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No. 50,102. Trimmer Guide.
(*Guide pour appareil à dresser.*)

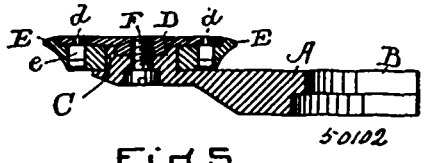


Fig. 5.

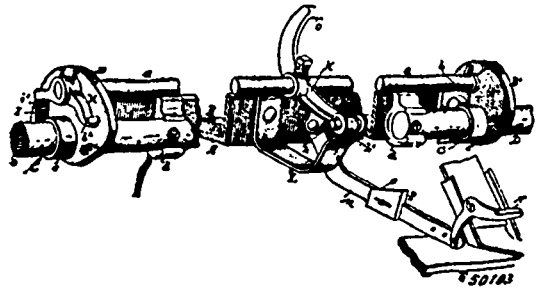
Francis Joseph Freese, Lowell, Massachusetts, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. In a cutter guide, a central disc or body held stationary and slotted to receive the knife tip, in combination with a rotatable rim extending outwardly beyond the periphery of said disc, and suitably connected thereto, substantially as set forth. 2nd. In a cutter guide, a projecting, supporting arm, a circular disc or body fixed thereon and slotted to receive the tip of the reciprocating knife, in combination with a rotatable rim extending beneath and projecting beyond the edges of said disc or body, substantially as set forth. 3rd. In a cutter guide, an adjustable circular disc or body formed with a succession of slots at different distances from its edges, to receive the tip of a reciprocating cutter, in combination with a rotatable rim enclosing the periphery of said disc or body, and a binding screw to hold said parts in working position when adjusted, substantially as set forth. 4th. In a cutter guide, a projecting arm A formed with a terminal boss C, and a cup-shaped rim E having an annular groove, in combination with a circular disc D covering said cup or groove, and having a succession of slots at different distances from its edge over said groove, and with a binding screw adapted to secure said disc to said arm, leaving the rim free to rotate, substantially as set forth.

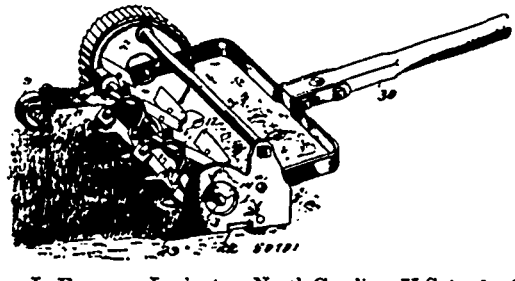
No. 50,103. Horse Rake. (*Râteau à cheval.*)

David Maxwell and Sons, assignees of David Maxwell, sr., all of St. Mary's, Ontario, Canada, 1st October, 1895; 6 years.

Claim.—1st. In a draught dumping rake, the combination with the rocking tooth support, ground wheels and pawls for locking said support and ground wheels for simultaneous rotation, of an integral controlling shaft journalled in the rocking support and loosely connected with the pawls at opposite ends, a cross head rigidly connected with said shaft, a spring retainer on the rocking tooth support co-operating with the cross head to hold the shaft in its adjusted position, a stop for automatically rotating the shaft in one direction and means for manually rotating it in the opposite direction, substantially as described. 2nd. In a draught dump horse hay rake, the combination with the rocking tooth support, ground wheels and integral pawl controlling shaft extending way across the rocking support of the spring-pressed pawls journalled on opposite ends of the shaft to have a limited independent movement, a cross head on the shaft at an intermediate point, a spring retainer on the rocking support for holding the shaft within the pawls retracted, and an operating link located in the path traversed by and co-operating with the cross head when the support is locked with the wheels to release the pawls and allow the support to resume normal position, substantially as described. 3rd. In a draught dump horse hay rake, the combination with the rocking tooth support, ground wheels having internally toothed pawl boxes, and pawl-controlling shaft journalled in the rocking support and extending way across the same, of the pawls journalled on opposite ends of the shaft to have a limited independent movement, springs independent of the shaft for holding the pawls in position, stops for limiting the movement of the pawls, a cross head mounted on the shaft at an intermediate point, an operating link pivotally connected with one arm of the cross head and lying in the path of movement of the other arm whereby the shaft may be manually rotated in one direction and automatically rotated in the opposite direction, and a retainer for holding the shaft with the pawls in adjusted position, substantially as described.



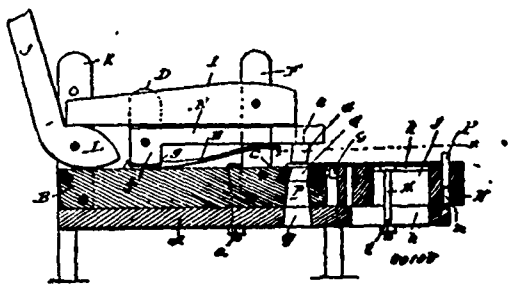
No. 50,104. Lawn Mower. (*Tondeuse de pelouse.*)



Horace L. Freeman, Lexington, North Carolina, U.S.A., 1st October, 1895; 6 years.

Claim.—In a lawn mower, the combination of the frame, a shaft journalled thereon, gearing for rotating the shaft, a number of independent hubs fixed to the shaft, and each provided with an annular series of radial arms, the arms of each hub being located at the intervals between the arms of the adjacent hubs, and the arms of the several hubs being disposed in spiral lines across the mower, the substantially rectangular short blades 17 secured intermediate of their ends to the outer terminals of all of the arms and disposed at intervals in spiral lines across the mower, said blades 17 being arranged at a slight inclination, *whereby when a blade strikes tall* grass the tall spears of grass will be deflected and will pass behind the short cutter blade in position to be struck by the same, and a fixed blade over which the short blades work, provided at intervals with forwardly extending fingers, projecting from the cutting edge of the fixed blade, to hold the grass in position to be operated on by the short blades, substantially as described.

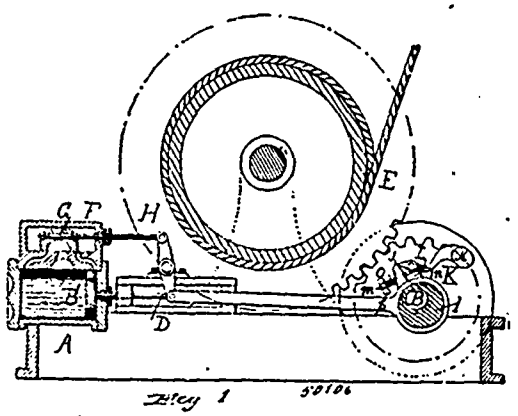
No. 50,105. Saw Gummer.
(*Appareil pour l'affûtage des scies.*)



William McLean and Edward Davies, both of Tie Siding, Wyoming, U.S.A., 1st October, 1895; 6 years.

Claim.—In the saw gummer described, the combination of a bed, uprights D rising rom the bed, the arm E pivoted between said uprights, and having the depending portion *f* at its connected end, a punch carried by the free end of said arm, uprights F arranged in advance of the uprights D, the lever I fulcrumed adjacent to its forward end between the uprights F, above the arm E, and having its rear end extending to the rear of said arm, uprights K arranged in rear of the uprights D, the hand lever J fulcrumed between the uprights K, below the rear end of the lever I, and having the cam portion L, adapted to engage the under side of said lever I, and the spring H, having the recess *g*, receiving the depending portion *f*, of the arm E, and interposed between said depending portion and the bed, said spring bearing at its forward end against the under side of the arm E, adjacent to the free end thereof, all substantially as specified.

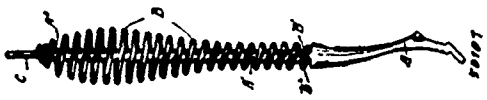
No. 50,106. Steam Engine. (*Machine à vapeur.*)



Willis Durwood Sherman, Brooklyn, New York, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. In steam engines, the combination of the cylinder, piston, main shaft, eccentric movable thereon, and set to a normal position, main valve, and weights revolved by the main shaft and adapted to shift the eccentric so as to increase the lead of the main valve, when the speed of the engine increases above the normal. 2nd. The combination in a steam engine, with a cylinder, piston, shaft, valve and eccentric, of weights arranged to be thrown out from the centre of the main shaft as the velocity increases, and adapted to co-operate with surfaces which actuate the eccentric for the purpose of varying the lead of the valve according to the speed of the piston. 3rd. The combination in a reversible steam engine, of a cylinder, piston, ports, main valve controlling said ports, shaft, eccentric, and devices revolved by said shaft, and adapted to automatically increase the lead of the main valve as the speed of the engine increases and automatically decrease the lead of the main valve as the speed of the engine decreases in either direction. 4th. The combination with a port reversing engine, of devices for automatically varying the lead of the main valve according to the variation of the speed of the engine in either direction. 5th. The combination in reversible engines, of a cylinder, piston, main valve, shaft, eccentric, *and lagging weights* revolved from the main shaft, and adapted to shift the eccentric and vary the lead of the main valve according to the variation in the speed of the engine in either direction. 6th. In steam engines, air resistance blades operatively connected with the main shaft and with the eccentric, for the purpose of automatically carrying the lead of the main valve according to the speed of the engine in either direction. 7th. The combination with the main shaft, eccentric, and valve, of slotted blades adapted to expose greater or less effective surface to the air, for the purpose of shifting the eccentric and varying the lead of the valve according to the speed of the engine in either direction.

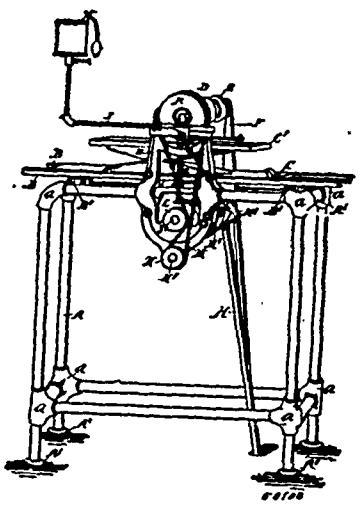
No. 50,107. Lifter for Stoves lids. (*Appareil pour soulever les couvercles de poêles.*)



William French Greene, Troy, New York, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. In a lifter for stove covers, the combination with the handle shank having a central aperture in its end-face, and an aperture in a side face, of a shank-inclosing coil of wire having the ends of the wire forming the coil secured respectively in the shank-apertures, the wire projecting from the end-face aperture in line with the longitudinal axis of the shank, substantially as described. 2nd. In a lifter for stove covers, the combination with a handle shank having a central aperture in its end-face, of a shank-inclosing coil of wire, a wire inserted through the outer turn of the coil and secured ... the end-aperture of the shank and projecting from such aperture in line with the longitudinal axis of the shank, and a wire loop integral with and connecting the inserted end and outer turn of the coil, substantially as described. 3rd. In a handle, the combination with a shank having a central aperture in its end-face, of a shank-inclosing coil of wire, an introverted end of wire integral with the coil-wire extending from the outer turn of the coil into the end-aperture of the shank and secured therein, and projecting therefrom in line with the longitudinal axis of the shank, substantially as described. 4th. In a handle, the combination with a metal shank having an end aperture, of a shank-inclosing coil of wire having the outer turn of the wire introverted from the outer turn of the coil and secured in the end-aperture of the shank by pinching the shank whereby the aperture walls are made to grip the inserted end and prevent its escape therefrom, substantially as described.

No. 50,108. Ironing Machine. (*Machine à repasser.*)



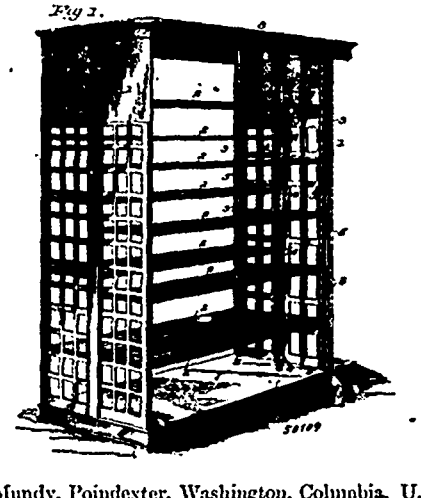
William Phillips, Northville, Michigan, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. In an ironing machine, the combination with a frame, of supports secured thereto, each support having its lower end provided with a bearing, one of said supports being provided with a

slot at its lower end, a movable bearing on the upper end of each of the supports, a polishing iron journalled in said bearing, one end of which is provided with a driving wheel, a friction roller journalled in the bearings at the lower ends of the supports one end of which is provided with a driving wheel, and an ironing table between the roller and the iron, substantially as set forth. 2nd. In an ironing machine, the combination of a frame, a reciprocatory ironing board, a rotatable polishing iron and bearings for the journals of said iron, said bearings formed with plates E^1 E^1, having balls or rollers held in place therebetween adjacent to said journals, substantially as set forth. 3rd. In an ironing machine, the combination of a frame, a reciprocatory ironing board, a friction roller below the ironing board to reciprocate the board, and a rotatable polishing iron above the ironing board, the axis of the polishing iron and the shaft of the friction roller provided with sprocket wheels, and a sprocket chain engaged with said wheels to rotate the polishing iron, simultaneously with the rotation of the friction pulley, substantially as set forth. 4th. In an ironing machine, the combination of a frame, a reciprocatory ironing board, a polishing iron, supports, bearings for the journals of said polishing iron, vertically reciprocatory in said supports, an arm G engaged with each of said bearings, a spring upon said arm to effect the desired normal pressure of the polishing iron upon the ironing board, and a foot lever H bearing against the lower end of the arms G to lift the polishing iron out of normal engagement with the ironing board, substantially as set forth. 5th. In an ironing machine, the combination of a frame constructed of piping, supports F, a metal strap F^2 to unite said supports to the frame, bearings E constructed with plates E^1, E^1, having a reciprocatory movement in said supports, a rotatable polishing iron journalled in said bearings, an arm G engaged at its upper end between said plates and provided with a spring, a travelling ironing board, and a foot lever bearing against the lower end of said arm, substantially as and for the purpose set forth. 6th. In an ironing machine, the combination with a frame, of supports secured thereto, a reciprocatory ironing table on the frame, movable bearings in the supports, each bearing composed of two perforated plates, the outer edges of which are cut away to engage with the supports, and the portions around the perforations being also recessed or cut away, anti-friction bearings in the recesses around the perforations, a polishing iron journalled in the perforations, and means for reciprocating the table, substantially as set forth. 7th. In an ironing machine, the combination with a frame, the top side pieces of which are each perforated, of a support secured to each of the side pieces adjacent the perforation, each support having a perforated cross arm, a vertically movable bearing in the upper end of each support, an arm secured to said bearing and projecting through the cross arm and the side of the frame, an adjusting nut on the arm, a spring between the cross arm and the nut, a polishing iron journalled in said bearings, a treadle pivotally secured to the frame, the upper end of which is adapted to engage with the lower ends of said spring actuated arms, and a reciprocatory table under the polishing iron, substantially as set forth. 8th. In an ironing machine, the combination with a frame, of supports secured thereto, each support having its lower end provided with a bearing, and one of the supports being provided with a slot at its lower end, a movable bearing in the upper end of each of the supports, a polishing iron journalled in the bearings, one end of which is provided with a sprocket wheel, a friction roller journalled in the bearings at the lower ends of the supports, one end of which is provided with a sprocket wheel, an ironing table between the roller and the iron, a stud adjustably secured in said slot in one of the supports, a sprocket wheel upon the stud and a chain over said sprocket wheels, substantially as set forth.

No. 50,109. Book-case. (*Bibliothèque.*)

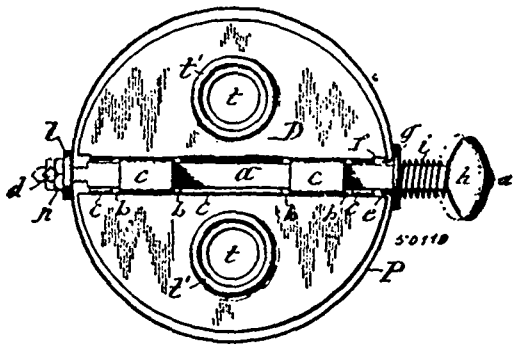
Fig 1.



William Mundy, Poindexter, Washington, Columbia, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. In a book-case, means for adjustably supporting shelves consisting of a series of suitably spaced projections at the inner portion of each side, and a series of correspondingly spaced projections on the outer portion of each side constructed to engage the shelf at the proper point and so located with respect to the inner series and with respect to bearings of the shelves that the shelf passed in over any pair of front supports will be directed down upon the corresponding pair of rear supports, as explained. 2nd. In a book case, the combination of front and rear supporting projections spaced apart and corresponding pair and pair as shown, and shelving constructed to engage the front supports and to swing thereon, the front supports being so located with respect to the rear supports, that the arc in which the rear bearing of the shelf swings will include the corresponding rear supports but exclude those above them, as explained. 3rd. As a means for adjustably supporting shelves the combination of a series of rear supports, suitably spaced apart to give the desired range of adjustment, a series of front supports correspondingly spaced apart and a shelf recessed to engage the front support and swinging thereon, said front supports being spaced apart from their corresponding rear ones, a distance which will cause the rear bearing of the shelf to pass in front of the next higher rear support and swing down upon the proper rear supports to level the shelf, as explained. 4th. In a book-case or analogous structure, the combination of a series of suitably spaced fixed rear supports, correspondingly spaced front supports and a shelf adapted for engagement by the front supports, said front supports being movable into and out of active position at will and located at points to cause the shelf to swing thereon down upon the corresponding rear support without interference with supports above the latter, as explained. 5th. A support for the shelves of book-cases or analogous purposes, consisting of the dog 3, mounted as explained to permit it to be turned up out of active position and counterbalanced inward, as and for the purpose explained. 6th. The herein-described support for the shelves of book-cases or for analogous purposes, consisting of the dog 3 having a trunnion to permit it to be turned up out of position, counterbalanced inward to permit it to stand in vertical position, and having means for limiting inward movement, as explained. 7th. As a new article of manufacture, means for supporting shelving at any desired height, consisting of the channel iron having its connecting web slotted at regular distances apart and a series of dogs trunnioned between the flanges of the channel iron, projecting through the recesses, adapted to be held in horizontal position by the lower sides of the recesses and adapted to fold upward into the recesses when not in use, substantially as explained. 8th. As a new article of manufacture, means for supporting shelving at any desired height consisting of the plate or mounting having slots formed in its face and the series of dogs mounted in said plate so as to fold in and out of the slots, supported at points to counterbalance them inward in vertical position and having means to limit the inward movement, substantially as explained.

No. 50,110. Stove-Pipe Damper. (*Clé de tuyau de poêle.*)

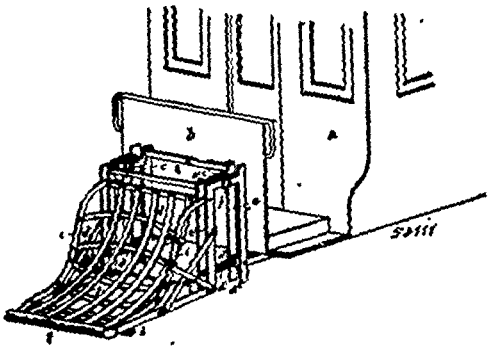


Charles Treadwell Redfield, Glen Haven, New York, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. A damper having its shaft provided with a retainer, connected thereto longitudinally adjustable to permit the damper to be secured in pipes of different diameters, as set forth. 2nd. In combination with a stove-pipe or analagous pipe, a damper having its shaft formed angular in cross-section and screw-threaded at one end, a washer provided with a corresponding angular eye for the reception of said shaft and formed with an angular recess in its outer face, the nut seated in said recess, and a spring forcing the shaft longitudinally to normally retain the nut in said recess when required, as set forth. 3rd. The combination, with a stove-pipe having in its side a perforation with outward projecting burs around said perforation, a damper in said pipe, a damper-shaft passing through the aforesaid perforation, a cup-shaped washer on the shaft and receiving in it the bur of the perforation, and a shaft-retainer on the protruding end of the shaft, as set forth. 4th. The combination, with a stove-pipe or analogous pipe, of a damper having its shaft protruding through the sides of the pipe and screw-threaded on one end, a washer on the exterior of the pipe and locked on said

end of the shaft and formed with an angular recess in its outer side, and a nut on the shaft seated in said recess and locked therein, as set forth. 5th. The combination, with the stove-pipe and damper, the damper-shaft movable longitudinally on the damper and screw-threaded on one end and provided with a handle on the opposite end, a washer on the exterior of the pipe receiving through it the screw-threaded end of the damper-shaft and formed with nut-locking shoulders on the outer side, a nut on the shaft, and a spring interposed between the pipe and handle of the shaft and serving to hold the nut in the recess of the washer, as set forth.

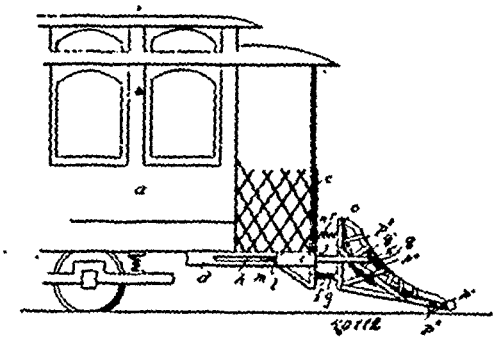
No. 50,111. Car Fender. (*Défense de chars.*)



Adam Leightham, assignee of Joseph Leightham, both of Reading, Pennsylvania, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. A car provided with the supporting plates extending upwardly in front of the dash from and rigidly secured to the beams beneath the platform, the upper ends thereof formed to have a fender hinged removably thereto, and swinging guides having springs for the lower part of the fender carried by the supports beneath the plane of the platform, substantially as described. 2nd. A car provided with the vertical supporting plates arranged in pairs and extending up in front of the dash and down below the same, and having the forward perforated ears at their upper ends, substantially as described. 3rd. A car provided with the vertical supporting plates extending up in front of the dash and extended below the same, and provided with the rear extensions secured to the platform timbers, and with the forward ears at its upper end, and the swinging pins pivoted between the lower ends of the plates, and having coiled springs thereon.

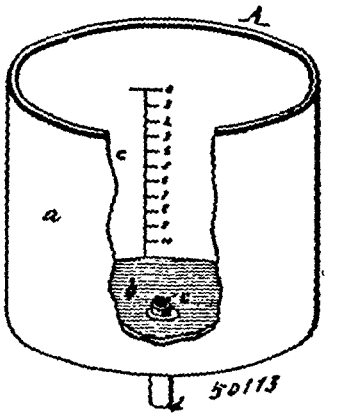
No. 50,112. Car Fender. *Défense de chars.*)



Adam Leightham, assignee of Joseph Leightham, both of Reading, Pennsylvania, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. The fender comprising the rear frame and the forwardly and downwardly extending bottom frame with the sides, said fender pivotally joined at its ends to the car and springs between the car and the rear end of the fender above and below the pivotal points of the fender, substantially as described. 2nd. The fender removably pivoted to the car and having the retractive spring removably connecting the upper part of the rear end of the fender and the dasher, and the springs below the lower part of the fender and the car and removable from the fender, substantially as described. 3rd. The fender extending up in front of the dash and downwardly and forwardly below the dash, expansive springs interposed between the car and the lower part of the fender, and arms extending forwardly from the car and to which said fender is pivoted at its sides above the plane of said springs and a distance below its upper end, said fender having a limited longitudinal movement in addition to its swing, substantially as described. 4th. A car having the longitudinal sideways at its end, spring stops therein, the sliding fender supporting bars in said ways having the longitudinal slots in their outer ends, the fender pivoted at its sides in said arms so that the pivots can slide in said slots, and springs holding the fender, substantially as described. 5th. A car having the forwardly extending slidable fender supporting arms extending beneath the platform to a point in front of the dash, brackets depending from the platform and having swinging guides provided with springs, the fender pivoted at its sides in said arms, and formed to receive said guides and be held by the springs, substantially as described.

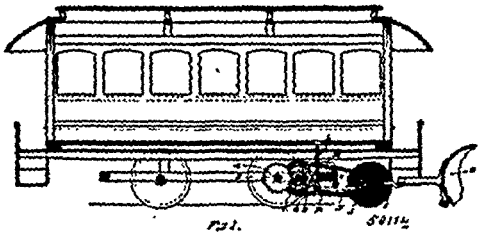
No. 50,113. Rennet Test. (*Présure pour éprouver.*)



Adolf Johannes Marschall, Little Falls, New York, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. The herein described method of testing milk with rennet which consists in mixing the rennet with the milk, allowing the milk to escape through a discharge aperture which has not sufficient capacity to permit of the escape of the entire volume of milk before it curdles, and through which the milk ceases to escape when it has curdled, and observing the level of the curdled milk, substantially as set forth. 2nd. The herein described apparatus for testing milk with rennet, which consists of a vessel having in its bottom a discharge aperture which has not sufficient capacity to permit of the escape of the entire volume of milk from the vessel before it curdles, and having a graduation or scale on which the level of the milk can be read off, substantially as set forth.

No. 50,114. Street Car Track Sweeper.
(*Balayeuse de rails de chars électrique.*)



Amédée Houle, Montreal, Quebec, Canada, 1st October, 1895; 6 years.

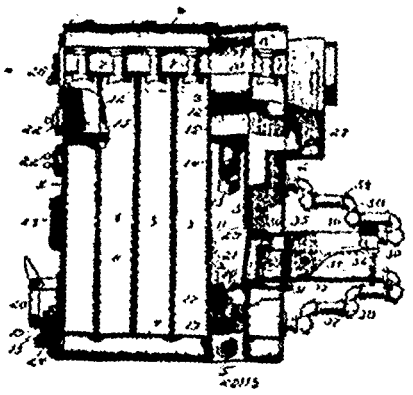
Claim.—1st. A street car track sweeper having two brushes or brooms K, having a circumferential ridge K^1, shaft J, brackets N, and N^1, sprocket-wheels I and G, sprocket-chain H, shaft D, brackets E, clutch g, sliding clutch block g^3, clutch shifter g^2, pinion C, gear-wheel B and axle A, substantially as described and for the purposes set forth. 2nd. In a street car track sweeper, the brushes or brooms K, having a circumferential ridge K^1, shaft J, brackets N and N^1, hinges n and n^1, truck frame F, bracket nut M, and screw I, substantially as described and for the purposes set forth.

No. 50,115. Steam Boiler. (*Chaudière à vapeur.*)

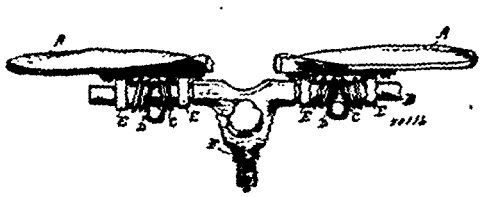
George H. Burley, Tyrone, Pennsylvania, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. The combination with the fire-box of a furnace, of a movable water-back to vary the capacity of the said fire-box, and provisions for supplying water to the back to be heated, substantially as set forth. 2nd. The combination with a steam boiler furnace, of a movable water-back to reduce the capacity of the fire-box, and connections between the said water-back and the boiler to admit of the free movement of the water-back and establish communication between it and the boiler, substantially as set forth. 3rd. The combination with a boiler furnace, of a water-back adapted to move over the grate bars and through an opening in the side of the boiler, and provided with a hollow rear extension to prevent the fire from getting in the rear of the water-back when the latter is advanced

into the fire-box, and connections between the boiler and the said rear hollow extension, substantially as described. 4th. The combination with a boiler furnace, of a movable water-back to vary the capacity of the fire-box, and swinging pipe connections connected by knuckle couplings, establishing communication between the water-back and the boiler, substantially as set forth. 5th. In a boiler furnace, the combination of a water-back adapted to operate through an opening in the side of the boiler and travel over the grate bars to vary the capacity of the fire-box, and having a rearwardly-projecting hollow extension, brackets having guide ways in their sides for the said rear extension to travel in, connections between the boiler and the water-back, and means for moving the water-back within the fire-box, substantially as described and for the purpose set forth. 6th. In combination, a boiler furnace, a water-back having a rear hollow extension, brackets having guides in their inner sides for the said rear extension to work in, connections between the boiler and the water-back, a rack bar secured to the said rear extension, a transverse shaft journalled in the brackets, and provided with a pinion to mesh with the said rack bar, and a plate to close that portion of the opening through which the water-back operates immediately below the said rear extension, substantially as set forth. 7th. The herein specified boiler, formed from a series of vertical sections placed side by side, a dome located above and water drums on each side of the sections, nipple connections between the water drums, the said dome and the individual sections, grate bars supported in lugs on the inner side of the upright portions of the sections, a water-back adapted to travel upon the said lugs and over the grate bars to reduce the capacity of the fire-box, and having a rear hollow extension, connections between the water-back and the rear boiler section, and means for operating the water-back, as and for the purpose set forth.



No. 50,116. Bicycle Seat. (*Siège de bicycle.*)



Colonel Ellsworth Amsden and Wilbur S. Burns, both of Grand Rapids, Michigan, U.S.A., 1st October, 1895; 6 years.

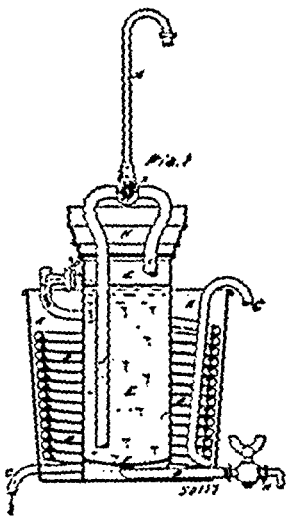
Claim.—1st. In a bicycle seat, the combination of two sections supported in a suitable manner, each section adapted to oscillate or rock independently of the other section, substantially as and for the purpose described. 2nd. In a bicycle seat, the combination of two parts adapted to oscillate independently, and a spring with each section adapted to return the section to normal position, substantially as described.

No. 50,117. Beer Cooler and Transformer.

(*Refrigérant à bière et transformateur.*)

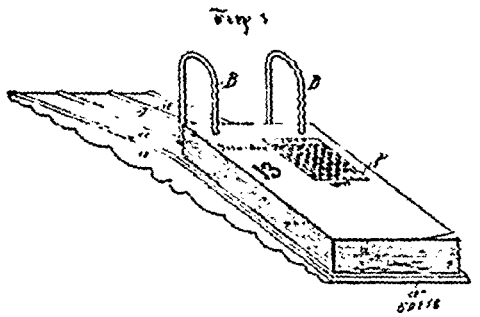
Thomas Burdett, Montreal, Quebec, Canada, 1st October, 1895; 6 years.

Claim.—The combination, in a beer cooler and transformer, of a cylindrical pot or tank E used as a reservoir, the two feeding tubes



I and J connected together by the double action stop-cock K, with the faucet M, the ordinary tub A, the interior surface of which is covered with a serpentine B, B which acts as a cooler, all substantially as and for the purpose set forth.

No. 50,118. Calendar. (*Calendrier.*)



The Eclipse Office Furniture Company, assignee of Clarence Ernest Mountford, all of Ottawa, Ontario, Canada, 1st October, 1895; 6 years.

Claim.—1st. In a desk calendar, the combination of a stamped sheet metal base having two sloping faces, a file wire consisting of two pairs of vertical uprights each pair connected at the top by an arch, and the two pairs connected at the bottom by a cross shank, having a downward bend resting in a groove slotted in the centre, and an eccentric swivel pivoted to the bottom of said base near said slot and adapted to extend across said slot between the plate and the bent part of the cross shank, substantially as set forth. 2nd. In a desk calendar, the combination with a base A stamped out of sheet metal, two sloping faces having stiffening ridges a, sides a^1, and end rolls a^{11}, substantially as set forth. 3rd. In a desk calendar, the combination with a base having a sunk groove with slotted centre, of a file wire B having two pairs of uprights, each pair connected at the top by an arch and the two pairs connected at the bottom by a cross shank having a portion of it bent down, substantially as set forth.

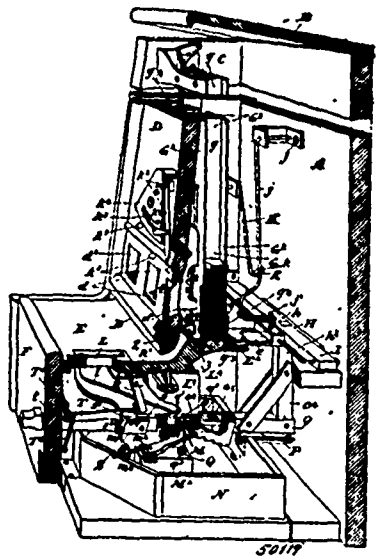
No. 50,119. Automatic Vending Machine.

(*Appareil de vente.*)

Britten & Bradshaw, of Toronto, assignees of Walter Horace Grout, of Grimsby, all in Ontario, Canada, 1st October, 1895; 6 years.

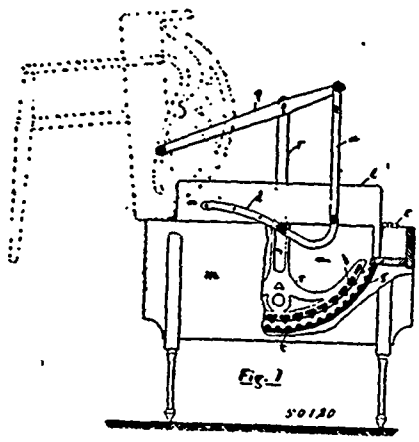
Claim.—1st. In an automatic vending machine, the combination with the case suitably supported and provided with chutes with slots at their bottom ends, of a plunger H, and means for reciprocating such plunger opposite the slots of the desired chute and for impelling such plunger forward, as and for the purpose specified. 2nd. In an automatic vending machine, the combination with the case suitably supported and provided with chutes with slots at their bottom ends, of a plunger H supported on a suitable base and in a guide-rod, a pivoted swinging arm having slotted connection in the

top of the plunger, and a supplemental arm through which the swinging arm passes, and means to the outside of the case for swing-



ing such supplemental arm, as and for the purpose specified. 3rd. In an automatic vending machine, the combination with the case suitably supported and provided with chutes with slots at their bottom ends, of a plunger H supported on a suitable base and on a guide-rod, a pivoted swinging arm having slotted connection to the top of the plunger, and a supplemental arm through which the swinging arm passes, and an index arm having a knob and segmental covering with a slot in which the knob is adjusted to desired points indicating the flavours, as and for the purpose specified. 4th. In an automatic vending machine, the combination with a gum case and the slots at the bottom end thereof for the ejection of the tablets, of a pivoted flap 2 elastically held in position by bands 4 before the discharge opening of the tablets, as and for the purpose specified. 5th. The combination with the gum case and ejecting plunger constructed and operated, as specified, of the cross-bar I, upright O^1, and single plunger O and the coin slot L, and means interposed between the coin slot and ejecting plunger for releasing the same and restoring it to its normal position, as and for the purpose specified. 6th. The combination with the gum case and ejecting plunger constructed and operated as specified, of the plunger O provided with a slot o^1, the notch plate o, the lever M provided with an enlarged end m, the toothed rack S, arm T having a dog t^1, a guide-plate s^1, bent finger R, coin guide-way l, and slot L, all arranged as and for the purpose specified. 7th. The combination with the spring held plunger O, having the slot o^1, with stop o^2, and the notched plate o, of the pivoted lever M with broad ends m, and the finger Q with upper end q^1, and lower end q^2, arranged as and for the purpose specified.

