.S. 15th October 1878, for 5 years.

Claim.—1st. The bale tie A, having bars $a b c$ parallel, but not in the same plane, the bar c having sharp edge and inclined outer side, in order to admit of the bending of t , e band at an acute angle; 2nd. The buckle A having bars $a b c$, in combination with the ends of the band, the same being led respectively under the outer bars, over the centre one, and secured by bending around the outer bar c .

No. 9261. Improvements on Oatmeal Cutters.

(*Perfectionnements aux coupe-avoine.*)

Herbert Z. Coles, Markham, Ont., 15th October, 1878, for 5 years.

Claim.—1st. The combination of two oppositely rotating and alternately placed series of blade C C₁, having their periphery divided or cut into teeth C; 2nd. The oppositely rotating alternately placed blades C C₁, in combination with the intervening bars D; 3rd. The combination and arrangement of the cutters C C₁, bars D and inclined chute P.

No. 9262. Machine for Cooking Food.

(*Machine pour cuire les aliments.*)

Jaac Taylor, Yorkville, Ont., 15th October, 1878, for 5 years.

Claim.—1st. The metal pot A A, with sloping perforated sides B B and perforated bottom C C; 2nd. The grooves at sockets D D, with the partition plate E E in combination with the metal pot A A.

No. 9263. Improvements on Refrigerator Buildings.

(*Perfectionnements aux glacierses.*)

Richard M. Birdsall, Clinton, Wis., U.S., 15th October, 1878, for 5 years.

Claim.—1st. The ice reservoir E, having registers e arranged in its bottom, and surrounded by an air-jacket having registers i and provided with the U-shaped metallic flues J, in combination with the cooling vaults; 2nd. The refrigerator building described, consisting of the cooling compartments H H₁ H₂, the superposed ice-reservoir E provided with non-conducting walls and circulating air space, the U-shaped metallic flues J, the registers e , i , the ventilating flues and the conducting pipe.

No. 9264. Improvements on Screw-headed Keys.

(*Perfectionnements aux clés à tête fileté.*)

Paul A. Ohver, Wilkesbarre, Pa., U.S., 15th October, 1878, for 5 years.

Claim.—1st. A key having a cylindrical screw threaded head, 2nd. The combination of an internally threaded sleeve or nut with a key having a screw threaded head; 3rd. A screw-headed key having an offset to adapt it to line shafting; 4th. A nut having formed on it a flange; 5th. The combination of the U-shaped piece F, with the offset key C.

No. 9265. Joint Preserver and Nut Protector for Railway Rails.

(*Garde-joint et garde-noix des rails de railrotes.*)

Philip Mutter, Hamilton, Ont., 16th October, 1878, (Extension of Patent No. 2802.) for 5 years.

No. 9266. Improvements on Stove-Pipe Dampers.

(*Perfectionnements aux clés des tuyaux de poêles.*)

Solomon Crowell, Palmyra, N. Y., U.S., 19th October, 1878, for 5 years.

Claim.—1st. A screw threaded supporting rod attached directly to a damper plate, and adapted to hold the damper in any desired position by frictional contact of the threads with a hole or holes in the stove-pipe; 2nd. The combination of a stove pipe having opposite openings, a damper plate with a rectangular passage and a tapering screw-threaded rod.

No. 9267. Machine for Tapping Nuts.

(*Machine à fileter les noix.*)

Ralph H. Plumb, Orrin C. Burdick and Albert J. Barnard, Boston, (Assignees of Samuel L. Worsley, Taunton,) Mass., U.S., 19th October, 1878, for 5 years.

Claim.—The clutch composed of the revolving arms clutch bolts, elbow levers and sliding sleeve, in combination with the reversing wheels $i k$, with which said clutch-bolts engage, the combination of the revolving clutch arms, clutch bolts, elbow levers, sliding sleeves, reversing wheels and revolving sliding mandrel, in combination of the nut holder, the cap-plate thereof, and the follower which holds the nut against said cap-plate, the combination of the nut holder, the cap-plate thereof, the follower, the nut channel, the nut feeder and the nut hopper, the combination of the nut holder the cap-plate thereof, the follower and the revolving mandrel, for carrying the tap.

No. 9268. Improvements on Washing Machines.

(*Perfectionnements aux machines à laver.*)

Cyrus A. Dodge, Middlebury, Vt., U.S., 19th October, 1878, for 5 years.

Claim.—1st. The combination with a standard, the lower end of which is adapted to be secured to a tub, of two parallel rods, their upper ends swivelled to the standard while the lower ends are pivoted to the operating lever to which is pivoted the pounder-handle; 2nd. The combination with the parallel rods swiveling at an angular inclination to the vertical of the swivel connecting the same with a supporting standard; 3rd. The combination with the standard and swivel, of the parallel swiveling rods, the bell crank and the lever handle; 4th. The combination with the two parallel swiveling rods, of the bell-crank pivoted to the lever handle; 5th. The combination with the bell-crank, pivoted to the lever handle, of the horizontal guide rod, the pounder-shaft and the parallel vertically swiveling rods; 6th. The combination with the pounder-shaft, handle and guide-rod, of a single supporting upright, the latter adapted to have rotary movement in a hor-

zontal line; 7th. The combination with the actuating handle of the supporting arm adapted to have a rotary movement in a horizontal line; 8th. The combination with the handle and horizontally swinging arm, of the connecting upright, the latter adapted to have an independent rotary movement, in a horizontal line; 9th. The combination with the horizontally swinging arm, of the supporting part working in a slot formed in the end of the swinging arm; 10th. The combination with the handle-guide rod and pivoted upright of the horizontally swinging arm, a suitable clamp, and connecting adjustable mechanism; 11th. The combination with an inverted U-shaped clamp of an upright for supporting the operative parts provided with a lower extension, and adapted to be clamped against the side of the tub between the legs of the said clamp; 12th. The combination with an actuating lever adapted to be moved both vertically, laterally and longitudinally, and carry the pounder to any part of the tub, of an equalizing bar connected with the pounder shaft and adapted to maintain the same in a vertical position, irrespective of the position or angle of inclination of the actuating lever.

No. 9269. Bark Grinding Machine.

(*Machine à triturer l'écorce.*)

William E. Nickerson, Somerville, Mass., U. S., 19th October, 1878, for 5 years.

Claim.—1st. An adjustable oscillating bed plate in combination with the supporting pedestal A; 2nd. The combination of the inclined feed board or apron C, with the adjustable feed rolls E E; 3rd. The combination of the grinding cylinder D and the screen F, with the casing H and the deflector K.

No. 9270. Improvements on Grain Drills.

(*Perfectionnements aux semoirs-tracurs.*)

Charles E. Patric, Rochester, N. Y., U. S., 19th October, 1878, for 5 years.

Claim.—1st. The hoe A and drag-bar B, combined with the rotary spring case E, provided with a coiled spring J and side arms A, attached to said case at one side of the drag-bar and to the lug D at the other side of said drag-bar; 2nd. The spring case E, provided with the stop shoulders g, and side arm pivot studs f, combined with the drag-bar B and side arms H; 3rd. The spring case E, provided with the inner rib or abutment m, and the clamp screw as a means of adjusting the tension of, and securely holding the spring J; 4th. The rotary case or lever E mounted upon the drag-bar, and provided with a stop to limit its movements in a forward direction, combined with the side arms pivot d to the periphery of said case and a stop upon the hoe to which the ends of said side arms are attached, whereby the movement in a backward direction is limited; 5th. A drag-bar B attached at its front end to the frame of the machine and its rear end by the pin b, to the lug D of the hoe A, and a cylindrical case or hole E pivoted to said drag-bar combined with side arms H, pivoted to said case or lever at one side of said drag-bar and to the lug D at the other side thereof, and suitable stops whereby the movement of said side arms are limited between the axis of said case E and pin b; 6th. The rotary side case E, combined with the loose roller or fulcrum R upon the axis of said case and the spring J, the inner end thereof is independently attached to the frame upon which said case is pivoted; 7th. The hoe A and web D, jointed at b to the drag-bar and provided with a spring retracted, and side arms H combined with slot V having serrated edges and correspondingly serrated rollers y, to securely hold the side arms H in any desired adjustment; 8th. The coiled spring J, arranged within the barrel E and mounted upon the drag-bar B combined with the hook bolt H, whereby the edge of said spring is drawn up when it is desired to change its tension; 9th. The coiled spring J, arranged within the barrel E at its outer end placed between the rim and the abutment m combined with a hook bolt H, whereby its tension may be changed and clamping screw k; 10th. The drag-bar B, and the side arms H provided with a rotary spring lever E and roller y combined with the hoe A and lug D, provided with an orifice or slot U, through which the pivot pin or clamping bolt passes and may be adjusted vertically or laterally.

No. 9271. Improvements on Saw-mills.

(*Perfectionnements aux scieries.*)

Andrew J McCallum, Thomas Seely and George D Emery Indianapolis, Ind., U. S., 19th October, 1878, for 5 years.

Claim.—1st. The combination with a saw mill carriage, of a detachable device for securing feeding and cutting up quarter logs into boards for barrel headings; 2nd. The combination with a saw mill carriage having supporting cross-pieces and attaching devices, of detachable posts and a swinging bar to which the log is secured for being cup up into boards; 3rd. The combination of the supporting corner and middle posts CC; and of a swinging log carrying bar D having arc-shaped arm F and racks F' F', with the adjusting lever G and locking spring pawl G'; 4th. The combination with the swinging bar D, having guide slots d, of log fastening dogs D' and suitable adjusting mechanism.

No. 9272. Machine for Separating Ores.

(*Machine pour separer les minerais.*)

Emory B. Hastings and Robert L. Goddard, Palmer, Mass., U. S., 19th October, 1878, for 5 years.

Claim.—1st. The combination of the hollow post B, provided with a pipe M and perforated in its upper part, the vertical shaft C, the gear wheels G H J, the collars I L and the hollow cylinder K, provided with the radial blast pipes with each other; 2nd. The combination of the feed cone Q, the adjustable feed-cylinder V and the ore bed P, with the hollow post B provided with perforations, the bearing b' and the hollow cylinder K; 3rd. The combination of the obtuse angled or radially projecting elbow pipes N, provided with top slits, the straight radial pipes O, having their outer parts bent upward, inward, inclined forward, and provided with side slits and the guide aprons F' with the hollow cylinder K and the ore bed P; 4th. The combination of the outer inverted cone W provided with the vertical flange W', discharge pipes Y and the chutes Z, and the inner inverted cone X provided with the discharge pipes y, and the chutes B', with the hollow post B, to receive the separated ore as it is blown from the ore bed P.

No. 9273. Improvements on Trotting Sulkies.

(*Perfectionnements aux voitures de courses au trot.*)

William J. Hamill, St. Catharines, Ont., 19th October, 1878, for 5 years.

Claim.—The combination of the crank bent or off-set shaft A A and the cross-bars B B, and axle bed D D.

No. 9274. Improvements on Feed Apparatus.

(*Perfectionnements aux appareils d'alimentation.*)

Michael Hynes, (Assignee of Joseph McParlon,) Montreal, Que., 19th October, 1878, for 5 years.

Claim.—1st. The automatic feed apparatus consisting of a box or reservoir A, having vertical sides and an aperture A' in front and plunger C, with one or more arms working in ways B, in the bottom of reservoir; 2nd. The combination of the box A with opening A', plate B with ways B, plunger C and guides D, with or without ledge D'.

No. 9275. Combined Box Knob and Shoe-holder.

(*Poigne de bott et porte-soulier combines.*)

John S. Palmer, Myatio Bridge, Ct., U. S., 19th October, 1878, for 5 years.

Claim.—The fixed jaw B, provided with the longitudinal opening B', recessed at its ends to receive the flat spring D, in combination with the movable jaw C provided with the lug C', and curved handle C', the whole adapted to be secured to a shoe box.

No. 9276. Improvements in the Manufacturing of Paper.

(*Perfectionnements dans la fabrication du papier.*)

Cornelius T. Tomkins, Brooklyn, N. Y., U. S., 19th October, 1878, for 5 years.

Claim.—The minutely crystalline form of sulphate of lime, produced essentially as described.

No. 9277. Mechanical Kneading Trough.

(*Pétrin mécanique.*)

Pierre Charté et François Charté, Quebec, Que., 19th October, 1878, for 5 years.

Résumé.—1o. Les deux portes B' C' et les panneaux D; 2o. Les doigts mobiles G, ou peigne pétrissant ayant un mouvement demi-rotatoire de va-et-vient; 3o. Les doigts fixes H placés au fond du pétrin; 4o. Les vis I servant à faire sortir les doigts fixes; 5o. La dent-trou ou segment de cercle denté N, les guides d et la roue mobile Q.

No. 9278. Improvements in Car Axles.

(*Perfectionnements dans les essus des wagons.*)

Ebenezer Danford, Geneva, Ill., U. S., 19th October, 1878, for 5 years.

Claim.—A straight axle B of ordinary construction and without enlargements or projections thereon, in combination, with the long sleeve D, the wheel A, fixed upon the axle B, and the wheel C, fixed upon the sleeve D, the free end of said sleeve being secured to the inner side of the wheel A, to couple the wheels together.

No. 9279. Improvements in Combined Cut-off and Filter.

(*Perfectionnements dans les souppes de dévants et filtres combines.*)

John Hoover, Crawfordville, Ind. U. S. and Hanna Huber, Berlin Ont., 19th October, 1878, for 5 years.

Claim.—1st. The combination of a cut off A having hinged gate B, partition A' and exit pipes C D, with a filtering chamber L, and removable box or receptacle E for the filtering material; 2nd. The partition wall of the cut off A having exit holes a, for the surplus water above the filtering device.

No. 9280. Process for Treating the Wool upon the Skins.

(*Procédé de traitement de la laine sur les peaux.*)

Pierre Puech, Mazamet-on-Tarn, France, 19th October, 1878, for 5 years.

Claim.—The treatment when applied to fresh skins as well as to dry, and the modification of the treatment as numerically stipulated herein, according to the nature of skins to be operated on as well as the modification indicated in case the leprolatory substance is not employed; the process described and more particularly destined (without however excluding fresh skins or skins of the country, for the treatment of the dry skins of America; for example, by submitting these skins to a washing through scouring and bleaching of the wool on the skin of the sheep itself, and obtaining therefrom, as desired, either a flocky roubaissienne or partly combed wool or fleecy wool that is preserved in its fleecy condition, taking the dry skins such as come from America in steeping them in hot bath to remove the grease, in pressing them sufficiently to extract the filth and impurities, in beating and washing them simultaneously in cold and hot water steeping them for a longer or shorter period in a tepid bath to which is or is not added a bleaching matter to wring and beat them and to strip them with or without a leprolatory which latter may however be replaced by putting them in the drying stove though less advantageous; the wool thus obtained is called Roubaissienne or half-combed wool which dries becomes flocky wool and this latter in turn becomes fleecy wool, if required by passing it through a tepid bath and there submitting it to the action of forks which turn it about when it is withdrawn and finally dried.

No. 9281. Improvements on Dress Makers' Squares.

(*Perfectionnements aux esquierres de couturières.*)

Charles A. Shaw, Salem, (Assignee of Caleb H. Griffin Boston,) Mass., U. S., 19th October, 1878, for 5 years.

Claim.—1st. A square provided with the front neck scale shown marked with figures or other characters answering to the inches and proportionate parts of inches in the breast measure; 2nd. A square provided with the back neck scale shown; 3rd. A square provided with the front arm size scale; 4th. The line of back, in combination with a square; 5th. A square provided with the button space scale marked with figures, or other characters answering to the inches and proportionate parts of inches of the breast measure; 6th. A square provided with the front waist scale; 7th. The line top of dart, in combination with a square; 8th. A square provided with the back waste scale marked with figures, or other characters answer-

ing to the inches and proportionate part of inches in the breast measure; 9th. A square provided with the height of darts scale marked with figures or other characters answering to the inches and proportionate parts of inches in the measure for slopes of shoulders, 10th. A square provided with the several scales named and the two lines described, and fitted for use; 11th. A jointed square, marked as described, in combination with one or more brass scales and fitted for use; 12th. A square provided with the pivoted arm C; 13th. A square provided with an inch scale, and with the auxiliary scales Nos. 1 and 2; 14th. The scale pattern No. O provided with the perforation P, or its equivalent.

No. 9282. Phonograph. (*Phodographe.*)

Thomas A. Edison, Menlo Park, N.J., U.S., 19th October, 1878, for 5 years.

Claim.—1st. The combination with a diaphragm and point, of a flat receiving surface and means for revolving the receiving surface, and causing the point to follow a volute or spiral line; 2nd. The combination with the phonograph or phonet, of a propelling weight or spring and a governor to regulate the speed and ensure uniformity of movement; 3rd. A revolving disc provided with a clamping frame to secure the foil or other material, in combination with the swinging arm, diaphragm and point; 4th. The combination with a revolving grooved cylinder, of a diaphragm and point, and a screw or other mechanism for causing the point to correspond in position with the groove, so as to indent the foil or other material wrapped around the cylinder; 5th. In a phonograph or phonet, a spring introduced between the diaphragm and the point; 6th. In a phonograph or phonet, a rubber spring or similar device to dampen the vibration of the diaphragm and prevent false vibrations; 7th. The combination with the diaphragm, in a phonograph or phonet apparatus, of a lever to modify the relative action of the diaphragm and point; 8th. The combination with the diaphragm and point, of a permanent or electro-magnet; 9th. The method of recording and reproducing two or more sounds or speeches simultaneously; 10th. A phonet composed of a perforated siren and a jet tube; 11th. The mechanism for producing a phonogram and employing the same in a phonet; 12th. The combination with the phonograph diaphragm and point, of a sound chamber; 13th. The diaphragm and mouth-pieces for a speaking phonograph; 14th. The combination with a diaphragm and its point, of two diaphragms; 15th. In combination with a diaphragm and valve actuated by sound vibrations, a source of compressed fluid and a trumpet or a phonograph; 16th. The combination of two diaphragms with a valve and a source of compressed fluid, for increasing the volume of the voice, or other sound; 17th. The combination with two or more phonograms of phonet keys for selecting letters or utterances; 18th. The means for duplicating or reproducing phonograms from an original phonogram; 19th. The combination with the phonograph or phonet, of the revolving crank and pendulum governor; 20th. The combination with the phonograph, of a lever moved by the lips and of a lever and phonet, to move the lips of a mask; 21st. The combination with a phonogram, of a clock movement or toy and a phonet, for reproducing sounds for clocks or toys.

9283. Combined Easy Chair and Lounge.

(*Pliant-causcuse.*)

George Hasley and Rasmus Tombyll, Montreal, Que., 19th October, 1878, for 5 years.

Claim.—1st. The combination with the rails A A and extension pieces C C, of connecting pieces D D provided with catches or supports E E; 2nd. The combination of the rails A A, sockets A' A', arms B B, with stops B' B', extensions C C and connecting pieces D D, with legs D'.

No. 9284. Improvements on Fence Posts.

(*Perfectionnements aux pieux des clôtures.*)

Stephen R. Beam, Bedford, Mich., U.S., 19th October, 1878, for 5 years.

Claim.—The post A composed of the sill a having pin holes at, vertical bars b, cross bars c, braces d having pin holes d' and pivoted arms e e', having one or more pin holes e'.

No. 9285. Mirror and Picture Holder.

(*Porte-miroir et porte-image.*)

William Simps in, Berlin, Ont., 21st October, 1878, (Extension of Patent No 2821) for 5 years.

No. 9286. Improvements on Measuring Instruments. (*Perfectionnements aux instruments de mesurage.*)

Louis Côté, St. Hyacinthe, Que., 23rd October, 1878, for 5 years.

Claim.—1st. The measuring wheel A; 2nd. The combination of the measuring wheel A with the dial B, index handle C, bracket D, spindle E,atchet wheel F, pawl G, pinion H, wheel I, spindle J, handle or brake K; 3rd. The combination of the wheel A with the spindles b f h k and l, pinions e g i j and corresponding registering dials m n o p and q; 4th. In combination with the gearing and registering dials of a measuring instrument, the pointer s; 5th. The art or process of measuring the areas of surfaces.

No. 9287. Saw-Mill Feed Wheel.

(*Roue d'alimentation de scierie.*)

Charles Blacktin, (Assignee of John Kerr), St. Stephen, N.B., 26th October, 1878, (Extension of Patent No. 2812) for 5 years.

No. 9288. Syrup and Sugar Evaporator.

(*Evaporateur de strop et de sucre.*)

Charles W. Wellington, Grimby, Ont., 28th October, 1878, for 5 years.

Claim.—1st. Heating the juice, then filtering it to an evaporator, then passing it through a heated box for the deposit of sediment and filter, for extracting glutinous substances and lime, then passing it through a box catching the sedimentary deposit, and finally evaporating the purified juice in a series of evaporating pans, to the required density; 2nd. The connected arrangement of the reservoir 1, perforated gate 2, heater 3, sediment box 6 having perforated partition and filtering medium, reservoir 8, gates 9 and 10, evaporating pans 11 and final evaporating pans 13 and 14, all connected to flow the juice during the process of purification and evaporation.

No. 9289. Improvements on Grain Drills.

(*Perfectionnements aux semoirs-traccurs.*)

Charles E. Patrio, Springfield, Ohio, U.S., 28th October, 1878, (Re-issue of Patent No. 5652), residue of 5 years.

Claim.—1st. The lifting roller lever F provided with the tripper foot, in combination with a latch or pawl d; 2nd. The eccentric lifting roller arm e in combination with the pivoted cam hook g, for throwing the shaft of the distributor wheel into or out of action; 3rd. The pivoted cam hook g and link h, in combination with the lever a, to which the intermediate transmitting gear-wheel H is secured; 4th. The lifting roller F connected with the eccentric arms e e', in advance of their pivoted centre whereby a backward thrust is given to the lifting lever in raising the drill teeth; 5th. The forked lever D, in combination with the changeable grass seed hopper for actuating the slides of the grass seed agitator either in front or rear of the grain box; 6th. The stirrers r made in staple or stirrup form and combined in pairs with the reciprocating slide of the agitator; 7th. The slide s, provided with the series of perforations s' for discharging the grass seed, and with the indicator perforations s'' arranged outside the hopper; 8th. Eccentrically pivoted bars L L, to which the drag bars D are connected, in combination with the hook braces l and perforated retaining plate i; 9th. A vertically revolving feed wheel having a continuous seed channel within its rim, combined with a gate or valve located within said seed channel, and adjustable toward or away from the flagged periphery of said wheel for varying the capacity of said seed channel, said valve being mounted upon a pivoted axis parallel with the axis of said distributor; 10th. A vertically revolving feed wheel having a continuous seed channel within its rim and an adjustable valve or gate located within said channel and mounted upon a pivoted axis parallel with the axis of said feed wheel, combined with a crank arm attached to said pivot, whereby said gate may be moved for adjustment to vary the capacity of said seed channel; 11th. A vertically revolving feed wheel, having a continuous seed channel within its rim, combined with a gate or valve i within said seed channel and running upon a pivotal axis also within the rim of said wheel, said gate being adjustable toward or away from the periphery of said wheel to vary the size and capacity of said channel; 12th. In a seeding machine, a series of seed distributors, each having a vertical revolving feed wheel, with a continuous seed channel within its rim and within said seed channel a gate or valve adjustable in the plane of the wheel's rotation upon an axis which is parallel with the axis of said wheel and all the gates or valves of said series adapted to be operated by and combined with a single rack shaft, whereby the simultaneous adjustment of said valve may be effected; 13th. In a seeding machine a series of seed distributors each having a vertical revolving feed wheel with a continuous seed channel within its rim and within said seed channel, a gate or valve adjustable in the plane of the wheel's rotation upon an axis, which is parallel with the axis of said wheel, and all the gates or valves of said series adapted to be operated by a single rack shaft combined with an index and dial to indicate the quantity of seed to be discharged according to the adjustment of said valves.

No. 9290. Improvements on Shirts.

(*Perfectionnements aux chemises.*)

Richard J. Tooke, Montreal, Que., 29th October, 1878, (Extension of Patent No. 4104), for 5 years.

No. 9291. Improvements on Shirts.

(*Perfectionnements aux chemises.*)

Richard J. Tooke, Montreal, Que., 30th October, 1878, (Extension of Patent No. 4114), for 5 years.

No. 9292. Improvements on Burnished Photographs. (*Perfectionnements aux photographies salinées.*)

Joseph P. Bass, (Assignee of Emile R. Weston), Bangor, Me., U.S., 30th October, 1878, (Extension of Patent No. 2830), for 5 years.

No. 9293. Cultivator. (*Cultivateur.*)

Dewitt C. Baker, Fulton, N.Y., U.S., 30th October, 1878, (Extension of Patent No. 2847), for 5 years.

No. 9294. Attachment for Removing Scum from Steam Boilers. (*Appareil pour enlever l'écume dans les chaudières à vapeur.*)

William Stitt, Goderich, (Assignee of Thomas O. Kemp, Clinton,) Ont., 30th October, 1878, (Extension of Patent No. 2862), for 5 years.

No. 9295. Yielding Machine. (*Appareil de pesage.*)

Hiram Solder, Plattsville, Ont., 30th October, 1878 for 5 years.
Claim.—1st. The receiver B provided with a tilting bottom and mounted on a pivoted scale beam C, in connection with a tripping spout valve A' and counter F, in such manner that a given weight of material can be received, weighed and discharged, and the draft registered continuously; 2nd. The scale beam C, in combination with the tripping lever A, with sliding weight a and the binged weighted valve A' of the delivery spout A; 3rd. The tripping valve A', in combination with the lever D and latch fastening E; 4th. The combination with the tilting bottom B' of the receiver B or any other similar operating part of the machine, of a counter arranged to register each draft separately and continuously.

No. 9296. Feed Water Heater.

(*Chauffeur de l'eau d'alimentation.*)

Walter Dawson, Scranton, Pa., U.S., 30th October, 1878 for 5 years.
Claim.—The combination with the locomotive boiler and the tender having feed pipe D, attached as specified, of the surplus steam pipe connected with the steam space of the boiler, and extending through the water space of the tender, and terminating the end of the right side or leg b thereof, contiguous to the exit orifice of the feed-pipe D.

No. 9297. Improvements in Clothes Dryers.

(*Perfectionnements aux séchoirs à linge.*)

Dewey K. Hecok, Morrisville, Vt., U.S., 30th October, 1878, for 5 years.
Claim.—1st. The arms D provided with the T-shaped slot m having notch i at its front end; 2nd. The casing A constructed with downward

projecting tapering arm *O*, lips *B*, slots *h*, shoulder *a* and wire *l*, in combination with the arms *D* constructed with *T* shaped slots *m*, and the bracket *G* having the flanges *n*.

No. 9298. Improvement on Boiler Furnaces.
(*Perfectionnement aux fourneaux des chaudières.*)

William M. Fisher, Cincinnati, Ohio, U.S., 30th October, 1878, for years.

Claim.—The combination of the primary longitudinal grate, the secondary transverse grate the solid transverse partition at the junction of the grates, dividing the ash-pit down to the bottom, so as to form a separate transverse air chamber for supplying the transverse grate with fresh air from the side of the furnace.

No. 9299. Improvements on Ink Distributing Apparatus. (*Perfectionnements aux appareils de distribution de l'encre*)

Charles H. Bacon, Boston, Mass, U. S., 30th October, 1878, for 5 years.

Claim.—1st. One or more series of plates *B* arranged on a line transverse to the axis of the roller, in combination with mechanism for vibrating the plates; 2nd. The combination of a series of vibrating plates arranged on the same line, and mechanism for vibrating the adjacent plates in contrary directions. 3rd. The series of plates *B* with edges which, when the plates are at the limit of their movements, coincide with the same straight line; 4th. The combination of the rock shaft *H*, curved ink feeder *G* and fountains *F*, operating in respect to the distributing roller *E*.