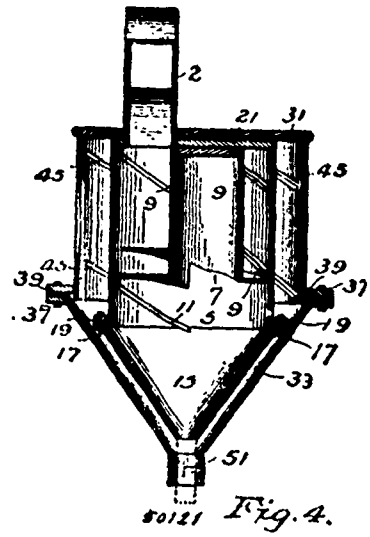
No. 50,120. Washing Machine. (*Machine à laver.*)



Charles Prast, Waterloo, Ontario, Canada, 1st October, 1895; 6 years

Claim.—1st. In a washing machine, the combination of the cover, rockers and levers, so that the cover when raised, carries with it the rocker and levers, substantially as hereinbefore described. 2nd. In a washing machine, the combination of the handle, levers, rocker having a ribbed or corrugated face to correspond with the bottom of the machine, and slotted arms to receive the shaft, upon which such rocker works, the bottom corrugated or ribbed to correspond with the shape and motion of the rocker, the bars connecting the levers with the sides of the cover, the shaft passing through the arms of the rocker and the cover, all substantially as hereinbefore set forth.

No. 50,121. Dust Collector. (*Aspirateur de poussière.*)

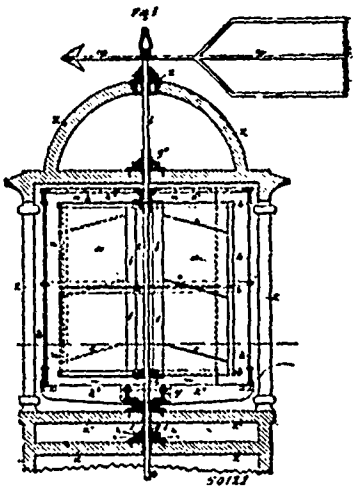


Henry L. Day, Minneapolis, Minnesota, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. A dust collector comprising, in combination, a curved or spiral air conductor having an open end, a cylindrical expansion chamber, within which the open end of said conductor is arranged, said chamber being provided with an exit opening in its peripheral wall, and with a closed top and open lower end, and a hopper arranged below the open lower end of said chamber, substantially as described. 2nd. In a dust collector, the combination, with a curved or spiral inlet conductor, of an expansion chamber into which said inlet conductor opens, provided with a peripheral outlet opening and with a closed top, and a hopper arranged below said expansion chamber and receiving the dust from the bottom of said chamber, substantially as described. 3rd. In a dust collector, the combination, with a curved or spiral inlet conductor, of an expansion chamber into which said inlet conductor opens, said expansion chamber being provided with a closed top and open bottom and a peripheral outlet opening, a hopper arranged below said expansion chamber, and deflectors or skimmers arranged upon the inner surface of the outer wall of said conductor to direct the dust or fine material into said hopper, substantially as and for the purpose specified. 4th. The combination, with the air conductor, of an expansion chamber into which said conductor opens, said expansion chamber being provided with a peripheral opening and a separate dust discharge, and a second chamber arranged outside of said expansion chamber and provided with a peripheral outlet for the purified air, and with a dust discharge and forming an annular passage through which said air current passes, after leaving the expansion chamber, substantially as and for the purpose specified. 5th. The combination, with an air conductor, of an expansion chamber into which conductor opens, said expansion chamber being provided with a peripheral outlet opening and with a closed top, and a separate dust discharge, a hopper arranged below said expansion chamber, a second chamber arranged outside of and surrounding said expansion chamber and provided with a peripheral outlet, a closed top to said second chamber and a hopper arranged below said second chamber and receiving the dust therefrom, said top and hopper being removably connected to said expansion chamber, substantially as described. 6th. In a dust collector, the combination, of a separating chamber, said chamber being provided with an outlet for the dust and with a peripheral outlet for the air, skimmers or deflectors arranged on the inner wall of said chamber and a second chamber surrounding said separating chamber and receiving the air therefrom, said second chamber being provided with a dust discharge and an outlet for the air. 7th. The combination, with a suitable casing, of an expansion chamber 5, arranged therein, the spiral conductor 3, the pipe 2, connected thereto, said expansion chamber being provided with a peripheral opening 13, and a closed top 21, the hopper arranged beneath said chamber, a second expansion chamber 25, arranged outside of and concentric with said first named, said second chamber having a closed top 31, and a hopper 25, and both of said chambers being provided with skimmers or de-

flectors, for the purpose set forth. 7th. The combination, of a separating chamber having a dust discharge and a peripheral outlet for the purified air, a second chamber to receive the air therefrom, said second chamber being also provided with a dust discharge and a peripheral outlet for the purified air, substantially as described.

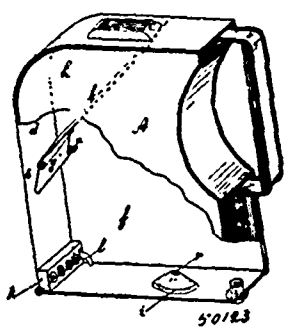
No. 50,122. Wind Mill. (*Moulin à vent.*)



Westley Henry Fletcher, London, assignee of Sarah Jane Rollason, South Hampstead, England, 1st October, 1895; 6 years.

Claim.—1st. The general arrangement of wind-mill hereinbefore described, comprising a wind wheel rotating round a vertical axis, a shield rotating round the same axis and automatically shifted by means of a vane and an external supporting framing outside both the wind wheel and the shield which may conveniently take the form of an open turret, substantially as described. 2nd. The arrangement for taking the weight of the shield with its spindle and vane, so that such weight does not come upon the working spindle of the wind wheel but is independently supported, substantially as described. 3rd. The combined arrangement for taking the weights of the shield, wind wheel and other moving parts so as to obviate friction, substantially as described. 4th. The construction of wind wheel with its concave sails *a*, ridges *c*, and openings *f*, substantially as described. 5th. The arrangement of the upper bearing O, of the wind wheel in combination with the spindle *l* of the shield or vane, substantially as described.

No. 50,123. Conductor's Box. (*Boîte pour conducteurs.*)



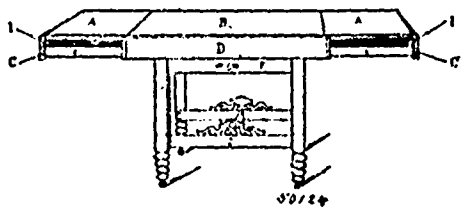
Patrick Coleman, Montreal, Quebec, Canada, 1st October, 1895; 6 years.

Claim.—1st. In a conductor's box A, the combination of the inclined division B, with the drop door G, dividing in two chambers H and F, as described. 2nd. In a conductor's box, the drop door G provided with a shoulder N, as described. 3rd. In a conductor's box, the conical or other box I, having a top hole R, for introducing shots or other like grains, as described. 4th. In a conductor's box, the combination of the register K, with lever L worked by the bottom of box A, such as described and for the purposes set forth.

No. 50,124. Extension Table. (*Table à rallonge.*)

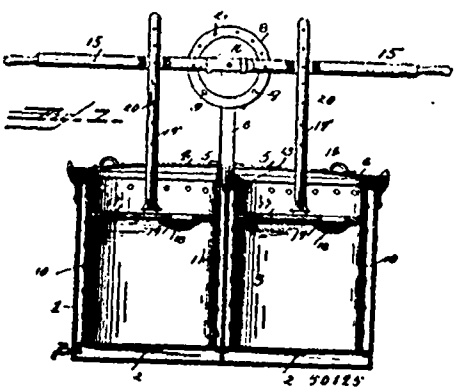
Jacob Stadelbauer Knechtel, Hanover, Ontario, Canada, 1st October, 1895; 6 years.

Claim.—1st. An extension table frame having four legs braced near their lower ends, cross-pieces G to which the top of the legs are secured, rims D secured to the ends of cross-pieces G, cross-piece K secured to rims D across the centre, partition H cut away at the lower end corners and secured to rims D, top B set in gains at the top of and secured to rims D, and blocks J fastened to cross-pieces G, all arranged and securely united, substantially as and for the purpose



set forth. 2nd. In combination with a table frame, as set forth, extensions at each end of the table frame each, comprising two slide bars E, having at their inner ends pins or stops, those of one end extension running inside of and against rims D, over cross-pieces G and K, and under the cut-away ends of of partition H, and those of the other end extension running inside of and against slide bars E, of the opposite extension over cross-pieces G and K, and under the cut-away ends against the shoulders or partition H, and against blocks J, rims C fastened to the outer ends of slide bars E, projecting above said slide bars E, and blocks I far enough to form a support for an extension leaf, blocks I on the outer top ends of slide bars E, to form a bearing for the table leaf, and a leaf supported by dowel pins in its edge to top B, and on blocks I at the outer edge, substantially as and for the purpose set forth.

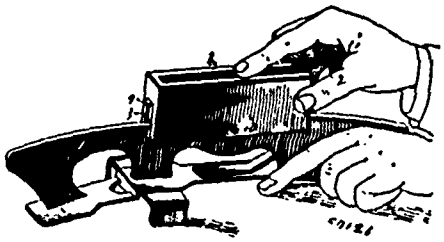
No. 50,125. Washing Machine. (*Machine à laver.*)



William Allen Wallingford, Bloomington, Indiana, U. S. A., 1st October, 1895; 6 years.

Claim.—1st. In a washing-machine, the combination with a tub provided with a false perforated bottom, and a partition extending from said bottom and dividing the tub into compartments and alternately vertically reciprocating pounders located in said compartments, substantially as described. 2nd In a washing-machine, the combination with a tub provided with a false perforated bottom and a partition extending from said bottom and dividing the tub into compartments, cylinders within said compartments and alternately vertically reciprocating pounders located in said cylinders, substantially as described. 3rd. In a washing-machine, the combination with a tub having a perforated false bottom, a partition extending upward from said bottom and dividing the tub into compartments, said partition at its upper end being provided with apertures and vertically reciprocating pounders located within said compartments, substantially as described. 4th. In a washing machine, the combination with a tub provided with a perforated false bottom, and a partition extending upward from said bottom, and having perforations near its upper end, of cylinders located within said compartments and provided with apertures in their upper ends, and vertically reciprocating pounders working within said cylinders, substantially as described. 5th. In a washing-machine, the combination with a tub having a perforated false bottom and a partition extending upward from said bottom and provided with apertures near its upper end, of cylinders located within said compartments and provided with apertures near their upper ends, said cylinders being provided with recesses in their interior walls to form rubbing surfaces, and vertically reciprocating pounders located within said cylinders, substantially as described. 6th. In a washing-machine, the combination with a tub provided with standards, circular jaws secured to said standards and spaced apart, stops arranged between said jaws, operating levers which lap each other and are pivoted to said standards, clips to lock the levers together, pounders connected with said levers and pins to be inserted in the segmental rows of apertures formed in said jaws, substantially as described.

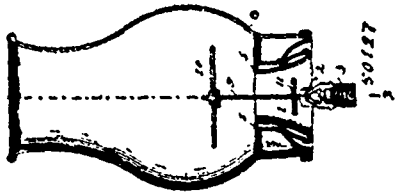
No. 50,126. Skate Plane. (*Rabot pour patins.*)



William B. Lynch, Philadelphia, Pennsylvania, U.S.A., 1st October, 1895; 6 years.

Claim.—1st. In a skate plane, the combination of a body open at the lower front end, and having a rearwardly extending head with a rear cross web, a reversible file mounted in said body and having a straight and a convex edge, a transverse rest bar at the front of the body and a thumb screw engaging the said web and the back of said file, the front end of said file being forced against the said rest bar, substantially as and for the purpose specified. 2nd. A skate plane comprising a body having depending flanges and a rear cross web, a rearwardly extending head attached to said web, the lower portion of the flange of the body on either one side or the other being provided with an opening to receive a screw or gauge, a reversible file mounted in said body, a transverse rest bar at the front of the body and a thumb screw mounted in the said web and bearing against said file, the front end of said file being forced against the said rest bar, substantially as and for the purposes specified.

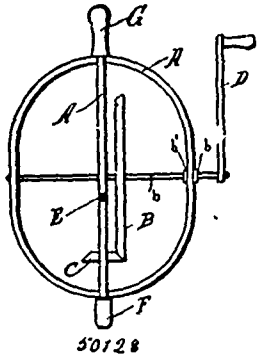
No. 50,127. Gas Burner. (*Bec à gaz.*)



John A. Crawford, Cyrus B. Angell and Wilson J. Willis, all of Findlay, Ohio, U.S.A., 1st October, 1895; 6 years.

Claim.—The combination, with a gas burner, of tubular construction having an annular gas outlet and a downwardly flared or bell-shaped inner shell open at its upper and lower ends to form a centre draft passage, of a fixed vertically threaded stem arranged axially in the centre draft passage and extending above the plane of the burner outlet, a disc valve threaded upon the stem within the centre draft passage and adapted by vertical adjustment therein to vary the area of the annular passage between its periphery and the flared or bell-shaped shell of the burner, and a deflector threaded upon the stem above the plane of the burner outlet and adapted to be vertically adjusted thereon to vary its distance from the plane of the burner, said deflector being of greater area than the burner whereby it extends at its periphery beyond the same, and having a flat under surface which serves to check and superheat the centre draft as it rises through the draft passage and direct it to the incandescent fuel in said heated condition, whereby sulphurous impurities in the gas are maintained at such a temperature as to be consumed and thus add to the illuminating power of the burner and prevent the escape of offensive odors, substantially as specified.

No. 50,128. Vilbrequin. (*Centre-bit.*)



Nazaire Arthur Demers, St. Nicholas, Québec, Canada, 1er Octobre, 1895; 6 ans.

Résumé.—La combinaison de la charpente A, A, munie de la poignée G, avec la manivelle D, les essieux *b*, *c*, les roues d'engrenage B, C, la barre transversale E, le tout tel que décrit et pour les fins indiquées.

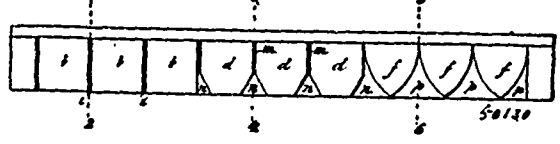
No. 50,129. Pneumatic Tire. (*Bandage pneumatique.*)

Fred. W. Morgan and Rufus Wright, assignees of Ernest W. Young, Chicago, Illinois, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. The combination with a pneumatic tire, of an inclosed patching ply or strip normally away from the tread portion of the tire and having attaching portions which are partially separated from the main portion of the ply or strip by cuts or slits, substantially as set forth. 2nd. An inflatible inner tube for a pneumatic tire provided with an internally arranged flexible patching-ply or strip having attaching portions which are partially separated from the body of the ply or strip by cuts or slits formed in such ply or strip, and said attaching portions being attached to the inner wall of the said air-tube so as to form flexible hinge connections, substantially as set forth. 3rd. An inflatible inner-tube for a pneumatic tire provided with an internally arranged flexible patching-ply or strip having elastic attaching portions which are partially separated from the body of the ply or strip by cuts or slits formed in the latter, and which are attached to the inner wall of said tube so as to provide flexible and elastic hinge connections, substantially as set forth. 4th. An inflatible inner tube for pneumatic tires having closed ends and provided with an internally arranged flexible patching-ply or strip having cuts or slits along its longitudinal edge portions and having its marginal portions a^1, alongside the cuts or slits attached to the inner wall of the said tube, substantially as described. 5th. The within described method of preparing repairable inner elastic tubes for pneumatic tires, consisting in distending the tube, arranging thereon a slitted patching-ply or strip such as set forth laterally stretching the strip at intervals along its longitudinal edge portions a^1, cementing parts of the stretched portions to the tube so as to leave stretched parts between the points of securement and the body of the ply or strip, and turning the tube so as to bring the ply or strip within the same.

No. 50,130. Carved Shingle Clapboard.
(*Planche à lambrisser.*)

FIG. 1



Levi H. Montross, Harry A. Montross and Fred L. Montross all of Camden, New Jersey, U.S.A., 2nd October, 1895; 6 years.

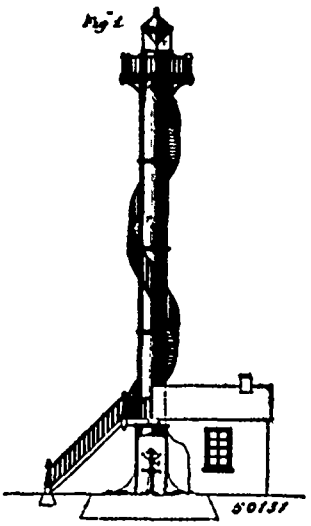
Claim.—1st. A clapboard or siding strip tapering in width from edge to edge, and having representations of shingles formed in relief upon its outer face, and having V-shaped dividing kerfs or recesses between said representations, flared or deepened so as to be shallower at the upper than at the lower ends, substantially as specified. 2nd. A tapered clapboard or siding strip, having representations of shingles formed in relief upon its outer face, and having between said representations dividing kerfs merging at their lower ends into more abruptly flared or deepened recesses, substantially as specified.

No. 50,131. Light Signal. (*Signal.*)

David Porter Heap, Portland, Maine, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. The combination with an upper reflector and means for sustaining it in an elevated position, of an illuminating apparatus at the base, consisting of a light and means for concentrating its rays into a beam, and directing the same on to the upper reflector which deflects the beam toward the horizon, substantially as described. 2nd. The combination with an upper reflector, and a supporting tower or mast sustaining the same in an elevated position, of an illuminating apparatus at the base consisting of a light, and means for concentrating its rays into a beam and directing the same on to the upper reflector which deflects the beam toward the horizon, substantially as described. 3rd. The combination with a supporting tower, of a reflector at its top and concentrator at its base,

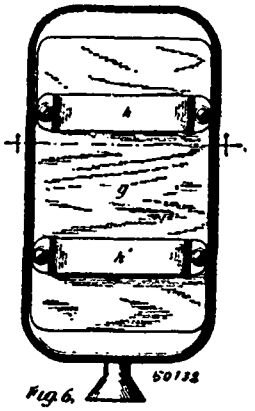
and a light interposed between them, substantially as described. 4th. The combination with a supporting tower, of a revol-



ving reflector at its top and at its base, a light and means for concentrating its rays into a beam and directing the same on to the revolving reflector which deflects the beam toward the horizon, substantially as described. 5th. The combination, with a tower supporting a reflector at its top, and having at its base a light and means for concentrating its rays into a beam, of means alternately obscuring and displaying the light from the upper reflector, substantially as described. 6th. The combination, with a tower supporting a reflector at its top, and having at its base a light and means for concentrating its rays into a beam, of a rotating damper operating to alternately obstruct and clear the path through which the light passes upward, substantially as described. 7th. The combination, with a tower supporting a reflector at its top, and having at its base a light and means for concentrating its rays into a beam, of a horizontally rotative wheel having opaque portions which obscure the light rays they intercept, substantially as described. 8th. The combination, with a supporting tower, of a revolving pyramoidal reflector at its top, and at its base, a light and means for concentrating its rays into a beam and directing the same onto the reflector, substantially as described. 9th. The combination, with a protecting deck and means for supporting the reflector above the same, of a light below said deck and means for concentrating its rays and directing the same onto the reflector, substantially as described. 10th. The combination, with a protective deck and a revolving deflector supported above the same, of a light below said deck, and means for concentrating its rays and directing the same onto the reflector, substantially as described.

No. 50,132. Water Bag. (*Sac à eau.*)

Fig. 5.

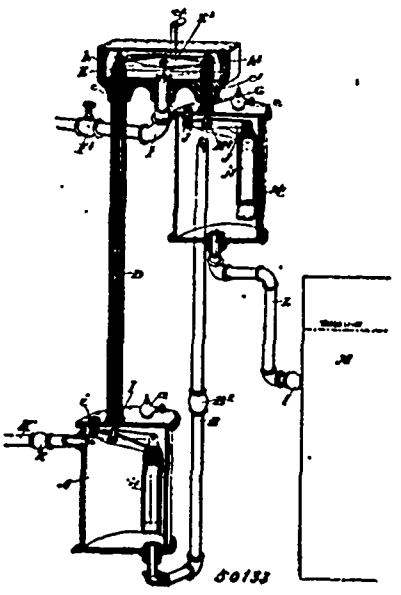


William H. Daly, Bayonne, New Jersey, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. The device for local application of heat or cold to any part of the body at will of the patient, herein described, consisting of a waterproof receptacle for holding water, formed and constructed to be attached to the human hand, and supplied on the exterior with means for receiving the hand, with the heat conducting surface outwards, substantially as shown and specified. 2nd. A device for communicating heat or cold to parts of the human body at the will of the patient, consisting of a water-pad or receptacle with means for filling and emptying the same, means for fitting and securing it to the human hand, and a heat non-conducting material applied over that part of the wall of the receptacle designed to come next to the palm of the hand for protecting the same, substantially as shown and specified. 3rd. A waterproof receptacle, having means for filling and emptying the same, and a cavity outside the liquid containing cavity adapted by size and form for the insertion of the human hand, whereby the said water-holding receptacle may be conveniently applied at will to portions of the body of the user and thus impart or abstract heat to or from the part so treated in a measure governed by the sensations of the user for hygienic purposes, substantially as shown and specified. 4th. A water-bag forming a cavity into which hot or cold liquids can be introduced, provided on one side with a glove or mitten-shaped receptacle formed to fit the human hand, whereby the said water-bag may be applied by the hand of the user to portions of the body for the purpose of imparting heat thereto or abstracting it therefrom in a measure governed by the sensations of the user, substantially as described. 5th. A water-bag forming a cavity into which hot or cold liquids can be introduced, provided on one side with a glove or mitten-shaped receptacle formed to fit the human hand, the side of said water-bag next the glove portion being provided with a heat non-conducting layer for protecting the hand, and the outer wall being formed of relatively good heat conductive material, substantially as described. 6th. In a water-pad for local application of heat or cold to the person of the operator, a fluid containing cavity having an outer impervious conductive wall, an inner impervious non-conductive wall, and means for attaching and holding the non-conductive wall in close contact with the palm of the hand of the operator, substantially as shown and specified.

No. 55,133. Return Water Trap and Boiler Feed.

(*Trappe à eau et alimentateur de chaudière.*)



William Norris, Toronto, Ontario, Canada, 2nd October, 1895; 5 years.

Claim.—1st. A combined return water trap and boiler feed comprising a cylinder connected to the water supply and to a corresponding cylinder situated above the water lever of the boiler and connected thereto, a steam chest connected by steam pipe to the boiler, pipes leading from the two cylinders to the steam chest, valves for the tops of these pipes and covering one at a time and means connected to the float in the cylinder for operating the valves, as and for the purpose specified. 2nd. The combination, with the cylinder A, pipes K and B provided with suitable valves, cylinder C, pipe L, of the steam chest E, connected by the pipes D and G, to the cylinder A and C respectively, steam pipe F leading to the steam chest, pivoted lever E^1, valves l and h^1, rods H and H^1, connecting the valves h and h^1, to the pivoted levers I and J, respectively to which suitable floats are secured, as and for the purpose specified. 3rd. The combination, with the cylinders A and C, and the steam chest connected therewith, and the pipes leading from the cylinders to the boiler, of the lever E^1 provided with valves over the ends of the pipes D and G, and the crank handle e^3, as and for the purpose specified.

No. 50,134. Cranes, Mortar Mills and Similar Apparatus. (*Grue, moulin à mortier, etc.*)

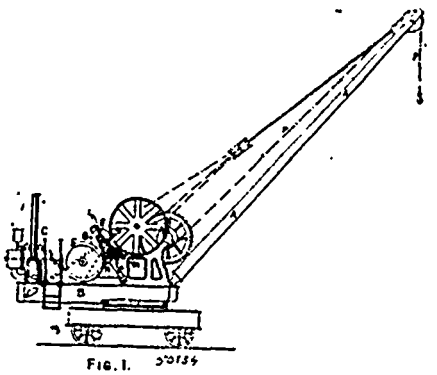


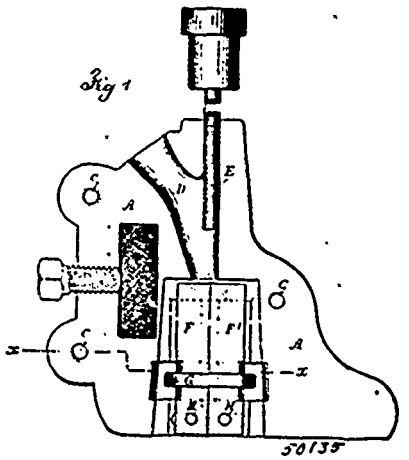
FIG. 1. 50134

Thomas Whitaker, Horsforth, York, England, 2nd October, 1895; 6 years.

Claim.—1st. The combination, with the crane A, provided with a friction wheel D, of the oil engine B attached thereto provided with a friction wheel E, the sliding frame F, and two sets of friction wheels G, H and H¹, interposed between the friction wheels D and E, and capable of being moved into and out of gear therewith, substantially as described. 2nd. A friction gearing for cranes, excavating apparatus and other machines comprising in its construction a sliding frame carrying friction wheels, two sets of friction wheels pivoted to the said frame, and pins upon which the friction wheels rotate, substantially as described. 3rd. The combination, with a crane A, and an oil engine B attached thereto, in substitution of a steam generator and cylinder and provided with friction wheels D and E respectively, of a movable frame F, two sets of friction wheels G, H and H¹ connected thereto by adjustable bearings, the spindles *g* and *h*, and the adjustable bearings K, the frame F capable of being moved to bring either set of the friction wheels into gear with those on the oil engine and frame, substantially as described.

No. 50,135. Box for Nail Driving Machines.

(*Boîte pour machines à chasser le clou.*)

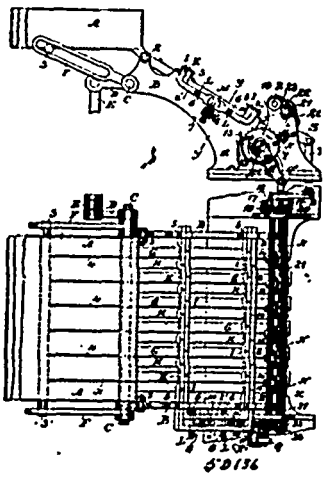


John Joseph Hayes, Flushing, New York, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. The combination with the plunger in a nail driving machine, of two-part dies adapted to receive the nail between them, supports for holding such dies and in which they are free to remain in the position to which they are moved by the punch, and a continuous elastic contractile band acting only to draw the dies towards each other, substantially as set forth. 2nd. In a nail-driving mechanism, the combination with the dies recessed for the reception of the nail and the plunger acting upon such nail, of a contractile rubber band surrounding the dies and acting to draw them towards each other, pins upon the dies, and a supporting box for the dies having slots for the pins and recessed for the reception of the dies and the contractile band, substantially as set forth.

No. 50,136. Feeder for Nailing Machines.

(*Alimentateur pour machines à chasser de clou.*)



50136

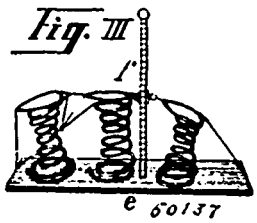
John Joseph Hayes, Flushing, New York, U.S.A., 2nd October 1895; 6 years.

Claim.—1st. The combination in a nail-feeding mechanism, of inclined bars in pairs, sets of crossing bars connecting the respective inclined bars together in two sets, end bars connecting the crossing bars, and mechanism acting between the end bars equally in both directions for adjusting the inclined bars to vary the width of the channel between such inclined bars by one adjustment so as not to change the relation of the nail channels to the other mechanism, substantially as set forth. 2nd. The combination in a nail-feeding mechanism, of the inclined bars G and H, the crossing bars I connected to the bars G, the crossing bars K connected to the bars H, the end bars I¹ connecting the cross bars I, the end bar K¹ connecting the cross bars K, a shaft with equal cam projections on each side to adjust the inclined bars and vary the width of the nail channels, and springs for pressing the parts towards the cam projections, substantially as set forth. 3rd. The combination in a nail-feeding mechanism, of inclined bars in pairs with the channels or raceways for the nails between them, a shaft passing across at right angles to the channels and having a screw-threaded groove for each channel and coinciding with the same, means for rotating such shaft progressively to carry the nails laterally from the lower ends of the respective channels and drop the same so as to be conveyed to the nail-driving mechanism, substantially as set forth. 4th. The combination in a nail-feeding mechanism, of inclined bars in pairs with the channels or raceways for the nails between them, a shaft at right angles to the channels, screw-thread grooves coinciding with the channels between the pairs of bars, a pinion, gear wheel, ratchet wheel and pawl and means for moving the pawl to give to the screw shaft a rotation for carrying the nails laterally away from the channels and dropping the same, substantially as set forth. 5th. In a nail-feeding mechanism the combination with inclined bars forming channels or raceways for the nails and a shaft at right angles to the channels and screw-thread grooves on such shaft for moving the nails laterally from the lower ends of the raceways and dropping the same, of fingers, collars and a shaft for supporting the fingers, clamping screws for holding the collars and fingers upon the shaft, and mechanism for partly turning the shaft periodically to move the fingers and allow the nails to slide down into the nail-delivering mechanism, substantially as set forth. 6th. In a nail-feeding mechanism the combination with the inclined bars forming channels or raceways for the nails and a shaft at right angles to such channels and screw-thread grooves for receiving the nails from the lower ends of the raceways and moving the same laterally for dropping them, of fingers, collars and a shaft for supporting the fingers, clamp screws for holding the collars and fingers upon the shaft, a shaft and toes for giving motion to the fingers, and mechanism for rotating the shaft progressively to bring the fingers into action every desired number of strokes of the nail-driving mechanism, substantially as set forth. 7th. The combination in a nail-feeding mechanism, of inclined bars that are L-shaped in section and set together in pairs to form between them the nail channels for suspending the nails by their heads and guiding the same vertically, a shaft at the lower ends of the inclined bars and at right angles to the same, screw-thread grooves for receiving the nails and means for rotating the shaft and screw-thread grooves that carry the nails away laterally from the inclined bars and dropping the same, substantially as set forth. 8th. The combination with the inclined bars having channels between them for the nails, of a shaft at the lower ends of the inclined bars and at right angles to the same, screw-thread grooves upon such shaft for the reception of the nails, means for rotating the shaft and screw threads to carry the nails laterally from the

channels, there being a notch in the lower end of one bar in each pair of bars through which the nail drops as it is delivered to the nailing machine, substantially as set forth.

No. 50,137. Spring Adjusting Apparatus.

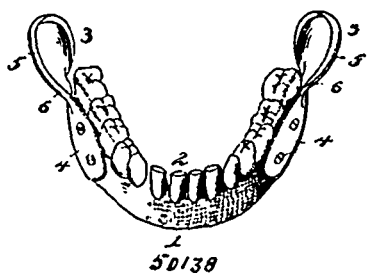
(*Appareil à ajuster les ressorts.*)



Jean Baptial Schlecht, 11 Bauerngasse, Mainz, Darnstad', Germany, 2nd October, 1895; 5 years.

Claim.—Spring adjuster, consisting of a metal rod *h*, of quadrangular cross section with metrical scale, a slide *a*, with securing screw *b*, and hooked-shaped projection c, for the purpose set forth.

No. 50,138. Artificial Teeth. (*Dent artificielle.*)



George Addison Johnston and Houston Monroe Carroll, San Antonio, Texas, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. In an artificial denture, a lower plate having retainers extending vertically from its inner or rear ends and above the plane of the biting edge of the teeth, substantially as described for the purpose set forth. 2nd. The combination with a lower set of artificial teeth, of retainers secured to the inner ends of the plate and having vertically-extend-ing portions which are concavo-convex, and which occur at oppositely-extending angles, substantially as set forth. 3rd. The combination with a lower set of artificial teeth, of retainers having curved shank portions which are attached to the inner ends of the plate, and having expanded portions which extend vertically and are concavo-convex, said expanded portions standing at opposite angles, substantially as set forth for the purpose described.

No. 50,139. Wood Bending Machine.

(*Machine à courber le bois.*)

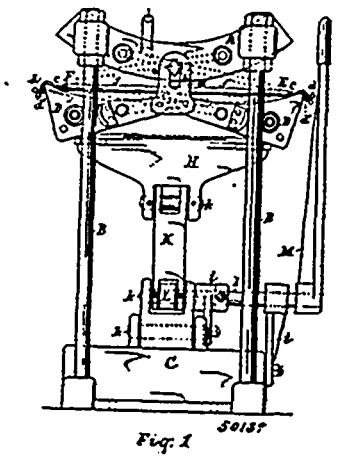
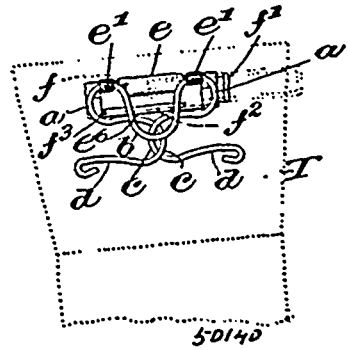


Fig. 1

Gustave Stickley, Syracuse, New York, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. The combination in a wood bending machine, of a convex die, a concave die divided centrally in two parts, said parts being pivoted together, each part being connected to the convex die and adapted to swing relatively to each other, and suitable means to move the said dies relatively to each other, as set forth. 2nd. The combination in a wood bending machine, of a stationary convex die, standards supporting said die horizontally, a concave die below the convex die and divided centrally and vertically in two rigid parts, the inner sides of the said parts being pivoted and connected together, and means to force the lower die toward the upper die, as set forth. 3rd. The combination in a wood bending machine of a convex die, a concave die divided centrally and longitudinally in two rigid parts, each part being pivoted at both ends, means to hold the center of the lower die a given distance from the upper die while the dies are separated further at their sides, and means also to force the dies together, as set forth. 4th. The combination in a wood bending machine, of a stationary horizontal die having its under side convexly formed, standards supporting said die, a movable horizontal die between the said standards below the first die and having a concave upper surface and divided vertically, centrally and longitudinally, a link secured to the stationary die at each end thereof, pivots on the ends of the concave die near its inner sides entering the said links, and suitable means to swing the sections of the divided die on its pivot toward the upper or stationary die, substantially as and for the purpose described. 5th. The combination in a wood bending machine, of a stationary horizontal die having its under side convexly formed, standards supporting said die a movable horizontal die between the said standards, below the first die and having a concave upper surface and divided vertically, centrally and longitudinally, a link secured to the stationary die at each end thereof, pivots on the ends of the concave die near its inner sides entering the said links, a base upon which the said standards are fixed, and a toggle mechanism mounted on the said base and supporting the sides of the lower die and adapted to raise and lower the same, as set forth. 6th. The combination in a wood bending machine, of a stationary horizontal die having its under side convexly formed, standards supporting said die, a movable horizontal die between the said standards, below the first die and having a concave upper surface and divided vertically, centrally and longitudinally, a link secured to the stationary die at each end thereof and pivoted to the ends of the concave die near its inner sides, a base upon which the said standards are fixed, toggle supports on the base, block H, connecting bars L L, rock-arms J J, shaft I, and lever M, substantially as shown and described. 7th. The combination in a wood bending machine, of a convex die, hangers on the ends of the said die, a concave die divided centrally and pivoted near its inner sides to said hangers, a plate to hold the work supported on the concave die and having its side edges bent down, screws passing through said edges and bearing against the sides of the concave die, and means to raise and lower the latter die, substantially as shown and described.

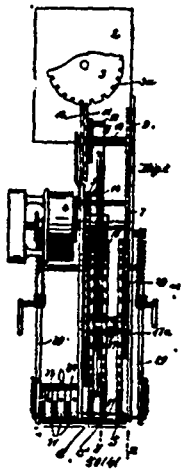
No. 50,140. Neck-tie Fastener. (*Attache de cravate.*)



Charles Mole, Boston, Massachusetts, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. An attaching device for neck-tie fasteners, consisting of a plate having a bearing and a keeper, a pin bent to form a shank longitudinally movable in said bearings, and retaining loops for the fastener, the keeper receiving the point of the pin after its passage through the material of the neck-tie, substantially as described. 2nd. An attaching device for neck-tie fasteners, consisting of a plate having a longitudinally slotted bearing, a keeper, a pin bent to form a shank adapted to slide in said bearing, a projection on the shank to enter the slot of the bearing and retain the shank therein, and a positioning prong to enter the material of the neck-tie, the keeper receiving the point of the pin when in operative position, substantially as described. 3rd. An attaching device for neck-tie fasteners, consisting of a plate having a long bearing, a short bearing and a keeper parallel thereto, a pin bent to form a handle and a shank, the latter entering the long bearing and the portion adjacent the point entering the short bearing, a prong to position the attaching device, and a button engaging portion connected to said device, the pin entering the material of the neck-tie between the short bearing and the keeper, substantially as described.