No. 9300. Improvements in Gas Controllers.
(*Perfectionnements aux regulateurs à gaz.*)

George W. Thompson, Thomas Whaley, Brooklyn, and Jacob Cohen, New York, N. Y., U. S., 30th October 1878, for 5 years.

Claim.—1st. The flexible and elastic box *A*, into which the outer air is freely admitted, suspended within a chamber *B* for the purpose of operating a valve by the pressure of the gas in the said chamber, and thereby to diminish or increase the supply of gas. 2nd. The box *A* and pipe *a*, in combination with the chamber *B* and suitable devices for diminishing the supply of gas to the said chamber, in proportion to the degree of pressure of the gas within the said chamber; 3rd. The combination of the box *A*, chamber *B*, valve *b* and screw nuts on the rod *c*. 4th. The combination of the box *A*, chamber *B*, valve *b* and adjustable spring *d*. 5th. The chamber *B*, box *A*, adjustable valve *b* and adjustable spring *d*, arranged in relation to the burner tip and supply pipe.

No. 9301. Improvements on Pedometers.
(*Perfectionnements aux pedomètres.*)

Benjamin S. Church, Scarborough, N. Y., U. S., 30th October, 1878, for 5 years.

Claim.—1st. The combination with the actuating lever *10*, having pallets *68* of the star wheel *4*, and driving pinions *3*. 2nd. The combination with the weighted actuating lever *10*, of the connecting link *2* and compensating spring *15*. 3rd. The combination with the registering mechanism, the weighted actuating lever *10*, and compensating spring *15* of the adjusting block *16*. 4th. The combination of the registering disc *C*, differential wheels *18* *19*, flanged and stepped hub *9* and spring *22*. 5th. The combination of an adjustable indicator with the registering disc having a variable scale whose divisions increase in number from the innermost to the outermost, or vice versa, and which are subdivided by a unit line graduated by a scale of inches, whereby the pedometer may be set to suit the length of step of the user and record the distance travelled over.

No. 9302. Improvements on Carriage Tops.
(*Perfectionnements aux soufflets de voitures.*)

John A. Chapman, Whitewater, Wis., U. S., 30th October 1878, for 5 years.

Claim.—1st. The upright bows *c* and the small bows *E* *F*, jointed to each other and pivoted upon the main bows; 2nd. The two upright and two secondary horizontal bows, the latter pivoted to each other and to the main bows so as to serve the double purpose of supporting the edges of the cover and of holding the main bows and top in an extended position; 3rd. In combination with a carriage top, the arms or stays pivoted thereto and arranged to slide through the pivoted clamp blocks; 4th. The clamping blocks mounted upon the threaded arms or supports; 5th. In combination with the bows *C* *D* of the carriage top, plates *c* *d* attached thereto, and a supporting plate *e*, said plate being united by the pivot *f* whereby the top is locked in position by the act of opening and closing it, 6th. In combination with the plate *e* to support a carriage top, plates *c* *d* attached to the bows of the top and arranged to effect the locking of the top by the movement of the bows to or from each other, 7th. In combination with a toothed supporting plate *e*, and a corresponding plate *c* attached to a carriage top, a ratchet cam plate *d* arranged to cause the plates *d* *e* to interlock with each other; 8th. A carriage top provided with a clamping device to sustain it in position to be operated by the movement of the bows to or from each other; 9th. In combination with the pivoted carriage top having stays or braces pivoted thereto, arms or supports connected with the bows of the top and with the stay or braces so that they may be adjusted laterally in relation to the top, in order to admit of the latter being applied to seats of different width, 10th. In combination with a carriage top, supporting feet *g*, hinged or journalled in such manner that they may be adjusted to seats or supports of different locations; 11th. The shifting rail having the supporting feet *g* journalled thereon.

No. 9303. Improvements on Machinery Lubricators. (*Perfectionnements aux graisseurs des machines.*)

Charles H. Parshall, Detroit, Mich., U.S., 30th October, 1878, for 5 years.

Claim.—1st. The steam tube *E*, extending up through the bottom of the condenser *A*, nearly to the top of it, for the purpose of holding a column of water; 2nd. The pump for forcing the water from the condenser into the oil cup or reservoir through water tube *M*. 3rd. The inverted syphon tube *N* in the oil cup or reservoir, to prevent the oil from ascending into the condenser *A*. 4th. The water trap *U* within the body of the metal top of the cup. 5th. The water trap formed within the condenser by means of syphon tube *R*.

No. 9304. Apparatus for Condensing, Washing and Purifying Gas. (*Appareil à condenser, laver et épurer le gaz.*)

Thomas A. Kirkham, David Hulett, Samuel Chandler, Sr and Samuel Chandler, Jr., London, England, 30th October, 1878, for 5 years.

Claim.—1st. A number of annular plates or discs of metal or other suitable material maintained in a wet condition against the surfaces of which plates the gases or other vapours to be treated are caused to impinge in their passage through the apparatus. 2nd. The combination of two or more clusters of annular plates or discs of metal, or other suitable material, mounted upon one and the same shaft, each cluster being caused to rotate in a separate chamber, containing liquid or solutions. 3rd. The general construction, arrangement and combination of apparatus for condensing, absorbing, or washing and purifying gas and other vapours.

No. 9305. Improved Horse-Shoe Bar.
(*Ebauche de fer à cheval perfectionnée.*)

Christian Moller, Hoboken, N. J. (Assignee of Louis G. Claude, New York,) U. S., 30th October, 1878, for 5 years.

Claim.—1st. The horse-shoe blank having solid calks thereon and constructed with continuous web *e* along its inner edge, said web extending from end to end of the blank. 2nd. The horse-shoe blank constructed with solid toe calf *b* and with projecting ridges *h* *h* at its upper side.

No. 9306. Machine for Tallying Flour Barrels. (*Machine à dénombrer les barils de farine.*)

Walter N. Durant, Milwaukee, Wis., U. S., 30th October, 1878, for 5 years.

Claim.—1st. The combination of the *L*-shaped plate *B* provided with rod *U* and knob *A*, with the spring pawl *Q*, 2nd. The gauge *O* provided with adjusting pin *S* for regulating the stroke of the lever *J*. 3rd. The combination of the arm *K* as attached to the case *A*, bolt *L*, lever *M*, bar *P*, spiral spring *O*, lever *J* and the tallying mechanism. 4th. The combination of the tally-wheels *C* *C* *C* *C* provided with shoulders *H* and ratchet *D* *D* *D* *D* with the shaft *B* and spring pawls *E* *E* and *G*. 5th. The combination of the coiled spring *L*, with the case *A* and shaft *B*.

No. 9307. Machine for Raising Leather from Tan Vats. (*Machine à tirer le cuir des cuves de tanneries.*)

Thomas J. Smith, (Assignee of Albert Whiting and Joseph A. Smith,) Rochester, N. Y., U. S., 5th November, 1878, for 5 years.

Claim.—1st. The rack of false bottom *B* made in two parts or sections hinged to each other in the centre, to adapt it to be raised at the centre into an angular position to raise and support the hides. 2nd. The combination of the two hoisting ropes *C* and the adjusting rope *K*, with the hinged sections of the rack of false bottom. 3rd. The combination of the shaft *E* provided with pins *D*, with the two hoisting ropes *C* and the hinged sectional rack or false bottom *B*. 4th. The combination of the two gear wheels *G* *H*, the shaft *I* and the crank *J* in the movable frame *F* with the shaft *E*, the hoisting rope *C* and the hinged sectional rack or false bottom *B*, all adapted to be used in connection with the vat *A*. 5th. The hoisting ropes *C*, having their lower ends branched to adapt them to be applied to the hinged sectional rack or false bottom *B*.

No. 9308. Improvements on Circular Saws.
(*Perfectionnements aux scies circulaires.*)

Joseph A. Robbins, Boston, Mass., U. S., 5th November, 1878, for 5 years.

Claim.—1st. A saw plate made concave on both sides from the teeth to the collar line, leaving a portion surrounding the eye of uniform thickness with the teeth. 2nd. The semi oval shaped reverse cutting teeth *B* having a bevel extending from point to base equally on both edges of the tooth. 3rd. The clearing teeth *E* having concave ends *F*, which are slightly bevelled, their bodies being formed with square faces narrower at their base than at the top. 4th. A saw provided with the semi-oval ovelled cutting teeth *B* and having the clearing teeth *E* formed with concave ends *F* which are slightly bevelled, their bodies being formed with square faces and narrower at their base than at the top or end, as shown, and arranged alternately with the teeth *E*.

No. 9309. Machine for Mixing Cakes.
(*Machine pour battre la pâte à gâteau.*)

George Constable, Toronto, Ont., 5th November, 1878, for 5 years.

Claim.—1st. The ingredient receiver *A* placed within a hot water or steam heating chamber *B*. 2nd. The combination with the ingredient receiver *A*, heated from an enclosing hot water or steam shell, of the oppositely rotating handles *C* *C*. 3rd. A beater for light varieties of cakes and confections, composed of the oppositely rotating heads *D* *D* provided with alternating prongs

No. 9310. Improvements on Earth Scrapers.
(*Perfectionnements aux eoueurs.*)

James H. Edmonson, Valparaiso, Ind., U. S., 5th November, 1878, for 5 years.

Claim.—1st. Earth scrapers mounted on wheels, the draught bale *B* secured by a loose connection to the tongue *E* provided with hooks *a*, or equivalent devices on its ends, in its relation to the other mechanism arranged automatically to engage the catches *U* and hold the scraper to its work in the soil fling process and to disengage from the catches when the scraper is to have other positions. 2nd. The combination of the levers *N* *J*, connecting rod *W*, stirrup, tilting frame *H*; 3rd. The combination of the tilting frame *H*, lock lever *P*, connecting rod *T* and draught bale *B*.

No. 9311. Improvements on Mops.
(*Perfectionnements aux balais.*)

John McCarthy, Syracuse, N. Y., U. S., 5th November, 1878, for 5 years.

Claim.—1st. The combination with a mop head, of the sponge *S*, scraper *c* and brush *b*; 2nd. The combination of the trough-shaped head *A* provided with aperture *a*, the sponge *S*, scraper *c* and wringing block *d*; 3rd. The combination with a mop of a wringer hinged thereto and adapted to be either

brought to the front of the mop head or confined at the rear thereof, 4th. The combination and arrangement with the trough shaped head A, provided with sponge S and scraper C, of the brush b hinged to the rear edge of the plate of the head opposite the scraper and connected detachably to the front edge of said plate, 5th. In combination with the head A and sponge S, the end plates p provided with apertures or slots, and the rod r engaged therewith, 6th. In combination with a mop head, the concave scraper c.

No. 9312. Railway Journal Cooler.

(*Machine à rafraîchir les essieux de railroads.*)

Robert C. Morris, Olney, Ill., and Hiram H. McLane, San Antonio, Texas, U. S., 5th November, 1878, for 5 years.

Claim.—1st. A removable reservoir for containing water to be attached to any portion of a railroad vehicle when the same is so far elevated above the housings of the journals as to cause the water to flow from said reservoir to the journals by its own gravity; 2nd. The combination of an elevated reservoir for water having a regulating cock, or an equivalent device, for regulating the flow of water therefrom, a pipe for conducting the water to the housing and a distributing pipe for directing the water upon the journal; 3rd. The clamp for connecting the water conducting pipe to the housing of the journal, one of its ends being adapted to be adjusted upon said pipe, and the other provided with suitable jaws and a set screw for attaching it to the housing; 4th. In combination with the housing of a journal of a railroad vehicle, the T-pipe F E, the conducting pipe E, regulating valve or cock D and removable reservoir A.

No. 9313. Improvements on Sad Irons.

(*Perfectionnements aux fers à repasser.*)

John Van Gunster, Hoboken, N. Y., U. S., 5th November, 1878, for 5 years.

Claim.—1st. A sad iron provided with a thermometer, 2nd. A sad iron provided with an enclosed thermometer, 3rd. A sad iron provided with a bar expandible from heat with fever denoting such degree of expansibility, 4th. A bar expandible when acted upon by the heat, and an index denoting such expansibility combined with a sad iron, 5th. The combination of the sad iron A, of bar B and index F G; 7th. The combination with the sad iron A of the bar B and index F G, enclosed within the body of the iron A and covered by transparent plate I.

No. 9314. Improvements on Broom Protectors.

(*Perfectionnements aux garde-balais.*)

John Slater, Montreal, Que., 5th November, 1878, for 5 years.

Claim.—The main section with eyes A A and section B, a hold fast with hooks C C to be placed on any corn broom for its protection against speedy wear.

No. 9315. Improvements in Cross-Cut Saws.

(*Perfectionnements aux scies de travers.*)

Silas Toles, St. Thomas, Ont., 5th November, 1878, for 5 years.

Claim.—The shape and arrangement of the teeth marked A B and C.

No. 9316. Improvements on Extension Scaffolds.

(*Perfectionnements aux échafauds à rallonge.*)

George Calcott, Thorold, Ont., 5th November, 1878, for 5 years.

Claim.—The combination of the props A, constructed of sections a to slide extendingly and having sheaves h, the triangles provided with shoes t suspended by puney ropes g, and the platform C supported horizontally by the triangles.

No. 9317. Improvements on Snuff Packages.

(*Perfectionnements aux pots à tabac en poudre.*)

Benjamin F. Weyman, Pittsburgh, Pa., U. S., 5th November, 1878, for 5 years.

Claim.—A jar A having a groove B in its top, and a tin cup shaped cover C, in combination with the outer tin lid covering D enclosing the flange neck of the jar and covering inner cover E and with the inner packing L.

No. 9318. Improvements on Horse-Shoe Nails.

(*Perfectionnements aux clous à cheval.*)

Julius Moeller Hugo Moeller and Clemens Schreiber Berlin Germany 5th November, 1878, for 5 years.

Claim.—The triangular horse shoe nail shank

No. 9319. Improvements on Harvester Rakes.