No. 50,141. Automatic Delivery of Cards Indicating the Time of Delivery. (*Livraison automatique de cartes indiquant l'heure de la livraison.*)



Edward Poning Dupuis, 31 Merseburgerstrasse, Halle-on-the-Saal, Prussia, German Empire, 2nd October, 1895; 6 years.

Claim.—1st. An apparatus for printing cards with the time marked thereon, consisting of the combination of the clockwork 2, the type wheels S, C^1, and C, having different movements 2 and 4, and a wheel drag 3, 3*a*, controlled by the movement of the clockwork 2, and driving the type wheels as and for the purpose specified. 2nd. The apparatus hereinbefore described consisting of the clockwork, the constantly moving notched wheel 3, the toothed wheels 11 and 12, the type wheel movement 4, held fast until either the tooth of the wheel 11 or wheel 12 has passed through one of the notches 3*a*, and the pin on the rotating type wheel operating as and for the purpose specified. 3rd. The combination with the mechanism for fast revolution of the type wheels C and C^1, for the forenoon and afternoon as per our indicator, of a lever 16, placed at the front of the type wheel movement and provided with a spring 18, which operates through a handle 13, the wheels 11 and 12 and the catch 25, fastened on the lever 16, connected with a ratchet 28 co-acting with the type wheels, as and for the purpose specified. 4th. The hereinbefore mentioned ratchet movement for the type wheels consisting of a lever 76 provided with a spring 78, having a notch or tooth 77*a*, which grips the teeth of a wheel 80, in the type wheel movement and holds it fast when the front portion of the lever is pressed down, in which position the lever 76 is held by a link 81, until a plate 84, upon the door 83, placed on the case of the apparatus is pressed against the link or latch 81, as and for the purpose specified. 5th. In an apparatus of the class described, a latch or bolt 73*b*, which through a balance weight 73*a* is sunk so that it rests against the operating bar 45, and grip lever 43 for the transport and printing of a card and releases these only after a coin or piece of money is in the receiver so that a printed card can be taken from the apparatus, as and for the purpose specified.

No. 50,142. Burners for Illuminating Gas.
(*Bec à gaz d'éclairage.*)

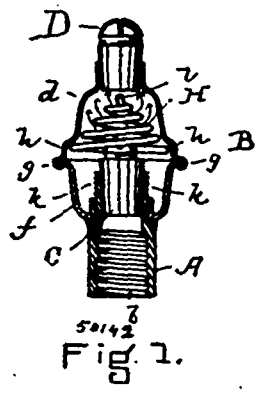


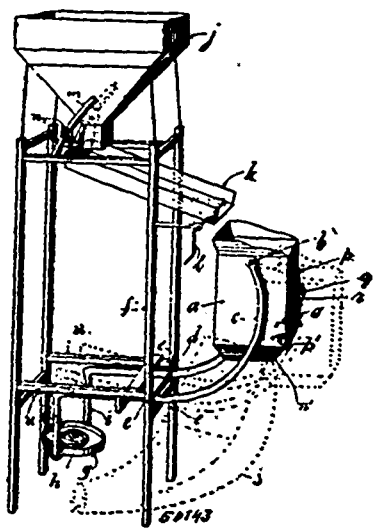
Fig. 1.

Charles Albert Shaw, Boston, Massachusetts, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. A gas burner comprising a chamber, an outlet tip therefor, an inlet tip projecting into said chamber and of less capacity than said outlet tip, and a cone-shaped wire coil disposed between said tips and extending substantially from one tip to the other, substantially as described. 2nd. In a gas burner the combination of an expansion chamber provided with an outlet tip, an inlet tip of less capacity than the outlet tip disposed in said chamber, and a cone-shaped wire coil disposed between said tips, substantially as described. 3rd. In a gas burner the combination of an expansion chamber provided with an outlet tip, a socket-piece, an inlet tip of less capacity than the outlet tip disposed in said socket-piece and detachable therefrom, and a metallic auxiliary heater for the gas disposed between said tips, substantially as described. 4th. A gas burner comprising an expansion chamber having an inner annular groove and provided with inlet and outlet tips, and a cone-shaped wire coil disposed between said inlet and outlet tips, the base of said cone resting in said annular groove and the apex thereof being disposed centrally in said chamber adjacent to the inner opening of one of said tips, substantially as described. 5th. In a gas burner the combination of an expansion chamber provided with an outlet tip, a detachable socket-piece, an inlet tip at the inner end of said socket-piece of less capacity than the outlet tip and normally disposed within said chamber, and a cone-shaped wire coil disposed within said chamber between said tips and terminating at its opposite ends adjacent said tips, substantially as described. 6th. In a gas burner the combination of an expansion chamber having an annular groove and provided with inlet and outlet tips, the inlet tip being of less capacity than the outlet tip, and a cone-shaped wire coil disposed between said tips, the base of said cone resting in said groove and the apex thereof being disposed centrally near the inner end of the inlet tip, substantially as described. 7th. In a gas burner the combination of an expansion chamber provided with an outlet tip, an interiorly disposed annular groove and an interiorly screw-threaded opening, a tubular socket-piece interiorly and exteriorly screw-threaded, said socket-piece being turned into the opening in said body and provided with an inlet tip at its inner end of less capacity than said outlet tip, and a cone-shaped wire coil disposed between said tips, substantially as described.

No. 50,143. Scale Weighing Machine. (*Balance.*)

Fig 1



Henry Burry Pullen-Burry, Liphook, Hampshire, England, 2nd October, 1895; 6 years.

Claim.—In scale weighing machines a curved or bent beam or beams working upon a suitable bearing and having at one end thereof a rest or support for the weight, and at the other end a receptacle or scale pan movably attached thereto, in combination with an adjustable feeder and hopper, and buffers for reducing the vibration.

No. 50,144. Toilet Paper Holder.
(*Porte-papier de toilette.*)

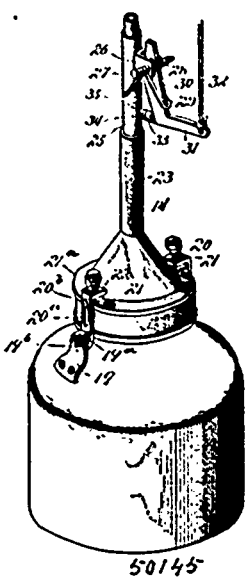
Jonathan Lucas, Charleston, South Carolina, U.S.A., 2nd October, 1895; 6 years.

Claim.—1st. As an article of manufacture, a case for toilet paper, having an inclining bottom upon which the paper is adapted to rest edgewise, and an opening at the lower end of the front extending nearly across the front out through which the paper is removed, substantially as set forth. 2nd. As an article of manufacture, a case for toilet paper having an inclining bottom and an opening in the front adjacent to the lowest point in the bottom out through which the paper is removed, and means for feeding the paper forward

toward the front of the case, substantially as set forth. 3rd. As an article of manufacture, a toilet paper case having an inclining bottom with an opening therein and an opening in the front adjacent to the bottom out through which the paper contained in the case is adapted to be removed, substantially as set forth. 4th. As an article of manufacture, a case for toilet paper having a bottom which slopes downward toward its front and has a small slot in its bottom and a large slot in its front, which extends nearly across the front of the case and is in communication with the slot in the bottom, a flap formed at the top of the case for opening and closing the top, and ear cut from the portion of this flap which forms the top whereby to suspend the case, and the elastic device secured at its ends to the front of the case and passed around in the rear of the paper whereby to hold the paper normally forward, substantially as set forth.

50144

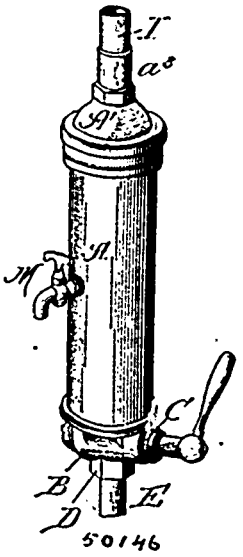
No. 50,145. Cleaner for Cisterns, etc.
(*Appareil à nettoyer les citernes, etc.*)


50145

Charles A. Butterfield, assignee of William A. Latham, both of Dewitt, Iowa, U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. In a cistern, well and tank cleaner, the combination of a hollow body portion having a valve-controlled opening in its bottom, engaging plates secured to opposite sides of the said body near its upper end, a top portion having a valve-controlled vent and removably fitted upon the upper end of the said hollow body, blocks secured to the said top portion at opposite points, slotted plates having their lower ends constructed to form connection with the said engaging plates and having their upper ends bent inward to extend over the said blocks, fastenings passing through the said slotted plates and having connection with the said blocks, and binding screws passing through the bent ends of the slotted plates and adapted to engage with the said blocks, substantially as described for the purpose set forth. 2nd. In a cistern cleaner, a main or body portion having an open upper end, a top portion fitted over the main or body portion and closing the upper end thereof, two hooks affixed to the outer side of the body portion and arranged oppositely thereon, two plates slidably mounted on the top portion and provided at their lower ends with projections respectively capable of engaging with the hooks on the body portion, and means for moving the plates upwardly on the top portion, whereby the said portion is clamped against the body, substantially as described. 3rd. The herein-specified cistern, well and tank cleaner, comprising a hollow body portion provided at its base with a valve-controlled inlet, and having its upper portion contracted, a movable cover for closing the contracted end of the hollow body, oppositely-disposed hooks attached to the sides of the hollow body, two plates adjustably connected with the cover and having outwardly-extending hooks at their lower ends to engage with the hooks on the sides of the hollow body, means for moving the plates upwardly on the cover, whereby the latter is clamped against the top edge of the hollow body, an operating pipe extending vertically from the cover and bracingly connected therewith at its lower end, and provided with a laterally-extending nipple, said pipe being closed above the nipple, and a valve for closing against the nipple and provided with means for unseating the said valve, substantially as described for the purpose set forth. 4th. A cistern, well and tank cleaner, consisting of a body portion provided at its lower end with a valve, a pair of oppositely-arranged hooks on the exterior sides of the body portion, a top portion fitting over the open upper end of the body portion and having two oppositely-arranged facing plates thereon, a valve in the top portion, two longitudinally-slotted plates connected to the respective facing plates of the top by fastening devices passing through the slots of the plates, and provided at their lower ends with hooks capable of locking with those on the body portion, and a set screw for each slotted plate and capable of moving the same up or down on the top portion, whereby said portion may be locked in place, substantially as described.

No. 50,146. Beer-Pipe Cleaner. (*Nettoyeur de tuyaux.*)

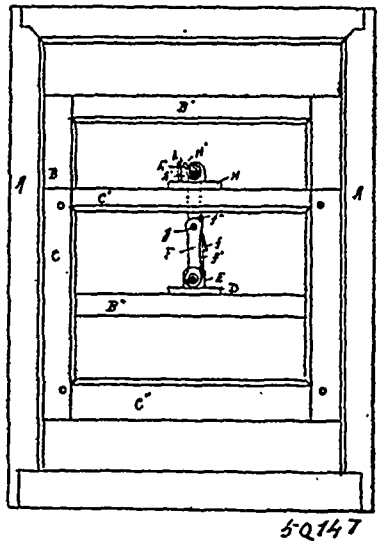

50146

Albert Bacon Ogden, Highlands, Colorado, and Charles Cummings, Cincinnati, Ohio, both in the U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. In a pipe cleaner, a case or receptacle divided longitudinally into two compartments by a partition, and having a valve casing arranged at the bottom of said case or receptacle, a two-way valve arranged in said case, the passages leading from the valve casing into the compartments at the bottom of said compartments, a cap arranged upon the top of the case or receptacle, and a pipe section arranged in the top of one of the compartments and projecting upward into the cap, substantially as shown and described, whereby the water passing through one of the compartments will be passed out through the cap without contacting with the contents of the other compartment. 2nd. In a pipe cleaner, the combination with a receptacle divided into two compartments and provided with passages from a valve chamber, of a valve having a plurality of ways, a cap for said receptacle, and a pipe section arranged in one of the compartments, and carrying a strainer or screen, substantially as shown and described. 3rd. In a pipe cleaner, a receptacle divided into compartments, and having passages leading thereto, the valve having a plurality of ways, the dome-shaped cap, the pipe

section arranged beneath the cap and at the top of one of the compartments, and the circular strainer arranged upon the upper portion of said pipe, all arranged substantially as shown and described. 4th. In a pipe cleaner, a receptacle or case divided longitudinally into two compartments by means of an integral partition, one of said compartments being adapted to contain an alkali and having a discharge cock about midway of its height, the valve casing arranged in the bottom of the case or receptacle, and carrying a two-way valve, independent communication being had between the valve casing and the separate compartments, the cap arranged upon the top of the receptacle or case, and the pipe section arranged in the top of one of the compartments, projecting upward into said cap, substantially as shown and described. 5th. An improved pipe cleaner, consisting of a receptacle formed into two compartments, and a valve casing, and having passages leading from the valve casing to the compartments, a valve arranged in the casing, the pipe section having a flange near one end and tubular at the opposite end, the circular strainer arranged upon said tubular end, the dome-shaped cap and draw-off cock, all arranged substantially as shown and described.

No. 50,147. Window Fastener. (*Arrête-croisée.*)



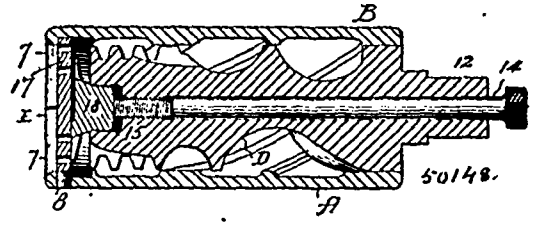
Ernest Peters, Tompkins, Michigan, assignee of Charles Fowler, Lowell, Massachusetts, both in the U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. The herein described window fastener, consisting of a fulcrum piece E pivoted to one of the sashes and a notched lock plate H secured to the other sash and having shoulder h^{11} combined with a link F pivoted to the piece E, and having a locking projection *f*, and a link G pivoted to the link F, substantially as and for the purpose set forth. 2nd. The herein described window fastener, consisting of a swinging fulcrum piece F loosely journalled in a plate on one of the sashes, and a lock plate H secured to the other sash, and having the notches *h*, h^1 and H^1, H^1, and shoulder h^{11}, combined with a link F, pivoted to the piece E and having a locking projection *f*, and a link G pivoted to the link F, and having a flattened projection G^1, adapted to be introduced in the notch H^1, and locked into the enlargement H^{11}, on the lock plate H, substantially as and for the purpose set forth. 3rd. The herein described window fastener, consisting of a pivoted fulcrum piece E on one of the sashes, and a notched locking plate H secured to the other sash, and having shoulder h^{11}, combined with a link F, pivoted to the piece E, and the link G pivoted to the link F, and means substantially as described for unlocking the fastening as well as for locking it crossway to or in a line locked in a partially open position as herein with the sashes and for holding the sashes, set forth and for the purpose specified. 4th. The herein described window fastener, consisting of a fulcrum piece E on one of the sashes and a notched locking piece H on the other sash, and having shoulder h^{11}, combined with a link F, pivoted to the piece E, and having a locking projection *f*, and side rib f^1, and a link G pivoted to the link F, substantially as and for the purpose set forth.

No. 50,148. Meat Cutter. (*Hachoir pour viande.*)

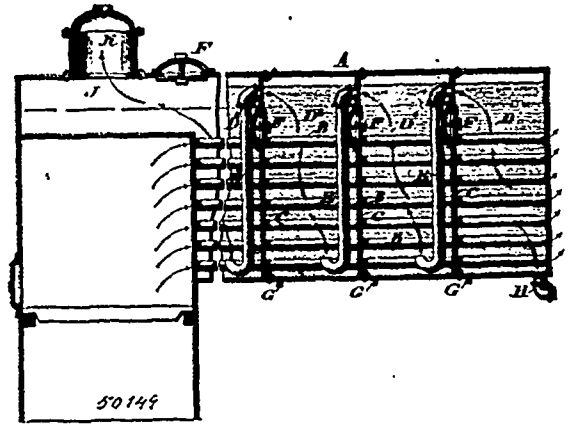
The Peck Stow and Wilcox Company, Southington, assignee of Robert Cosmos Ellrich, Hartford, both of Connecticut, U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. The combination of a meat cutter case, its screw, the knife fitted therein by an engaging angular recess and projection, the perforated plate and the screw adjusting rod extended through said screw for forming a step or pivot upon which the knife



may rock, substantially as described and for the purpose specified. 2nd. The combination of a longitudinally divided and separable case having a series of cutting elevations, a combined forcing and cutting screw having a series of peripheral grooves in bearing contact with said elevation, a perforated plate and knife, and an adjusting device for forcing said plate and knives against each other and at the same time forcing the cutting elevations and grooves of the screw and case into engagement, substantially as described and for the purpose specified.

No. 50,149. Feed Water Heater.
(*Réchauffeur de l'eau d'alimentation.*)



Henry Griffith, Keasbey, Ambler, Pennsylvania, U.S.A., 3rd October, 1895; 6 years.

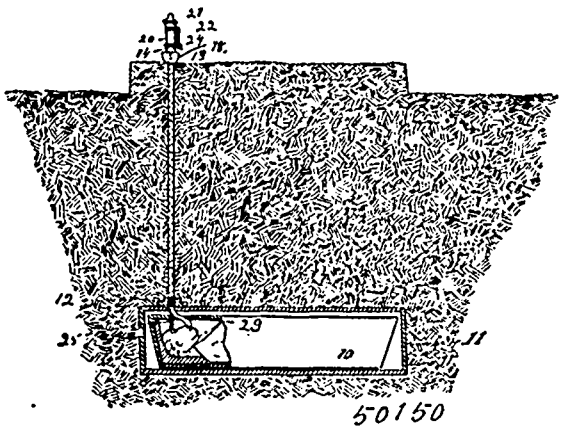
Claim.—1st. A shell with partitions therein forming separate chambers, pipes connected with said partitions forming a zig-zag passage for the water through the shell, and flues in said chambers with which the water contacts in its zig-zag course, said shell being connected with the flue of a steam boiler, and having the flues receive the gases or products of combustion therefrom, said parts being combined substantially as described, forming an improvement in feed water heaters, economizers and purifiers, as set forth. 2nd. A feed water heater consisting of a shell having partitions therein forming water chambers, flues passing therethrough, one end of said flues being adapted to be in communication with the flue of a steam boiler, and to receive the hot gases or products of combustion therefrom, the other end terminating in a chamber provided with a stack, pipes within said shell forming a communication between the top of a water chamber and the bottom of an adjacent water chamber, a water inlet pipe leading into the bottom of the water chamber farthest from the inlet end of the products of combustion, and a discharge pipe leading from the top of the water chamber nearest the inlet for said products of combustion, said parts being combined substantially as described. 3rd. A feed water heater and purifier, consisting of the shell A, having flues therein, one extremity of said flues terminating in a chamber at one end of said shell, said chamber being provided with a stack G, the other end of said shell being in communication with the flues of a boiler and adapted to receive the products of combustion therefrom, partitions C, C^1 and C^2 in said shell forming water chambers D, D^1, D^2, etc., and pipes E, E^1 and E^2 leading from the top of one water chamber to the bottom of another, a water supply pipe leading into the water chamber nearest the inlet end of said flues, said parts being combined substantially as described.

No. 50,150. Grave Signal. (*Signal pour fosses.*)

Hubert Devean, New York, State of New York, U.S.A., 3rd October, 1895; 6 years.

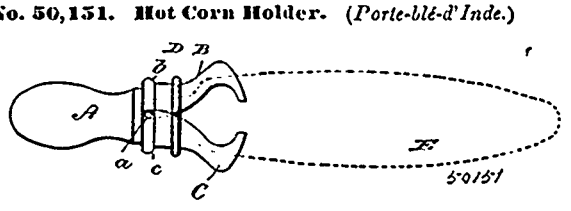
Claim.—1st. A grave signal comprising an air pipe adapted to communicate with the interior of a coffin, a movable rod extending longitudinally through the pipe and adapted to project into the coffin, and a valve secured to the said rod and adapted to normally cut off the air pipe from communication with the atmosphere, sub-

stantially as described. 2nd. A grave signal comprising an air pipe adapted to communicate with a coffin near the head end thereof, a



movable rod extending longitudinally through the pipe and adapted to project into the coffin to rest on the head of the buried person, a casing located at the upper end of the air pipe and communicating therewith, said casing having openings whereby it may communicate with the surrounding air, and a valve secured to the rod and adapted to normally close the said openings of the casing, substantially as described. 3rd. A grave signal comprising an air pipe adapted to communicate with the interior of a coffin, a movable rod extending longitudinally through the pipe and adapted to project into the coffin, a casing located at the upper end of the air pipe and communicating therewith, said casing having openings whereby it may communicate with the surrounding air, the casing being further provided with a transparent middle portion, a valve secured to the rod and adapted to normally lie in the lower portion of the casing and close the openings thereof, and a clutch to engage and hold the rod when raised, substantially as described. 4th. A grave signal comprising an air pipe, a case carried at the upper end of the pipe and provided with air ports in its lower part and with a transparent portion, a valve rod extending longitudinally through the pipe, and a combined valve and signal carried by the rod and adapted to normally close the ports in the case, substantially as described. 5th. A grave signal comprising an air pipe to connect with the top of a coffin, a case at the top of the pipe, the case having a transparent portion, air ports in its lower part and a projecting flange below the ports, a valve rod extending longitudinally through the pipe, a valve carried by the rod and adapted to normally close the ports, and a casing encircling the pipe and the lower end of the transparent case, the case being perforated to admit air, substantially as described. 6th. The combination with the case, the longitudinally movable guide rod and the air pipe containing the rod, of the forked clutch arranged adjacent to the rod and provided with teeth on the inner side to engage the rod, substantially as described.

No. 50,151. Hot Corn Holder. (*Porte-blé-d'Inde.*)



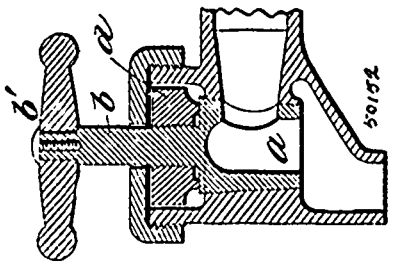
Paul Dinkelspiel, New York, State of New York, U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. A corn holder, consisting of a handle, a pair of jaws carried thereby to grasp an ear of corn, and means for holding the jaws upon the ear, substantially as described. 2nd. A corn holder, consisting of a handle, a pair of jaws carried thereby and pivoted together, and a ring surrounding said jaws to clamp them upon an ear of corn, substantially as described. 3rd. A corn holder, consisting of a handle, a pair of jaws carried thereby and having flanges *b*, *c*, at their inner ends, and a ring surrounding said jaws, substantially as described. 4th. A corn holder, consisting of a handle, a pair of jaws carried thereby and pivoted together, said jaws being curved and having inwardly projecting teeth at their outer ends and means for clamping said jaws upon an ear of corn, substantially as described.

No. 50,152. Valve. (*Soupape.*)

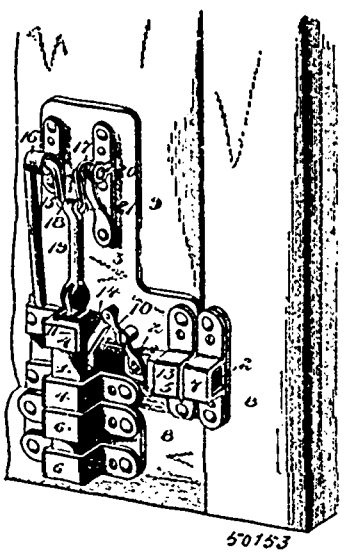
The Homestead Manufacturing Company, assignee of Harry Ellsworth Keyes, all of Homestead, Pennsylvania, U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. A cock, faucet, or other valve having a turning plug provided with a screw thread, and combined with a travelling nut moved up and down within the shell or casing as the said plug is rotated and adapted to be arrested by a fixed portion forming part



of or inserted in the shell or casing, to limit the closing movement of the plug and to insure the seating of the plug, and also arrested by contact with the plug to govern the opening movement of the plug, substantially as described. 2nd. A valve shell having an opening for the insertion of the valve proper or plug, a valve seat, and an inclosed leakage chamber at one end of said seat, combined with a valve proper or plug adapted to said seat and provided with a bottom opening leading into said plug, and a check valve arranged in said opening and opening away from the leakage chamber into said plug, substantially as described.

No. 50,153. Door Fastener. (*Fermeture de porte.*)



Mike P. Pirtle and John William Miller, both of Louisville, Kentucky, U.S.A., 3rd October, 1895; 6 years.

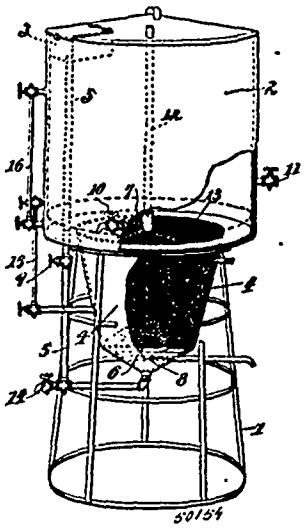
Claim.—1st. In a locking device, the combination of a pair of bolts mounted for reciprocation and arranged at right angles to each other, a straight lever fulcrumed intermediate of its ends and having one end pivotally connected to one of the bolts, a straight link connected to the other end of the lever and to the other bolt, a bar disposed longitudinally of the latter and connected with the same, and a crank-shaft connected with the bar and adapted to reciprocate the bolts and forming a lock for the same, substantially as described. 2nd. In a locking device, the combination of a pair of bolts of unequal length mounted for reciprocation and disposed at right angles to each other, a lever fulcrumed intermediate of its ends and arranged adjacent to the bolts, and having one end provided with an elongated opening, and connected with the shorter bolt by a pivot located in said opening, a link pivoted to the longer bolt, and provided at its other end with an opening, and connected with the other end of said lever by a pivot arranged in its opening, a crank-shaft having a crank bend connected with the longer bolt and adapted to reciprocate the same, and a spring for locking the crank-shaft against accidental movement, substantially as described.

No. 50,154. Oil Filter. (*Filtre pour l'huile.*)

Peter Brooks and P. S. Cassidy, both of Philadelphia, Pennsylvania, U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. The combination in an oil filter, with an oil reservoir provided with an outlet connection as 11, and with a depending filter chamber having filtering material fixed therein and having an opening at its bottom and a pipe applied to said opening for introducing oil and for discharging water, of a perforated cap mounted

over said opening, and perforated water pipes supported on said cap and embedded in and overlying said filtering material for flooding



said chamber to float the supernatant oil in the reservoir and for introducing jets through and upon the filtering material, substantially as described. 2nd. The combination in an oil filter, with a filter chamber depending from an oil reservoir and having filtering material fixed therein and having an opening at its bottom for introducing oil and for discharging water, of a perforated cap mounted over said opening, and perforated water pipes supported on said cap and embedded in and overlying said filtering material for flooding said chamber to float the supernatant oil in the reservoir and for introducing jets radially through and upon the filtering material, substantially as described. 3rd. The combination in an oil filter, with a filter chamber depending from and communicating with an oil reservoir, of a pipe leading from an oil receptacle and opening into said chamber and provided with an oil valve and with a spigot, a perforated cap and a gauze netting and interposed filtering material mounted in said chamber and above the open end of said pipe, a radially perforated water induction pipe resting on said cap and embedded in the filtering material, horizontal, tubular or pipe-like arms radiating from said pipe and overlying the filtering material and provided on their under sides with perforations, and a steam coil beneath the perforated cap, substantially as described. 4th. The combination with a filter chamber and a pipe communicating with its base, of a perforated cap mounted on the floor of said chamber and over the open end of said pipe, filtering material resting on said cap, and a vertical water pipe mounted on the cap and embedded in the filtering material and radially perforated, substantially as described.

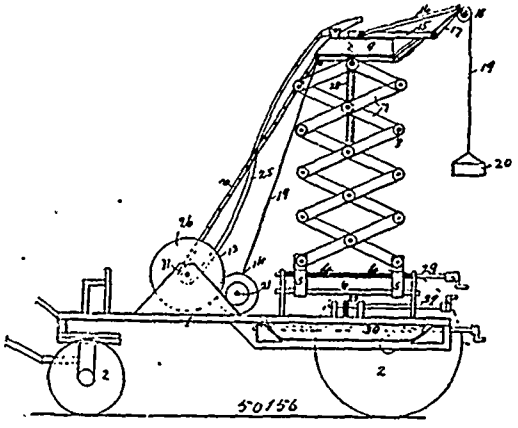
No. 50,155. Production of Ferments.

(*Production d'effervescences.*)

Jokichi Takamine, Chicago, Illinois, U.S.A., 3rd October, 1895; 6 years.

Claim.—1st. The process of preparing and making diastatic enzyme, that is, an amylolitic ferment, which consists in sowing the seed spores of a suitable fungus upon a suitable base, subjecting the mass to suitable conditions of temperature and humidity to allow the fungus to develop, then extracting the soluble matter contained in the mass, and finally, separating from the extract the diastatic matter contained therein, as and for the purpose set forth. 2nd. The process of preparing and making diastatic enzyme, that is, an amylolitic ferment, which consists in sowing the seed spores of a suitable fungus upon a suitable base or soil, then subjecting the mass to proper conditions of temperature and humidity, to allow the fungus to develop, then treating the same with water to extract therefrom the soluble matter contained therein, then treating the watery extract with alcohol to precipitate therefrom the solid matter contained therein, and finally, washing and drying the precipitate, substantially as and for the purpose set forth. 3rd. The process which consists in sowing the seed spores of a suitable fungus upon a suitable base, then subjecting the mass to proper conditions of humidity and temperature to allow the fungus to develop, then mixing with the mass raw, untreated base, then making an extract from the mixed masses, and then separating the solid matter contained in the extract, and finally, washing and drying said solid matter, all substantially as and for the purpose set forth. 4th. The process which consists in sowing the seed spores of a suitable fungus upon a suitable base or soil, then subjecting the mass to suitable conditions of temperature and humidity to allow the fungus to develop, then extracting the soluble matter contained therein, then extracting the soluble matter contained in a mass of raw untreated base, then separating out the solid matter contained in said two extracts, either before or after mixing said extracts, and finally, mixing, washing and drying said solid matter, as and for the purpose set forth. 5th. As a new article of commerce, diastatic enzyme, an isolated amylolitic ferment, as a converting agent in the form of a solid amorphous mass, possessing the power of converting hydrolized starch into sugar, and giving an inappreciable blue coloration when treated with tincture of guiacum and hydrogen peroxide, and obtained from a mass upon and throughout which has been developed a fungus growth, *or the mixture of such a mass with a similar mass upon* which a fungus growth has not been developed, by extracting the soluble matter contained therein in said masses separately, and then treating such extract or extracts to obtain the solid matter contained therein, as and for the purpose set forth. 6th. The process of preparing and mixing diastatic enzyme, that is, an amylolitic ferment, which consists in sowing the seed spores of a suitable fungus upon a suitable base, subjecting the mass to suitable conditions of temperature and humidity to allow the fungus to develop, then extracting the soluble matter contained in the mass, then concentrating the extract by treating fresh quantities of the mass with said extract, and, finally, separating the solid matter contained in the concentrated solution, as and for the purpose set forth. 7th. The process of making ferments, which consists in treating taka-koji with water, as and for the purpose set forth. 8th. The process of making a concentrated ferment, which consists in repeatedly treating fresh quantities of taka-koji with the same solution, as and for the purpose set forth. 9th. The process of making a converting agent, which consists in treating with water a mixture of taka-koji and raw grains or brans, as and for the purpose set forth. 10th. The process of making a converting agent, which consists in treating taka-koji with water, then treating raw grains or brans with water, and finally mixing said solutions, as and for the purpose set forth. 11th. The process of making ferments, which consists in extracting the soluble matter contained in taka-koji, as and for the purpose set forth. 12th. The process of making ferments, which consists in extracting the soluble matter contained in a mixture of taka-koji and brans or raw grains, as set forth. 13th. The process of making ferments, which consists in extracting the soluble matter of taka-koji, then extracting the soluble matter contained in raw grains or brans, and finally mixing said extracts, as and for the purpose set forth. 14th. As an article of manufacture, a ferment or converting agent comprising an extract of the soluble matter of taka-koji or taka-koji and brans, or raw brans, as set forth. 15th. The process of making ferments, which consists in extracting the soluble matter of taka-koji, and finally evaporating such extract, as and for the purpose set forth.

No. 50,156. Ladder Fire Escape. (*Echelle de sauvetage.*)



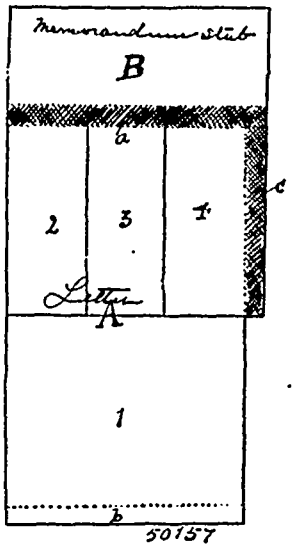
Jean François Chazotte et Adjuteur Carmel, Montréal, Québec, Canada, 3 octobre 1895; 6 ans.

Résumé.—1° La combinaison d'un tablier 9, portant une passerelle tournante 15, et échelle 17, et élevé à une hauteur quelconque à l'aide d'une charpente parallélogramme 7, qui est allongée par une vis de rappel 4, et portant une échelle flexible 10. 2° De boyaux 25, qui étant fixés au haut de l'échelle montent avec celle-ci, en se déroulant de leurs tambours 26. 3° D'un panier de sauvetage 20, pendu à un câble 19, et qui est monté ou descendu à l'aide du tambour 14. 4° Des leviers qui introduisent des coins entre les essieux et la charpente de la voiture, à fin d'alléger les ressorts de la charge, et de rendre la charpente plus solide. 5° Les grippes 32, qui supportent le derrière de la voiture, la rendent solide et fixe au sol.

No. 50,157. Combined Letter-heads, Bill-heads, Receipts with a Stub Attachment and Envelope, and means of Advertising.
(*Entête de lettre, de billet, d'enveloppe, et moyen d'annoncer.*)

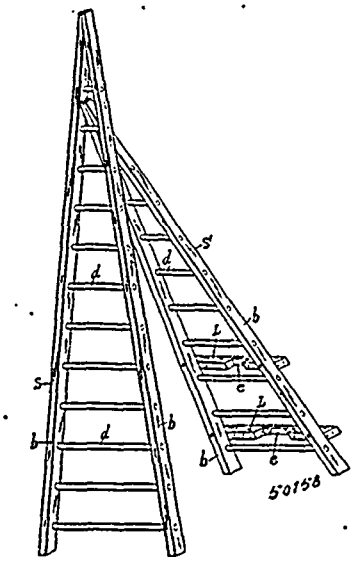
Henry Eummeleu, Vancouver, British Columbia, 3rd October, 1895; 6 years.

Claim.—In a single sheet of paper the combination of the memorandum stub B, the letter or bill-head sheet A, with the address



space C, and the advertising space D, on the back, as and for the purposes substantially as set forth.

No. 50,158. Fruit Picking and Step Ladder.
(*Cueilloir pour les fruits et echelle à marches.*)



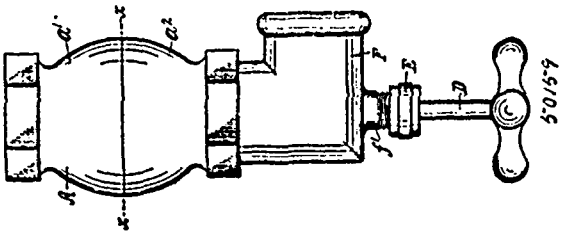
David Spicer, Exeter, Ontario, Canada, 3rd October, 1895; 6 years.

Claim.—The sections S S¹, having inclined side bars *b*, in combination with the lock bar or bars L, in which sockets *c*, are formed, substantially as and for the purpose set forth.

No. 50,159. Valve. (*Soupape.*)

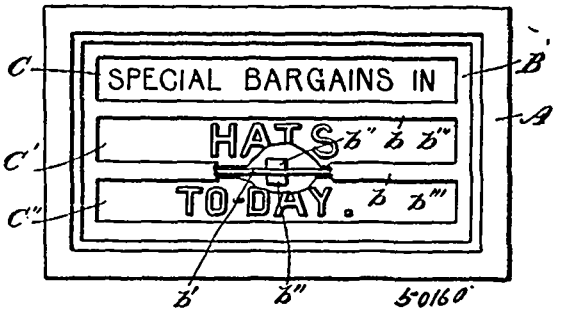
John C. Fountain, Parkhill, Ontario, Canada, 3rd October, 1895; 6 years.

Claim.—1st. The valve chamber A, formed of two parts, and with the valve seat b^1, and provided with the cross piece or bridge G, in which the opening g^1, is formed, in combination with valve B, provided with a stem C, substantially as and for the purpose set forth. 2nd. The valve chamber A, formed with the valve seat b^1, and provided with the cross piece or bridge G, in which an opening g^1, is formed, and the elbow F, provided with the extension f^1, and stuffing box E, in combination with the valve B, provided with the stem C, and spindle D, substantially as and for the purpose set forth. 3rd. The valve chamber A, formed with the valve seat b^1, and provided with the cross piece or bridge G, in which an opening g^1, is formed, and the elbow F, provided with the extension f^1, in which



a screw thread c^1, is formed, and the stuffing box E, in combination with the valve B, provided with a stem C, and spindle D, formed with a screw thread d^1, substantially as and for the purpose set forth. 4th. The valve chamber A, formed with the valve seat b^1, and provided with the cross piece or bridge G, in which an opening g^1, is formed, the elbow F, provided with the extension f^1, the stuffing box E, the valve B, the stem C, and the spindle D, in combination with the supplemental elbow F^2, provided with the extension f^1, in which the screw thread c^1, is formed, and the supplemental spindle D^2, formed with the screw thread d^1, substantially as and for the purpose set forth.

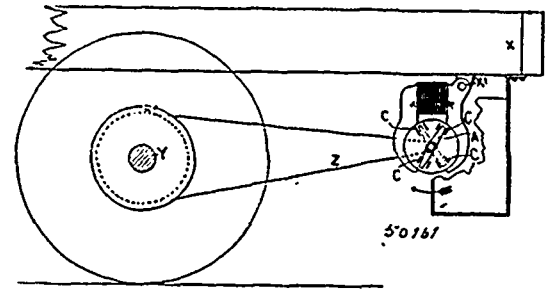
No. 50,160. Advertising Device. (*Appareil d'annonce.*)



William A. Thompson, Toronto, Ontario, Canada, 3rd October, 1895; 6 years.

Claim.—1st. The combination of a frame A, facing B, contained therein and having bars *b*, with ridges b^1, and lugs b^{11}, said bars forming open spaces b^{111}, and interchangeble cards or panels adapted to be held in said open spaces and bearing words or other devices adapted to be combined into legends, substantially as set forth. 2nd. The combination of a frame consisting of a facing B, having bars *b*, with ridges b^1, and lugs b^{11}, said bars forming open spaces b^{111}, and interchangeable cards or panels adapted to be held in said open spaces and bearing words or other devices adapted to be combined into legends, substantially as set forth.

No. 50,161. Dynamo. (*Dynamo.*)

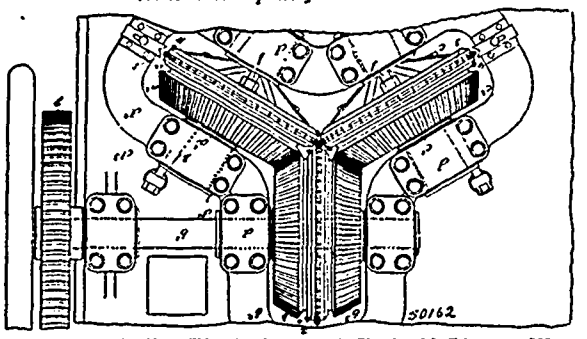


J. Stone & Company, assignee of Edwin James Preston and Arthur Barnard Gill, all of Deptford, England, 3rd October, 1895; 6 years.

Claim.—1st. The mode of automatically limiting the speed of rotation of a dynamo consisting in suspending the dynamo from a fulcrum and driving it by friction so adjusted or proportioned that when a certain predetermined speed has been attained no further increase of speed and output of the dynamo takes place, substantially as set forth. 2nd. The means for automatically limiting the speed of rotation of the dynamo consisting in a device for suspending the dynamo, in combination with a pulley on the dynamo shaft, a pulley on the driving shaft or carriage axle, all so proportioned that when a certain predetermined speed has been attained the strap slips, and no further increase of speed takes place, substantially as set forth. 3rd. The combination of a dynamo, suspended and driven as described, a rocking switch lever, mounted freely on its

shaft and provided with suitable contact plugs, contacts and stops on the dynamo framing, electrical circuit connections therefrom to the brushes, the battery and the lamps or other current receivers, and a centrifugal governor fixed on the dynamo shaft provided with retractile spring and connected to the rocking switch lever, the plugs of which latter when the dynamo is stopped are pulled out of their contacts by the governor or its retractile spring, and when the dynamo thereupon is reversed the switch lever is carried round by friction with the shaft until it comes against a stop and is next pushed into new contacts by the governor, so that the speed of the dynamo is automatically limited so as not to exceed a certain maximum rate, and so that at a lower speed and at rest current is supplied from the battery, while the direction of the current is automatically reversed when the direction of rotation is reversed, substantially as set forth. 4th. The combination of a dynamo, the brushes P, P^1, a rocking switch lever A mounted freely on its shaft and provided with contact plugs B, B^1, and cone sleeve H, contacts C^x, C, C^0, C^1 and C^2, and stops on the dynamo framing, electrical circuit connections therefrom to the brushes, the battery M and the lamps N, the centrifugal governor D, D^1, D^x, with spring O, and the cone sleeve H against the governor arms D^x act, substantially as and for the purpose set forth. 5th. The combination of the dynamo, the switch lever A, with contact plugs B, B^1, and cone-sleeve H, contacts C^x, C, C^0, C^1 and C^2 and stops, the centrifugal governor D, D^1, D^x, with spring O, the lever E, contacts G and resistance L, and electrical circuit connections between the latter, the battery M, the brushes P, P^1, and the aforesaid contacts C, substantially as set forth. 6th. The combination of the dynamo brushes, the battery, the automatic reversing switch, the contacts operating therewith by means of the governor, the electrical circuit connections with the said elements, and a sliding bar switch inserted in said circuits with a resistance, substantially as and for the purpose set forth. 7th. A field magnet of the dynamo, in combination with an armature which is released therefrom when the magnet is demagnetized, and a cock or valve for admitting lubricating material from a supply vessel to the dynamo shaft bearings, substantially as and for the purpose set forth. 8th. The reversing switch lever A, a flange F on its boss or sleeve, and a rod *d* engaging therewith, and a cock or valve for admitting lubricating material from a supply vessel to the dynamo shaft bearings, substantially as and for the purpose set forth.

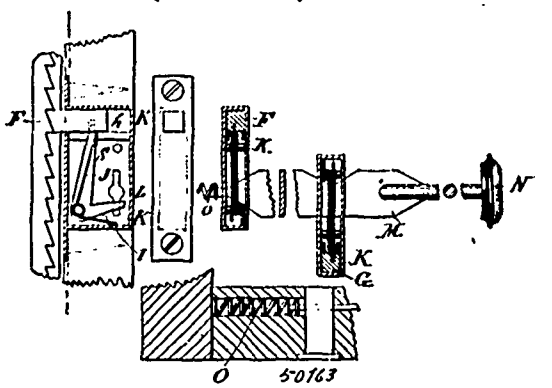
No. 50,162. Machinery for the Manufacture of Nails and Spikes. (*Machine pour la fabrication de clous et crampons.*)



Hiram Emery Fuller, Birmingham, and Reginald Livesey, Wimbledon, London, both in England, 4th October, 1895; 6 years.

Claim.—1st. In machinery for the manufacture of nails and spikes from wire or rod lengths, three or more radial rolls disposed on a plane, and with their peripheries set up with shaping and cutting dies, substantially as described and set forth. 2nd. In machinery for the manufacture of nails and spikes from wire or rod metal three or more radially disposed rolls on a plane, with their peripheries set up with series of recessed blocks adapted to come together at the nit and form continuous dies, whereby the metal of the rod or wire employed is displaced and shaped into nails or spikes, and a cutter at the end of each die for severing and delivering the shaped nails or spikes, substantially as described and set forth. 3rd. In machinery for the manufacture of nails or spikes, the combination with the die carrying rolls, or cross-bolts *j*, taking through elongated slots j^2, in the faces of the rolls for adjusting the relative positions of the acting faces of the dies, or the recessed blocks constituting the continuous dies, substantially as described and set forth. 4th. In machinery for the manufacture of nails and spikes, the combination with the die carrying rolls, of set pins the ends of which impinge upon inclined planes formed within or carried by said die carrying rolls for finally adjusting the relative positions of the acting faces of the recessed blocks constituting the continuous dies, substantially as described and shown. 5th. In machinery for the manufacture of nails and spikes from wire or rod lengths, the combination of die-carrying rolls *a*, *b*, *c*, having a series of contiguous dies in their peripheries and suitably carried, gear wheels a^2, b^2, b^1 and c^2, set pins 4, cutter points h^2, cross-bolts *j*, slots j^2, with or without wedges *k*, and suitable driving mechanism, all substantially as shown and described and for the purpose set forth.

No 50,163. Fastening for Window Sashes and Sliding Doors. (*Arrête pour châssis de fenêtre et porte à coulisse.*)

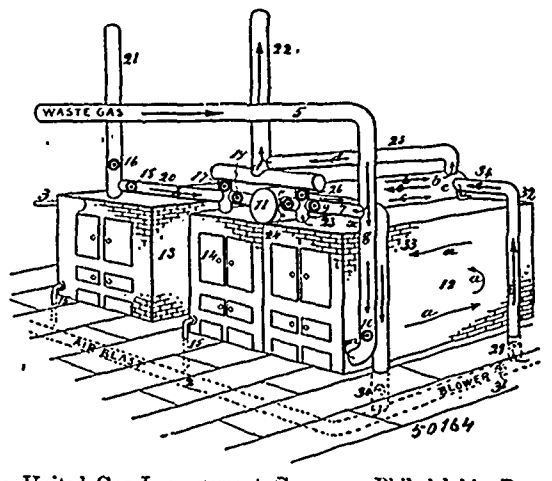


David Arthur Crichton, Los Angeles, California, U.S.A., 4th October, 1895; 6 years.

Claim.—1st. The combination of a sash having an edge rack, a case in the window frame having a sliding spring held bolt to engage the rack, means, substantially as described, for withdrawing the bolt, the case and window frame having a key opening, an expansive spring at the inner end of said opening, and a sliding key provided with inclined edges to act on said bolt and controlling means, substantially as described. 2nd. The sash lock comprising a case, a spring held bolt therein, the bell crank lever fulcrumed therein with one arm engaging the bolt to throw the same, the case provided with an opening opposite the short arm of said lever, and the sliding key having an inclined edge to engage said short arm and swing the bell crank lever, substantially as described.

No. 50,164. Water Gas Apparatus.

(*Appareil de gaz à eau.*)

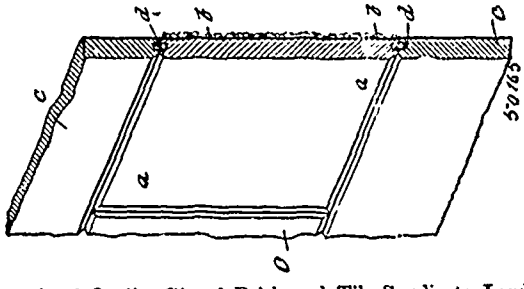


The United Gas Improvement Company, Philadelphia, Pennsylvania, assignee of John Morrell, Rusby, Jersey, New Jersey, both in the U.S.A., 4th October, 1895; 6 years.

Claim.—1st. In combination, a water gas apparatus alternately cooled by the production of water gas and re-heated giving rise to waste gas, air and water heaters appertaining to and co-operating with said water gas apparatus, and a by-pass for distributing waste gas from said water gas apparatus among its air and water heaters, substantially as described. 2nd. In combination, a water gas apparatus alternately cooled by the production of water gas and reheated giving rise to waste gas, air and water heaters co-operating with and appertaining to said water gas apparatus, and a by-pass and valve connections for apportioning waste gas from the water gas apparatus among its air and water heaters, substantially as described. 3rd. In combination, a water gas apparatus, an air heater, water heaters whereof some are fired, connections for conveying hot products of combustion from the last mentioned water heaters to the air heater, and a by-pass for distributing heated gas from the water gas apparatus among the air heater and remaining waters, substantially as described. 4th. In combination, a water gas apparatus, an air heater, a water heater, a by-pass for apportioning heated gas from the water gas apparatus among the air and water heaters, and separate pipe connections from the water and air heaters to the boiler off-take, substantially as described. 5th. In a gas apparatus, the combination of a furnace, air and water heaters and their pipe

connections for alternately supplying heated air and steam to said furnace and a by-pass for apportioning waste gas from the furnace among the separate air and water heaters, substantially as described. 6th. The combination in a water gas apparatus of, a fixing chamber provided with a water gas off-take and with a discharge stack, a conduit and by-pass for conveying waste gas from said stack and apportioning the same among the water and air heaters that appertain to and co-operate with the water gas apparatus, and valve connections for opening communication with the stack and closing communication with the conduit during the production of water gas whereby leakage of the latter is prevented from entering the heaters and escapes into the stack, substantially as described. 7th. In combination, a water gas apparatus, a conduit and by-pass for conveying waste gas from the stack thereof and apportioning the same among water and air heaters, and a door in the stack, substantially as described. 8th. In combination, a water gas apparatus, a conduit and by-pass for conveying waste gas from the stack thereof and apportioning the same among water and air heaters, a door in the stack, and injector or steam jet exhauster discharging steam or air through the air heater, substantially as described.

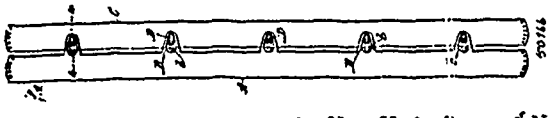
No. 50,165. Fancy Brick, Etc. (*Brique de fantaisie, etc.*)



The National Opalite Glazed Brick and Tile Syndicate, London, assignee of Anthony Shelmerdine, Liverpool, all in England, 4th October, 1895; 6 years.

Claim.—1st. The herein described improvement connected with fancy or ornamental tiles, slabs and bricks, produced by attaching by means of a suitable cement a facing consisting of tablets or pieces of glass having a granular backing provided thereon, substantially as described. 2nd. A tablet of glass as opal or coloured or partly coloured glass, having or being provided with a granular back, consisting of broken glass fixed thereon by a fluxing material and by subjecting same to an artificial temperature, substantially and for the purposes as described.

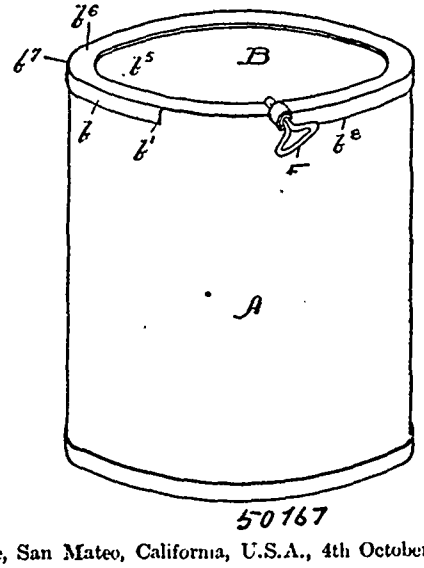
No. 50,166. Corset Steel. (*Tige de corset.*)



Oswald Francis Emanuel Borchardt, New York, State of New York, U.S.A., 4th October, 1895; 6 years.

Claim.—1st. A device for fastening or securing corset steels, consisting of a sliding plate or bar connected with one side of one of said steels, and hooks pivotally connected with one of said steels and with links which are pivotally connected with said sliding bar, and means for operating said bar so as to turn said hooks so that they will pass through the eyes or openings connected with the opposite steel and lock the separate steels together, substantially as shown and described. 2nd. A device for fastening or securing corset steels, consisting of a sliding plate or bar connected with one side of one of said steels, and hooks pivotally connected with one of said steels by links which are pivotally connected with said sliding bar, and means for operating said bar so as to turn said hooks so that they will pass through the eyes or openings formed in the opposite steel and lock the separate steels together, said sliding bar being provided with vertical slots through which the pivotal pins which connect the links therewith pass, substantially as shown and described. 3rd. The combination, with corset steels, one of which is provided with projections having eyes or openings formed therein, of hooks pivotally connected with the other steel, opposite said eyes or openings, a sliding plate or bar pivotally connected with said hooks by means of links which are pivotally with the hooks, and with said sliding bar, whereby when the bar is operated, the hooks will be turned so as to pass through the eyes or openings and lock the separate steels together, substantially as shown and described. 4th. The combination with corset steels, one of which is provided with projections having eyes or openings formed therein, of hooks pivotally connected with the other steel, adapted to be pased through said eyes or openings, each of said hooks being in operative connection with means by which they can be turned so as to enter the said eyes or openings, and securely lock the steels together, substantially as shown and described. 5th. The combination with corset steels, one of which is provided with projections having eyes or openings formed therein, of hooks pivotally connected with the other steel, adapted to be passed through said eyes or openings, each of said hooks being in operative connection with means by which they can be turned so as to enter the said eyes or openings, securely lock the steels together, said means consisting of a sliding bar which is connected with said hooks by means of links which are pivotally connected with said sliding bar, substantially as shown and described. 6th. The combination with a pair of corset steels, one of which is provided with projections having eyes or openings therein, of hooks pivotally connected with the other steel, and secured to links which are pivotally connected with the sliding plate or bar, said plate or bar being provided with notches or recesses, the lower walls of a portion of which are directed downward and the upper walls of the other being directed upward, pins connected with said steels to which the sliding plate or bar is connected, and adapted to operate in said notches or recesses, and means for operating said sliding bar, substantially as shown and described. 7th. The combination with a pair of corset steels, one of which is provided with projections having eyes or openings therein, of hooks pivotally connected with the other steel, and secured to links which are pivotally connected with the sliding plate or bar, said plate or bar being provided with notches or recesses, the lower walls of a portion of which are directed downward, and the upper walls of the others being directed upward, pins connected with said steels to which the sliding plate or bar is connected, and adapted to operate in said notches or recesses, and means for operating said sliding bar, consisting of a spiral spring connected with the upper end thereof, and with the steel, and a cord connected with the lower end thereof, substantially as shown and described. 8th. The combination with a pair of corset steels, one of which is provided with perforations having eyes or openings therein, and the other of which is provided with hooks corresponding with said eyes or openings, pivotally connected therewith, of a sliding plate or bar connected with said pivoted hooks and with the steel with which they are connected, and by means of which the hooks are operated, and a cover secured to the steel with which the sliding bar is connected and adapted to cover and conceal said sliding bar, and the devices connected therewith, substantially as shown and described.

No. 50,167. Sheet Metal Can. (*Bidon en feuille de métal.*)



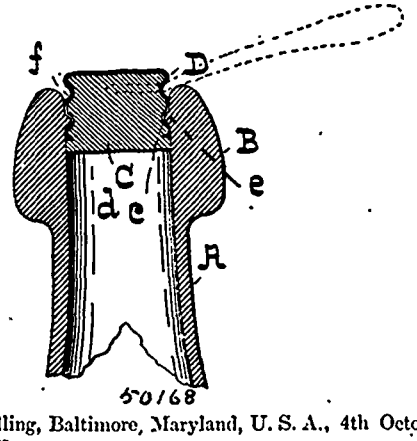
John Lee, San Mateo, California, U.S.A., 4th October, 1895; 6 years.

Claim.—1st. A sheet metal can, having no scores or weakened line, comprising the body A, and head B, furnished with a flange *b* fitting outside of the body and soldered thereto, said can head flange *b* being provided with a projecting tongue and serving itself as a tearing strip for opening the can by separating from the flat or disc portion of the head at the corner uniting the flange therewith, substantially as specified. 2nd. The combination, with can body A, of head B, having outside fitting flange *b* furnished with a slit or cut across the same, said head B having no scored or weakened line, and a separate tongue strip D in part inserted between the flange of the can head and the can body and soldered thereto, the corner uniting the flange of the head with the flat or disc portion thereof itself serving as the line of separation of the flange from the head in coiling said flange as a tearing strip around the key, substantially as specified. 3rd. The combination, with a can body A, of head B, having outside fitting flange *b* furnished with a slit or cut across the same, said head B having no scored or weakened line, and a separate tongue strip D in part inserted between the flange of the can head and the can body and soldered thereto, the outside portion of said

tongue strip being untinned and the inside portion tinned, the corner uniting the flange of the head with the flange or disc portion thereof itself serving as the line of separation of the flange from the head in coiling said flange as a tearing strip around the key, substantially as specified. 4th. The combination, with can body A, of head B, having outside fitting flange *b* furnished with a slit or cut across the same, said head B having no scored or weakened line, and a separate tongue strip D in part inserted between the flange of the can head and the can body and soldered thereto, said tongue strip and can head flange being pierced and clinched together, the simple corner uniting the flange and the flat or disc portion of the head itself serving as the line of separation, substantially as specified. 5th. The combination, with can body A, of head B, having outside fitting flange *b* furnished with a slit or cut across the same, said head B having no scored or weakened line, and a separate tongue strip D in part inserted between the flange of the can head and the can body and soldered thereto, said tongue strip D being provided with an offset d^2, the simple corner uniting the flange and the flat or disc portion of the head itself serving as the line of separation, substantially as specified. 6th. The combination, with can body A, of head B, having outside fitting flange *b* furnished with a slit or cut across the same, said head B having no scored or weakened line, and a separate tongue strip D in part inserted between the flange of the can head and the can body and soldered thereto, said tongue strip D being provided with an offset d^2, and said can head flange having an offset or pocket b^3, the simple corner uniting the flange and the flat or disc portion of the head itself serving as the line of separation, substantially as specified.

No. 50,168. Bottle and Bottle Stopper.

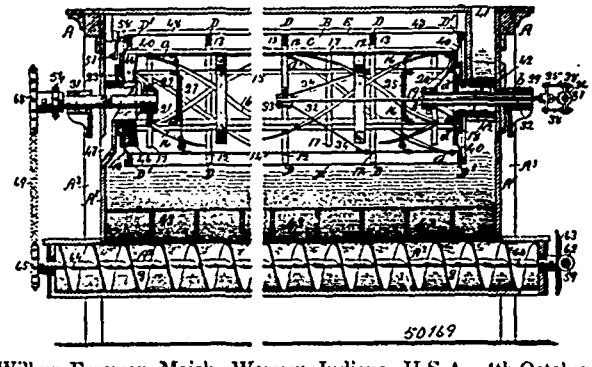
(*Bouteille et bouchon.*)



Lewis Kalling, Baltimore, Maryland, U. S. A., 4th October, 1895; 6 years.

Claim.—In combination with a bottle neck, having its throat provided with circumferential corrugations, a stopper formed of a piece of cork and a slitted metallic cap having corrugations which practically correspond with those in the bottle throat and thereby adapted to interlock therewith, substantially as specified.

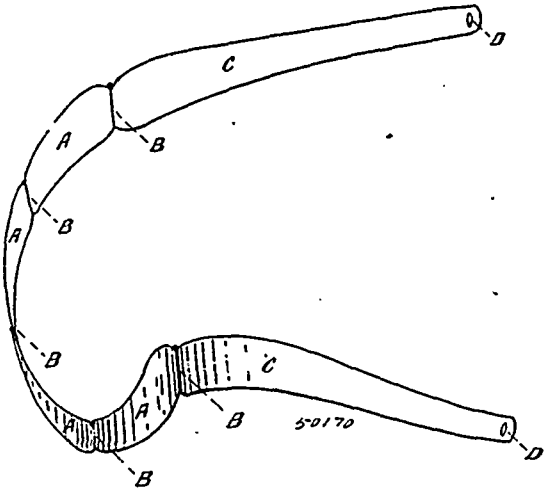
No. 50,169. Bolting Reel. (*Blutoir.*)



Wilbur Freeman Maish, Warsaw, Indiana, U.S.A., 4th October, 1895; 6 years.

Claim.—1st. A bolting-reel, comprising in its structure an outer cylindrical cloth supporting reel-frame, and an inner skeleton reel-frame, said reel-frames being connected and adapted to rotate together, substantially as described. 2nd. A bolting-reel, comprising in its structure, an outer skeleton reel-frame, consisting of a number of longitudinal ribs, a series of spiral ribs, a number of rings, and an inner reel-frame, consisting of a number of longitudinal ribs, spirally arranged ribs, connecting and bracing-rings, said ribs and rings being connected at their intersecting points, substantially as described. 3rd. The combination in a bolting-reel, of a cloth supporting skeleton reel-frame, and an inner skeleton reel-frame, and means for connecting the same, whereby a simultaneous rotary movement is imparted thereto, substantially as described. 4th. In a bolting-reel, the combination of the outer reel-cylinder, the inner reel-cylinder, and the compound triangular springs connecting said reel-cylinders, substantially as described. 5th. In a bolting-reel, the combination with the bolting-cloth, of an outer skeleton reel-frame, composed of a number of longitudinal ribs, spirally arranged ribs, and the series of rings, connecting said ribs, whereby the different parts are mutually sustained and trussed, substantially as described. 6th. In a bolting-reel, an inner skeleton cylinder frame, composed of a number of longitudinal ribs, a series of metal strips bent to form spiral ribs, and the rings, for supporting them concentric with the axis of the reel-body, substantially as described. 7th. A bolting-reel, comprising in its structure, an outer cloth supporting-frame, the reel-heads and the companion brackets, secured to said heads, substantially as described. 8th. A bolting-reel, comprising in its structure, an outer cloth supporting-reel, an inner reel, and means for imparting a vibratory or shaking action to the outer reel only, simultaneously with the rotary movement of both reel-bodies, substantially as described. 9th. In a bolting-reel, the combination of an outer reel, an inner reel, the respective reel heads, the companion brackets, consisting of a hub and radial-arms and attached to said heads, and the axial reel shafts, having their inner ends supported in said bracket-hubs, and their outer ends journalled in the casing, substantially as described. 10th. In a bolting-reel, the combination with the outer cloth supporting reel-frame, of a spider, consisting of a central hub and radial arms, the outer ends of said arms being attached to said reel-frame, a rod, having its inner end secured in said hub, and its outer end connecting with a rotatable shaft having an eccentric action and imparting an endwise movement to said rod and causing said outer-reel to have a vibratory or shaking action as it is rotated, substantially as described. 11th. In a bolting-reel, the combination with the outer reel-frame, of the respective reel-heads, and the flexible hinge connection, substantially as described. 12th. In a bolting-reel, the combination with the receiving passage through which the material is conducted into the reel, of a lining of wool or other soft substance secured in said passage to prevent a back escape of the dust, substantially as described. 13th. The combination with a bolting-reel, of a brush, having contact with the surface of the bolting-cloth and adapted to have an oscillating movement, substantially as described. 14th. In a bolting-reel, the combination with the inclosing casing, having sloping sides below the reel-chamber, of the conveyer-chambers, the spiral conveyers located therein, and the pivoted valves located between said reel-chamber and the conveyer-chamber, whereby the material bolted may be diverted into either one of the conveyer-chambers, substantially as described. 15th. In a bolting-reel, the combination with the conveyer-chambers, of a series of valves, provided with grooves to form a flour-seal, substantially as described. 16th. The combination in a bolting-reel, of a driving-shaft, a pinion, mounted thereon, a conveyer-shaft, a gear-wheel mounted thereon, a sprocket-wheel, mounted on the opposite end of the conveyer-shaft, a companion sprocket-wheel, mounted on the companion conveyer-shaft, the axial reel-shaft, a sprocket-wheel mounted thereon, and the belt connecting said sprocket-wheels, whereby the required motion is transmitted to the different parts, substantially as described.

No. 50,170. Dutch Harness. (*Harnais.*)



Thomas Andrew Jackson, Mount Pleasant, Ontario, Canada, 4th October, 1895; 6 years.

Claim.—A metallic device for stiffening harness breast collars, comprising bows A, and plate C, having trace loop holes D, all formed and hinged together and containing apertures so that the same may be stitched or secured to the breast collar, substantially as and for the purpose hereinbefore set forth.

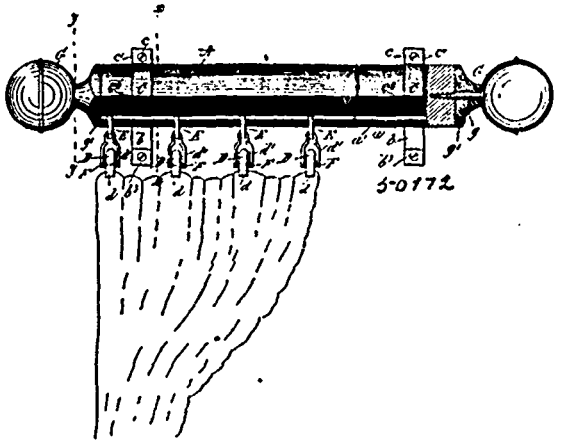
No. 50,171. Pyrotechnic Compound.

(*Composé pyrotechnique.*)

John Graham, Boston, Massachusetts, U.S.A., 4th October, 1895; 6 years.

Claim.—The herein described composition of matter to be used for producing coloured lights, consisting of zinc or its equivalent, selenium and disulphide of carbon, in the proportions specified.

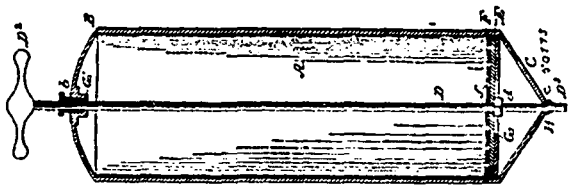
No. 50,172. Curtain Pole. (*Bâton de rideau.*)



Manton Tyler Bentley and Mary Elizabeth Bentley, both of Patterson, New Jersey, U.S.A., 4th October, 1895; 6 years.

Claim.—1st. The combination with a curtain pole, of a bracket adapted to be secured to a wall and comprising a horizontal bar, and an inclined bar secured together at one end and having an upward extension, and a supplemental piece adapted to be clamped upon the pole and having an upward extension, and an adjusting screw passing through the extension, substantially as shown and described. 2nd. The combination with a curtain pole, of a bracket adapted to to be secured to a wall and comprising a horizontal bar, an inclined bar secured at one end to one end of the horizontal bar and having an upward extension, a supplemental piece having an upward extension, an adjusting screw passing through said extension, an extension c^3 on the lower end of the supplemental piece, and a projection c^2 on the inclined bar, substantially as shown and described.

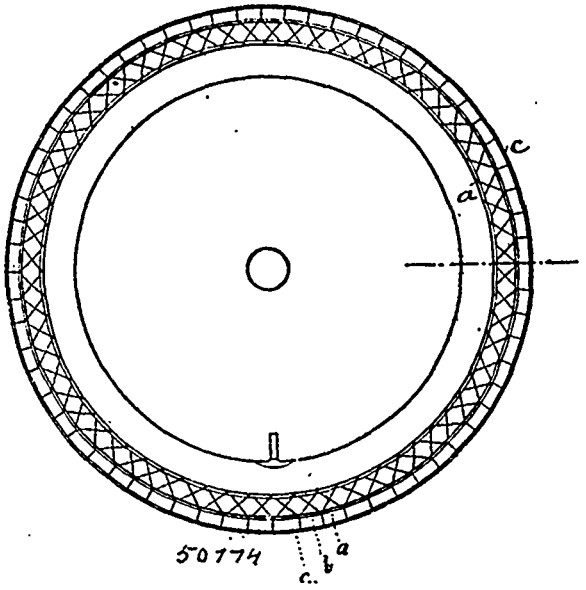
No. 50,173. Fire Extinguisher. (*Extincteur d'incendie.*)



Walter Robert Johnston, New York, State of New York, U.S.A., 4th October, 1895; 6 years.

Claim.—1st. A fire extinguisher, comprising a cylindrical casing, each end of which is closed and provided with a central opening or aperture through which passes a rod, which is provided with a handle at one end and projects at the other end, said rod being provided with a combined valve and piston, consisting of a disc and a flexible washer secured adjacent thereto so that when the rod is drawn backward or towards the head of the cylinder, the contents of the cylinder will pass through and around said piston and valve, and when the rod is forced forward said contents will be forced out of the cylinder, substantially as shown and described. 2nd. A fire extinguisher, comprising cylindrical casing, each end of which is closed and provided with a central opening, a rod passing through said casing and through said central opening, a disc mounted on said rod of less diameter than the casing, and a washer secured on said rod adjacent to said disc of equal diameter with the casing, substantially as shown and described. 3rd. A fire extinguisher, comprising a cylindrical casing, each end of which is closed and provided with a central opening, a rod passing through said casing and through said central opening, a disc mounted on said rod of less diameter than the casing, and a washer secured on said rod adjacent to said disc of equal diameter with the casing, said disc being also perforated, substantially as shown and described. 4th. A fire extinguisher, comprising a cylindrical casing, each end of which is closed and provided with a central opening, a rod passing through said casing and through said central opening, a disc mounted on said rod and of less diameter than the casing, and a washer secured on said rod adjacent to said disc and of equal diameter than the casing, said disc being also perforated, and said rod being held in place by means of solder which is applied at each end thereof or at each end of the casing, substantially as described. 5th. In a fire extinguisher, the combination of a cylindrical casing, a head as B, secured at one end thereof and a conical end piece C, secured at the other end, a rod passing through perforations or apertures formed in the central portion of said head through which said rod passes, a perforated disc mounted on said rod of less diameter than the cylinder and a flexible washer secured adjacent to said disc; the diameter of which is the same as the inner diameter of the cylinder, said parts being constructed, combined and arranged, substantially as shown and described.

No. 50,174. Device for Strengthening and Protecting Pneumatic Tires. (*Appareil pour renforcer et protéger les bandages pneumatiques sur les roues de bicycles et autres.*)



Arthur T. Boond, Hamilton, Ontario, Canada, 4th October, 1895; 6 years.

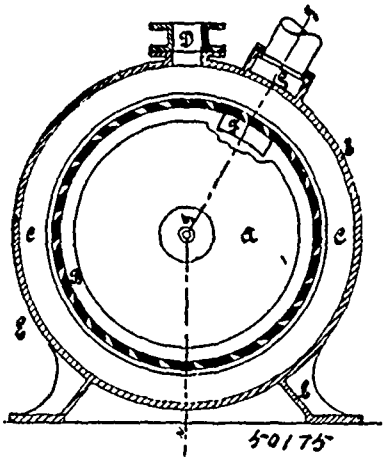
Claim.—1st. A network of wire or other material of sufficient tensile strength, substantially as and for the purposes hereinbefore described, fitting over the exterior circumference of the tire of bicycle and other wheels and retained in position by the outward pressure of the inflated tire. 2nd. A network of wire or other suitable material woven in shape to fit closely over a pneumatic tire of a wheel, with strengthening wires running along the edges and at suitable distances from the edges of such network, as shown in the accompanying drawing, substantially as and for the purposes hereinbefore set forth.