(*Perfectionnements aux râteliers des moissonneuses.*)

Samuel Crawford, London, Ont., 5th November, 1878, for 5 years.

Claim.—1st. The adjustable wood rake A having a series of grooves C formed in it, in combination with the batten D having a series of grooves E, and fastened together by the bolts and nuts F G, for receiving the teeth B and securing the same in position, 2nd. The arrangement of the teeth B, so as to be adjusted at any depth, in the rake, and secured by the grooved batten D and bolts and nuts F G.

No. 9320. Improvements on Threshing Machines.

(*Perfectionnements aux machines à batt.*)

John A. Crone, Georgetown, Ont., 5th November, 1878, for 5 years.

Claim.—The wind pipe C C, wind box E and wind-chest F, shewing thereby two currents of air when, operating on the uncleaned grain while in the act of fanning from the canvass to the riddle, completely cleans and separates all dirt and chaff from said grain.

No. 9321. Improvements on Carriage Jacks.

(*Perfectionnements aux chevres de voitures.*)

Fitzowen Crawley, Guelph, Ont., 5th November, 1878, for 5 years.

Claim.—The spring E being detachable.

No. 9322. Improvements on Clothes Dryers.

(*Perfectionnements aux séchoirs à linge.*)

Joseph Simmons, Coopersville, Mich., U. S., 5th November, 1878, for 5 years.

Claim.—1st. The combination and arrangement of the earl S, pulleys P₁, P₂, roller T, ratchet wheel I and pawl G, all constructed and arranged for the purpose of raising and lowering the body of the clothes drier, 2nd. The body or frame work composed of the blocks E and F, attached as described, in combination with the hinged arms H H, bars B B, hinged bars C C C and supporting braces D D D D.

No. 9323. Improvements in Millstone Adjusters.

(*Perfectionnements aux mécanismes des meules.*)

John A. Fordon, Bay, Mich., U. S., 5th November, 1878, for 5 years.

Claim.—1st. The combination of the bush b with the rubber cushion C, 2nd. The combination of the stone A, the bearing h provided with the rubber cushion O, the lever E, the fulcrum v and the bearing t provided with the spring S, with the screw v and the nut y.

No. 9324. Improvements on Saddle Pads.

(*Perfectionnements aux garnitures des sellettes.*)

Turner Buswell, Solon, Me., U. S., 5th November, 1878, for 5 years.

Claim.—1st. The wire fastener E bent into U-shape and having the end parts of its arms bent outward and upward and provided with the books upon their ends, to adapt it for use for securing a pad to the water hook and the back strap staple of a saddle, 2nd. A pad A having a strip of leather a₁ stitched across its centre to adapt it to receive the fastener E, 3rd. The combination of the fastener E and the leather strip a₁, with a pad A for securing it to the water hook and the back strap staple of a saddle.

No. 9325. Improvements on Harvesters.

(*Perfectionnements aux moissonneuses.*)

John S. Royce, Cuylerville, N. Y., U. S., 5th November, 1878, for 5 years.

Claim.—1st. The combination of the sleeve on the main frame, the tubular axle of the driving wheel turning in said sleeve, the driving shaft passing through the tubular axle, the ratchet connection between the driving wheel and driving shaft, the tumbling shaft and the gear wheel mounted upon the finger beam and driving both the rake and cutters, 2nd. The combination of the finger beam, the frame mounted thereon, the gear wheel carrying both an internal gear spur wheel and a bevel gear, the crank wheel driving the cutters and the crown wheel upon which the reel and rake arms are mounted, these members being constructed as set forth, whereby the crank wheel and the reel and rake arms are driven from the said gear wheel and all are mounted on the finger beam, 3rd. A series of short spring teeth or bars I independently and rigidly secured by their respective front ends directly to the platform or finger beam just back of the cutters and curved horizontally to conform to the path of a combined reel and rake, whereby the rake teeth are enabled to strike deeply into the cut grain before sweeping it over the platform from which it discharges it, 4th. The combination of a series of rising and falling combined reel and rake arms rotating on an axis substantially vertical, a platform over which the rake sweeps the cut grain to discharge it at one side of the machine, and a series of short spring teeth or bars independently and rigidly secured at their respective front ends to the finger beam or platform just back of the cutters, and curved horizontally to conform to the path of the rake, whereby the rake teeth are enabled properly to enter the fallen grain preparatory to sweeping it upon, over and from the platform, 5th. A guard finger having a vertical web Z, the central portion recessed to said web and a finger plate z so placed over said recess that the rear end overlaps and the front end underlaps the respective portions of the finger to which the plate is bolted near its four angles, 6th. A guard finger having the underside of the forks inclining from the plane of the knob to prevent clogging.

No. 9326. Improvements on Seal Bolts.

(*Perfectionnements aux boulons scellés.*)

Charles H. Hopkins, Lyndonville, Vt., U. S., 5th November, 1878, for 5 years.

Claim.—1st. A seal bolt A provided with a spring bolt B, the lower end of which has a tenon b narrower than the thickness of the body of the sealing pin, in combination with a sealing pin C, provided with a mortise C constructed with a flat end and side walls and an inclined bottom, whereby lateral and end access to the end of the seal pin by picking instruments is prevented, while at the same time the pin cannot be withdrawn backward, 2nd. The combination of the seal bolt A having a mortise a, the spring bolt B having the tenon b, and the sealing pin C having the mortise C C with flat end and side walls and an inclined bottom and a head c, 3rd. The seal bolt A provided with a spring bolt B, which is prevented from turning and is limited in its throw with respect to the mortise a, in combination with a seal pin C having the inclined surface C and the mortise C with inclined bottom and a flat end and side walls; 4th. A soft metal seal pin C provided with a hard metal wearing and protection portion C₁.

No. 9327. Lifting, Pressing and Weighing Machine.

(*Machine à lever, presser et peser.*)

Robert Kirkpatrick, Richmond, N. B., 5th November, 1878, for 5 years.

Claim.—The combination of the two lateral ratchet bars 4 4, with central suspension bar 7, having spring pawls 5 5 arranged to engage in the teeth of the said side bars, and with the lever 2 pivoted to the ends of the side bars 4 4 and provided with the central hook 9, and the detachable handles 3 3, one of the latter 3 being graduated to serve as a scale beam.

No. 9328. Improvements on Cutting Boards.

(*Perfectionnements aux billots à découper.*)

Samuel P. Bancroft, Swampscott, and George N. Johnson, Lynn, Mass., U. S., 5th November, 1878, for 5 years.

Claim.—The novel combination of the thick intermediate body or base c made of cheap material, with one or more relatively thin pieces of end wood a b forming the cutting surface or surfaces, and attached to such base.

No. 9329. Hinge for Attaching Buggy Tops.
(*Charnière pour ajuster les soufflets des voitures.*)

William Robinson, Jr., Goderich, Ont., 5th November, 1878, for 5 years.
Claim.—The hinge 4 semi-circular rack 1, button catch 3 with spring D.

No. 9330. Apparatus for Cooling Wheel Tires.
(*Appareil à rafraîchir les bandages des roues.*)

John Roger, Hamilton, Ont., 5th November, 1878, for 5 years.
Claim.—1st. The water tank J below the platform K, into which the tire plate A is lowered or immersed for the purpose of cooling off the tire, in connection with the tire plate A, chains E and holting chains G and lever I, 2nd. The side straps L, in connection with the tank J, said straps being worked by the shifting gearing N in the centro pin P, by the lever M.

No. 9331. Hop Picking and Stripping Machine. (*Machine à éplucher et teiller l'houblon.*)

Herbert G. Locke, Waterville, N. Y., U.S., 5th November, 1878, for 5 years.
Claim.—1st. The combination of drawing rollers AA' and a stripper or strippers EE, as shown in the drawings, 2nd. The combination with the drawing rollers AA' and a stripper or strippers in a hop machine of a reciprocating feeder H for assisting the said rollers in seizing the hop vine; 3rd. The combination with the drawing rollers AA' and a stripper or strippers EE, in a hop picking machine, of the reciprocating feeder H and inclined planes or wedges I attached to the said feeder for separating the strippers when the said feeder approaches the said drawing rollers; 4th. The combination of the feeder H, rock-bar M, rock-shaft N, rock-lever O and cam P driven by suitable gearing from the main shaft D to actuate said feeder; 5th. The reciprocating separator composed of parallel staggered rods set in the U-shaped support Q and the fan wheel W, for freeing the stripped hops from impurities; 6th. The combination with the drawing rollers AA' and strippers EE, of the reciprocating separator R Q and the fan wheel W, arranged as shown; 7th. The endless apron or carrier T, in combination with the roller V when attached to a hop-picking machine as shown; 8th. The combination with one or more stripping rollers, of a guard C or guards for preventing the stripped hops from passing around said roller or rollers as shown.

No. 9332. Art of, and Apparatus for Making Paper Bags. (*Art de faire les sacs en papier et appareil pour cet objet.*)

Frederick E. Porter, Baltimore, Md., U.S., 5th November, 1878, for 15 years.
Claim.—1st. In an improvement in the art of manufacturing tubes for paper bags, &c., by machinery, the method of simultaneously and continuously forming two flattened tubes with parallel pasted seams, the one within the other, from two separate sheets or webs of paper preparatory to severing into short lengths of duplex blanks; 2nd. In an improvement in the art of manufacturing paper bags by machinery which simultaneously forms two unconnected tubes, the one within the other, from two sheets or webs of paper, the method of simultaneously drawing the two papers along, applying paste to one edge of each sheet, forming the tubes and passing down the pasted seams preparatory to severing blanks from the duplex tube, connected with sheets or webs from which it is continuously formed; 3rd. In an improvement in the art of manufacturing paper tubes for bags, &c., the method of simultaneously and continuously forming two flattened parallel sealed tubes, the one within the other, and subsequently severing the tubes at intervals to form blanks; 4th. In an improvement in the art of manufacturing paper bags by machinery, the method of simultaneously forming two tubes, the one within the other, and after so forming them, severing the tubes at intervals, to form duplex bag blanks having exposed end projections or lips on the outer tubes, or on both the outer and inner tubes, to receive the paste for securing the bottom; 5th. In an improvement in the art of manufacturing duplex tubes for paper bags, &c., the method of simultaneously forming the two tubes, one within the other, pressing in their edges to reduce the width, and then widening out the tubes to cause them to fit the one closely within the other; 6th. In an improvement in the art of manufacturing paper bags, the method of uniting two tubular blanks, the one within the other, which consists in cutting the ends of the tubes (previously formed from long webs or uncut sheets) on parallel lines, to form exposed projecting lips on the inner and outer tubes, or on the outer tubes alone, applying paste to said lips and folding them upon the body of the blank; 7th. The duplex bag-blank, the same consisting of an inner and an outer tube made up of a uniform number of the thickness of paper throughout, except at the longitudinal laps or seams, and having no transverse laps or seams, and terminating at the end in exposed parallel projections or lips on the inner and outer tubes, the cuts producing such lips extending the width of the tubes only; 8th. The peculiar lined or duplex bag, the same consisting of independent inner and outer tubes united together at the bottom by pasting and folding and unconnected elsewhere, the said bag being made up from a blank of a uniform number of the thicknesses of paper throughout, except at the longitudinal laps or seams, and having no other laps or seams whatever, except those produced by the pasting down of the lips formed by cuts extending the width of the tubular blank only; 9th. The combination of mechanism for supplying two sheets of paper and applying paste to the edges thereof, said mechanism being and operating as described, and two formers to which the sheets of paper pass, along which they are drawn, and upon which they are simultaneously formed into an inner and an outer tube; 10th. The combination of the former F, the supporting arch or bridge, the annularly-grooved pressing roller, and the annularly-grooved drawing roller; 11th. The combination of the top former and the bottom former projecting beyond the top former and having a serrated end; 12th. The combination of a bottom former, the supporting arch or bridge, its suspending centrally open bracket, a top former and its supporting bracket, these members being constructed and operating as set forth; 13th. The combination of the paper-supplying rollers, the paste wheels, the paste reservoir, the depressing wheels, the formers and their supports, whereby the edges of the paper are pasted on the way to the formers, and the two sheets properly presented to the formers to be formed into a double tube as drawn along them from the supplying rollers; 14th. The combination of a roller G having an annular groove, the bottom former adapted to enter said groove, and the top former supported on said roller and laid above the bottom former; 15th. The combination of the two formers,

such as described, the annularly-grooved roller G, the groove of which receives the bottom former and upon which roller the shoulder of the top former is supported; 16th. The combination of the two formers and the drawing rollers having annular grooves of different widths to receive the bottom former and the neck of the top former, whereby the clamping of the paper between the formers, or between them and the rollers, is a cold, and the bite of the rollers upon the paper, at the sides of the former neck is insured; 17th. The combination of two formers, arranged one above the other and terminating in serrated ends, with the end of the bottom former projecting slightly beyond that of the top former and the stationary cutter above and at a slight distance back from the end of the top former, whereby the blanks may be severed at three lines; 18th. The combination of two formers having serrated ends, one projecting beyond the other mechanism, essentially as described, for supplying two sheets of paper to the formers, drawing them along the formers, and simultaneously forming them into two tubes, one within the other, the cutter above the former beyond which cutter the serrated ends of the formers project, and a striper to deflect the paper upward and sever the duplex blanks on different lines, whereby lips for pasting are formed upon both the inner and outer tubes of the blank; 19th. The combination of two formers upon which two tubes are simultaneously formed, one within the other, and the pressing finger K acting upon the paper near its pasted edge; 20th. The combination of the two formers and the curved look ended passing finger, crossing the pasted edge of the outer tube and acting upon the inner tube; 21st. The combination of the former narrowed or recessed as at F, mechanism substantially such as described for supplying the two papers, drawing them along and forming them into a double tube, and the edge pressing or guiding plates acting on the double tube; 22nd. The combination of the top former narrowed or recessed as at F, and then widened again, the narrow bottom former and the edge pressing former plates or guides M31.