No. 50,175. Steam Turbine. (*Turbine à vapeur.*)

Jorgen Georg Maardt, Copenhagen, Denmark, 4th October, 1895; 6 years.

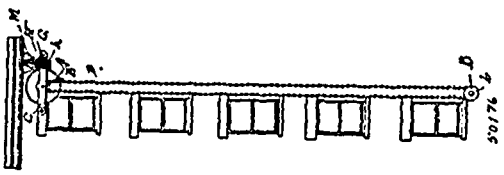
Claim.—1st. A steam turbine, consisting of a turbine disc rotating within a casing surrounded by an annular steam passage, the rim of the said turbine disc having arranged upon it specially formed cups on which the steam acts, all substantially as described and illustrated. 2nd. In steam turbines, the application of specially constructed cups, as mentioned in claim 1, arranged along the rim of the turbine disc, substantially as described. 3rd. In steam turbines, with cups as mentioned in claim 1, the application of a solid turbine disc made of one piece, the said turbine disc being of greater thickness in the middle than at the centre, a groove being provided in the rim into which the cups are inserted, substantially as described. 4th. In steam turbines, as mentioned in claim 1, the arrangement by which the cups are fastened to the turbine disc, consisting of a flat shank on each disc, the shanks fitting into a groove on the circumference of the disc, so that the pins completely fill the groove, and are fixed by rivets or screws passing transversely through the shanks and the disc, substantially as described. 5th. In steam turbines, as mentioned in claim 1, the application of an

annular steam passage around the turbine casing, in combination with a ring provided between the sleeve and the steam passage, hav-



ing oblique orifices of corresponding size and shape, whereby the steam is led into the passage, substantially as described and illustrated. 6th. In steam turbines, the arrangement by which the steam is led through a number of feeding channels, to the turbine sleeve of feeding itself, each having a separate steam pipe and one or more orifices, substantially as illustrated and described. 7th. In steam turbines, having a steam passage with ring as mentioned in claim 5, the application of a regulating ring with slot, through the rotation of which one may open or close a large or smaller number of steam channels, all substantially as described and illustrated. 8th. In steam turbines, the application of a device consisting of a box, surrounded by a thick belt of caoutchouc which is again surrounded by a divided metal sleeve combined with the ring R, which are arranged inside the turbine casing and fit closely to the turbine disc, or which may be combined with a bow bracket S, carrying the bearing, substantially as described and illustrated and for the purposes described. 9th. In steam turbines, the application of axle bearings consisting of a box surrounding the axle, and provided outside with four pins surrounded by spiral springs, said springs being actuated by adjustable screws, so that the bearing receives a certain mobility, and the centreing of the axle may be effected, substantially as described. 10th. In steam turbines, the application of a stuffing box between the axle and the wall of the turbine casing, said stuffing box being either a box provided with collars, at both ends, and arranged loosely on the axle with one collar on each side of the wall, so that the same is closed by either one or the other collar; or the said stuffing box may be a divided box combined with an elastic corrugated plate situated between the stuffing box itself and the collar in contact with the wall, substantially as illustrated and described and for the purpose stated. 11th. In steam turbines, the application of a lubricating pot, consisting of a wick lubricating pot, connected to a bottle like oil reservoir with a tap and air tube passing downwards into the said reservoir, the lever orifice of the said tube being at the same level as the upper surface of the lubricating pot, so that the level of this upper surface remains always constant.

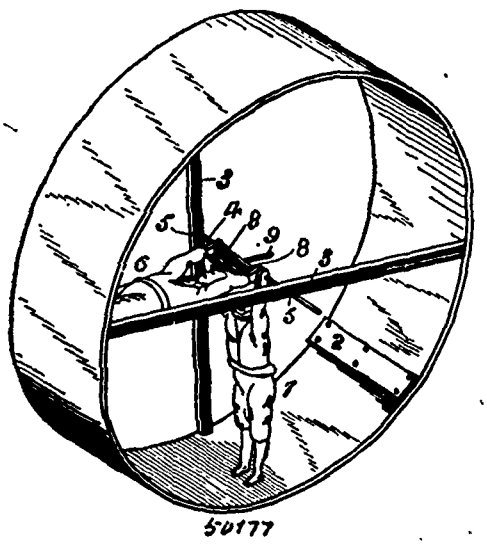
No. 50,176. Fire Escape. (*Sauveteur d'incendie.*)



Wilbrod Bourdon, Valleyfield, Quebec, Canada, 4th October, 1895; 6 years.

Claim.—1st. In a fire escape, the combination with the endless chain D, passing over chain pulleys suitably located, of a fan governor controlling one of the said pulleys, substantially as set forth. 2nd. In a fire escape, the combination with the pulley A, the axle *a*, suitably journalled, of the gearwheel E secured on the said axle, the pinion F gearing with the said gear wheel, a bevel gear wheel G secured on the axle of the said pinion, the bevel gear wheel H operated by the said wheel G, the vertical shaft *h*, carrying said bevel gear wheel H, at its lower end, the weighted arms J pivoted at the upper end of the said shaft *h*, and the folding fans M, substantially as set forth. 3rd. In a fire escape, the combination with a pulley over which travels an endless chain of a governor deriving motion therefrom by gear wheels or otherwise, the said governor consisting of a vertical shaft suitably journalled carrying pivoted to its upper end weighted arms, the said arms operating folding fans, substantially as set forth.

No. 50,177. Mechanical Toy. (*Jouet mécanique.*)

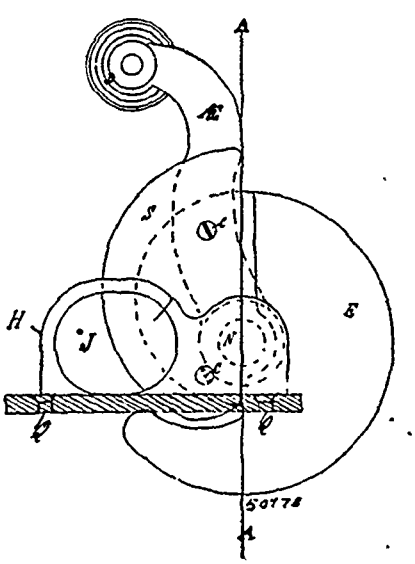


William Stores Cooper, Newport, Rhode Island, U.S.A., 4th October, 1895; 6 years.

Claim.—1st. A revoluble hoop provided with a centrally arranged axle, in combination with one or more figures or automatons pivoted to and adapted to be carried around with said axle, and means for propelling said figures or automatons and causing them to describe a circle around the axle, substantially as specified. 2nd. A revoluble hoop provided with a centrally arranged axle, in combination with one or more figures or automatons mounted upon said axle and adapted to be carried around with the same, and the stops or pins for propelling said figures in a circle around the axle and limiting the movements of said figures or automatons, substantially as described. 3rd. A hoop or wheel provided with a centrally arranged axle, in combination with one or more figures or automatons, having jointed arms and legs and pivoted upon and adapted to be carried around said axle, a stop carried by said axle, and a corresponding stop carried by each figure or automaton, said stops being adapted to co-operate substantially as shown and described.

No. 50,178. Bread and Tobacco Knife.

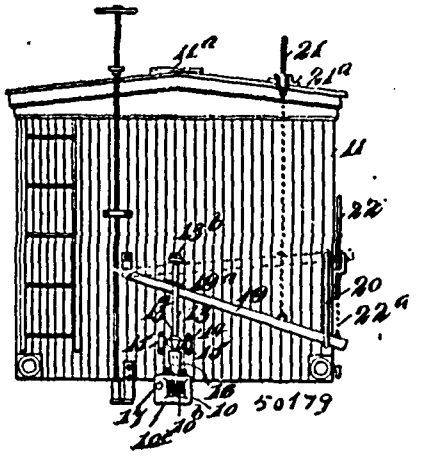
(*Couteau paur trancher le tabac, le pain, etc.*)



Joseph Camillien Richard, de Cité de Québec, Québec, Canad 4 octobre 1895; 6 ans.

Résumé.—1° Un couteau rotatoire S, en combinaison avec le disqu E E, et du ressort à boudin K, tel que décrit. 2° La combinaiso d'un couteau rotatoire S, et du disque E E, avec la pièce angulai H, (ou stand,) tel que ci-dessus décrit et pour les fins indiquées).

No. 50,179. Car-Coupler. (*Attelage de chars.*)



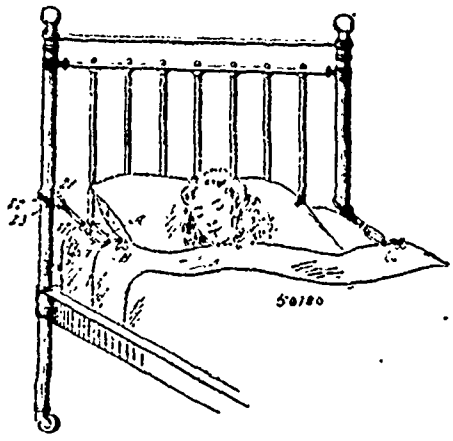
James Washington Tolar, Wilksburg, and Benjamin David Langston, Gass, both of Mississippi, U.S.A., 5th October, 1895; 6 years.

Claim.—1st. The combination with a recessed draw-head vertically perforated near the front, of a coupling-pin having an upper head and an intermediate head, means to lift the pin by the upper head, a vibratile locking dog engaging the intermediate head, and mechanism to rock the dog outwardly when actuated from the front of the draw-head, substantially as described. 2nd. The combination with a recessed draw-head vertically perforated near the front, of a pin having an intermediate head, a vibratile lever adapted to lift the pin by its upper head, a locking dog pivoted on the draw-head and engaging the intermediate head, and mechanism arranged to outwardly rock, to trip said dog by the movement of the slide-bolt from the front of the draw-head, substantially as described. 3rd. The combination with a car, a recessed draw-head vertically perforated near the front, and a coupling-pin having an upper head and an intermediate head, of a transversely supported vibratile lever, an arm on said lever loosely engaging the pin and its upper head, and a latching device engaging the intermediate head at its lower end and adapted for adjustment to support the pin by an upward movement of the transverse lever, substantially as described. 4th. The combination with a car, a forwardly-recessed draw-head vertically perforated near its front, and a coupling-pin having an upper head and an intermediate upwardly tapered head, of a transverse lever pivoted near one end on the car, an outwardly extended and perforated arm on the lever loosely engaging said pin and impinging its upper head, a locking dog engaging the under side of the intermediate head, and a device on the car roof flexibly connected with the lever, substantially as described. 5th. The combination with a car, a forwardly-recessed draw-head vertically perforated near the front, a coupling-pin having an upper head and an intermediate tapering head, and a latching device on the draw-head and car engaging the intermediate head and tipped by vibration of a dog forming part of said latching device, and a lifting device for the pin which engages the upper head of the pin and causes a vibration of the dog, substantially as described. 6th. The combination with a car, a forwardly-recessed draw-head vertically perforated near the front, a coupling-pin having an upper head and an upwardly tapered intermediate head, a slotted latch block pivoted on the car end, and through which the pin passes, and a locking dog vibratile on the draw-head and engaging the intermediate head of the pin, of a transverse pivoted lever, a lifting lever on the upper part of the car, and a flexible connection between an end of the lifting lever and the transverse lever, substantially as described. 7th. The combination with a car, a forwardly-recessed draw-head vertically perforated near the front, a coupling-pin having an upper head and an upwardly tapered intermediate head, and a latching device adapted for adjustment by the upward movement of the pin, whereby said pin is maintained in an elevated condition, of a transverse pivoted lever, a lifting lever on the side of the car and flexibly connected with the transverse lever, and a tripping device for the latching device, adapted for actuation by the inward movement of a slide bolt on the front end of the draw-head, substantially as described.

No. 50,180. Bed Clothes Holder. (*Attache pour couvertures de lit.*)

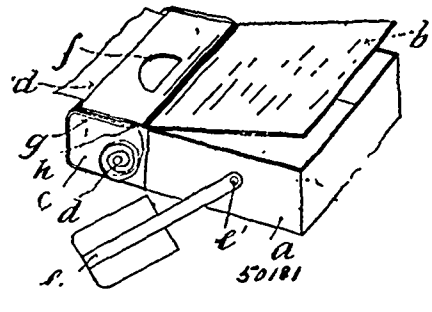
Russell Tamerlane Joy, South Orange, New Jersey, U.S.A., 5th October, 1895; 6 years.

Claim.—1st. In a bed clothes holder or the like, the combination of a pair of pivoted arms having opposing ends provided with gripping jaws, a rack secured to one arm and extending transversely of the same, a pawl secured to the other arm to engage the teeth of said rack, and a pivoted latch adapted to hold said pawl in engagement with said rack, substantially as set forth. 2nd. In a bed



clothes holder or similar device, the combination with a pair of pivoted arms provided with gripping jaws at one of their ends, of a ratchet plate secured to one arm, the ratchet teeth being depressed, a pawl secured to the opposing arm, adapted for engagement with the ratchet, and a gravity latch adapted to extend over the pawl and ratchet, substantially as shown and described. 3rd. In a bed clothes holder or like device, the combination with a pair of pivoted arms provided with gripping jaws at one of their ends, the said jaws consisting of a series of leaves inwardly curved and spaced a predetermined distance apart, the leaves of one jaw being arranged opposite the space intervening the leaves of the opposing jaw, a ratchet formed upon one of the said arms, and a pawl formed upon the opposing arm, both ratchet and pawl being directed to the space intervening the said arms, and a latch adapted to lock the pawl to the ratchet, as and for the purpose set forth. 4th. In a bed clothes holder or like device, the combination with a pair of pivoted arms provided with gripping jaws at one of their ends, a ratchet and pawl locking device at their opposite ends, and a gravity latch confining the pawl to the ratchet, of an elastic band connected with said latch, and fastening devices, substantially as described, carried by the said band, as and for the purpose set forth. 5th. In a bed clothes holder or like device, the combination of a pair of pivoted arms, one of which has one end of its handle portion bent upon itself to form a vertical loop, and provided at one end with an eye spaced from the handle or body of the arm, and the other arm with a hook or pawl adapted to engage either the eye, or the handle of the other arm, substantially as described.

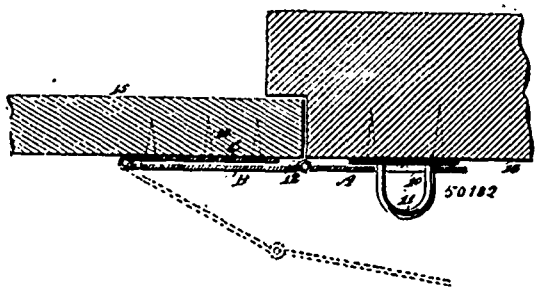
No. 50,181. Combined Cigarette Paper Holder and Receptacle. (*Porte-papier à cigarettes et receptacle combinés.*)



Walter Brafield Hobbs, Cornhill, London, England, 5th October, 1895; 6 years.

Claim.—An improved box for matches or other articles provided with a compartment or division *c*, and containing a roll or strip of cigarette paper, an aperture *f*, and lid *e*, all in combination and substantially as described.

No. 50,182. Hasp. (*Moraillon.*)

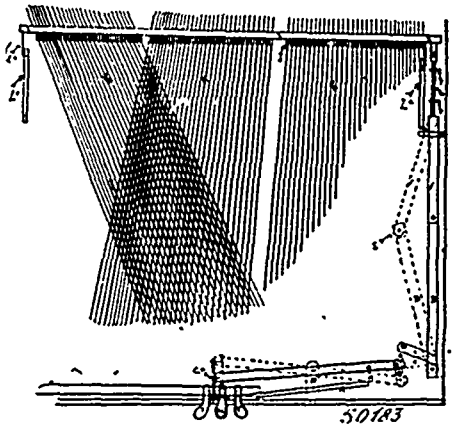


William Firfield, Perth Amboy, New Jersey, U.S.A., 5th October, 1895; 6 years.

Claim.—1st. A hasp consisting of pivotally connected sections, one outer section being adapted for attachment to a support, the other section to receive a keeper, and the intermediate section being adapted to be folded over and to conceal the outer section adapted for attachment to a support, the said intermediate section being provided with flanges upon its inner face between which the said outer section is received, as and for the purpose specified. 2nd. A hasp consisting of three hinged sections, one outer section being made tapering and adapted for attachment to a support, the other outer section being slotted to receive a keeper, and the central or intermediate portion being made tapering and provided upon its inner face with side flanges, the outer tapered section being adapted to enter the space between the side flanges of the intermediate sections, substantially as shown and described.

No. 50,183. Harp Æolian Attachment for Pianos.

(*Attache de harpe éolienne pour pianos.*)



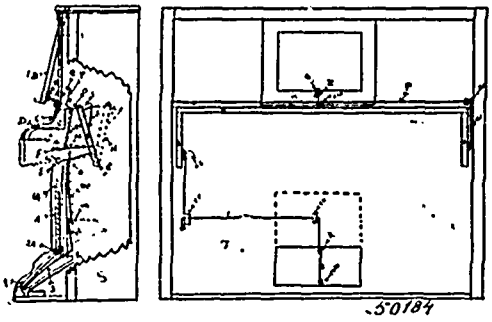
John H. Kydd and John B. Mitchel, both of Bowmanville, Ontario, Canada, 5th October, 1895; 6 years.

Claim.—The harp æolian attachment composed of a continuous strip of cochineal leather having slots cut at its lower edge, and having a facing of a composition of rubber which when struck by the hammer L vibrates against the strings K and produces a tone similar to the harp, guitar and other small stringed instruments, and in combination with the pedals G and T, and levers A, B, C, D and F, and rod O raising and lowering the silver rail I, between the strings K and hammer L, substantially as and for the purpose set forth.

No. 50,184. Combination Automatic Pedal Cover and Music Desk for Reed Organs. (*Combinaison de couvercle de pédale et puptire à musique automatique pour orgues.*)

John H. Kydd and John B. Mitchel, both of Bowmanville, Ontario, Canada, 5th October, 1895; 6 years.

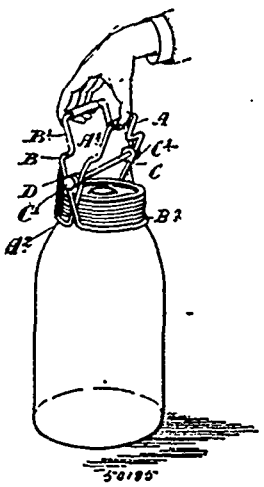
Claim.—The combination with an organ case having a folding fall-board C, a pedal cover A, and music desk B, all connected



together as described in the foregoing specification, the pedal cover A, and desk B, to work automatically by the sliding back and forward of the folding fall-board C, and arm H, having balance rail I, as shown and described.

No. 50,185. Lifting Clip for Vessels.

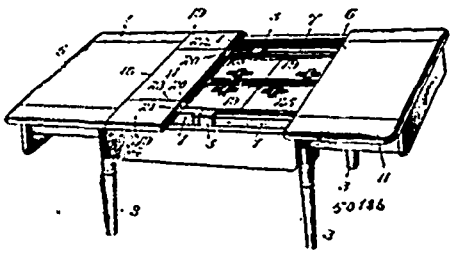
(*Tenailles pour soulever les vaisseaux.*)



George Bryan Meadows, Toronto, Ontario, Canada, 7th October, 1895; 6 years.

Claim.—1st. A lifting clip comprising the crossed double arms A and B, hinged on the cross-bar C, and provided with arc-shaped lower ends A^2 and B^2 respectively, as and for the purpose specified. 2nd. A lifting clip comprising the crossed double arms A and B, hinged on the cross-bar C, and provided with arc-shaped lower ends A^2 and B^2 respectively, and the spring D connected to the arms, as and for the purpose specified. 3rd. A lifting clip comprising the crossed double arms A and B, hinged on the cross-bar C, and provided with arc-shaped lower ends A^2 and B^2 respectively, and the inner knurled or burred sides a^2 and b^2 formed on the arc-shaped ends, as and for the purpose specified.

No. 50,186. Extension Table. (*Table à rallonge.*)



Rudolph H. Ripking, Aurora, Indiana, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. In a table, the combination of a frame provided with supporting legs, main leaves or table-top sections supported by said frame, drop leaves connected to the lateral edges of said main leaves or sections, lateral slides mounted upon the frame and having

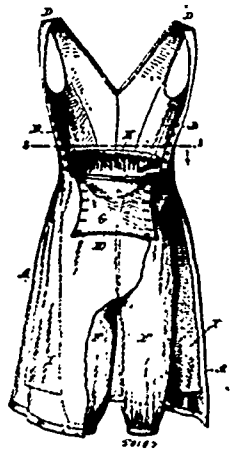
boards or plates arranged with their upper edges flush with the lower surfaces of said main leaves or sections, and removable leaves adapted to be arranged between the inner edges of the main leaves or sections and provided with terminal extensions or folding sections, said extensions or folding sections of the removable leaves and the drop leaves carried by the main leaves or sections being adapted to be supported by said lateral slides, substantially as specified. 2nd. In an extension table, the combination with a main frame having supporting legs, of main leaves or sections, main slides mounted upon the frame and supporting said main leaves or sections, said slides having limited outward movement, fixed guides or keepers being arranged at the sides of the frame to receive the inner extremities of the main slides, and supporting bars being arranged near the ends of the frame to support said slides at intermediate points, drop leaves carried by the main leaves or sections, removable leaves adapted to be arranged between the inner edges of the main leaves or sections and provided with terminal folding sections, and lateral slides mounted upon the frame and having boards or plates arranged with their upper edges flush with the lower surfaces of the main leaves or sections and adapted to support the drop leaves and folding sections of the removable leaves, said lateral slides having arms fitted in keepers in the frame, substantially as specified. 3rd. In an extension table, the combination with a frame and supporting legs, and main leaves having slides mounted upon the frame, of a removable leaf having an intermediate section of less length than the interval between the supports provided for said leaf whereby it is adapted to fit therebetween, and folding sections connected to the extremities of the intermediate section, and connections between the extremities of the intermediate and folding sections consisting of hinge-plates pivotally connected at their extremities to the side edges of said sections and provided with transverse slots for the reception of limiting pins carried by one of the sections at each joint, substantially as specified. 4th. In an extension table, the combination with a frame and supporting legs, and main leaves or sections having slides mounted upon the frame, of lateral slides mounted upon the frame and adapted to be arranged at intervals from the sides thereof, removable leaves adapted to be arranged between the inner edges of the main leaves or sections, each removable leaf having an intermediate section and connected folding sections, the folding sections being adapted to rest upon the said lateral slides for support, and hooks carried by the lateral slides for engaging the removable leaves, substantially as specified. 5th. In an extension table, the combination with a frame and supporting legs, and main leaves or section shaving slides mounted upon the frame, of removable leaves adapted to be arranged between the inner edges of the main leaves or sections, each removable leaf comprising an intermediate and connected folding sections, the intermediate sections being less in length than the interval between the points of support provided for the leaf whereby when folding the leaf may be arranged between said points of support, adjustable means for supporting the folding sections of the removable leaf, and supporting arms foldably connected to the intermediate section of the removable leaf and adapted to engage studs on the main frame, substantially as specified. 6th. In an extension table, the combination with a frame and supporting legs, of main leaves or sections provided with slides mounted upon said frame and having limited outward movement, drop leaves connected to the lateral edges of the main leaves or sections, lateral slides mounted upon the frame and having boards or plates adapted to be adjusted toward and from the frame, the length of said boards or plates being in excess of the interval between the inner edges of the main leaves or sections when the latter are arranged at the limit of their outward extension, and removable leaves adapted to be arranged between the inner edges of the main leaves or sections and adapted to be supported by the upper edges of said lateral slides, substantially as specified.

No. 50,187. Athletic Suit for Ladies.

(*Vêtement athlétique pour dames.*)

Ida May Rew, New York, State of New York, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. In an athletic or bicycle suit for ladies, a skirt and a trousers portion enveloped by said skirt, each leg of the said trousers portion being loosely connected to the said skirt by independent strips between the outside of the trousers and the inside of the skirt, substantially as described. 2nd. An athletic suit for ladies, consisting of a bodice or waist portion lined as described, a skirt extending therefrom, means for suspending the skirt and bodice from the shoulders, and trousers secured to the lining, each trousers leg being loosely connected to the skirt portion of the garment by means of one or more suitable strips. 3rd. An athletic suit for ladies, consisting of a bodice or waist portion, lined as described, a skirt extending therefrom, means for suspending the bodice and skirt from the shoulders, and trousers secured to the front portion of the bodice lining, and a draw-string in the rear upper edge of said trousers, each trousers leg being loosely connected to the skirt portion of the suit by means of one or more independent upright strips. 4th. An athletic suit for ladies, consisting of a bodice and skirt portion integrally formed, means for suspending the same from the shoulders, trousers attached to the front portion of the said bodice, the rear edge of said trousers band being provided with a suitable draw-string, the legs of said trousers being loosely connected to the inside of the skirt by strips extending longitudinally with the said trousers legs, substantially as and for the purpose specified. 5th. An athletic suit for ladies, comprising a bodice and skirt portion, a waist flap



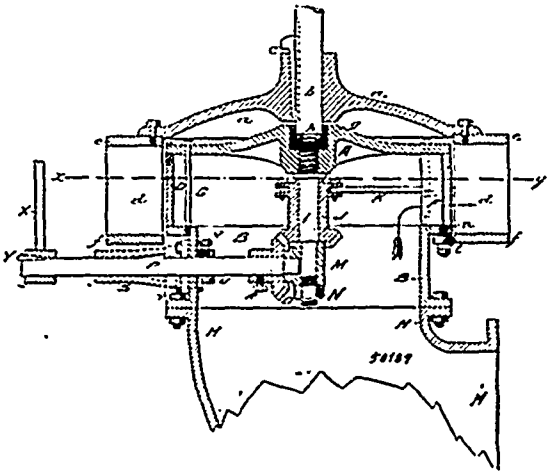
adapted to be detachably fastened to the front edges of the open bodice to adjust the same to the figure of the wearer, means for suspending the said bodice and skirt from the shoulders, a trousers portion attached to the front portion of the bodice lining and provided with a draw-string, said trousers being loosely connected with the inside of the skirt by independent upright strips, substantially as described. 6th. An athletic suit for ladies comprising a bodice and skirt portion, the front of said bodice being open, a waist flap extending below the waist line and adapted to be detachably fastened to the front edges of the open bodice for the purpose described, means for suspending the bodice from the shoulders, trousers attached below the waist line and connected loosely to the inside of the skirt by independent strips extending longitudinally with the trousers leg. 7th. A ladies' athletic or bicycle suit, comprising a bodice suspended from the shoulders, a skirt depending from said bodice, said bodice being open in front to a point below the waist line, a flap adapted to partially close said opening in the bodice to adjust the garment to the figure of the wearer, trousers attached below the waist line to the front portion of the lining of the garment, a suitable draw-string, elastic or non-elastic, for the rear portion of the trousers band, the outside edges of each trousers leg being loosely connected to the adjacent inner side of the skirt by continuous strips extending from near the lower edge of the skirt to a point near the upper edge of the trousers, all substantially as and for the purpose described.

No. 50,188. Explosive. (*Explosif.*)

Edward Dickson, Oak Lake, Manitoba, Canada, 7th October, 1895; 6 years.

Claim.—A compound composed of chlorate of potash, wheat flour and picric acid, substantially in the proportions and for the purpose above set forth.

No. 50,189. Water Wheel. (*Roue hydraulique.*)

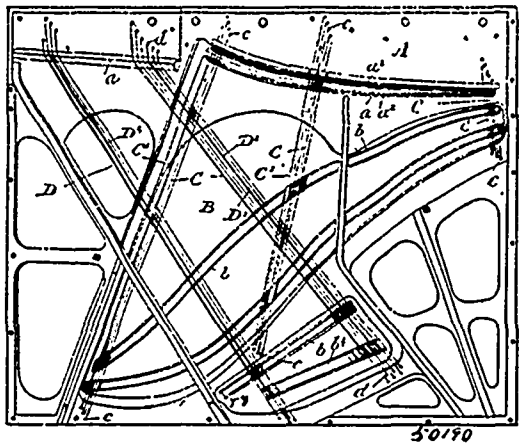


Ovide Parent, Montreal, Quebec, Canada, 7th October, 1895; 6 years.

Claim.—1st. In a water wheel, the combination of a shaft *b*, rotating in the socket *g*, on the balls *h*, *h*, with the cover or cap *a*, the top and bottom plates *c* and *f*, of the ring of buckets, the buckets

d, *d*, and the guide rollers *l*, *l*, all substantially as and for the purpose set forth. 2nd. In a water wheel, the combination with the ring of buckets of a tank formed of the top plate A, and the bottom plate B, connected with the penstock H, and the circular plate D, having openings E, E, varying in size, a series of revolving gates F, F, connected to the lever X, by means of the arms K, K, the cog-wheels U and O, the rod I, the cylindrical socket M, and the shaft P, all substantially as and for the purpose set forth.

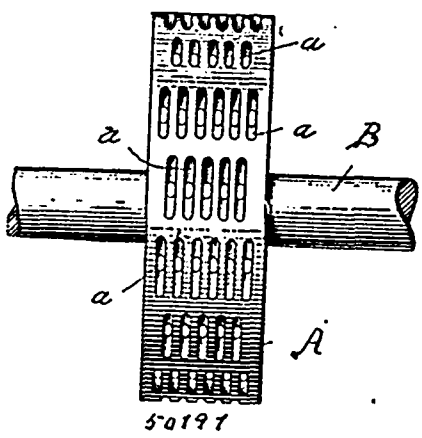
No. 50,190. Tone Arrangement of Piano Strings.
(*Arrangement du ton des cordes de piano.*)



Franz Hoerr, Toronto, Ontario, Canada, 7th October, 1895; 6 years.

Claim.—The combination, with the ordinary note strings supported upon the bridges on the plate and the bridges on the sounding board, of a set of supplemental note strings supported upon the bridges on the plate and bridges on the sounding board located at greater distances apart than the bridges supporting the ordinary notes, so as to make such note strings an octave lower, the supplemental string being arranged in each instance to lie adjacent to its corresponding note string, an octave higher, as and for the purpose specified.

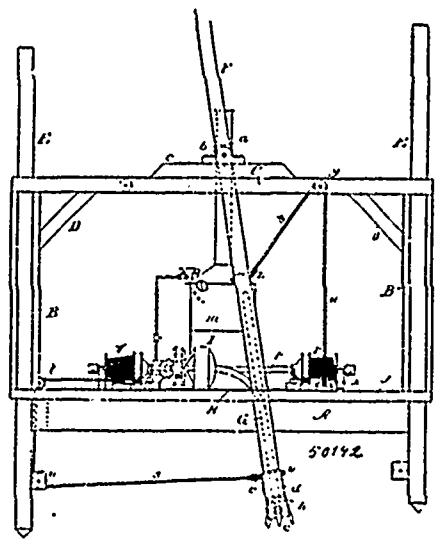
No. 50,191. Pulley. (*Poulie.*)



Darius Ephraim Newell, New York, State of New York, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. A pulley having a rim provided with a number of centrally tapering recesses or pockets positioned circumferentially and arranged in groups over its outer surface, the edges of the recesses or pockets on all sides being formed within the peripheral surface of the pulley, and the recesses or pockets being provided midway with holes or openings at their bottoms extending through the inner surface of the rim, the areas of these holes or openings at their inner surfaces being less than the area of the recesses or pockets at the outer surface of the pulley, and the recesses in the several groups being relatively staggered, substantially as specified. 2nd. A pulley having a rim provided with a number of centrally tapering recesses or pockets positioned circumferentially and arranged in groups over its outer surface, the edges of the recesses or pockets on all sides being formed within the peripheral surface of the pulley, substantially as specified.

No. 50,192. Dredging Apparatus. (*Appareil à draguer.*)

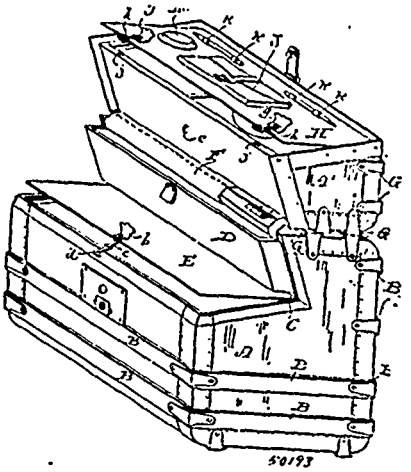


Alexander McDougall, Duluth, Minnesota, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G, mounted thereon so as to swing back and forth in engagement with the work, means at the lower end of said pipe for removing obstructions, or for loosening tightly packed material, and a suction pipe inside said swinging pipe G, for the purpose mentioned, substantially as set forth. 2nd. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G, mounted thereon so as to swing back and forth in engagement with the work, a grating at the lower end of said pipe, and a suction pipe G, for the purpose mentioned, substantially as set forth. 3rd. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G, mounted thereon so as to swing back and forth in engagement with the work, a grating at the bottom of said pipe, teeth secured to the lower end of said pipe for the purpose mentioned, and a suction pipe in said pipe G, substantially as set forth. 4th. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G, mounted thereon so as to swing back and forth in engagement with the work, a grating at the lower end of said pipe, teeth *c c*, secured to the lower end of said pipe, a suction pipe H mounted in said pipe G, with its lower end adjacent to said grating, and perforations *h* in the pipe G for supplying water, sand and gravel to said suction pipe, substantially as set forth. 5th. In an apparatus of the character described, the combination with a pipe adapted to be moved back and forth in engagement with the bottom of a lake or river for the purposes mentioned, of a suction pipe mounted with the same, substantially as set forth. 6th. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G mounted thereon so as to swing back and forth in engagement with the work, a slot *i* in said pipe G, and a suction pipe H mounted in said pipe G and extending through said slot, substantially as set forth. 7th. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G mounted thereon so as to swing back and forth in engagement with the work, a slot *i* in said pipe G, and a flexible suction pipe in said pipe G and extending through said slot, substantially as set forth. 8th. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G mounted thereon so as to swing back and forth in engagement with the work, a suction pipe H in said pipe G, and a cable *s* for swinging said pipe G in engagement with the work, towards one side of the support, substantially as set forth. 9th. An improved dredging apparatus, comprising a scow, staging or other support, a pipe G mounted thereon so as to swing back and forth in engagement with the work, a suction pipe H mounted in said pipe G, a cable *s* for swinging said pipe G in engagement with the work, towards one side of the support, and a cable *w* for elevating said pipe and moving the same towards the other side of the support, substantially as set forth. 10th. The combination of a scow A, a pipe G mounted in said scow so as to swing back and forth, a grating *g* at the lower end of said pipe G, teeth *c c*, secured to the lower end of said pipe, perforations *h* at the lower end of said pipe, a slot *i* in said pipe, a flexible suction pipe H mounted in said pipe and extending through said slot, to the pump I connected with said suction pipe, an engine *l* for continuously operating said pump, windlasses *q* and *r* adapted to be connected with and operated by said engine, a cable *s* operated by the windlass *q*, and connected with the lower end of the pipe G for moving the same in engagement with the bottom, towards one

side of the scow, and a cable *w* connected to and operated by the windlass *r* for elevating and returning the pipe G towards the other side of the scow, substantially as set forth.