No. 9333. Composition for Making Follow Boards. (*Composition pour faire les matrices de coulage.*)

Alexander Faulkner, Cleveland, Ohio, U.S., 5th November, 1878, for 5 years.
Claim.—A composition of sand, boiled laseed oil, pulverized gum arabic and liquid glue.

No. 9334. Improvements in Boiler Feeders.
(*Perfectionnements aux alimentateurs des chaudières.*)

Josiah M. Simpson Oakosh Wis U.S. and Wellington Ault, Barrie, Ont., 11th November, 1878, for 5 years.

Claim.—1st. The double-faced valve C provided with its steam passage V and stem T with posts L together with the auxiliary valve J; 2nd. The steam valve and syphon case B provided with steam chambers H and U, and also with steam and water inlets and outlets; 3rd. The water chamber A with inlets, outlets and check valve, as shown in connection with the above mentioned; 4th. The float S and counterpoise N and cranks and connections O O, as shown in connection with the above mentioned, also syphon D with water pipe I and check valve P, in connection with the above named parts.

No. 9335. Improvements on Grain Drills.
(*Perfectionnements aux semoirs-traccours.*)

Phineas P. Mast and Charles O. Gardner, Springfield, Ohio, U.S., 11th November, 1878, for 5 years.

Claim.—1st. In combination with the feed wheel D, a feed cup or case B, a laterally moving gate F, arranged to enter the feed passage or channel opposite the side face of the wheel to check the flow of grain and diminish the discharge; 2nd. The combination of the vertical feed-wheel D, a feed cup or case B and the transversely sliding gate F, located in the bottom of the cup and arranged to move into and across the grain passage or channel, in such manner as to limit the amount of grain discharged and hold the remainder back within the cup; 3rd. The combination of the vertical feed-wheel having a grooved or channelled side face, a feed cup B and the flat faced regulating gate F, arranged to slide into said cup toward and at substantially right angles to the face of the wheel; 4th. The combination of the vertical feed-wheel having the annular shoulder in the side face, in combination with the feed-cup B, and the transversely moving feed regulating gate F; 5th. In combination with a vertical feed-wheel, a laterally moving gate F provided with a depression or recess g at its inner end; 6th. In combination with the feed wheel D, having the annular groove c, the transversely moving gate F having the recess or depression g in its end, the two being arranged for joint operation; 7th. In combination with the gate F having the depression or cavity g in its end, the feed wheel D provided with the peripheral teeth e to insure the delivery of the grain through the recess g; 8th. The combination of the feed wheel D with the shaft E having two ribs or feathers on opposite sides.

No. 9336. Improvements on Scrubbing Machines. (*Perfectionnements aux machines à frotter.*)

Alexander Meltonald, Toronto, Ont., 11th November, 1878, for 11 years.

Claim.—1st. The brush E in combination with the frame A, said frame being mounted on rollers or wheels and provided with a clean water reservoir, from which the water is fed down to the brush; 2nd. The rotary wiper and dirty water elevator G, in combination with the scraper D, and receptacle C; 3rd. The scrapers and wipers F and I in combination with the rotary elevator G; 4th. The crank handle H with pulley and belt A, in combination with the belt G, rollers G' G, and G'; 5th. The roller G, loosely mounted on its bearing for the purpose of allowing the lower portion of the elevating belt to vibrate; 6th. The combination of the handle E, lever E' and frame of machine with the brush E; 7th. The compensating levers K arranged in connection with the pressure on the scrubbing brush; 8th. The combination of the adjustable brush E, wiper and scraper F and elevator G with the frame A said frame being mounted on rollers or wheels and provided with a clean water reservoir and a dirty water receptacle; 9th. The combination of the front scraper J with the frame and working

parts of machine; 10th. A scrubbing brush in which the scrubbing face is formed by parallel bars of notched or slotted rubber.

No. 9337 Improvements on Gas Carburetters. (Perfectionnements aux carburateurs à gaz.)

William H. Shoenberger, (Assignee of Joseph H. Bean,) Cincinnati, Ohio, U.S., 11th November, 1878, for 5 years.

Claim.—1st. The carburetter A, in combination with the gas chamber C and central tube B and air inlet E; 2nd. The absorbent supporter a, in combination with generator A; 3rd. The warm air dome D provided with the ventilating holes F; 4th. In combination with a gas carburetter, the warm air dome D provided with a device for allowing the cold air to escape; 5th. The warm air tube L, when used in connection with a gas burner or other source of artificial heat, to warm and regulate the temperature of the gas-generator A; 6th. The generator A, chamber C, absorbent supporter a, tubes B and E, warm air dome D and warm air tube L; 7th. The shell A, also bottom O, provided with overflow tubes c and forming the chamber C and an absorbent chamber above, in combination with supporter a, central tube B, connected tube L, the dome D and air inlet E.

No. 9338. Improvements in Hernial Trusses. (Perfectionnements dans les bandages herniaires.)

William L. Tucker, Syracuse, N. Y., U. S., 11th November 1878, for 5 years.

Claim.—1st. The back plate b, widened at the base and provided thereat with a series of holes a, and the main plate B pivoted near its top edge to the upper end of the back plate by means of set screw S, and provided at its bottom edge and directly underneath the perineal strap attachment, with spur c adapted to engage the holes a aforesaid; 2nd. In combination with the pad A and the back plate b, hinged thereto, the V-shaped spring V; 3rd. A double hernial truss having the plate b hinged to the pad and provided with set screw S, and lateral extension w, in the form of an arc described from the centre of screw s, a spring interposed between the free end of said plate and pad and the connecting bar f pivoted by one of a series of holes in its end, to set screw S and provided with a clamping device adapted to engage the lateral extension of plate b. 4th. The combination of the plate b, hinged to the pad and provided at a fixed point with set screw S, and the lateral extension w, the latter provided with a series of holes arranged in an arc described from the centre of screw s, the connecting bar f provided at each end with two obliquely and parallel arranged series of holes i i i i i i and set screw n. 5th. The combination and arrangement of the main plate B pivoted at its upper extremity to a fixed point on the back plate b, the back plate having wing w provided with a series of holes arranged in an arc described from the centre of the pivot of the main plate, the connecting bar f provided with two obliquely and parallel arranged series of holes i i i i i i, and the set screws S and n; 6th. In combination with the pad A provided in its rear with a longitudinal recess, the plate b having short pintle c projecting from its sides and imbedded in a transverse groove in the rear surface of the pad, and the plate d fitted to cover the upper portion of the rear at the pad, and extended partly down the sides of the longitudinal recess; 7th. In combination with the V-shaped spring V attached at one extremity to the hinged plate b and bearing with the other extremity in recess in the pad, the set screw w or its equivalent inserted in the pad beneath the bearing of the spring.

No. 9339. Well Boring and Rock Drilling Machine. (Machine à percer les puits et le roc.)

George D. Loomis, (Assignee of John P. Summers,) Tiffin, Ohio, U. S., 11th November 1878, for 5 years.

Claim.—1st. The combination of the large bevel wheel v, level wheel h and clutches ft, on collar c; 2nd. The combination of the hoisting gear U T and I with bevel wheel V, and clutches c' secured to the collar c; 3rd. The combination of the drive wheel w with the hoisting gear U T and I, pinions h and V on shaft H, controlled by the clutches c' and f' secured on collar c and lever g; 4th. The grooved or plain faced loose wheel M with the pin N and steel key O secured to the same, said wheel being upon the driving shaft H combined with the spring catch O' and trip finger z; 5th. The combination of the collar W with the shaft H, wheel M, with its catch spring O' and pin N, chain P' and drill F'; 6th. The combination of the wheel M, pins N and O, spring O', collar W, with trip finger z and chain P'; 7th. The combination of the wheel a, with trip finger z, and wheel M, chain P' and drill F'; 8th. The combination of the wheel M, with its pins N and O, with chain P', walking beam Q, post R, pulleys y A' C' and rope E'; 9th. The wheel M and pins N and O, in combination with wheel a, chain P', walking beam Q, post R, gin-pole G', rope E' and drill F'; 10th. The wheel M and pins N, in combination with pinions J and K and the balsace wheel L, 11th. The wheel M with pins N and O, in combination with chain P', walking beam Q, post R, gin-pole G', pulleys A' y and c', rope E', pinions J and K, and balance wheel L; 12th. The brake r in combination with the hoisting gear U T I and o; 13th. The wheel m with pins N and O, in combination with the hook dt, collar W, trip finger z, wheel a and the hoisting gear U T and I.

No. 9340. Improvements on Churns. (Perfectionnements aux barattes.)

Charles Watkins, Woodstock, Ont., 11th November 1878, for 5 years.

Claim.—1st. The A-shaped frame E, having feet extending to the edge of the lid, in combination with a cog segment pivoted to the apex, and having a socket to receive a handle G, said segment meshing with a bevelled cog pinion H journaled in the bridge bar of the frame E, for operating the dasher shaft to and fro semi-relatively; 2nd. The lug I, bolted to the sides of the churn having thumb screws J engaging with the feet of the frame E for securing the lid; 3rd. The dasher frame composed of the radial boards K set incliably and vertical rods L.

No. 9341. Prepared Peas and Beans. (Pois et fèves apprêtés.)

Peter Haulenbeck, New York, U. S., 11th November 1878, for 5 years.

Claim.—1st. The method of preparing peas or beans consisting in steam cooking such peas or beans, flattening and consolidating them by pressure and then drying them; 2nd. Peas or beans that are in a cooked, flattened and dried condition.

No. 9342. Apparatus for Setting up Music. (Appareil pour imprimer la musique.)

Hannibal Goodwin, Newark, N. J., U. S., 11th November, 1878, for 5 years.

Claim.—A copying board consisting of sections, some being provided with a musical staff, and having two grooves between every two lines of the staff, said grooves being arranged in the dark spaces.

No. 9343. Improvements in Whiffletree Hooks. (Perfectionnements aux crochets des palonniers.)

Nathan Hill, Sherman, Mich., U.S., 11th November, 1878, for 5 years.

Claim.—The hook C, provided with lip, beard, or catch B, with the bars or projections D, in combination with the eye A.

No. 9344. Improvements on Gaskets. (Perfectionnement aux gacettes.)

Cyrus S. Stoy, Butler, Ind., U. S., 11th November, 1878, for 5 years.

Claim.—The packing gasket consisting of two annular plates A united together at their inner edges and open at their outer edges, so as to form an intermediate space containing an elastic coiled filling B.

No. 9345. Improvements on Fluid Meters. (Perfectionnements aux compteurs à fluides.)

Thomas Walsh, Montreal, Que., 11th November, 1878, for 5 years.

Claim.—The wheel E, or its equivalent constructed as described, in combination with the wheel C, D; 2nd. In a water meter, the wheel composed of parts C and D, arranged for part of the fluid to pass through and having the nipple F.

No. 9346. Improvements on Gate Mountings. (Perfectionnements aux ferrures des barrières.)

Robert E. Stephens, Toronto, Ont., 11th November, 1878, for 5 years.

Claim.—1st. The combination of the latch plate C, latch D and catch E 2nd. The combination of the angle plates F I and hinged G J; 3rd. The combination of the ribs F b and slots in G; 4th. The tapers on the pin and in the hole I J; 5th. The form of the catch E, the form of the latch D, with rounded end at c; 6th. The form of the latch plate C, having the studs c for reversing the latch.

No. 9347. Improvements on Butter Packages. (Perfectionnements aux tinnettes à beurre.)

James P. Perkins, Burlington, Wis., U.S., 11th November, 1878, for 5 years.

Claim.—1st. A package for butter and similar articles consisting of the inner vessel A and the outer casing B, the former being secured within the latter in such manner as to leave an air space between the walls of the two. 2nd. The combination of the jar A provided with one or more rims H, or their equivalent, an outer casing B and one or more wooden bands or fillings U.

No. 9348. Improvements on Car-Couplings. (Perfectionnements aux attelages des wagons.)

Charles Gifford, Gardiner, Me., U.S., 11th November, 1878, for 5 years.

Claim.—1st. A recessed draw-head A provided with a hook or catch e' and having link arcal or semi-circular heel and too bearings g h arranged therewith. 2nd. A recessed draw-head provided with a hook or catch e' and link, arcal or semi-circular heel and too bearings g h, and having a projection t separate from the link to extend over its heel or through the link; 3rd. In combination with a coupling link B, curved at its ends and a draw head provided with a coupling hook or catch device for guiding the link in its movements as explained, such device being the projection i and groove k arranged with the link and draw-head.

List of Patents issued up to 28th November, 1878, but not yet Officially published in the Patent Office Record.