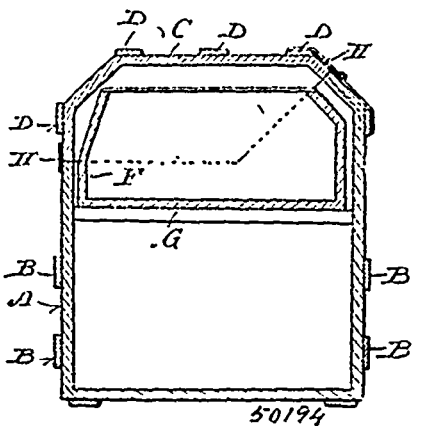
No. 50,193. Trunk. (*Coffre.*)



Martin Mathias Secor, Racine, Wisconsin, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. A trunk having the rear portion of its body vertically extended, the front of this extension inclined from its top toward the rear, the upper portion of the remainder of the body inclined upward from the front, and a lifting section that closes the recess resulting from the peculiar formation of the aforesaid body, substantially as set forth. 2nd. A trunk having each end of its body made from wood with the grain in a vertical direction and cut out to form a two boundary recess, one boundary inclining down from the top toward the rear end and the other upward from the front, the ends of the lifting section, forming part of the trunk, being also of wood with the grain in a vertical direction and shaped to correspond to the recesses, substantially as set forth. 3rd. A trunk having the rear of its body vertically extended, the front of this extension inclined from its top toward the rear, the upper portion of the remainder of the body inclined upward from the front, a drawer in the vertically extended portion of the trunk-body, and a lifting section that closes the recess resulting from the peculiar formation of said body, substantially as set forth. 4th. A trunk having the ends of its body cut away at the front in the form of wedge-like recesses, its lifting section hinged to the higher portion of the body and conforming at its ends to said recesses, and a flexible waterproof shield protecting the joint between said body and lifting section, substantially as set forth. 5th. A trunk having its lifting section hinged to the body intermediate of the sides, and a flexible waterproof shield protecting the joint between said body and lifting section, substantially as set forth.

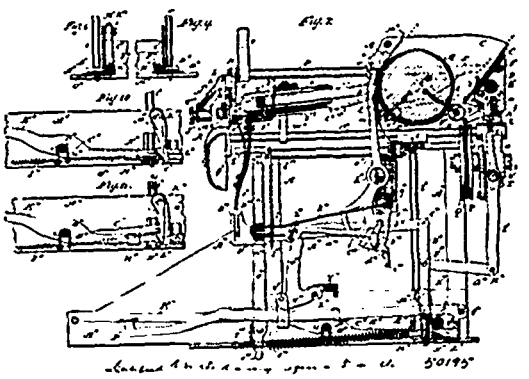
No. 50,194. Trunk. (*Coffre.*)



Martin Mathias Secor, Racine, Wisconsin, U.S.A., 7th October 1895; 6 years.

Claim. -1st. A trunk-body, having irregular ends of wood in which the grain is vertically disposed, and a lifting-section having wooden ends that match those of the body, the grain in the ends of said lifting section being horizontally disposed, substantially as set forth. 2nd. A trunk-body, having a bevelled upper rear corner and the upper edges of its ends irregular in contour, a lifting-section having a bevelled rear corner and the lower edges of its ends matched to the opposing edges of the body ends, and single joint hinges each of which has one leaf fast to said corner of the lifting-section and its other leaf fast to the matching corner of the trunk-body. 3rd. A trunk-body, having a bevelled upper rear corner and the upper edges of its ends irregular in contour, a lifting-section having a bevelled rear corner and the lower edges of its ends matched to the opposing edges of the body-ends, single joint hinges arranged to have one leaf of each fast to said corner of the lifting-section, the other leaf being fast to the matching corner of the trunk-body, and a valance that overlaps the parting line where said lifting-section and trunk-body are hinged together. 4th. A trund-body, each end of which presents an irregular upper edge that is horizontal a certain distance from the front, then at an obtuse angle in an upward direction and thence at an acute angle in a downward direction, a lifting-section having the lower edges of its ends matched to the horizontal and obtuse angle contour of the body ends, its rear being on a bevel matching the rear upper corner of said body, and single joint hinges each of which has one leaf fast to the bevel rear corner of the lifting-section and its other leaf fast to the matching corner of the aforesaid body.

No. 50,195. Type-writing Machine. (*Clavigraphe.*)



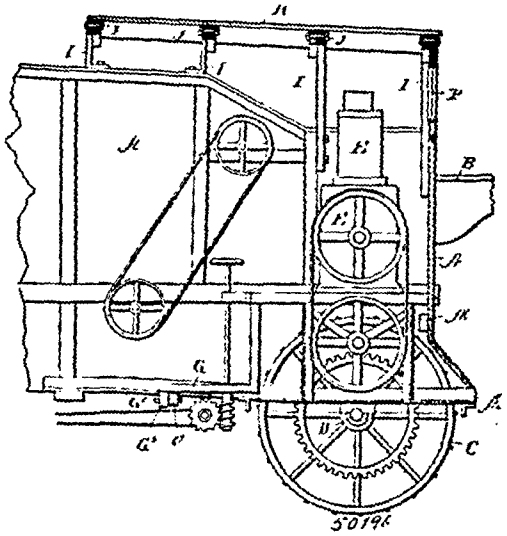
Herman L. Wagner, Derby, Connecticut, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. The combination, with a suitably actuated type-bar provided with a plurality of type, of a platen or paper carriage made vertically shiftable in a rectilinear direction so as to bring the paper to the printing points of the various types, movable arms C^{11} located on opposite sides of the machine and on which the carriage permanently rests and independent levers for shifting the arms, and a detent for holding the carriage after being shifted or raised, substantially as described. 2nd. The combination with a suitably actuated type-bar, of a platen or paper carriage, movable legs for the carriage, arms C^{11} made to engage said legs, a rock shaft to which said arms are fixed and an actuating lever for each of said arms, each actuating lever being loosely mounted on the rock shaft so as to be capable of independent actuation thereon, substantially as described. 3rd. The combination with a suitably actuated type-bar of a platen or paper carriage, movable legs for the carriage, arms C^{11} made to engage said legs, a rock shaft to which said arms are fixed, an actuating lever for each of said arms, and a detent for engaging one of said arms, the actuating lever of said last named arm being made to engage the detent to release the latter, substantially as described. 4th. The combination with a suitably actuated type-bar, of a platen or paper carriage, movable legs for the platen, independent cushioning springs O^{11} for said legs, arms C^{11}, made to engage said legs and an actuating lever (one or more) for said arms, said springs O^{11}, and arms C^{11} being located on opposite sides of the carriage, substantially as described. 5th. The combination with a suitably actuated type-bar, of a platen or paper carriage, arms C^{11} made to engage said legs, a rock shaft to which said arms are fixed and an actuating lever for each of said arms, each actuating lever being loosely mounted on the rock shaft and provided with its individual restoring spring, substantially as described. 6th. The combination with a platen, of a type-bar having a series of engaging recesses, and an actuating lever or key provided with a link having corresponding studs or projections made to successively enter said recesses during the movement of the type-bar, said type-bar turning on a pivot or fulcrum, and said recesses being located at varying distances from said fulcrum, so that the leverage is varied by the successive engagement of the recesses, substantially as described. 7th. The combination with a platen, of a type-bar provided with a flaring tail piece having recesses, and an actuating lever or key provided with a link having corresponding studs or projections made to successively enter said recesses during the movement of the type bar, said type-bar turning on a pivot or fulcrum, and said recesses being located at varying distances from said fulcrum, so that the leverage is varied by the successive engagement of the recesses, substantially as described. 8th. The combination with a platen, of a type-bar

provided with a tail piece having recesses or seats and an actuating lever provided with a link having corresponding studs or projections to successively enter said recesses during the movement of the type-bar, substantially as described. 9th. The combination with a platen, of a type-bar provided with a tail piece having recesses or seats and an actuating lever or key, a bell crank lever actuated by said key, and a link jointed to said bell crank lever and having its free end provided with studs or projections made to correspond to and to successively enter the recesses of the tail piece of the type-bar, substantially as described. 10th. The combination with a platen, of a type-bar provided with a tail piece having recesses or seats, and an actuating lever or key, a bell crank lever actuated by said key and having its fulcrum support arranged to act as a stop for the key, and a link jointed to said bell crank lever and having its free end provided with studs or projections made to correspond to and to successively enter the recesses in the tail piece of the type-bar, substantially as described. 11th. The combination with a suitably actuated type-bar provided with a plurality of type, and a pivot about which the type-bar swings, of a platen or paper carriage made vertically shiftable so as to bring the paper to the printing points of the various types, movable arms C^{11}, located on opposite sides of the machine and on which the platen permanently rests, and independent levers for shifting the arms, said levers being loose or detached from the arms C^{11}, so that the latter can move independently of the levers, substantially as described. 12th. The combination with a platen, of a type-bar actuating mechanism, substantially as described, for the bar, and a withdrawing link k^{111}, formed separate from the actuating mechanism and permanently connected to the bar at one end, the other end of the link being arranged in a guide l^{111}, and provided with a withdrawing spring braced against said guide, substantially as described. 13th. The combination with a platen, of a type-bar provided with a flaring tail piece, actuating mechanism, substantially as described, connected to said tail piece, and a withdrawing link formed separate from the actuating mechanism and permanently connected to said tail piece at one end, the other end of the link being arranged in a guide l^{111}, and provided with a withdrawing spring braced against said guide, substantially as described. 14th. The combination with a platen, of a type-bar provided with a flaring tail piece mounted on a fulcrum or support, actuating mechanism, substantially as described, connected to the tail piece at one side of the fulcrum and a withdrawing link formed separate from the actuating mechanism and permanently connected to the tail piece at the other side of the fulcrum, said link being led in a guide l^{111}, and provided with a withdrawing spring braced against said guide, substantially as described. 15th. The combination, with a platen of a type-bar, actuating mechanism substantially as described for the bar, a withdrawing link for said bar and a spring actuated lever or frame n^{111}, p^{111} engaged by the withdrawing link, substantially as described. 16th. The combination, with a suitably fed platen of a type-bar, actuating mechanism substantially as described for the bar, a withdrawing link for the bar and a spring actuated lever or frame n^{111}. p^{111} engaged for the withdrawing link, said spring actuated lever being connected to the feed of the platen, substantially as described. 17th. The combination, with a suitably fed platen of a type-bar, a ribbon frame adapted to bring its ribbon toward the platen during the forward or printing motion of the type-bar, and to withdraw the ribbon during the return movement of the type-bar, actuating mechanism substantially as described for the bar, a withdrawing link for the bar and a spring actuated lever or frame engaged by the withdrawing link, said spring actuated lever being connected to the platen feed and ribbon frame, substantially as described. 18th. The combination, with a platen having a fixed stop or catch and a movable spring actuated dog of a vibrating rack for alternately engaging the stop and the dog, a spring actuated lever or frame for actuating the rack, a type-bar, actuating mechanism substantially as described for the type-bar, and a withdrawing link made to extend from the type-bar to the spring actuated lever or frame, substantially as described. 19th. The combination, with a platen provided with a fixed stop and a pair of guides or eyes of a bar arranged to slide in said eyes, a spring braced or compressed against one of said eyes and against the bar, a dog and a shoulder made to extend from the bar at opposite sides of an eye so as to limit the vibration or sliding of the bar in the eyes, and a vibrating rack for alternately engaging the stop and the dog, substantially as described. 20th. The combination, with a platen provided with a fixed stop and a movable dog, of a vibrating rack for alternately engaging the stop and the dog, a spring *e* for pressing the dog toward the rack, an arm *f* for lifting the dog out of engagement with the rack, and a lever for actuating said dog lifting arm, said lever being made to extend forward of the platen, substantially as described. 21st. The combination, with a platen carriage, of a platen rotatably mounted in said carriage, a toothed wheel for rotating the platen, a lever made to actuate the toothed wheel, a movable dog on said carriage, a feed rack adapted to be engaged by said dog and a lifting arm for moving the dog out of engagement with the rack, said gear actuating lever being made to engage said lifting arm for actuating the said bar and axle and a rotary sleeve *s* mounted on the platen carriage and made to engage said lever, said sleeve being made to extend to the forward part of the carriage and being provided with a laterally projecting finger piece *t*, substantially as described. 22nd. The combination, with a platen carriage, of a platen mounted in said carriage, clasping arms or springs made to extend about the platen, a moveble bar or support N^{111}, for the arms and springs P^{111}, secured to the carriage and to the bar for holding the latter with the arms toward the platen, said bar N^{111}, being guided in ways O^{111}, at the forward part of the platen, substantially as described. 23rd. The combination, with a platen carriage, of a platen mounted in said carriage, clasping arms or springs made to extend about the platen, a movable bar or support N^{111}, for the arms, a roller Q^{111}, made to bear against said platen and having a movable axle or support and independent springs secured to said carriage and to the movable bar and axle for moving the said bar and axle independently of one another toward the platen, substantially as described. 24th. The combination with a platen, a type-bar and actuating mechanism substantially as described for said parts of a movable ribbon frame or carrier provided with a rigid hanger r^1, depending therefrom, and a forward and backward oscillating fork B^{111}, made to engage the hanger for moving the ribbon frame to carry the ribbon toward the platen during the forward or printing stroke of the type-bar and to withdraw the ribbon during the return stroke of the type-bar. 25th. The combination with a platen, type bar, and an actuating key for the type-bar, of a swinging or pivotally supported ribbon frame or carrier provided with a rigid hanger *r* depending therefrom, an arm A^{111} provided with a fork B^{111} made to engage the hanger an oscillating frame n^{111}, p^{111}, connected to the type-bar and made to support the arm A^{111}, and swinging arms o^{111}, to which said oscillating frame is jointed, substantially as described. 26th. The combination with a platen, a type-bar and actuating mechanism substantially as described for said parts, of a swinging or pivotally supported ribbon frame or carrier provided with spools or or bobbins for the ribbon, and with a rigid hanger r^1, and a forward and backward oscillating fork B^{111}, made to engage the hanger for swinging the ribbon frame and mechanism, substantially as described for rotating the spools during the operation of the device. 27th. The combination with a platen, a type-bar and actuating mechanism substantially as described for said parts of a swinging or pivotally supported ribbon frame or carrier provided with spools or bobbins for the ribbon, and with a rigid hanger r^1, and a forward and backward oscillating fork B^{111}, made to engage the hanger for swinging the ribbon frame and shiftable rotating mechanism for enabling the spools to be turned one way or the other during the operation of the device substantially as described. 28th. The combination with a platen, a type-bar and actuating mechanism substantially as described for said parts of a swinging or pivotally supported ribbon frame or carrier, a rigid hanger and horizontally oscillating fork B^{111}, for swinging the ribbon frame, ribbon spools or bobbins mounted on the ribbon frame and provided with ratchets, and pawls placed in such proximity to the ratchets that the swing of the ribbon frame will cause successive engagement of the teeth of a ratchet with a pawl so as to feed the ribbon, substantially as described. 29th. The combination with a platen, its supporting carriage, a vertically shiftable support for the carriage, a type-bar and actuating mechanism, substantially as described, for the carriage and bar, of a ribbon frame made to swing in the vertically shiftable carriage support and provided with ribbon spools or bobbins carrying ratchets, and pawls mounted in the carriage so as to remain fixed during the swing of the ribbon frame so that one or the other of said ribbon spools will carry its ratchet teeth into successive engagement with the pawl to rotate the spool, substantially as described. 30th. The combination with a platen, its supporting carriage, a vertically shiftable support for the carriage, a type-bar and actuatmg mechanism, substantially as described, for the carriage and bar, of a ribbon frame made to swing in the carriage support, and provided with ribbon spools or bobbins carrying ratchets, pawls for said ratchets and a shifting bar mounted in the carriage and made to support the pawls for shifting the latter, substantially as described. 31st. The combination with a platen, its supporting carriage, a vertically shiftable support for the carriage, a type-bar and actuating mechanism, substantially as described, for the carriage and bar, of a ribbon frame made to swing in the carriage support, and provided with ribbon spools or bobbins carrying ratchets, stop pawls for the ratchets, a shifting bar for throwing one stop pawl or another into action, and actuating pawls for said ratchets carried by the shifting bar, substantially as described. 32nd. The combination with a platen, its supporting carriage, a vertically shiftable support for the carriage, a type-bar and actuating mechanism, substantially as described, for the carriage and bar, of a ribbon frame made to swing in the carriage support and provided with ribbon spools or bobbins carrying ratchets, an arm jointed to the ribbon frame and provided with stop pawls for the ratchets, a shifting bar for swinging the stop pawl arm to bring one stop pawl or another into action, and actuating pawls for the ratchets secured to the shifting bar, substantially as described. 33rd. The combination with a type-bar provided with a plurality of type and actuating mechanism, substantially as described, for the bar, of a platen, a carriage for the platen made shiftable so as to bring the platen into correspondence with the various types on the bar, a ribbon frame provided with bobbins and pivoted or made to swing in the platen carriage support, and mechanism, substantially as described, for swinging the frame to bring the ribbon toward the platen during the forward or printing stroke of the type-bar and to withdraw the ribbon during the return stroke of said bar, said bobbins being made to swing with the frame so as to preserve uniform tension of the ribbon, substantially as de-

scribed. 34th. The combination with a type-bar provided with a plurality of type and actuating mechanism substantially as described for the bar, of a platen, a carriage for the platen mounted on a shiftable support so as to bring the platen into correspondence with the various types on the bar, a ribbon frame carried by the shiftable support, a feed rack for the platen, said feed rack being carried by the shiftable support, a lever frame for actuating the feed rack, and a link for conveying motion from the type-bar to the lever frame, substantially as described. 35th. The combination with a platen and a feed rack therefor of a series of type-bars, actuating keys or levers for said type-bars, a lever frame, a link made to extend from each of the type-bars to the lever frame, a forward and backward oscillating arm A^{111}, connected to the lever frame, a lever D^{111}, connected to said arm A^{111}, a link G^{111}, connected to the lever D^{111}, and a depending arm I^{111}, connected to the link G^{111}, and to the rack so as to convey motion to the latter, substantially as described. 36th. The combination with a platen and a feed rack therefor of a series of type-bars, actuating keys or levers for said type-bars, a lever frame connected to the rack for actuating the latter, a link made to extend from each of the type-bars to the lever frame, and a rod or bar provided with an eye or guide for each of the links, substantially as described. 37th. The combination with a platen, its feed rack and its shiftable carriage of a type-bar, an actuating key or lever for said type-bar, a lever frame connected to the rack for actuating the latter, a link made to extend from the type-bar to the lever frame, a ribbon frame movably supported in the carriage support, an actuating arm made to extend from the ribbon frame into movable connection with the lever frame in any position to which said ribbon frame may be carried by the carriage support, substantially as described. 38th. The combination with a platen, and its carriage of a transverse rod or support N^{111} in the carriage, and arms or clasps M^{111}, adjustably or slidably mounted on said rod or support, said rod N^{111}, being movably mounted in slots or seats in the carriage and springs P^{111}, for holding the rod N^{111}, toward the platen, substantially as described.

No. 50,196. Threshing Machine. (*Machine à battre.*)



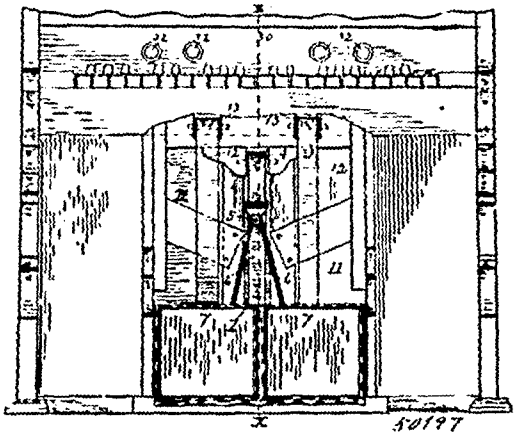
The Thresher Company, assignee of Charles F. Goddard, both of Chicago, Illinois, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. The combination in a threshing machine, of a separator and an engine upon a common frame, said engine provided with a protecting cab that prevents the grain from becoming entangled therewith. 2nd. The combination in a threshing machine, of a separator and an engine upon the same frame, a protecting cab for said engine that prevents the grain from becoming entangled therewith, the partitions of said cab nearest the engine being removable so as to allow the machinery to be inspected. 3rd. The combination, in a threshing machine, of a separator, an engine located at one side thereof and adapted to be connected to the cylinder of said separator, said separator and engine having a common frame, and a protecting cab removably connected to said separator and adapted to protect the engine and prevent the grain from becoming entangled therewith when the machine is in operation.

No. 50,197. Organ. (*Orgue.*)

John D. James, assignee of Edward E. Brock, both of Bentonville, Arkansas, U.S.A., 7th October, 1895; 6 years.

Claim.—1st. In an organ, the combination with the expansible reservoir and pedals thereof, of an elastic connection between the said reservoir and pedals, whereby upon an expansion of the said reservoir the pedals are drawn against the top of the pedal opening, substantially as described. 2nd. In an organ, the combination, with the expansible reservoir and pedals thereof, of a strap secured to the movable leaf of the said reservoir and being brought down



from the front of the organ case, a pulley mounted on the front end of the said strap, and an elastic cord having its opposite ends secured to the opposite pedals and having its central portion passing over the said pulley, substantially as described. 3rd. In an organ, the combination, with bellows and with pedals for expanding the said bellows, of a connection between the movable leaves of the opposite bellows, whereby they are caused to move in opposite directions, a reservoir, and an elastical connection between the said reservoir and pedals, whereby upon an expansion of the said reservoir the pedals are drawn against the top of the pedal opening, substantially as described. 4th. In an organ, the combination, with a plurality of bellows, and with mechanism for imparting motion to the movable members thereof, of a roller located behind and between the movable members of the said bellows, and a flexible connection passing over the said roller, and having its opposite ends secured to the movable members of the opposite bellows, substantially as described. 5th. In an organ, the combination, with the stop action and with pedals for producing the air current, of mechanism connecting the pedals and stop action, whereby the reed cells will be closed by the rising of the pedals, substantially as described. 6th. In an organ, the combination, with the stop action, and with pedals for producing the air current, of a crank, a flexible connection having its central portion movably connected with the said crank, and its ends connected with the pedals, and mechanism connecting the said crank and stop action, whereby the latter will be thrown in upon the rising of both pedals, substantially as described. 7th. In an organ, the combination, with the stops of the stop action, having lugs thereon, and with pedals for producing the air current, of a rocking rod adapted to bear against the lugs upon the said stop, a crank having a pulley thereon, a flexible connection having its opposite ends secured to the opposite pedal, and its central portion passing around the said pulley, and a connection between the said crank and rocking rod, whereby the stops will be thrown in upon the rising of both pedals, substantially as described. 8th. In an organ, the combination, with the stops of the stop action, with the pedals for producing the air current, and with an expansible reservoir, of a connection between the movable member of the said reservoir and the said pedals, whereby upon an expansion of the said reservoir the latter will be raised, a crank, a flexible cord having its opposite ends secured to the said pedal, and its central portion movably connected with the said crank, a rocking rod adapted to engage the stops of the stop action to close the reed cells, and a connection between the said crank and rocking rod, whereby the reed cells will be closed upon the rising of both pedals, substantially as described.

No. 50,198. Medicinal Compound. (*Composé médicinal.*)

Daniel Byer, Stouffville, assignee of Abraham B. Lehman, Pickering, and Henry Barkey, Markham, executors of the last will and testament of David Byer, late of Markham, all in Ontario, Canada, 7th October, 1895; 6 years.

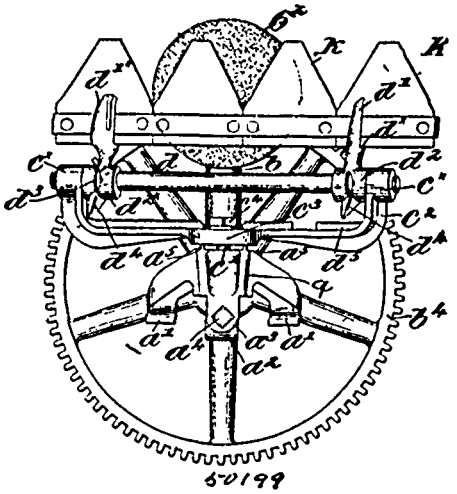
Claim.—A medicinal compound, in the form of a plaster, composed of zinc chloride, blood root, flour, acid chromic and baking soda, in the proportions and for the purpose set forth.

No. 50,199. Knife and Sickle Grinder.
(*Aiguiseur de faucille et couteau.*)

Herbert Charles Deane and Samuel W. Sawyer, both of Fitchburg, Massachusetts, U.S.A., 7th October, 1895; 6 years.

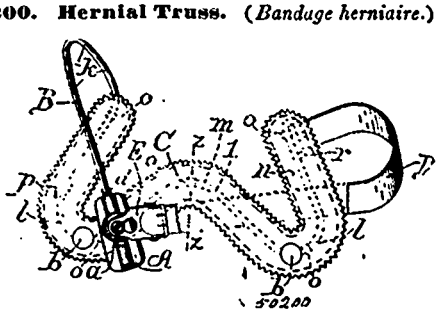
Claim.—1st. In a grinding machine, a base plate provided with a clamp to secure it to a desired support, a standard on the base plate, and a grinding disc and its driving mechanism carried by said standard, combined with a carrier mounted upon the base plate and adapted to slide thereon towards or from the face of the grinding disc, means to hold it in adjusted position, and a rock-shaft mounted loosely in bearings of said carrier and provided with independent

finger rests to receive and position the cutter-bar having the blades or sections to be ground, substantially as described. 2nd. In a



grinding machine, a slotted base plate provided with a clamp to secure it to a desired support, a standard on the base plate, and a grinding disc and its driving mechanism carried by said standard, combined with a carrier, a bolt extended through the slotted base plate and connecting the carrier thereto, whereby the latter may be swung upon it as a centre or moved bodily upon the plate, and a set nut to hold the carrier in adjusted position, substantially as described. 3rd. In a grinding machine, a base plate provided with means to secure it to a support, a rigid standard on the plate, a grinding disc carried by the standard and driving mechanism for said disc, combined with a yoke-like carrier adjustable on the base plate, a rock-shaft mounted therein, and independently adjustable finger rests on said rock-shaft, substantially as described. 4th. In a grinding machine, a base plate provided with means to secure it to a support, a standard, a grinding disc carried by the standard, and driving mechanism for the disc, combined with a carrier adjustably mounted on the base plate, a rock-shaft mounted on said carrier, and finger rests mounted on said rock-shaft, and having hubs provided with stops, and a co operating track to limit the amount of rotation of the rock-shaft, substantially as described. 5th. A grinding disc, a standard having a bearing therefor, a base plate, and a carrier mounted adjustably on said base plate and adapted to be *tipped thereon to gain the desired angular presentation to the* disc of the bevelled edge of a cutter blade to be ground, and a rock-shaft mounted on said carrier, and provided with finger rests having stops, combined with a track on said carrier notched as described to enable a stop of one of said rests to pass across said track, substantially as described.

No. 50,200. Hernial Truss. (*Bandage herniaire.*)

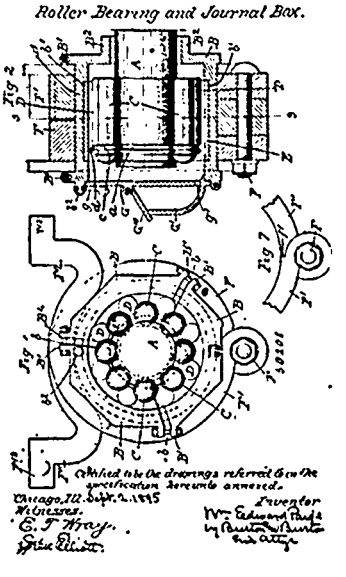


William Henry Eugene Bravender, Warners, and The Weedsport Spring Wire Truss Company, assignees of Ben Ralph Lathrop, Weedsport, all of New York, U.S.A., 8th October, 1895; 6 years.

Claim.—1st. In a truss, a pressure pad, a battery placed therein, and a screw passing through the bearing face of the pad, and making contact with the battery pole or casing, and provided with a pole plate, combined with the support B, connected at one end to *the pad, the back pad mounted on the support and provided with* the poles *b*, which are connected with the support, and the wire *d*, substantially as shown. 2nd. The combination in a hernial truss, of a forwardly-disposed pressure pad, a bent spring-metal support terminating rearwardly in a longitudinally W-shaped portion, a similarly shaped back pad following and secured to the aforestated W-shaped portion of the spring-metal support, and poles on said back pad connecting with the support, and a battery placed within the front pad connected to the support and to a pole plate on said pad, substantially as described. 3rd. In a truss, the combination with a spring metal support, of a front pad connected to the forward extremity thereof, and a back pad of W-shape longitudinally secured to the W-like contoured rear portion of said support, substantially as described. 4th. In a hernial truss, the combination with a front pad and a rear pad of a metallic curvilinear support connecting the said pads, which support, formed of one integral length, comprises laterally an upward and rearward extended bow-portion adapted to rise over the side of the wearer's hip, and rearwardly a W-like shaped portion whereto the rear pad is connected, and adapted to bear at the rear of the hip-bones and the small of the back of the user, substantially as described. 5th. The combination in a truss for hernia, etc., of a spring-wire curvilinear support, a front pad adjustably and detachably mounted thereon at its forward extremity, an upwardly-arched bow to the support above and rearwardly the front pad, said bow continuing substantially right angularly into a longitudinally W-configurated rear portion, its lower segment-shaped parts forming bearings at the back portions of the wearer's hips, and the intermediate upwardly arched *part forming a bearing across the small of one's back, said* W-bent rear portion being provided with a cushioned pad of W-shape longitudinally adapted to rest directly upon the person of the wearer, substantially as described. 6th. The combination in a truss, of a curvilinear support comprising laterally an uprising bow and rearwardly a W-shaped portion upon a differential plane, a front pad on the pendant extremity of the bow portion, a W-contoured back pad upon the W-shaped portion of the support, said back pad comprising a W-like backing secured by fastenings to the aforesaid portion of the support and a W-shaped cushioning secured to the backing, substantially as shown.

No. 50,201. Roller Bearing and Journal Box.
(*Coussinet à rouleaux et boîte à graisse.*)

Roller Bearing and Journal Box.



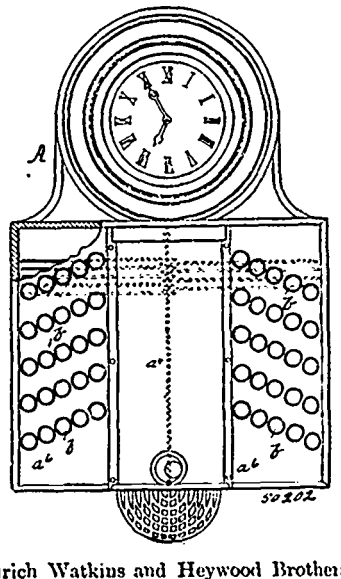
The International Patent Promotion and Manufacturing Company, assignee of William Edward Paige and Joshua F. Wright, all of Chicago, Illinois, U.S.A., 8th October, 1895; 6 years.

Claim.—1st. In a journal bearing in combination with the shaft, a divided box, anti-friction rollers interposed between the shaft and the box, the box having a continuous lining ring which encompasses the rollers and constitutes the seat thereof on the box, and suitable means for contracting the box by radially closing up its parts, whereby the ring is contracted upon the rollers, substantially as set forth. 2nd. In a journal bearing, in combination with the shaft and a divided box provided with a continuous lining ring, anti-friction rollers interposed between the shaft and the box and encompassed by the lining ring of the latter, said rollers being arranged in two series, the individuals of one series being seated on the shaft and not in contact with each other successively nor with the box, the individuals of the other series alternating with the individuals of the first series and in contact therewith respectively and with the box, but not with the shaft, and suitable means for reducing the *box by radially closing up its parts, substantially as set forth.* 3rd. In a journal bearing, in combination with the shaft, a box composed of a plurality of parts radially divided, anti-friction rollers interposed between the shaft and the box, and a support for the box consisting of a band encompassing the same, and adapted to receive the pressure or load which the axle sustains and be closed up thereby. 4th. In a journal bearing, in combination with the shaft, a box composed of a plurality of parts radially divided, anti-friction rollers interposed between the shaft and the box, and a support for

the box consisting of a band encompassing the same, the end portion of such band being extended past each other and adapted to receive the pressure or load which the axle sustains, substantially as set forth. 5th. In a journal bearing, in combination with the shaft, anti-friction rollers arranged thereabout in an inner and outer series, the individuals of the inner series being in contact with the shaft, but not with each other, and the individuals of the outer series alternating with the individuals of the inner series and seating thereon respectively, but not in contact with the shaft nor with each other, a divided journal box provided interiorly with a suitable seat for the outer series of rollers and adapted to be contracted by having its parts closed up radially, a support for such journal box consisting of a band which encompasses its divided parts, and adapted to receive the pressure or load which the axle sustains and to be closed up thereby. 6th. In a journal bearing, in combination with the shaft, an inner and an outer series of anti-friction rollers, the individuals of the one series alternating with the individuals of the other series, the inner series only being in contact with the shaft, a divided journal box and a ring which lines the same and which encompasses the rollers and affords seat for the outer series, a support for the divided journal box which consists of a band encompassing its several parts, the said band being adapted to receive the pressure or load which the axle sustains and to be closed up thereby. 7th. In a car axle box, in combination substantially as set forth, the three-part box B, B, B, the continuous lining ring E within said box, the axle and two series of anti-friction rollers interposed between the axle and the lining ring, the inner series being seated upon the axle, the outer series alternating therewith and seated upon the individuals of the inner series respectively and upon the lining ring, the equalizer F^1, F^1 encompassing the three-part box and retaining its parts together, said equalizer being adapted to receive the load on the ends and to be closed up thereby. 8th. In a car axle box, the equalizer composed of the hinged parts F^1, F^1 and terminating in the seats F^{12}, F^{12} adapted to receive the load, the three-part journal box encompassed and adapted to be clamped by said equalizer, the spring lining plate E for said journal box, the axle and the anti-friction rollers interposed between the same and the lining ring, said journal box being reduced at the inner side to form the hub B^2, and provided at the forward side with the door G, said door having an oil pocket in its forward side, and an aperture at the bottom of the oil pocket leading into the cavity of the lower part B of the three-part box, substantially as set forth. 9th. In a car axle box, in combination with the divided box and the anti-friction rollers seated therein, the equalizer encompassing the box and retaining its several parts and adapted to receive the load and be closed up thereby, said equalizer being made up of two parts hinged together at the bottom, whereby it is adapted to be clasped upon and unclasped from the box by folding at such hinge. 10th. In a car axle box, in combination with the divided box and the anti-friction rollers seated therein, the equalizer encompassing the box and retaining its several parts and adapted to receive the load and be closed up thereby, said equalizer being made up of two parts hinged together and thereby adapted to be clasped upon and unclasped from the box, said hinge being provided with a stop shoulder to limit the folding of such equalizer and cause it to operate as integral under the weight of the load.

No. 50,202. Workmen's Time Recorder.

(*Appareil à enregistrer le temps.*)

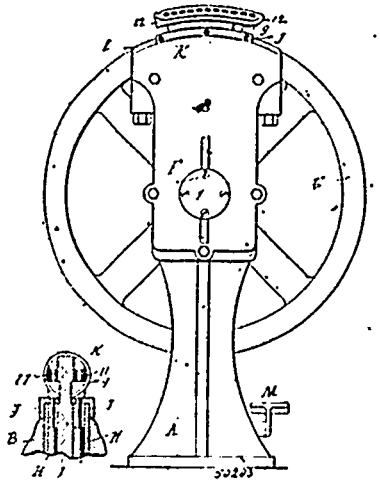


Edward Goodrich Watkins and Heywood Brothers & Co., all of Gardner, Massachusetts, U.S.A., 8th October, 1895; 6 years.