- No. 9349. J. Grant and J. H. Beaumont, Gananoque, Ont. "Sash Holder and Fastener," 18th November, 1878.
- No. 9350. T. Quickfall, Floradale, Ont., "Sleigh," 18th November, 1878.
- No. 9351. J. H. Connelly, Pittsburgh, Pa., U. S. A., "Mode of Generating Carbonic Acid Gas," 19th November, 1878.
- No. 9352. T. E. Connelly, Pittsburgh Pa U S A "Chemical Fire Extinguisher, 19th November, 1878.
- No. 9353. F. Richardson, Providence, R.I., U S A., "Shoe Heel," 19th November, 1878.
- No. 9354. D. T. Winter and C. E. Teague, Peabody Mass, U S A "Measuring and Weighing Machine, 19th November, 1878.
- No. 9355. J. H. Fenton, Indianapolis, Ind., U.S.A., "Hair Shredder," 19th November, 1878.
- No. 9356. H. E. Light, Rochester, N.Y., U.S.A., "Steam Radiator," 19th November, 1878.
- No. 9357. S. Smyth, Pittston, Pa., U. S. A., "Grate," 19th November, 1878.
- No. 9358. S. Brillinger, Markham Ont "Venitian Window Blind," 19th November, 1878.
- No. 9359. G. Bartlett, Gananoque, Ont., "Wheel Hub," 19th November, 1878.
- No. 9360. E. Willis. Ayer, Mass. U. S. A., "Cement," 19th November, 1878.
- No. 9361. H. M. Myers, Beaver Falls, Pa. U S A. "Handles for Shovels, &c.," 19th November, 1878.
- No. 9362. R. Hersey, Montreal, Que., "Horse Shoe Nail Blank Elongating and Straightening Machine," 19th November, 1878.
- No. 9363. A. M. S. Goldschmidt, Hamilton Ont., "Ironing Board," 19th November, 1878.
- No. 9364. A. M. S. Goldschmidt, Hamilton, Ont., "Plating and Plating Machine," 19th November, 1878.
- No. 9365. L. L. Wilson and L. S. Keagle Centre Point, Iowa, U S A., "Fishing and Wharf Lump," 22nd November, 1878.
- No. 9366. J. H. D. Everett, Hawkesbury, Ont. "Clothes Dryer," 22nd November, 1878.
- No. 9367. W. F. Sherman Lowell, Mass U S A "Liquid Measuring Vessel," 22nd November, 1878.
- No. 9368. T. Ford, Plattsville Ont., "Self-Weighing Machine," 22nd November, 1878.
- No. 9369. J. Dickieson, North Beloeque P F I. "Fanning Mill," 22nd November, 1878.
- No. 9370. S. H. Moffett, Harrisonburg O. Dean, Richmond, and F. D. Johnson, Culpeper, Va., U.S.A., "Liquor Register," 22nd November, 1878.
- No. 9371. A. J. Hartwell Brockport N. Y., U S A., "Fanning Mill," 22nd November, 1878.
- No. 9372. D. H. Burrell, J. H. Ives, R. S. Whitman W. W. Whitman and D. H. Burrell, Little Falls, N. Y., (Assignees of J. B. Dougherty and J. Naylor, Jr., Rochester, N.Y.,) U. S. A., "Hoop Compressor," 22nd November, 1878.
- No. 9373. J. C. Birdsell, South Bend, Ind., U S A., "Clover Thrasher, Huller, Separator and Cleaner," 22nd November, 1878.
- No. 9374. A. McKay, J. McDonald and J. Wilson, Sheboygan, Mich. (Assignees of T. R. Way Springfield, Mich.,) U S A. "Stove Pipe Ventilator," 22nd November, 1878.
- No. 9375. J. Taylor, St. George, Ont., D. B. Phillips and J. F. Kincaid, Bantford, Ont., "Sad Iron," 22nd November, 1878.
- No. 9376. C. H. Carpenter Syracuse N Y, U S A., "Coin Package," 22nd November, 1878.
- No. 9377. A. C. Hawler, Chicago, Ill., U.S.A., and L. U. C. Titus, Belleville, Ont., "Hollow Bolt Lock," 22nd November, 1878.
- No. 9378. Jas Morrison, Toronto, Ont., "Steam Pressure Gauge," 22nd November, 1878.
- No. 9379. A. G. E. Westmacott, Toronto Ont., "Drain Pipe," 22nd November, 1878.
- No. 9380. H. C. Goodrich, Chicago, Ill., U.S.A., "Boot and Shoe Sole," 22nd November, 1878.
- No. 9381. H. Loud, Boston, Mass., U S A., "Sheave or Pulley," 22nd November, 1878.
- No. 9382. A. C. Wenzel, N. Y., U. S. A., "Nickel Grain Anodes for Plating," 22nd November, 1878.
- No. 9383. J. Anstine, Huntville, Ohio, U.S.A., "Millers Paint Staffs," 22nd November, 1878.
- No. 9384. F. B. Brown, Boston, Mass., U. S. A., "Garment Supporting Clasp," 22nd November, 1878.
- No. 9385. Jas. E. Thomas, West Bay City, Mich., U. S. A., "Steam Boiler Cleaner," 22nd November, 1878.
- No. 9386. R. Moore, Simcoe, Ont., "Water Conductor," 22nd November, 1878.
- No. 9387. J. W. McRae, Ottawa, Ont., "Canal Boat," 22nd November, 1878.
- No. 9388. A. Fredenbagen, St. Charles, Ill., U.S.A., "Mill Stone Dress," 22nd November, 1878.
- No. 9389. J. Dowrance, 176 Great Dover Street, Borough, England, "Cock," 22nd November, 1878.
- No. 9390. L. Pinkerton, Schomberg, Ont., "Threshing Machine," 19th November, 1878.
- No. 9391. C. Onslow, Port Ewen, N. Y., U. S. A., "Plate Weighing Scale," 22nd November, 1878.
- No. 9392. W. Johnson, J. Kelson and G. W. Marling, Milwaukee, Wis., U.S.A., "Mill Stone Driver," 22nd November, 1878.
- No. 9393. A. L. Edwards, New York, U.S.A., "Shirt," 22nd November, 1878.
- No. 9394. W. Fensom, Toronto, Ont., "Holsting Machine," 22nd November, 1878.
- No. 9395. C. McWilliam, Stanstead, Que., "Valve Regulator," 22nd November, 1878.
- No. 9396. W. H. Bennett, N. Y., and W. C. Vail, Poughkeepsie, N. Y., U.S.A., "Kettle," 22nd November, 1878.
- No. 9397. H. H. Hill and F. Morien, Augusta, Me., U.S.S., "Steam Fire Engine," 22nd November, 1878.
- No. 9398. T. F. Butterfield, De Wit, Iowa, U.S.A., "Steam Generator," 22nd November, 1878.
- No. 9399. N. Hayden, Chicago, Ill., U.S.A., "Sewing Machine Needle Attachment," 22nd November, 1878.
- No. 9400. S. McGee, Madison, and T. Nugent, Whippany, N. J., U. S. A., "Car and Vehicle Axle," 22nd November, 1878.
- No. 9401. H. S. Holden, Canton, Ohio, U.S.A., "Vapor Burner," 22nd November, 1878.
- No. 9402. Revd. W. M. Shanks, Denmark, Mich., U.S.A., "Grate," 22nd November, 1878.
- No. 9403. H. Growen, Leipzig, Germany, "Process of Producing Sulphate of Ammonia," 22nd November, 1878.
- No. 9404. P. K. Dederick, Albany, N. Y., U.S.A., "Baling Press," 22nd November, 1878.
- No. 9405. C. C. Neimeister, Chicago, Ill., U.S.A., "Car Bumper," 22nd November, 1878.
- No. 9406. J. H. Irwin, Philadelphia, Pa., U.S.S., "Acoustic Telegraph," 22nd November, 1878.
- No. 9407. J. Henshaw, St. Hyacinthe, Que., "Horse Hoe and Potato Digger," 22nd November, 1878.
- No. 9408. E. Hollingshead, (Assignee of W. Durlop.) Toronto, Ont., "Drain Trap," (Extension of Patent No. 2983.) 22nd November, 1878.
- No. 9409. A. F. Nagle, Providence, R. I., U.S.A., "Brick and Concrete Black Pressing Machine," 22nd November, 1878.
- No. 9410. C. L. Jeffaris, Jamestown, N. Y., U.S.A., "Axe Pole Machine," 22nd November, 1878.
- No. 9411. J. H. Irwin, Philadelphia, Pa., U.S.A., "Steam Jet Injector," 22nd November, 1878.
- No. 9412. T. B. Brown, Boston, Mass., U.S.A., "Garment Clasp," 22nd November, 1878.
- No. 9413. J. Vance, Forest, Ont., "Fence," 22nd November, 1878.
- No. 9414. J. Vance, Forest, Ont., "Fence," 23rd November, 1878.
- No. 9415. Jas. Hodges, Penny Hill, Bagshot, England, "Peat Fuel Manufacturing Machine," 25th November, 1878.
- No. 9416. Jas. Hodges, Penny Hill, Bagshot, England, "Peat Fuel Pulping and Manufacturing Machine," 27th November, 1878.
- No. 9417. S. B. Rathbun, Bay City, and E. T. Carrington, West Bay City, Mich., U.S.A., "Churn Dasher," 28th November, 1878.
- No. 9418. C. Fockler, Dubuque, Iowa, U.S.A., "Adjustable Vehicle Top," 28th November, 1878.

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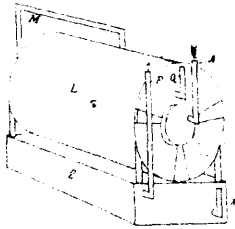
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ILLUSTRATIONS.

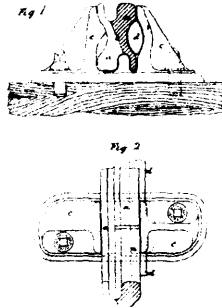
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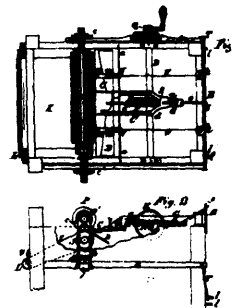
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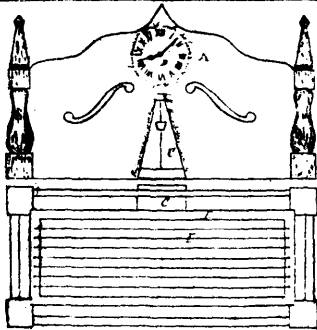
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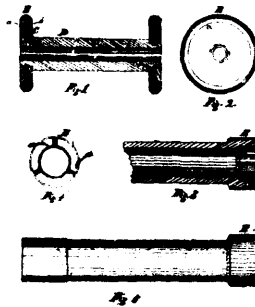
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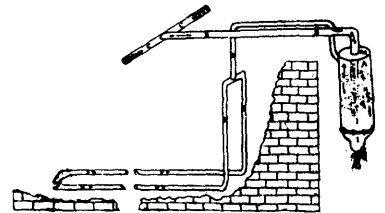
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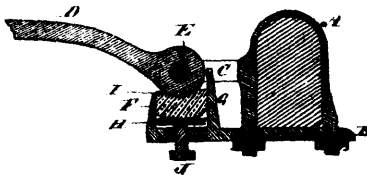
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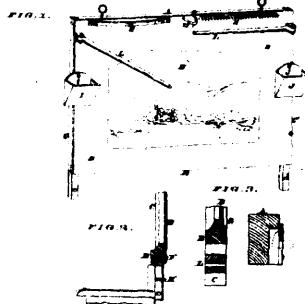
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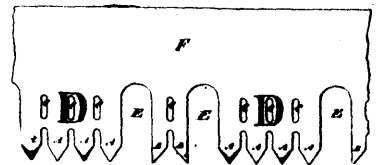
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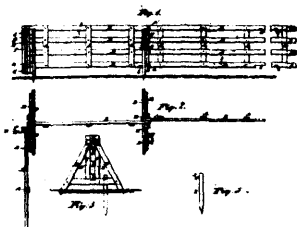
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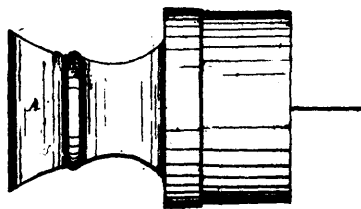
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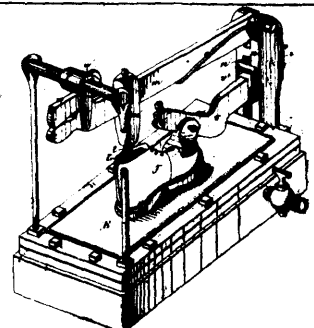
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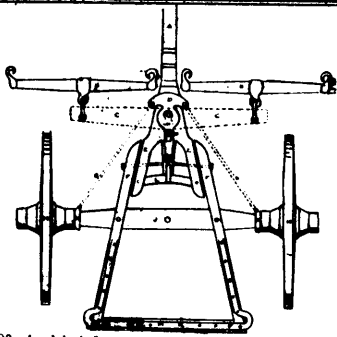
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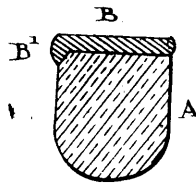
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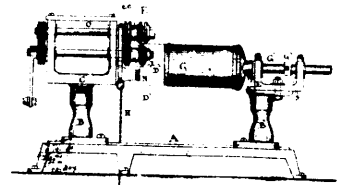
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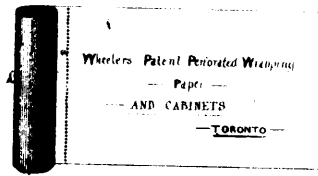
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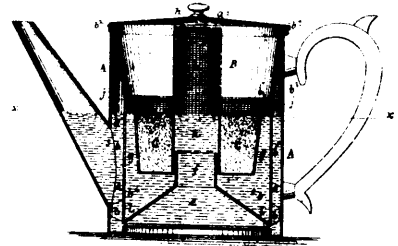
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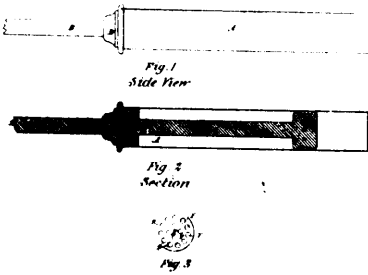
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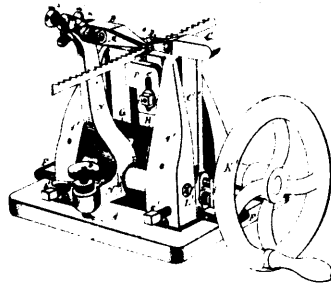
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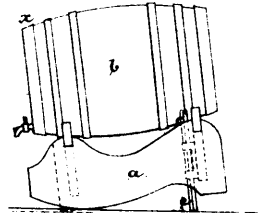
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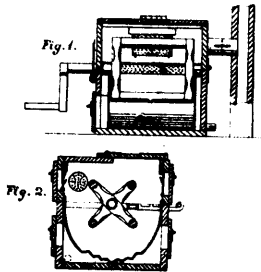
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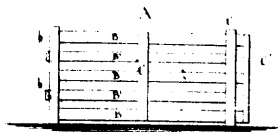
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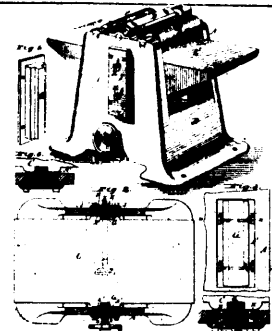
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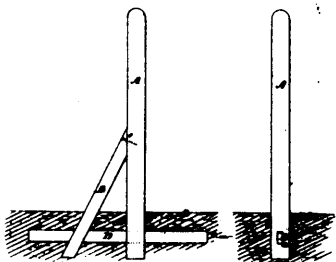
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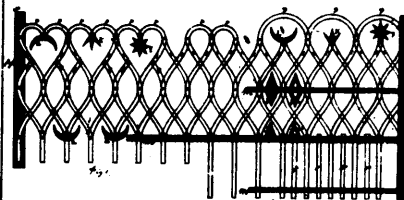
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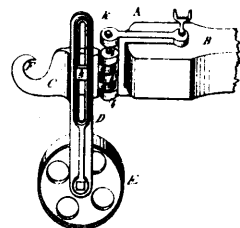
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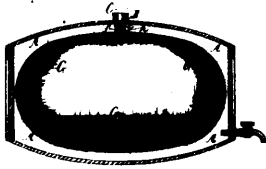
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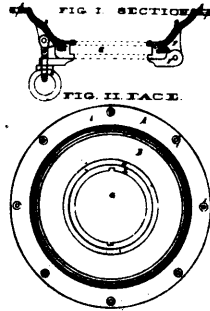
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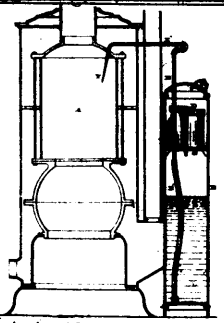
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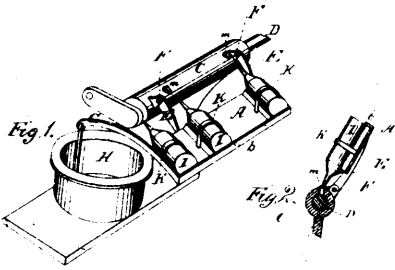
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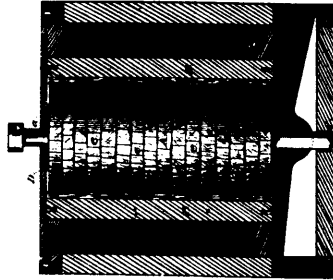
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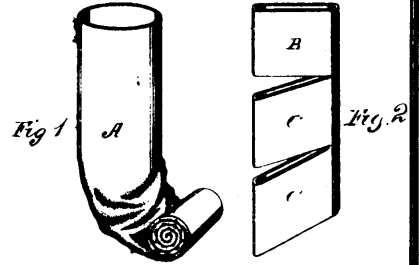
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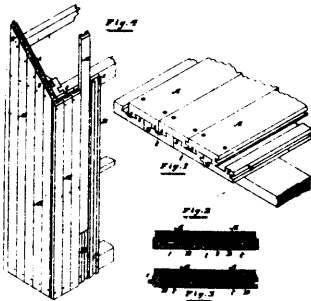
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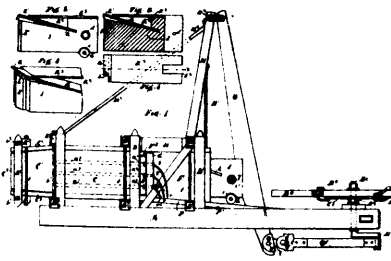
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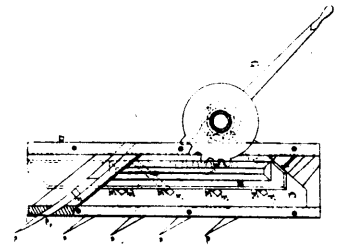
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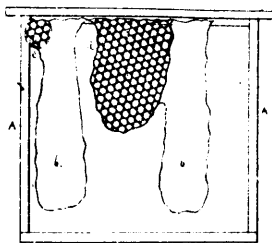
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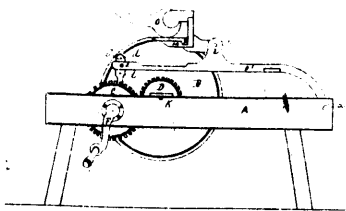
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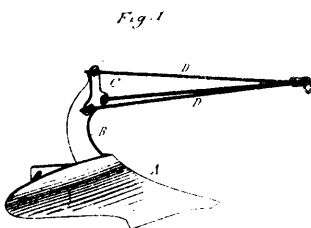
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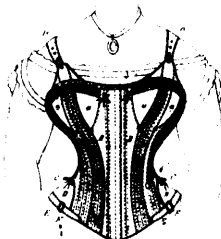
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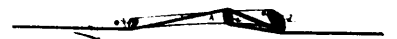
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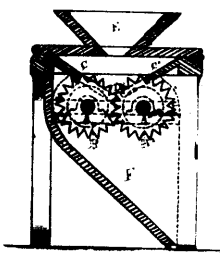
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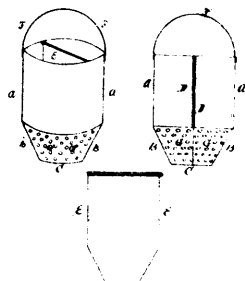
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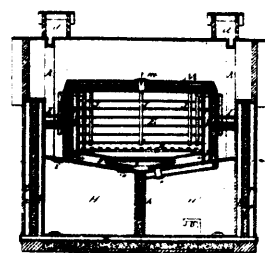
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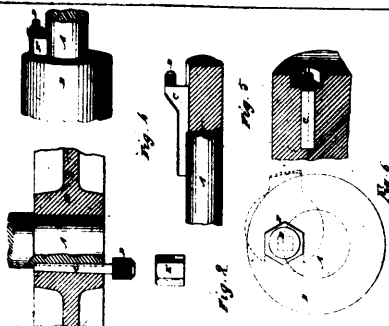
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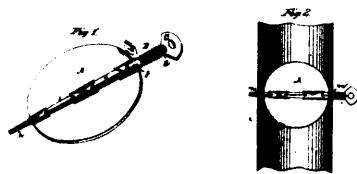
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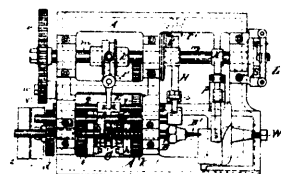
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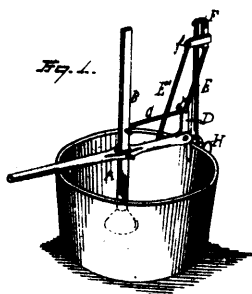
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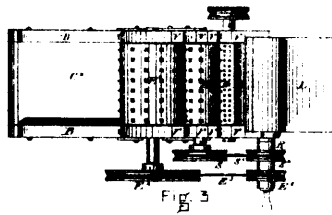
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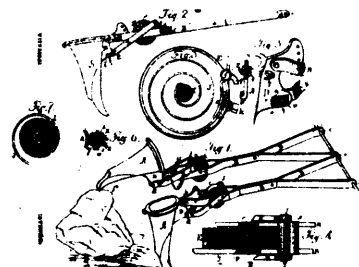
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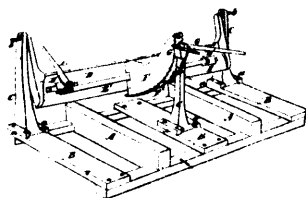
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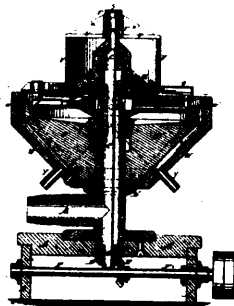
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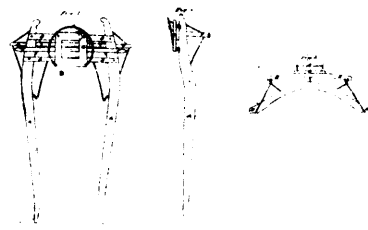
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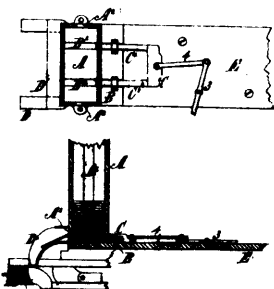
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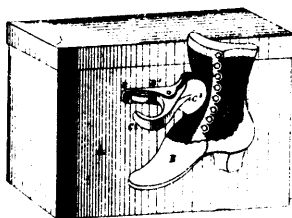
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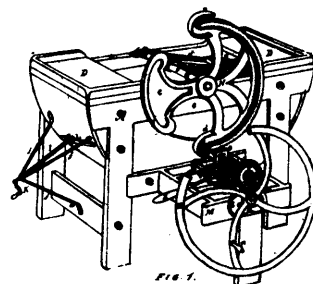
9273 Hamill's Improvements on Trotting Sulky.



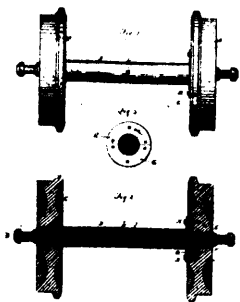
9274 McParlon's Improvements on Feed Apparatus.



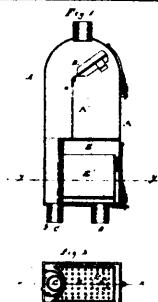
9275 Palmer's Combined Box Knob and Shoe-holder.



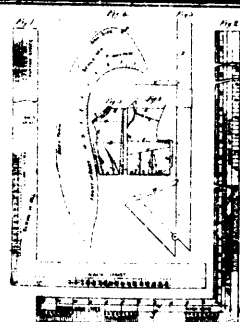
9277 Chartré's Mechanical Kneading Trough.



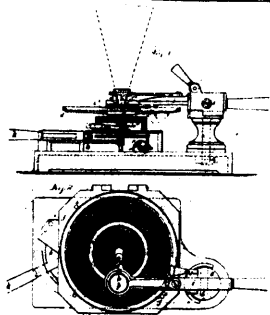
9278 Danford's Improvements in Car Axles.



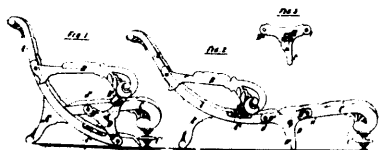
9279 Hoover & Huber's Improvement in Combined Cut-off and Filter.



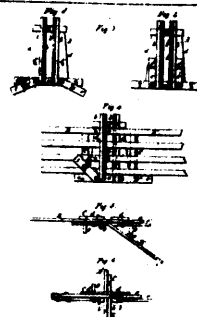
9281 Griffin's Improvements on Dress Makers' Squares.



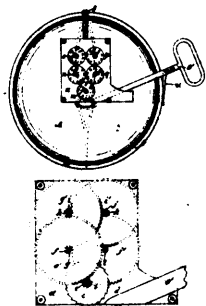
9282 Edison's Phonograph.



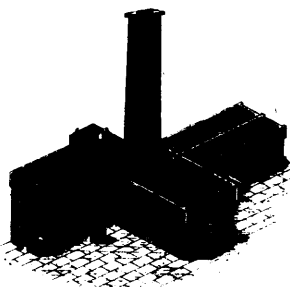
9283 Hasley & Tombyll's Combined Easy Chair and Lounge.



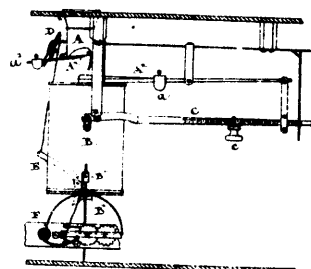
9284 Beam's Improvements on Fence Posts.



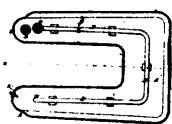
9286 Coté's Improvements on Measuring Instruments.



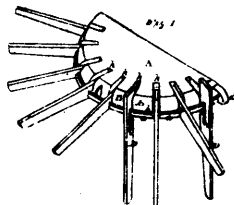
9288 Wellington's Syrup and Sugar Evaporator.



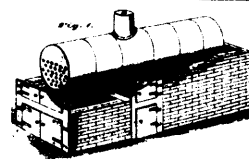
9295 Snider's Yielding Machine.



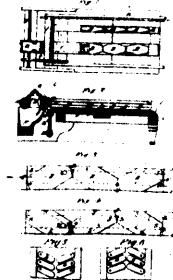
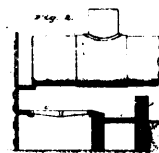
9296 Dawson's Feed Water Heater.



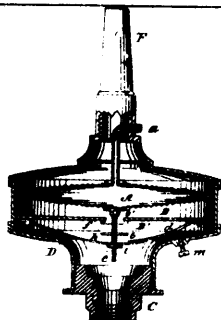
9297 Hickok's Improvements in Clothes Dryers.



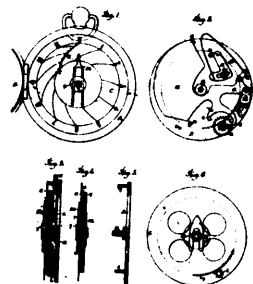
9298 Fisher's Improvements on Boiler Furnaces.



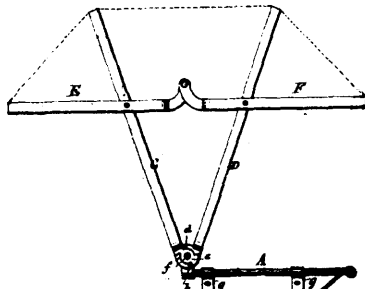
9299 Bacon's Improvements on Ink Distributing Apparatus.



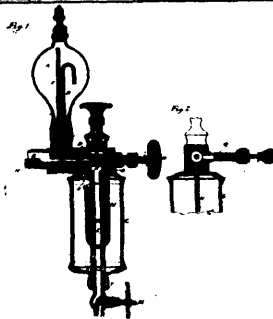
9300 Thompson, Whaley & Cohen's Improvements in Gas Controllers.