Claim - 1st. In a workman's time recorder, in combination, a rotatable cylinder arranged to carry a record sheet, complemental recording mechanism, spindles *w* and *z* upon which said cylinder rotates, a chambered block in said cylinder enclosing one end of the spindle *w*, a collar on said spindle and a helical spring surrounding said spindle and bearing against said collar and against the end of the chambered block, substantially as and for the purpose described. 2nd. In a workman's time recorder, in combination, a rotatable cylinder arranged to carry a record-sheet, complemental recording mechanism, spindles *w* and *z* upon which said cylinder rotates, yielding connections between said cylinder and the spindle *w*, a clock mechanism, a sleeve on the spindle *z*, connections between said clock mechanism and said sleeve, a spring-pressed boss-provided arm on said sleeve carrying a pin to engage the end of said cylinders, substantially as and for the purpose set forth. 3rd. In a workman's time recorder, in combination, a rotatable cylinder arranged to carry a record-sheet, complemental recording mechanism, spindles *w* and *z* upon which said cylinder rotates, and yielding connections between said cylinder and said spindle *w*, substantially as and for the purpose described. 4th. In a workman's time recorder, in combination, a rotatable cylinder arranged to carry a record-sheet, means for rotating said cylinder, a series of recording pins, a series of movable buttons, a series of movable parts between said pins and buttons so constructed and arranged that a record is made upon a movement of the buttons in either direction, substantially as and for the purpose described. 5th. In a workman's time recorder, in combination a rotatable cylinder arranged to carry a record-sheet, means for rotating said cylinder, a series of recording pins, a series of movable buttons, a series of movable parts between said pins and buttons so constructed and arranged that the said buttons can be operated in both directions to make a record and retained in their operating position until positively operated in the opposite direction, substantially as and for the purpose described. 6th. In a workman's time recorder, in combination; a recording cylinder arranged to carry a record-sheet, means for rotating said cylinder, a series of spring-pressed recording pins, a series of sliding bars provided with notches the sides of which operate said pins, and a series of buttons and connecting parts for operating said bars, substantially as and for the purpose described. 7th. In a workman's time recorder, in combination, a rotatable cylinder, arranged to carry a record-sheet, means for rotating said cylinder, a series of recording pins, a series of levers for operating said pins, a series of buttons, and connections between the buttons and levers for retaining the buttons in their operated position, substantially as and for the purpose described. 8th. In a workman's time recorder, in combination, a rotatable record cylinder, a series of recording pins, a series of levers, for operating said pins, a series of buttons, connections between said buttons and levers including a lever having the form of a triangle pivoted upon one of its sides and having one of its angles arranged to engage said pin-operating levers, substantially as and for the purpose described. 9th. In a workman's time recorder, in combination, a rotatable record cylinder and complemental recording mechanism, means for rotating said cylinder, a record-sheet upon said cylinder provided with a series of indicating figures corresponding to the time columns on the opposite side of said record-sheet, an indicator opposite the point where the records are made, whereby the operator is enabled to adjust the record-sheet on the cylinder with reference to the position of the recording pins or type, substantially as and for the purpose described. 10th. In a workman's time recorder, in combination, a rotatable cylinder, a yielding facing on said cylinder, a series of recording types arranged in a row, a series of levers and buttons for operating said type, and an adjustable ink-ribbon between said type and the cylinder, substantially as and for the purpose described. 11th. In a workman's time recorder, in combination, a rotatable cylinder mounted upon the spindle *z* and *w*, the friction crank z^1, the clock mechanism, and a leaf-spring interposed between said clock mechanism and said crank, substantially as and for the purpose described. 12th. In a workman's time recorder, in combination, a rotatable cylinder, spindles *z* and *w*, upon which said cylinder is mounted, the block w^4, the collar w^2, the spring w^3 arranged to counterbalance the weight of the cylinder, substantially as and for the purpose described. 13th. In a workman's time recorder, in combination, a rotatable cylinder mounted upon spindles *z* and *w*, the friction crank z^1, driving mechanism, a leaf-spring, interposed between said crank and one of the wheels of said driving mechanism, the block w^4 in which the spindle *w* extends, the spring w^3, arranged around said spindle within said block and bearing against the collar w^2 fast on said spindle, substantially as and for the purpose described. 14th. In a time recorder, the combination with the case, the rotatable cylinder adapted to carry the time sheet and the parallel pivoted marking lever, of two links pivoted to the case, a rod having its respective ends connected with the free ends of the said links, said rod being arranged in the path of travel of the marking levers and essentially perpendicular thereto, a bell, and an operative connection between the said rod and the bell, substantially as described. 15th. In a workman's time recorder, in combination, a rotatable cylinder, spindles *w* and *z*, upon which said connections including a worm, as z^{18} between said cylinder and said motor mechanism, substantially as and for the purpose set forth. 16th. A driving member, comprising in its construction a wheel provided with a hub, a crank arm loosely mounted upon said hub, yielding connections between said crank

and wheel, and means for holding said crank on said hub, substantially as and for the purpose set forth.

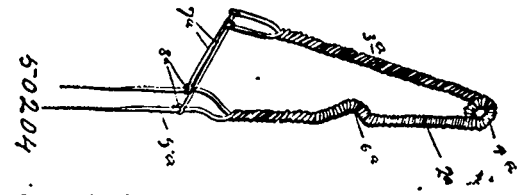
No. 50,203. Machine for Perforating Hollow or Pneumatic Tires. (*Machine pour perforer les bandages pneumatiques.*)



Fred W. Morgan and Rufus Wright, assignee of Rufus Wright and John E. Parker, all of Chicago, Illinois, U.S.A., 8th October, 1895; 6 years.

Claim.—1st. A machine for perforating pneumatic tire-sheaths, comprising one or more series of reciprocating punches arranged for perforating the sheath alongside a longitudinal slit in the base portion thereof, a head provided with guide-ways for the reciprocating punches, and a shoe or die-plate arranged over the cutting ends, of of the punches and rigidly connected with the head, the said shoe or die-plate being graduated in width and length to admit of its introduction and removal through the split in the sheath, and being arranged with relation to the head to permit the marginal portions of the sheath along the split to lie between the shoe or die-plate and the head and abut against the connection between the head and the shoe or die-plate, substantially as set forth. 2nd. A machine for perforating pneumatic tire-sheaths, comprising one or more series of reciprocating punches for perforating the sheath alongside a longitudinal slit in the base portion thereof, a head provided with guide-ways for the reciprocating punches and having a curved face through which the punches are arranged to work, and a shoe or die-plate connected with the head and having a curved face arranged over the punches, said shoe or die-plate being graduated in width and length with reference to its introduction and removal through the split in the sheath, and being arranged with relation to the head to permit the marginal portions of the sheath along the split to lie between the curved faces of the shoe or die-plate and the head and abut against the connection between the head and the shoe or die plate, substantially as set forth. 3rd. A machine for perforating pneumatic tire-sheaths comprising a head having a face curved with reference to the annular curvature of a pneumatic tire-sheath, a shoe or die-plate arranged over the curved face of the head and having a correspondingly curved face, a neck rigidly connecting the shoe or die-plate with the head, and reciprocating punches arranged to work through the curved face of the head at opposite sides of the neck, the said shoe or die plate being graduated in width and length with reference to its introduction and withdrawal through a split in the base of a pneumatic tire-sheath, and arranged to permit the edge portions of the sheath along such split to lie between the opposing curved faces of the head and the shoe or die-plate and abut against the neck. 4th. A machine adapted for perforating pneumatic tire-sheaths, having longitudinally split base portions, and comprising a couple of parallel series of reciprocating punches, a head having guide-ways for the punches, and a shoe or die-plate adapted in size with reference to its insertion and removal through the split in the base of the sheath and connected with the head by a neck arranged in a plane between the planes in which the two series of reciprocating punches operate, said shoe or die-plate being provided with female dies 11, substantially as described. 5th. A machine for perforating pneumatic tire-sheaths, comprising a set of radially arranged reciprocating punches, a head provided with guide-ways for the radially arranged reciprocating punches, and a shoe or die-plate arranged opposite the cutting ends of the punches and adapted for insertion and removal through an opening formed longitudinally through the base portion of a pneumatic tire-sheath, said shoe or die-plate and its connection with the head being also arranged to permit the edge portions of the sheath along its longitudinal opening to lie between the head and the shoe or die-plate, substantially as set forth. 6th. A perforating machine, comprising a movable abutment for operating the punches, and a series of radially arranged reciprocating punches having shifting connections with the movable abutment, for the purpose set forth. 7th. A machine for perforating pneumatic tire-sheaths, comprising a set of radially arranged reciprocating punches, a head provided with guide-ways for the said punches, and a shoe or die-plate arranged opposite the cutting ends of the punches and adapted for insertion and removal through a longitudinal opening in the base portion of a pneumatic tire-sheath, substantially as set forth. 8th. A machine for perforating pneumatic tire-sheaths, comprising a movable abutment arranged for operating the punches and consisting of a reciprocating plunger, a set of reciprocating radially arranged punches having shifting connections with the reciprocating plunger, a head provided with guide-ways for the reciprocating punches and having a curved face through which the punches are arranged to work, and a shoe or die-plate for the purpose set forth, connected with the curved face of the head, and having a curved face arranged opposite said curved face of the head, substantially as described. 9th. A machine for perforating pneumatic tire-sheaths, comprising a reciprocating plunger G for operating the punches, a set of radially arranged punches having shifting connections with the plunger, a head I provided with guide-ways for the reciprocating punches and having a curved face, and a shoe or die-plate K arranged over the curved face of the head and connected therewith by a neck, substantially as described. 10th. A machine for perforating pneumatic tire-sheaths, comprising a casing B, a reciprocating plunger G, an eccentric 4 for operating the plunger, a set of radially arranged reciprocating punches, a head I provided with guide-ways for the punches, a shoe or die-plate K arranged over and connected with the head, substantially as described. 11th. In a perforating machine, a plunger having its top provided with a curved groove or way, a series of punches carrying blocks or bases working in the way, a head block having radially disposed openings in which the punches work, and a die-plate with which the punches co-act. 12th. A perforating machine, comprising a casing B, a plunger G located therein, a sliding box and drive shaft for operating the plunger, a series of punches H connected with the plunger, a head block I having radially disposed openings in which the punches work, a shoe K on the head block having openings with which the punches co-act, and a plate J on the head block, substantially as described.

No. 50,204. Vegetable Fork. (*Fourche pour légumes.*)



George Benjamin Norton Dow, Manchester, and William Andrew Jackson Giles, Concord, both of New Hampshire, all in the U.S.A., 8th October, 1895; 6 years.

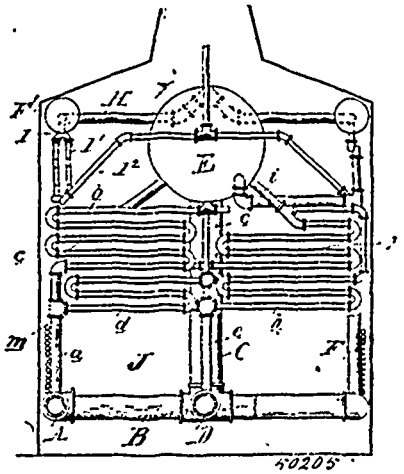
Claim.—1st. In combination with a fork, a displacer connected with and movable along the tines thereof, for the purpose set forth. 2nd. In combination with a fork, a displacer in the form of a flexible section extending from the handle thereof and having ends connected with and movable along the tines of the fork, for the purpose set forth. 3rd. As an article of manufacture, the herein described fork consisting of a pair of arms, a spring connecting the outer ends of said arms, tines secured to the front end of one of the said arms and rods pivoted to the outer end of the other arm having loops thereon surrounding said tines, substantially as and for the purpose described. 4th. As an article of manufacture, the herein described fork consisting of a pair of arms, one of which is provided with a finger loop and a spring connecting the outer ends of said arms, tines secured to the other end of one of said arms, rods pivoted to the outer end of the other of said arms, loops on the ends of said rods adapted to surround said arms thereby compressing said tines, said rods will be forced outwardly on said tines, substantially as and for the purpose described. 5th. As an article of manufacture, the herein described fork made up of continuous strands of wire twisted to form the two arms of the handle and a coil at its centre forming a spring for normally holding said arms apart, tines integral with one of said arms, and rods integral with the other having loops formed in the outer ends of said arms, substantially as and for the purpose described.

No. 50,205. Steam Generator. (*Générateur à vapeur.*)

Anson C. Dearing and Jacob Siegel, both of Detroit, Michigan, U.S.A., 8th October, 1895; 6 years.

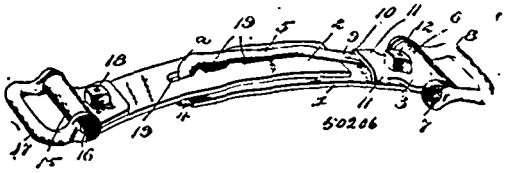
Claim.—1st. In a boiler, the combination of a pine frame comprising a rectangular base, a central connection between the end pipes thereof, vertical risers centrally of the end pipes, a steam drum into the ends of which these risers connect, vertical risers at the corners of the base, steam drums into the ends of which these corner risers connect, connection between the side and main steam drums, and looped circulating pipes connecting the side base pipes and the central connecting pipes alternately with the main drum, substan-

tially as described. 2nd. The combination with the side pipes A, and the drum E, of the risers *a*, from those side pipes on opposite



sides, the looped coil *d*, springing from the risers on opposite sides, the central riser *c*, into which these coils connect and which connects into the bottom of the steam drum, and the opposite looped coils *b*, connecting from the top of the risers *a*, into the top of the steam drum, substantially as described. 3rd. In a boiler, the combination of the rectangular pipe base, the connecting pipe D, centrally joining the ends thereof, the risers C, at the ends of said pipes, the drum E, in the end of which the risers C connect, the intermediate risers *e*, on the connecting pipe D, the looped coil *h*, on opposite sides of the riser *e*, the looped coil *j*, at the top of the riser *e*, and the pipes *i*, through which the pipes *n*, *j*, communicate with the drum connecting into the drum, substantially as described. 4th. In a boiler, the combination of the horizontal pipe base and the steam drum E, connecting therewith, of the risers *l*, at the ends, of the side pipes thereof, a series of looped coils *m*, connected at one end into said risers and at the other end into a central riser, and said central riser connected into the steam drum, substantially as described. 5th. In a boiler, the combination of the pipe frame, comprising the rectangular base, a central connection between the end pipes thereof, vertical risers centrally of the end pipes and steam drum into which the ends of these risers connect, vertical risers at the corners of the base, steam drums at the sides into the ends of which these corner risers connect, connecting pipes between the side and the main steam drum, a perforated diaphragm in the side steam drum, a steam supply pipe leading from above said diaphragm, superheating coils I^1, forming a continuation of said supply pipe and connecting between the super-heating coils, substantially as described.

No. 50,206. Hame Fastener. (*Couplière d'attelles.*)



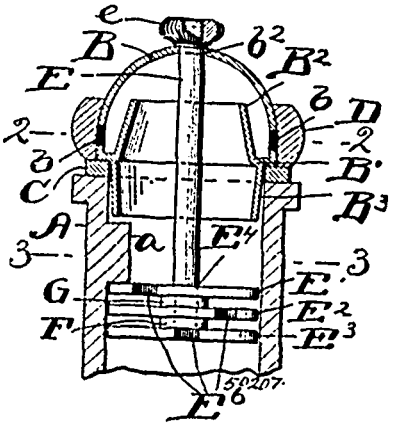
Thomas M. Martin and George E. Watson, both of Omaha, Nebraska, U.S.A., 8th October, 1895; 6 years.

Claim.—A hame fastener consisting of two sections each adapted to be respectively connected to the hames, one of the sections having a series of openings therein, the remaining section having its outer end bent first to form an eye for permitting the device to be attached to the hames, and finally to form a lip overhanging the main portion of the section, a bolt passing through said bent portion between the eye and lip, and through the main portion of the section and operating to brace the bent portion, and an eccentric lever fulcrumed to the inner end of the section having the lip and adapted to pass through the openings of the remaining section and arranged to have its outer end inserted under and held in place by said lip, substantially as described.

No. 50,207. Device for Preventing Refilling of Bottles. (*Appareil pour empêcher le remplissage des bouteilles*)

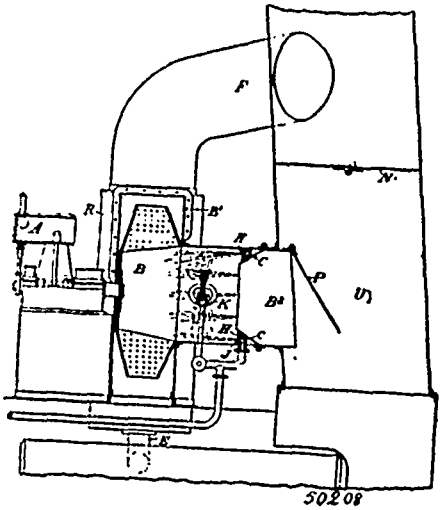
Robert Edson Gill and Frederick William Bottz, both of Cleveland, Ohio, U.S.A., 8th October, 1895; 6 years.

Claim.—1st. The combination with the neck of a bottle, of a cap arranged transversely of the passage-way through said neck and provided with a series of lateral perforations, a washer interposed between said cap and the bottle-neck, said washer being composed of a substance or material adapted to swell upon being moistened, means for locking the cap to the bottle-neck, and a cork or stopper



for interrupting communication between the aforesaid perforations in the cap and the external atmosphere, substantially as set forth. 2nd. The combination with the neck of a bottle, of a cap arranged transversely of the passage way through said neck, said cap being provided with a series of perforations arranged at suitable intervals in the sides of the cap, and being provided internally with a tubular member projecting upwardly above said perforations, means for locking the cap in position, and a cork or stopper for interrupting communication between the aforesaid perforations and external atmosphere, substantially as shown, for the purpose specified. 3rd. The combination with the bottle-neck provided internally with a seat A^1, a cap supported from said seat, said cap being provided with a series of lateral perforations arranged at suitable intervals in the sides of the cap, and said cap being provided internally with a tubular member arranged a suitable distance from the inner surface of the perforated sides and projecting above the aforesaid perforations, a cork washer interposed between the cap and the aforesaid seat, means for locking the cap in place, and a cork or stopper for interrupting communication between the perforations in the cap and external atmosphere, substantially as shown and described. 4th. The combination with the bottle-neck provided internally with a laterally and inwardly-projecting lug *a*, a cap B, arranged a suitable distance above said lug and transversely of the passage-way through the neck, said cap being provided with lateral perforations *b*, in the sides thereof, of an upright turnable stem extending downwardly through the aforesaid cap, said stem, at its upper end, above the cap being provided with a removable head *e*, a vertically perforated disc E^3, fixed to the lower end of the stem, and two other vertically perforated discs E^1 and E^2, arranged a suitable distance apart and loosely mounted upon the stem a suitable distance above the fixed disc, each of said discs being provided with a vertical slot E^6, that extends from the edge of the disc inwardly and is open at its outer end, all arranged and operating substantially as shown, for the purpose specified. 5th. The combination with the bottle-neck provided internally with a laterally and inwardly projecting lug *a*, a suitable distance from the upper extremity of the neck, and a cap supported from the bottle-neck and provided with a series of lateral perforations arranged at suitable intervals, of a washer interposed between said cap and the bottle-neck, said washer being composed of a substance or material adapted to swell upon being moistened, an upright turnable stem extending downwardly the aforesaid cap, said stem, at its upper end, above the cap, being provided with a head, any suitable number of vertically perforated discs upon the lower portion of said stem below the aforesaid lug, and each of said discs being provided with a vertical slot that extends from the edge of the disc inwardly and is open at its outer end, substantially as shown, for the purpose specified. 6th. The combination with the bottle-neck provided internally with a laterally and inwardly projecting lug *a*, a suitable distance from the upper extremity of the neck, and provided also internally with an annular seat A^1, located between the aforesaid lug and upper extremity of the neck, of a cap B, located a suitable distance below the upper extremity of the bottle-neck and supported within the neck of the aforesaid seat, said cap being provided with a series of perforations *b*, arranged at suitable intervals in the sides of the cap, a cork washer interposed between the lower end of the cap and the aforesaid seat, a stem E, extending downwardly through the cap below the aforesaid lug, said stem above the cap being provided with a removable head, discs E^1 and E^2, loosely mounted upon the stem a suitable distance apart, another disc E^3, fixed upon the stem below said loose discs and each of said discs being provided with a slot E^6, extending from the edge of the disc inwardly and open at its outer end, means for preventing vertical displacement of the loose discs, and a cork closing the upper end of the passage-way through the bottle neck, all arranged and operating substantially as shown, for the purpose specified.

No. 50,208. Apparatus for Treating the Fire Gases Evolved in Steam Boiler and other Furnaces. (*Appareil pour le traitement des gazes se dégageant des chaudières à vapeur et autres.*)

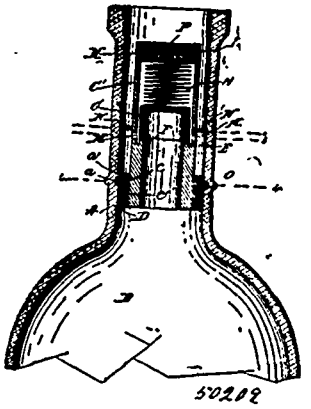


James Patterson Gourock and James R. Sandilands, Glasgow, both in Scotland, 8th October, 1895; 6 years.

Claim.—1st. The combination with the funnel, uptake or flue of a furnace or other part where gases are generated, of a fan connected with such funnel, uptake or flue, and of a jet or jets of water through which the gases are caused to pass on their way to the fan, substantially as and for the purpose specified. 2nd. The combination with the funnel, uptake or flue of a furnace or other part where gases are generated, of a fan connected with such funnel, uptake or flue, a jet or jets of water through which the gases are caused to pass on their way to the fan, and of an inducing nozzle serving to assist in drawing the gases into the former, all substantially as and for the purpose specified.

No. 50,209. Non-Fillable Bottle.

(*Appareil pour empêcher le remplissage des bouteilles.*)

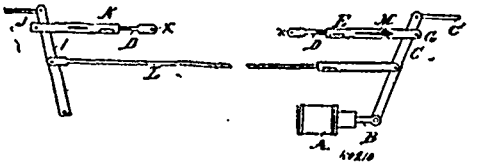


Adolph Henry Friese, New York, State of New York, U.S.A., 8th October, 1895; 6 years.

Claim.—1st. The combination with the neck of a bottle, of a tube secured concentrically therein, so as to form an annular chamber around the same, said tube being provided with an upper extension, within the base of which is formed an annular valve seat, a spring operated valve adapted to be seated thereon, and said extension being provided with ports or openings through the sides thereof, substantially as shown and described. 2nd. The combination with the neck of a bottle, of a tube secured concentrically therein, so as to form an annular chamber around the same, said tube being provided with an upper extension, within the base of which is formed an annular valve seat, a spring operated valve adapted to be seated thereon, and said extension being provided with ports or openings through the sides thereof, and projections or shields arranged above said ports or openings, substantially as shown and described. 3rd. The combination with the neck of a bottle, of a tube secured concentrically therein, so as to form an annular chamber around the same, said tube being provided with an upper extension, within the base of which is formed an annular valve seat, a spring operated valve adapted to be seated thereon, and said extension being provided with ports or openings through the sides thereof, and projections or shields arranged opposite said ports or openings, and the top of the tubular extension being closed, substantially as shown and described. 4th. The combination with the neck of a bottle, of a tube secured concentrically therein, so as to form an annular chamber around the same, said tube being provided with an upper extension, within the base of which is formed an annular valve seat, a spring operated valve adapted to be seated thereon, and said extension being provided with ports or openings through the sides thereof, and projections or shields arranged opposite said ports or openings, and the top of the tubular extension being closed by a disc of cork and above which is placed a metal disc, secured in place by tin or similar metal which is placed in position while in a molten condition, substantially as shown and described. 5th. The combination with the neck of a bottle, of a tube secured concentrically therein, said tube being provided with a ring or cork or similar material by which the space between the tube and the neck of the bottle is closed, and the bottom of said tube being provided with annular outwardly directed shoulders or flanges, and the inner walls of the neck of the bottle with an annular groove adjacent to said shoulders or flanges, said tube being secured in place by means of molten tin or similar material poured into said space, so as to fill the annular space between the said annular shoulders or flanges and said annular groove, and said tube being provided with a spring operated valve and with an extension which surrounds said valve, which is provided with ports or openings through the sides thereof, substantially as shown and described. 6th. A tubular attachment for bottles, adapted to be placed in the neck thereof, consisting of a tube, adapted to be secured in the neck of the bottle, the upper end of which is provided with a tubular extension, within the base of which is formed an annular valve seat on which is placed a spring operated valve, and said extension being provided at its base with ports or openings, substantially as shown and described. 7th. A tubular attachment for bottles, adapted to be placed in the neck thereof, consisting of a tube, adapted to be secured in the neck of the bottle, the upper end of which is provided with a tubular extension within the base of which is formed an annular valve seat on which is placed a spring operated valve, and said extension being provided at its base with ports or openings, and with shields or projections above the said ports or openings, and the top of the tube being closed by a disc between which and the valve, the spring by which the valve is operated is located, substantially as shown and described.

No. 50,210. Brake Slack Adjuster.

(*Ajusteur de frein non-tendu.*)



Frank Robinson, Bangor, Maine, and James H. Sewall, Worcester, Massachusetts, both in the U.S.A., 8th October, 1895; 6 years.

Claim.—1st. In a brake slack adjuster, the combination of a take-up joint, actuating means for the joint, and a lock for the joint adapted to be released upon the actuation of the joint. 2nd. In a brake slack adjuster, the combination of a take-up joint, actuating means for the joint, and a lock for the joint released by the said actuating means. 3rd. In a brake slack adjuster, the combination of a take-up joint in the brake actuating mechanism, a lock therefor, and a lever of the brake actuating mechanism adapted to release the lock and to actuate the take-up. 4th. In a brake slack adjuster, the combination of the lever C, actuated from the brake cylinder, the take-up device as described pivoted to the car at one end and having a loose connection with said lever at the opposite end, the lever I, the take-up device as described pivoted to the car at one end and having a loose connection with said lever at the opposite end, a fulcrum or tie rod, connecting said levers, and a take-up joint in said tie rod, as and for the purpose described.

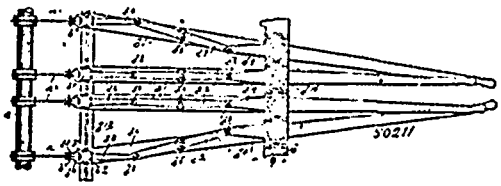
No. 50,211. Saw Shifter.

(*Appareil à changer les scies de place.*)

Charles F. Nyberg and Joseph A. Gillard, both of Minneapolis, Minnesota, U.S.A., 8th October, 1895; 6 years.

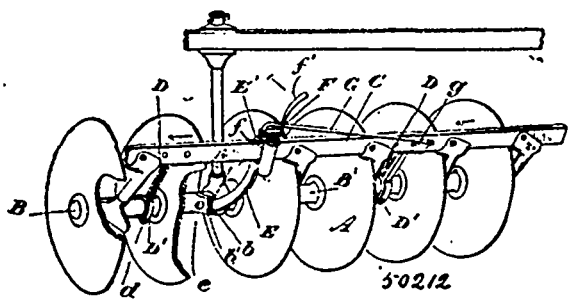
Claim.—1st. A saw shifter, comprising a saw engaging lever and a pair of controlling levers connected to said saw engaging lever at points off-set from each other and arranged to move said saw engaging lever and to hold the same always parallel with the saw, substantially

as described. 2nd. A saw shifter, comprising a primary lever, a saw engaging lever pivoted on and carried by the primary lever, and



a compensating lever centrally pivoted to said primary lever and having one end pivotally connected to said saw engaging lever, and having the other end pivotally connected to a fixed arm or body, with the said fixed arm and the arm of the saw engaging lever connected thereto, all of the same length, substantially as and for the purposes set forth. 3rd. The combination with the cross-bar b, of the primary lever b^1, pivoted to said cross bar, and provided with the pintle b^6, of the saw engaging lever b^2, having the sprocket b^7, engaging said pintle and provided with the pivoted jaw-head or yoke b^5, the lever b^3, pivoted to the lever b^1, and having one end connected by slot and pin to the lever b^2, and its other end connected by slot and pin to the fixed arm b^4, all constructed and operating substantially as and for the purpose set forth.

No. 50,212. Disc Harrow. (*Herse à disque.*)



The Firm of David Maxwell & Sons, assignee of David Maxwell, jr., both of St. Mary's, Ontario, Canada, 8th October, 1895; 6 years.

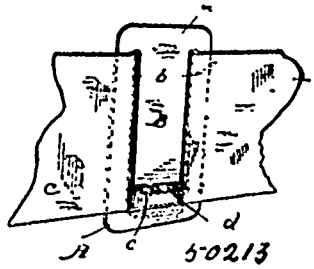
Claim.—1st. In a disc harrow, the combination with the discs and the scraper beam suitably supported in relation thereto, of an L-shaped lever centrally pivoted, and a connecting rod secured at one end of the lever and the other end to the beam as shown and for the purpose specified. 2nd. In a disc harrow, the combination with the discs and the scraper beam suitably supported in relation thereto, of an L-shaped lever centrally pivoted, a handle for the same, and a connecting rod secured at one end of the lever and the other end to the beam as shown and for the purpose specified. 3rd. The combination with the discs and the scraper beam supported upon arms upon the thimbles between the disc gangs, of a supplemental arm secured at the lower end to one of the thimbles and having a slot in its upper end, an L-shaped lever provided with a handle, and a connecting rod secured at one end to the lever and at the other end to the beam as shown and for the purpose specified. 4th. In a disc harrow, a scraper comprising a sleeve with jaws pivotally held in position, a blade and a spiral spring in the sleeve extending between the blade and the beam, as and for the purpose specified. 5th. In a disc harrow, a scraper comprising a sleeve with jaws pivotally connected to the beam, a blade with a shank extending into the sleeve and pivotally connected thereon, and a spiral spring extending between the shank and the beam, as and for the purpose specified. 6th. In a disc harrow, a scraper comprising a sleeve with jaws pivotally connected to the beam, a blade with a shank extending into the sleeve and having a shoulder h^1, formed so as to abut the end of the sleeve, a bolt extending through a sleeve and slot in the shank, and a spiral spring extending between the shank and the beam, as and for the purpose specified. 7th. The combination with the beam, of a scraper pivotally connected thereto, a sleeve forming part of the scraper, and a spiral spring extending between the blade of the scraper and the beam, as and for the purpose specified.

No. 50,213. Garment Supporter.

(*Support pour vêtements.*)

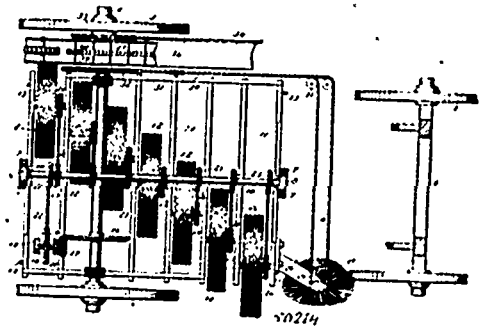
Samuel James Simmons and William Oliver Simmons, both of Boston, Massachusetts, U.S.A., 8th October, 1895; 6 years.

Claim.—1st. The combination with a plate having a tongue connected therewith, said tongue having teeth thereon, of a belt connected with the plate and having sliding connection therewith and bearing against the back of the tongue whereby to exert a pressure thereon, to force the teeth into the garment, substantially as set forth. 2nd. The combination with a plate having a slot therein, a tongue connected with the plate at one end of the slot, said tongue narrower than the slot whereby a space is formed between the tongue and slot at each side of the tongue, and the tongue extending at an angle to the plate and gripping teeth extending from the tongue, of a belt passed through the space at the edges of the tongue and in contact with the tongue, said belt being adapted to force the tongue from its normal position at an angle to the plate towards the plate, substantially as set forth.



No. 50,214. Street Sweeping Machine.

(*Balayeur mécanique pour rues.*)



William See Kindle, Philadelphia, Pennsylvania, U.S.A., 9th October, 1895; 6 years.

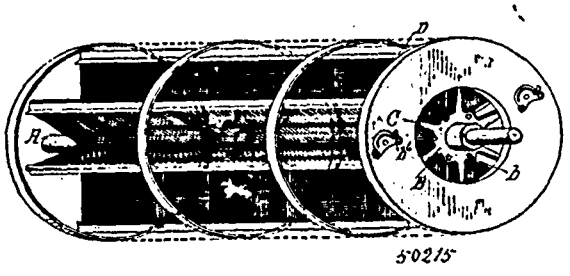
Claim.—1st. In a sweeping machine, the combination of a frame having vertical aligned guideways at opposite sides, aligned slide bars vertically movable in the guideways, a broom frame secured at its ends to the lower ends of said slide bars, a shaft journalled at its ends in the upper part of the respective slide bars, driving mechanism for said shaft, means for moving said slide bars and the broom frame carried thereon vertically in said guideways, a series of brooms rotatively mounted on the lower part of the broom frame beneath said shaft, and gearing between said shaft and the respective brooms, substantially as set forth. 2nd. In a sweeping machine, the combination of a frame, having vertical guideways at opposite sides, slide bars movable vertically in said guideways, a shaft journalled at its ends in the upper part of the respective slide bars, a broom frame comprising a series of beams extending parallel to each other and transversely of the frame of the machine, brooms journalled between the adjacent beams in said series and arranged in echelon and adapted to sweep transversely of the path of the machine, gearing between the respective brooms and the said shaft, and means for raising and lowering said frame, substantially as set forth. 3rd. A sweeping machine having a frame, a movable broom frame thereon, a broom carried thereby, a roller carried on the frame, chain gearing for driving said broom comprising a chain belt passing over said roller and geared to said broom, and means for driving said chain belt, a lever carried on the frame, and a connection between the lever and roller, substantially as set forth. 4th. In a sweeping machine, the combination of a vehicle frame, a broom frame, a series of brooms in echelon arrangement on said broom frame adapted to sweep transversely to the path of the machine, a gutter broom arranged at one side of the machine in front of the foremost of said series of brooms and adapted to sweep parallel to the path of the machine, and driving mechanism for the series of brooms and for the gutter broom, substantially as set forth. 5th. In a sweeping machine, the combination of a vehicle frame, a broom frame, a series of brooms in echelon arrangement on said broom frame adapted to sweep transversely of the path of the machine, a gutter broom arranged at one side of the machine in front of the foremost of said series of brooms and adapted to sweep parallel to the path of the machine, said gutter broom having its axis inclined downward toward the centre of the sweeping machine, and means for driving the series of brooms and the gutter broom, substantially as set forth.

No. 50,215. Flour Bolt. (*Blutoir.*)

Levi Hertzler, Mechanicsburg, Pennsylvania, U.S.A., 9th October, 1895; 6 years.

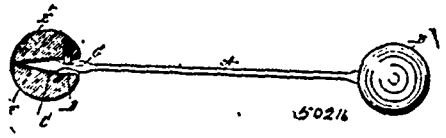
Claim.—1st. A rotary bolt provided with ribs having the rear edge bevelled, substantially as described. 2nd. A rotary bolt pro-

vided with ribs having their rear edges bevelled and having an extension from its front surface bevelled at an angle greater than a



right angle, for the purpose described. 3rd. A rotary bolt provided with a reel having knockers and means for securing and releasing said knockers, for the purpose described. 4th. A rotary bolt provided with a reel having knockers, bearing posts secured to the ribs, a rod mounted to partially rotate thereon, curved extensions on the rod and means for moving the extensions into and out of contact with the knocker, for the purpose described.

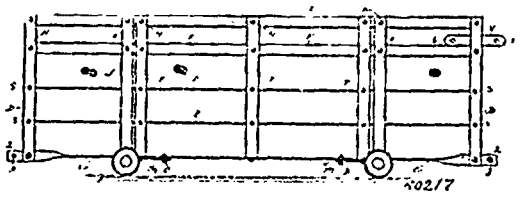
No. 50,216. Hat Pin. (*Epingle à chapeau.*)



Joseph Ashmead Davidson, Brooklyn, New York, U.S.A., 9th October, 1895; 6 years.