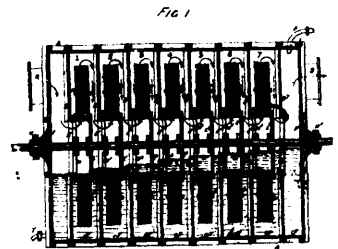
9301 Church's Improvements on Pedometers.



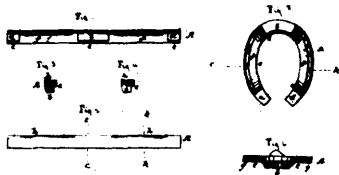
9302 Chapman's Improvements on Carriage Tops.



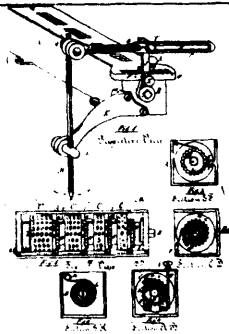
9303 Parshall's Improvements on Machinery Lubricators.



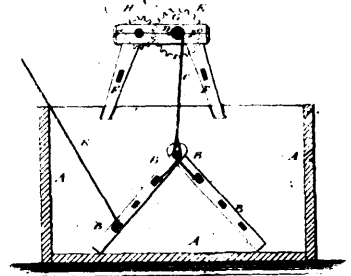
9304 Kirkham, Hulett & Chandler's Apparatus for Condensing, Washing and Purifying Gas.



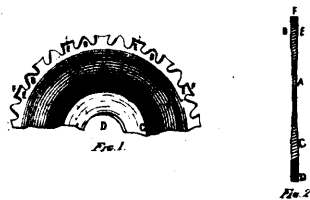
9305 Claude's Improved Horse-Shoe Bar.



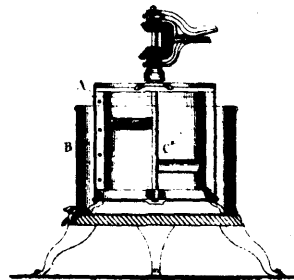
9306 Durant's Machine for Tallying Flour Barrels.



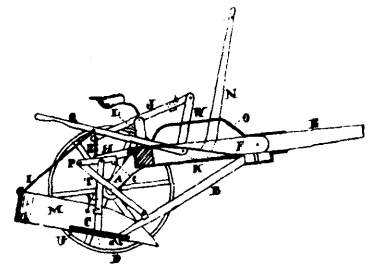
9307 Whiting & Smith's Machine for Raising Leather from Tan Vats.



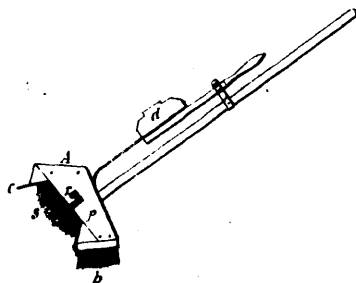
9308 Robbins' Improvements on Circular Saws.



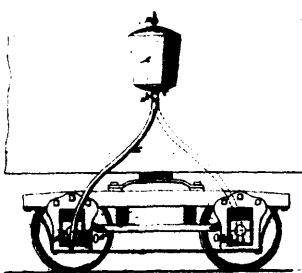
9309 Constable's Machine for Mixing Cakes.



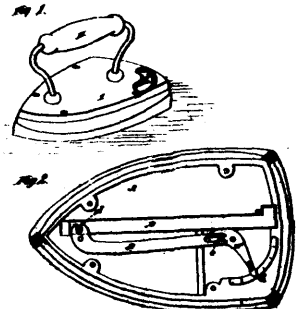
9310 Edmonson's Improvements on Earth Scrapers.



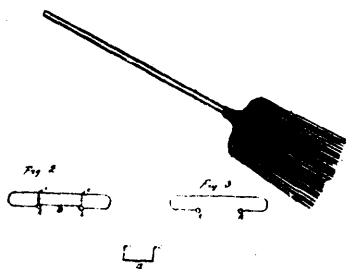
9311 McCarthy's Improvements on Mops.



9312 Morris & McLane's Railway Journal Cooler.



9313 Van Gumster's Improvements on Sad Irons.



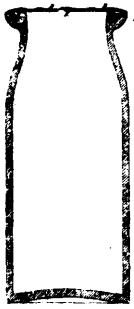
9314 Slater's Improvements on Broom Protectors.



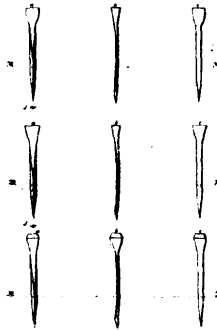
9315 Toles' Improvements in Cross-Cut Saws.



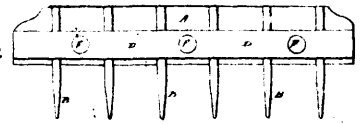
9316 Calcott's Improvements on Extension Scaffolds.



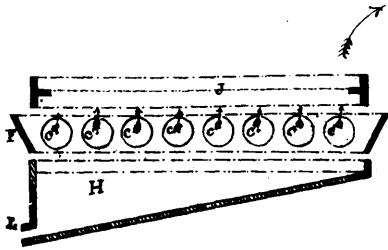
9317 Weyman's Improvements on Snuff Packages.



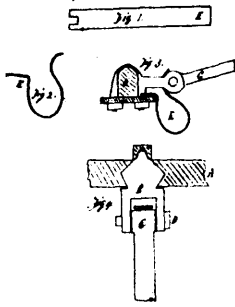
9318 Moeller & Schreiber's Improvements on Horse-Shoe Nails.



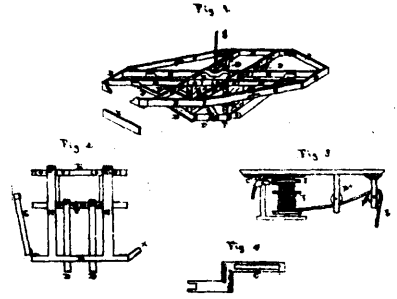
9319 Crawford's Improvements on Harvester Rakes.



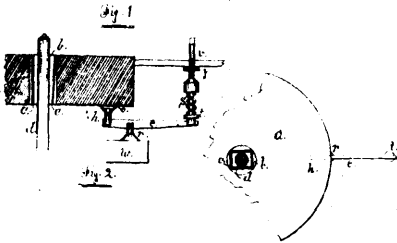
9320 Crone's Improvements on Threshing Machines.



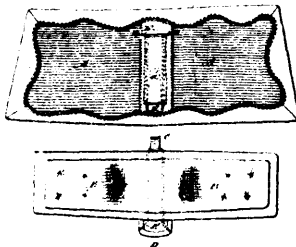
9321 Crawley's Improvements on Carriage Jacks.



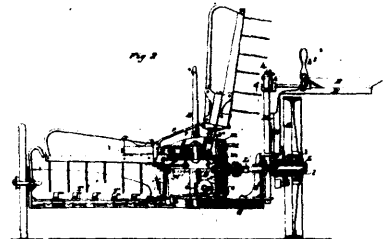
9322 Simmons' Improvements on Clothes Dryers.



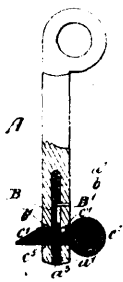
9323 Fardon's Improvements on Millstone Adjusters.



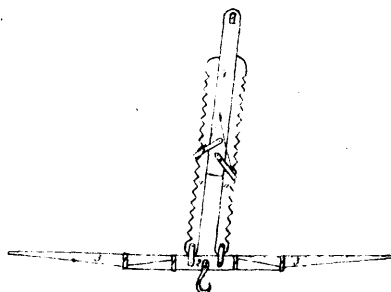
9324 Buswell's Improvements on Saddle Pads.



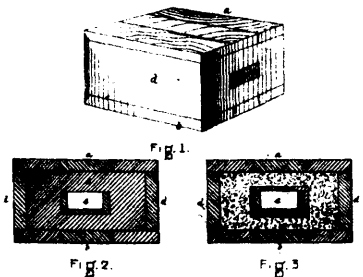
9325 Royce's Improvements on Harvesters.



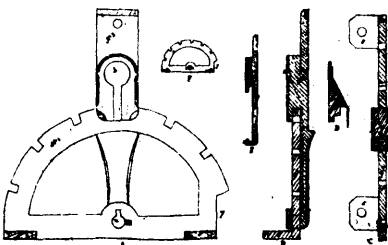
9326 Hopkins' Improvements on Seal Bolts.



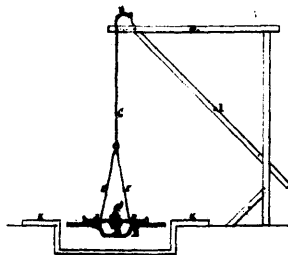
9327 Kirkpatrick's Lifting, Pressing and Weighing Machine.



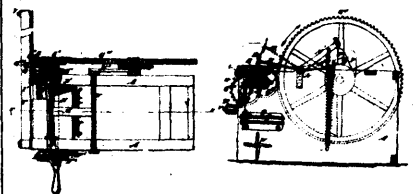
9328 Bancroft & Johnson's Improvements on Cutting Boards.



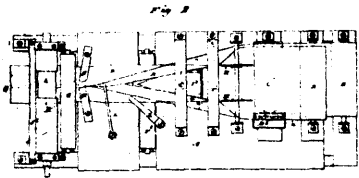
9329 Robinson's Hinge for Attaching Buggy Tops.



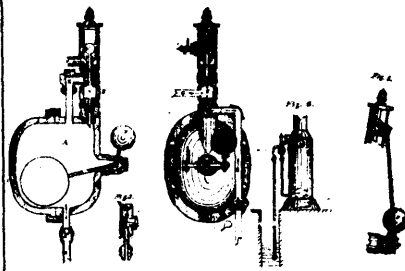
9330 Rodger's Apparatus for Cooling Wheel Tires.



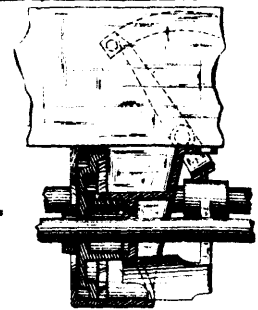
9331 Locke's Hop Picking and Stripping Machine.



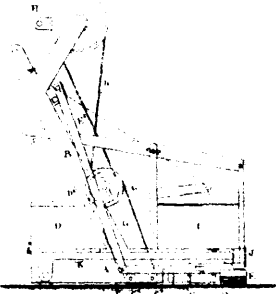
9332 Porter's Art of, and Apparatus for, Making Paper Bags.



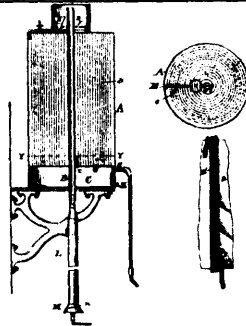
9334 Simpson & Auk's Improvements in Boiler Feeders.



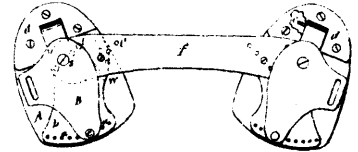
9335 Mast & Gardiner's Improvements on Grain Drills.



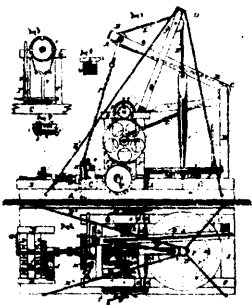
9336 McDonald's Improvements on Scrubbing Machines.



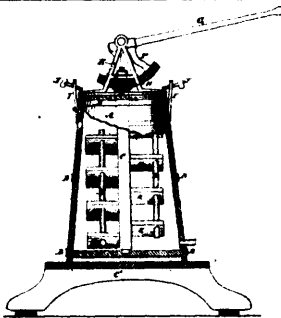
9337 Bean's Improvements on Gas Carburetters.



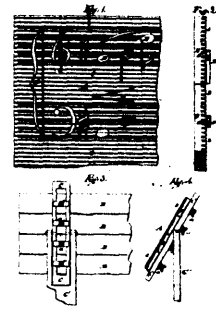
9338 Tucker's Improvements in Hernial Trusses.



9339 Summers' Well Boring and Rock Drilling Machine.



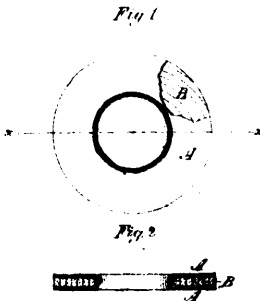
9340 Watkins' Improvements on Churns.



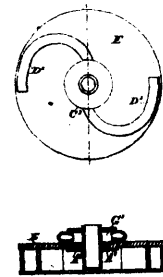
9342 Goodwin's Apparatus for Setting up Music.



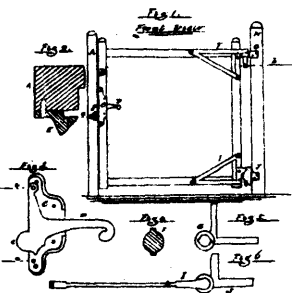
9343 Hill's Improvements in Whiffetree Hooks.



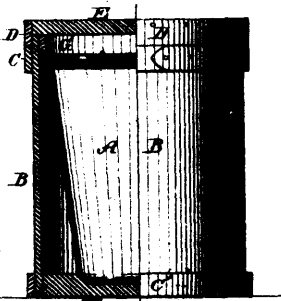
9344 Stoy's Improvements on Gaskets.



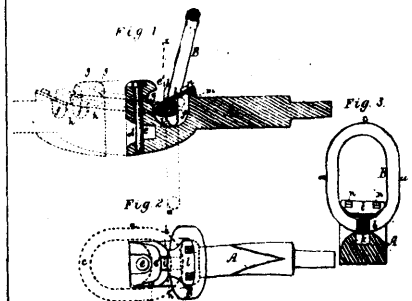
9345 Walsh's Improvements on Fluid Meters.



9346 Stevens' Improvements on Gate Mountings.



9347 Perkins' Improvements on Butter Packages.



9348 Gifford's Improvements on Car-Couplings.