Claim.—1st. A pin, the pointed end of which is provided with a removable head, substantially as shown and described. 2nd. A pin, the pointed end of which is provided with a removable head, said head being provided with a socket into which the pin is adapted to be inserted, and said pin being provided with a groove or recess, and said head with a plug *a* adapted to operate in connection therewith, to hold the removable head in position, substantially as shown and described. 3rd. A pin provided with a fixed and a removable head, the point of the pin being lance-shaped in form, and the removable head being provided with a socket into which said pin is adapted to be inserted, the head of the pin being also provided with a groove or recess, and the removable head with a bolt or plug adapted to operate in connection therewith, to hold the removable head in position, substantially as shown and described.

No. 50,217. Portable Fence. (*Clôture portative.*)



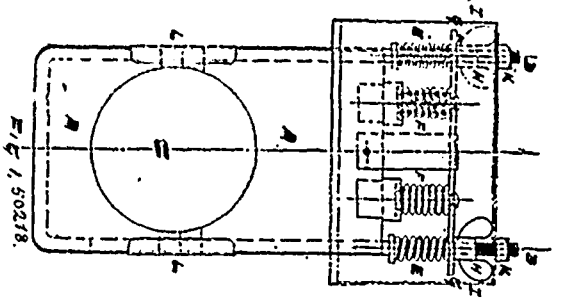
Thomas Stillaway, Binbrook, Ontario, Canada, 9th October, 1895; 6 years.

Claim.—1st. In a portable section of fence, the combination of the two transverse axles provided at each end with a ground roller wheel, the middle longitudinal rod C secured to said axles and having twisted end extensions 2, the double vertical end posts D secured thereto, and their upper ends secured to the longitudinal rails E and F, the fence braces J secured at their upper ends to the said rails E and F, the axle braces M secured to axles and to the said rod C, the wires or rods P and R, the upper end slide V provided with connecting pins 6 and the said extensions 2, provided with connecting pins 3, substantially as described. 2nd. In a portable section of fence, the combination of the transverse axles provided with ground wheels, the longitudinal rod C secured thereto and having twisted end extensions, the double vertical end posts secured thereto, and their upper ends secured to the rails E and F, the middle fence posts T, the fence braces J secured to axles and said upper rails, the axle braces M, the longitudinal wire or rods P and R, and the end slide V having pins 6, substantially as described.

No. 50,218. Dustguard for Railroad Car Axle Boxes. (*Garde-pousière pour boîtes à graisse de chars de chemin de fer.*)

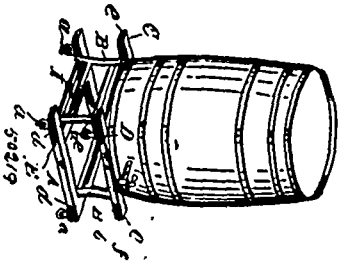
Hugh Sym, Montreal, Quebec, Canada, 9th October, 1895; 6 years.

Claim.—1st. In combination, the bushings A, A, the U bolt B, B, the brass thumb-screws H, H, the spiral springs E, E and F, F, and



the steel plate G, G, on the axle guard C, substantially as and for the purpose hereinbefore set forth. 2nd. In combination, metal cap I, I, screw nuts K, K, and dust sleeves L, L, substantially as and for the purpose hereinbefore set forth.

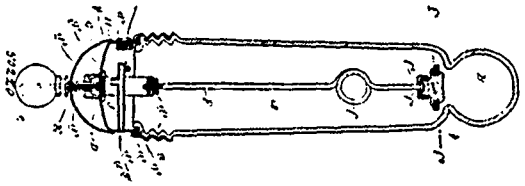
No. 50,219. Hand Truck. (*Camion à bras.*)



Edward Lipska and George J. Eichhorn, both of Dubuque, Iowa, U.S.A., 9th October, 1895; 6 years.

Claim.—1st. In a hand-truck, a lever for raising and lowering the platform thereof, having a handle, a plate secured to the outer end of said handle, with slots in said plate and means secured to the base and the platform of said truck, for removably attaching the lever to the truck, substantially as described and shown. 2nd. A hand-truck, consisting of the base, cranks pivoted thereto, and a platform applied to the upper ends of the cranks combined with the removable lever and tongue having a hook on its lower end, and a slot in its side, and the projections on the side of the base and platform with which the lever engages, substantially as set forth. 3rd. A hand-truck, consisting of a base A, resting on wheels *a*, *a*, platform C, cranks B, B, said cranks pivoted in the platform farther apart than they are pivoted in the base, roller D pivoted to the platform, staple E secured to the base, and lever F having plate with slots *g* and *h*, adapted to engage the roller D, and staple E, all combined to operate, substantially as described and shown.

No. 50,220. Fire Extinguisher. (*Extincteur d'incendie.*)



Arthur H. Durand, Montreal, Quebec, Canada, 9th October, 1895; 6 years.

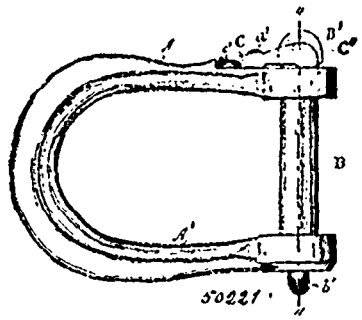
Claim.—A fire extinguisher, having a main receptacle to contain the alcaline solution and having a chamber at one end communicating therewith to contain the acid, an inlet and outlet at the opposite end, the latter being closed by a stopper having two bottoms, one false and flexible, the other rigid, a valve for controlling the passage of the acid from the chamber containing it to the receptacle containing the alcaline solution, a stopper or valve closing the outlet and means for operating the valves, substantially as described and for the purposes set forth.

No. 50,221. Clevise. (*Croc.*)

Henry L. Ferris, Harvard, Illinois, U.S.A., 9th October, 1895; 6 years.

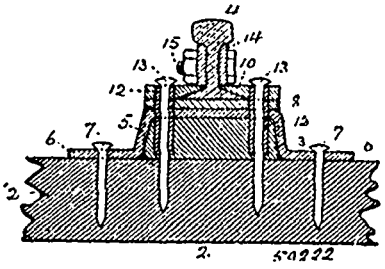
Claim.—1st. The combination with a clevis of suitable form having in its ends corresponding openings approximately in the same line, of a pin adapted to pass through one of said openings and having at one end a neck and a head adapted to pass through the other of said openings when in suitable angular relation thereto and

a lever pivoted near one end to the opposite end of said pin and adapted to be oscillated in the plane of the length of the pin, the pivoted



end of the lever being formed with a cam substantially as set forth whereby the oscillation of the lever from its normal position may spring the members of the clevis toward each other. 2nd. The combination with the clevis having the members A, A^1, formed with openings substantially as described, of the pin B, having at one end the non-circular head b^1, and the lever C, pivoted to the opposite end of the pin and formed with cams adapted to resist oscillation of the lever, substantially as shown and described. 3th. The combination with the clevis having the members A, A^1, formed with openings substantially as shown and described, of the pin B, having the neck b, and head b^1, and the lever C, connected to the pin B, by a transverse pivot, the clevis and the lever being formed with co-acting parts adapted when in the proper position to engage each other and prevent oscillation of the lever about the axis of the pin, substantially as described.

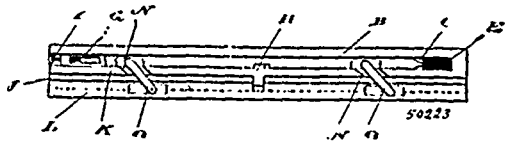
No. 50,222. Structural Support for Railway Systems. (*Support de construction sous-jacente pour système de chemin de fer.*)



John Deering Reed, Boston, Massachusetts, U.S.A., 9th October, 1895; 6 years.

Claim.—1st. The structural support for railway systems consisting of a series of cross-ties, stringers longitudinally beneath each rail and which rest upon the ties, metal chairs which span the girders and are adapted to unite each girder with the cross-ties, said girders and chairs being adapted to form a continuous level surface, comprising alternate surfaces of wood and metal upon which the rails rest, substantially as and for purposes explained. 2nd. In structural supports for railway systems, the combination with cross-ties, stringers which rest upon the cross-ties and extend longitudinally beneath the rails, of metallic chairs which extend over and about the stringers, and a supporting-bar, located beneath the rail and which rests upon the upper surface of the stringers here composed of alternate surfaces of wood and metal, substantially as specified. 3rd. In structural supports for steam railways, the combination with cross-ties, longitudinal stringers, metallic chairs which pass about said stringers and unite them with the cross-ties, of a supporting-bar, gage-plates laterally of the rail, and devices for uniting the supporting-bar, gage-bars, and chairs with the stringers and cross-ties, substantially as set forth. 4th. The combination with suitable cross-ties, stringers which rest thereon and extend longitudinally beneath each rail, of a metallic supporting-bar beneath a rail-joint, a reinforce plate between the rail end and said supporting bar, and chairs which span the stringers and unite them with the cross-ties, substantially as set forth and stated.

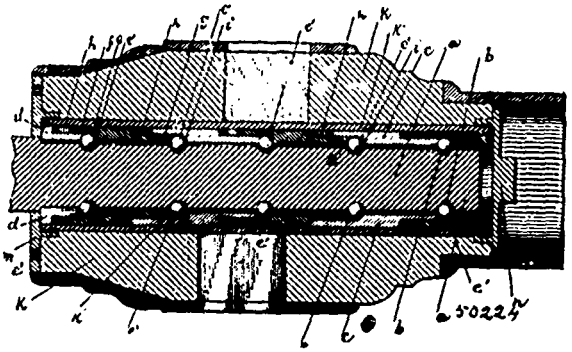
No. 50,223. Weather Strip. (*Bourrelet de porte.*)



Charles Malcolm Becker, Port Rowan, Ontario, Canada, 9th October, 1895; 6 years.

Claim.—1st. A weather strip consisting of a case, a batten capable of movement, and means for automatically moving the said batten into and out of position, substantially as specified. 2nd. A weather strip consisting of a case, a plunger within the case, and a batten adapted to be moved into and out of position by the said plunger, substantially as specified. 3rd. A weather strip consisting of a case, a plunger within the case, a batten, links pivotally connected to the plunger and batten, a set-screw bearing on one end of the plunger whereby it is pressed into the case on the closing of the door or window, to move the batten to close the crevice, and a spring bearing on the opposite end of the plunger to move the plunger and batten in the opposite direction, substantially as specified.

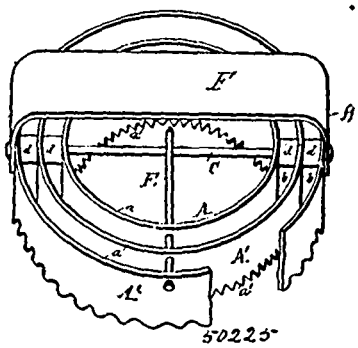
No. 50,224. Ball Bearing. (*Coussinet à roulettes.*)



Francis Marion Lechner, Columbus, Ohio, 9th October, 1895; 6 years.

Claim.—1st. In a ball bearing, the combination with a spindle or shaft having a number of peripheral grooves therein, of a boxing surrounding said spindle, said boxing consisting of a number of tubular sections or rings telescoped one within the other and bearing balls bearing partially in the spindle grooves and partially within corresponding grooves formed between the telescoped ring sections, substantially as and for the purpose specified. 2nd. In a ball bearing, the combination with a spindle or shaft a having peripheral grooves therein, of a tubular boxing surrounding said spindle, said boxing consisting of a number of ring sections c adapted to fit one within the other, each of said ring sections having an opening therethrough and grooves corresponding to those in the shaft, substantially as and for the purpose specified. 3rd. In a ball bearing, the combination with a spindle or shaft having peripheral grooves therein, of a boxing loosely surrounding said spindle, said boxing consisting of a number of short tubes or ring sections, said sections having grooves corresponding to those in the shaft and inner and outer extensions of less thickness than the bodies of the rings, the inner extensions of said rings having openings therethrough and being adapted to overlap the outer extensions of adjoining rings, substantially as and for the purpose specified. 4th. In a ball bearing, the combination with a spindle or shaft having grooves therein, a boxing sleeve having grooves in its inner surface loosely surrounding the same, bearing balls between said sleeve and spindle and bearing in said grooves and a hub body about said sleeve, of end caps n and n each having an inwardly extending internally threaded neck portion, the latter having a threaded engagement with the ends of said sleeve and the heads of said caps having a bearing against the ends of said hub body and the ends of the boxing, substantially as and for the purpose specified.

No. 50,225. Curry Comb. (*Etrille.*)

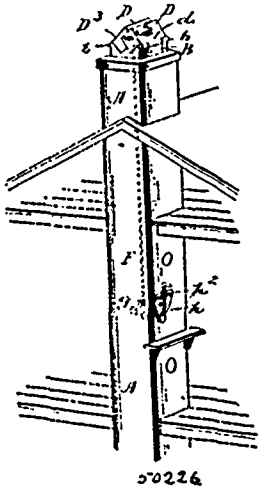


Reuben C. Eldridge, Niagara Falls, Ontario, Canada, 9th October, 1895; 6 years.

Claim.—1st. A curry comb having a reversible body provided on one side with a scraping face and on its opposite side with a serrated

face, and a handle or bail pivoted at its end portions to the body and capable of being swung in the plane of the body, whereby the body can be reversed in the bail without detaching the latter from the body, substantially as set forth. 2nd. A curry comb having a reversible body composed of a number of concentric rings provided on one side of the body with plain edges and on the opposite side thereof with serrated edges, a loose axle or spindle passing diametrically through the several rings, and an approximately U-shaped handle or bail pivoted at its end portions to opposite ends of said spindle and capable of swinging clear of the outermost ring of the comb body, whereby the latter can be reversed in the bail without detaching the latter from the body, substantially as set forth. 3rd. A curry comb having a body composed of a number of concentric rings, an axle or spindle passing diametrically through said rings, a retaining pin passing radially through said rings on one side of the axle or spindle, and a handle or bail pivoted to said spindle, substantially as set forth.

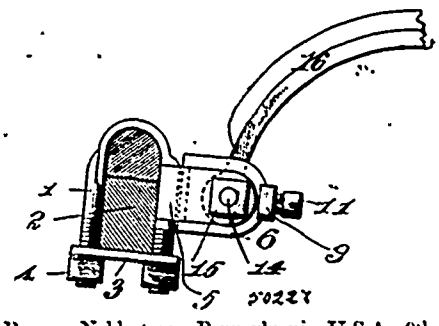
No. 50,226. Chimney Cowl. (*Couvercle de cheminée.*)



Cyrus N. Shannon, St. Cloud, Minnesota, U.S.A., 9th October, 1895; 6 years.

Claim.—1st. In combination with a chimney and its cap, two baffle-plates hinged to said cap, and having flaps overlapping each other, rods *c* pivotally secured to said plates, a rod F pivotally secured to the rods *c*, and a crank rod pivotally connected to the rod F, and passing the walls of the chimney, substantially as described. 2nd. In combination with a chimney and its cap, two baffle-plates hinged to said cap and having flaps overlapping each other, the flaps of one plate having slots therein, and the flaps of the second plate having pins received in the slots of the first plate, rods *c* pivotally secured to said plates, a rod F pivotally secured to the rods *c*, and means to operate the rod F, substantially as described.

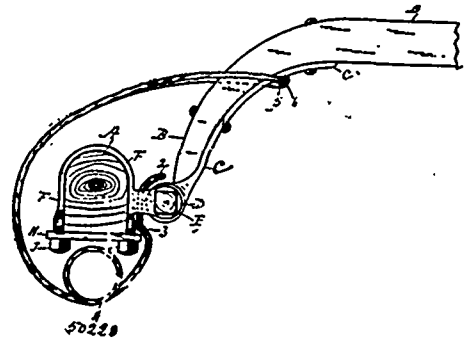
No. 50,227. Thill Coupling. (*Armon de limonière.*)



Elias A. Benner, Noblestown, Pennsylvania, U.S.A., 9th October, 1895; 6 years.

Claim.—1st. In a thill or like coupling, the combination with a suitable clip having a socket attached thereto, of a thill iron having the inner end thereof secured within said socket, a bearing block within said socket, a clamp fitting on said socket and constructed to slide thereon, said clamp having an inner end portion entering said socket in the rear of said bearing block, and an outer end portion in front of the outer end of said socket, and mechanism for moving said clamp on said socket, whereby the distance between said outer end portion and the front end of said socket may be increased, substantially as set forth. 2nd. In a thill or like coupling, the combination with a suitable clip having a socket attached thereto, of a thill iron having the inner end thereof secured within said socket, a clamp fitting on said socket, and constructed to slide thereon, said clamp having an inner end portion entering said socket in the rear of said bearing block, and an outer end portion in front of the outer end of said socket, and set screws in said outer end portion abutting against the outer end of said socket, substantially as set forth. 3rd. The combination, with a suitable clip of the socket and thill iron having its end secured within said socket, the bearing block and a clamp having inner and outer ends, set screws in said outer end and abutting against the front end of said socket, substantially as set forth. 4th. In a thill coupling, a clamp adapted to receive the sockets formed on the clip and provided with rounded portions and lugs carrying screw threaded apertures adapted to receive set screws, substantially as shown and described. 5th. In a thill coupling, a clamp carrying a bearing block and having a retaining back and side portions for securing the bearing block rigidly in position, substantially as shown and described. 6th. In a thill coupling, the clamp carrying the bearing block and provided with retaining walls, said clamp being adapted to receive sockets formed on the clip, lugs having screw threaded apertures for the reception of set screws for adjusting the thill, all parts being arranged and operating substantially as shown and described.

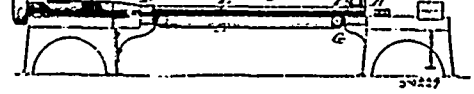
No. 50,228. Thill Support and Anti-Rattler.
(*Tuteur de limonière et compensateur*).



Ernest Duval and Willard E. Derby, both of Hamilton, Ontario, Canada, 9th October, 1895; 6 years.

Claim.—1st. In a buggy shaft support, a steel wire spring constructed and formed of one piece, bent as at 2 and 3, to fit between and rest upon the coupled parts of shaft and axle, coiled as at 4, and extending with bent arm 5, to engage with underpart of shafts and crossed as at 8, the end hook 6, and head 7, substantially as described and for the purposes herein set forth.

No. 50,229. Process of inserting Floats in Cakes of Soap. (*Procédé pour insérer des matières flottantes dans les pains de savon.*)



Washington Berry, Chicago, Illinois, U.S.A., 10th October, 1895; 6 years.

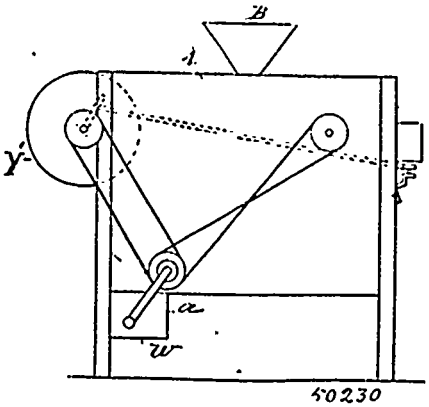
Claim.—1st. The herein described method of inserting floats into cakes of soap, the same consisting in first forming a hollow or recessed cake-blank, then inserting a float in the blank, and finally stamping or pressing the blank into a cake, substantially as described. 2nd. The herein described method of inserting floats into cakes of soap, the same consisting in forming a soap blank, next forming a recess in the centre of the blank, afterward inserting a float in said recess and finally pressing the blank into the form of a cake, substantially as described.

No. 50,230. Bean Picker and Cleaner.
(*Moissonneuse de fèves.*)

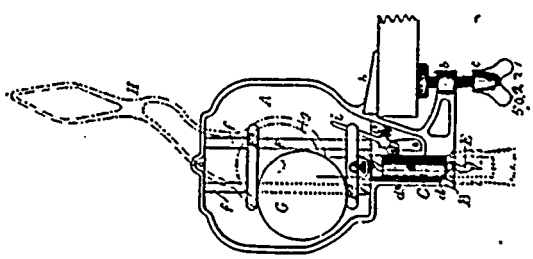
George F. Crippen, Ypsilanti, Michigan, U.S.A., 10th October, 1895; 6 years.

Claim.—1st. In a bean picker, a friction feed device in which the passage of the beans is contingent upon the relative frictional contact of the beans, with the oppositely inclined frictional contact faces of the device, when the beans are freely brought into contact

therewith, substantially as described. 2nd. In a bean picker, a friction roller feed in which the frictional contact of the rollers is a discriminating element to the passage of the beans between the rollers, substantially as described. 3rd. In a bean picker, the combination with the friction feed rollers S, S¹, arranged and adapted to operate as described, of a carrier operating in the throat between the rollers, substantially as described. 4th. In a bean picker, the combination of the roller S, having a hard and smooth surface, and of the roller S¹, provided with an elastic rubber face, said rollers being adapted to form a discriminating frictional feed delivery, substantially as described. 5th. In a bean picker, the combination with the rollers S, S¹, arranged and adapted to operate as a discriminating feed device upon beans, of the endless belt V, and the brushes V², substantially as described. 6th. In a bean picker, the combination of the rollers S, S¹, horizontally journalled in adjustable bearings, the tail board P, for feeding the beans into the throat between the rollers, the endless belt V, the brushes V², carried by the belt and projecting into the throat between the rollers, and the discharge spout Z, all combined and operating as described. 7th. In a bean picker, the combination of the grooved roller, and of presser bars I, in yielding contact therewith, substantially as described. 8th. In a bean picker, the combination of the grooved feed roller H, the pivoted presser bars I, the springs K, and devices for adjusting the tension of the springs, substantially as described. 9th. In a bean picker, the combination of the longitudinally grooved feed roller H, and the pivoted presser bars I, forming a grating, substantially as described. 10th. In a bean picker, the combination of the following elements, the casing provided with a feed hopper, the oppositely inclined upper and lower screens C, N, of the different mesh, the grooved feed roller H, interposed between the screens and provided with presser bars I, the revolving fan Y, the friction feed rollers S S¹, and the endless carrier belt operating in the throat between the two rollers, all arranged and adapted to operate substantially as described.



No. 50,231. Cork Screw. (*Tire-bouchon.*)



John Charles Crampin Read, Harborne, assignee of George Isaac Hurst, Stafford, both in England, 10th October, 1895; 6 years.

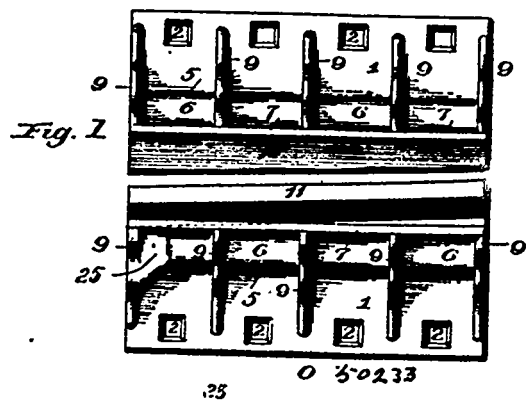
Claim.—1st. In an apparatus for drawing corks from bottles and the like, wherein a reciprocating slide or frame carries a rotatable corkscrew passing through a non-rotatable nut capable of moving with the corkscrew, the use of a pivoted detent or spring catch such as D, adapted to engage with the nut so as to prevent it from moving with the corkscrew whilst the corkscrew is being inserted into and withdrawn from the cork, the said detent or spring catch being arranged to be operated by or from the cam or eccentric that works the screw slide or by a separate cam or eccentric so that when the corkscrew has been introduced into the cork the detent or catch is made automatically to release the nut so that it can then follow the motion of the corkscrew for withdrawing the cork, substantially as hereinbefore described. 2nd. In combination with apparatus for withdrawing corks from bottles and the like, a detent or catch which is operated by the means employed to actuate the corkscrew so as, during the insertion into and the withdrawal of the corkscrew from, the cork, to prevent longitudinal movement of the nut through which the corkscrew passes, substantially as hereinbefore described and illustrated by the examples shown. 3rd. The arrangement and combination of parts constituting the apparatus for drawing corks from bottles or the like, substantially as hereinbefore described and illustrated in the accompanying drawing.

No. 50,232. Process of Manufacturing Animal Food.
(*Procédé de fabrication de fourrage.*)

Fritz Vilhelm Frederichsen, Ny Stormgade, 68 Copenhague, Danemark, 11 octobre, 1895; 6 ans.

Résumé.—Procédé pour la fabrication d'un fourrage consistant à mélanger du sang avec de la mélasse et à faire absorber ce mélange par un ou plusieurs des fourrages existant dans le commerce après quoi le produit peut être formé en galettes ou en grosse poudre en le pétrissant, le pressant et le séchant.

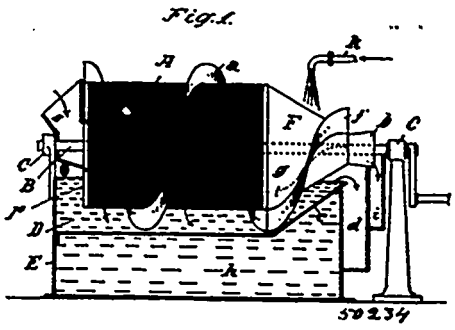
No. 50,233. Railway Chair. (*Joint de rail.*)



Gilbert A. Bartholomew and Reuben B. Mitchell, both of Maumee, Ohio, U.S.A., 11th October, 1895; 6 years.

Claim.—A railway chair comprising an inner member I and an outer member O, each having a foot piece 1, an upright body 3, a horizontal base 4 formed with ribs 20 on its lower side, curved strengthening webs 20^{12} formed between the inner face of the body and said ribs, a clamp 6, and an upright 7, the inner member further having a downturned tongue 11^{1} formed along the inner edge of its base and the outer member a corresponding upturned tongue 11, which tongues stand slightly oblique to the length of the members and are adapted to interlock, and a driving lug 25 cast integral with the smaller end of the outer member, all formed, arranged and combined substantially as and for the purpose hereinbefore set forth.

No. 50,234. Sifting and Washing Machine for Sand, Gravel, Coal and other Material. (*Tamis et machine à laver pour le sable, le charbon, etc.*)

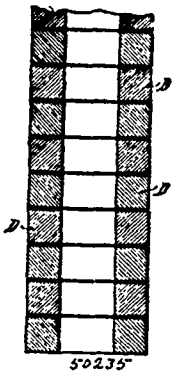


Carl Martini and Hugo Grupe, both of Lehrte, Germany, 11th October, 1895; 6 years.

Claim.—1st. In a sifting and washing machine for sand, gravel, coal, ores and other materials, the combination of a rotating sifting drum A, with a worm *a*, serving for the transmission and washing of the sifted material and with a trough D filled with water, into which the lower part of the sifting drum A plunges, as described. 2nd. In a sifting and washing machine for sand, gravel, coal, ores and other materials, the combination of a sifting drum A, provided with an external worm *a*, with a trough D, filled with water a diminution *f* of this trough, and, joining to the sifting drum A, a hollow cone F, which has an external worm *f* for ejecting the sifted material, and an internal worm *g* for ejecting the remainder.

No. 50,235. Process for Compressing and Simultaneously Shaping Hollow Ingots, and Apparatus therefor. (*Procédé et appareil pour compresser et raffuter simultanément des lingots creux.*)

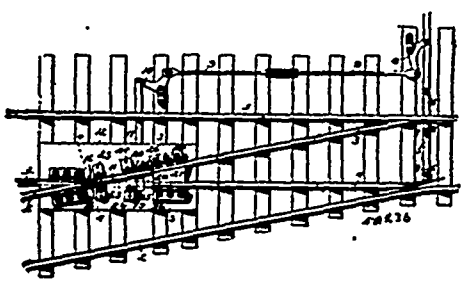
Fig. 1.



Toussaint Bicheroux, Dusseldorf on the Rhine, Germany, 11th October, 1895; 6 years.

Claim. 1st. An improved process for compressing and simultaneously shaping hollow ingots whilst hot in a matrix, consisting in pressing the ingots or ingot sections on all sides, and wholly enclosing it in the matrix by means of press-stamps provided with mandrels, in such a manner that said stamps, when descending, are first guided by their mandrels entering the hole of the ingot section, and then effect by means of said mandrels the forming or shaping of the ingot section, and on further descending close the matrix by means of a collar or block, thereby wholly enclosing the ingot section which is supported upon the preceding one, whereby the ingot section is shaped and compressed on all sides, and the preceding section expelled from the matrix by means of the succeeding ingot section, substantially as hereinbefore set forth. 2nd. An apparatus for compressing and simultaneously shaping hollow ingots whilst hot, comprising a matrix, a stamp having a collar or block to close said matrix, and a guiding mandrel adapted to penetrate the ingot section, substantially as described and illustrated. 3rd. In an apparatus for carrying out the herein described process for compressing and simultaneously shaping hollow ingots whilst hot in a matrix, a stamp having a guiding mandrel, and a bevelled shoulder for forcing up or shaping the ingot section from within, substantially as described. 4th. In an apparatus for carrying out the herein described process for compressing and simultaneously shaping hollow ingots whilst hot in a matrix, a hollow stamp and a solid mandrel guided in the bore of said stamp and adapted to penetrate the ingot section, substantially as described and illustrated.

No. 50,236. Railway Frog. (*Rail de croisement.*)

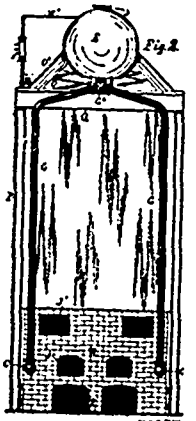


John F. Shea, Carthage, assignee of Daniel E. Shea, Watertown, both of New York, U.S.A., 11th October, 1895; 6 years.

Claim.—1st. The combination, with main and siding track rails, and switch rails, of a frog located at the intersection of the adjacent rails of said track and pivotally mounted at an intermediate point contiguous to one end, connections between the other end of the frog and the switch rails, and angle braces arranged upon opposite sides of the frog with their extremities aligned respectively with the main and siding track rails and adapted to engage under the tread of the frog in either of its positions, substantially as specified. 2nd. The combination, with main and siding track rails, and switch rails, of a base plate arranged at the intersection of the adjacent rails of said tracks, a turn table mounted in said base plate with its periphery flush with the contiguous extremities of the rails, a frog secured at one end to said turn-table with its extremity flush with the periphery thereof, and connections between the other end of the frog and the switch rails, substantially as specified. 3rd. The combination, with main and siding track rails, and switch rails, of a base plate arranged at the intersection of adjacent rails of said tracks and provided contiguous to the extremities of said rails respectively with a circular opening and an arc shaped slot, a turn-table mounted for rotation in said circular opening, a segmental slide mounted for movement in the arc-shaped slot, a frog secured at one end to the turn-table and fitted at the other end in rigid clips rising from said slide, and connections between the slide and the switch rails, substantially as specified. 4th. The combination, with main and siding track rails, and switch rails, of a base plate arranged at the intersection of adjacent rails of the tracks and extending under the contiguous extremities of said rails, angle plates arranged in contact with the outer sides of the extremities of the rails, a spacing block interposed between the separate extremities of the same, a frog pivotally connected adjacent to one end to the base plate and adapted to be aligned with either of the intersecting rails, stops integral with the angle plates adjacent to the free end of the frog and arranged in the path thereof to limit the movement of the frog, angle braces secured to the base plate upon opposite sides of the frog and aligned respectively with the main and siding track rails, whereby the frog in either of its positions is arranged with its tread in contact with and supported by the extremities of said braces, and connections between the frog and the switch rails, substantially as specified.

No. 50,237. Water Tube Boiler. (*Chaudière à tubes.*)

Fig. 2.

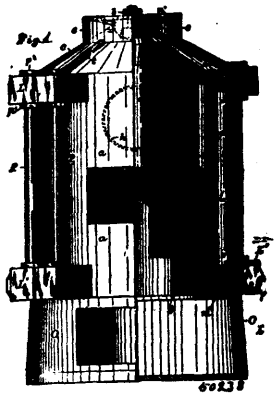


The Hogan Boiler Company, assignee of John J. Hogan, both of Middletown, New York, U.S.A., 11th October, 1895; 6 years.

Claim. 1st. In a water tube boiler, the combination, with a steam drum and distributing drum arranged substantially as set forth, of a series of ascending water tubes connecting the steam and distributing drums through the furnace, a casing inclosing the boiler, a shield independent of the tubes supported outside of such ascending tubes, and a series of descending water tubes inclosed between such shield and the casing, as set forth. 2nd. In a water tube boiler, the combination, with a distributing drum and a grate arranged at the side of the same, of a steam drum supported above the grate, a series of ascending water tubes connected with the top of the distributing drum and projected inward over the fire, thence vertically upward through the bottom of the steam drum and within the same above the water line, a series of descending water tubes inserted in the side of the steam drum, the shield or partition wall F dividing the descending and ascending tubes and protecting the descending tubes from the heat of the furnace, and the descending tubes having connection at their lower ends with the lower part of the distributing drum, as and for the purpose set forth. 3rd. In a water tube boiler, the combination, with a steam drum sustained above a furnace, and a distributing drum arranged at one side of the fire-box, of a series of headers projecting upward from such distributing drum, a series of ascending water tubes projected from the face of each header inward over the fire and thence upward through a furnace into the bottom of the steam drum, a series of descending water tubes shielded from the furnace and connecting the side of the steam drum with the upper part of the header, and a partition extended downward within the header between the inlet of such descending tube and the lower ends of the ascending tubes, as herein set forth. 4th. In a water tube boiler, the combination, with a steam drum and distributing drum arranged substantially as set forth, of a series of ascending water tubes projected inward over the fire and thence extended upwardly through the furnace, a shield independent of the tubes supported outside of such ascending tubes, a casing inclosing the boiler, a series of descending water tubes inclosed between such shield and the casing, and a supplemental pipe for downward circulation connecting the steam and distributing drums outside of the boiler casing, as herein set forth. 5th. In a water tube boiler, the combination, with a steam drum and distributing drum arranged substantially as set forth, of a series of ascending water tubes con-

necting the steam and distributing drum through the furnace, a shield outside of the ascending water tubes, a casing inclosing the boiler, a series of descending water tubes between such shield and the casing, and a supplemental mud drum connected with the lower part of the distributing drum, and provided with suitable cocks and pipes for blowing off the same, substantially as herein set forth. 6th. In a water tube boiler, the combination, with a steam drum sustained above a furnace, of a distributing drum at one side of the furnace, a series of headers projected upward from the distributing drum, and having their faces adjacent to the furnace formed in a series of backwardly inclined steps with the tube openings formed in the steps in a zig-zag line, and a series of ascending water tubes connected with such tube openings and extended inward over the fire and upward into the steam drum in alternating rows of tubes, as set forth. 7th. In a water tube boiler, the combination, with a steam drum and distributing drum arranged substantially as set forth, of a series of ascending water tubes connecting the steam drum and distributing drums through the furnace, a mud drum connected with the lower part of the distributing drum, a scum plate attached to the inner side of the steam drum adjacent to the water line, and one or more scum pipes inserted in the steam drum above the attachment of such plate and connected with the mud drum or distributing drum, substantially as set forth. 8th. In a water tube boiler, the combination, with a steam and distributing drum arranged at the top and bottom of a furnace, as set forth, of a casing inclosing the boiler, ascending water tubes connecting the said drums through the furnace and arranged in contiguity to form a wall of water pipes upon the outer side of the furnace, a shield independent of the water tubes outside of such wall, forming a return flue within the boiler casing with an opening connecting the flue with the top of the furnace, and a series of descending water tubes arranged in contiguity to form a wall of water pipes upon the outer side of the flue inside the casing, substantially as set forth. 9th. In a water tube boiler, the combination, with a fire box, of a distributing drum at each side of the same, a contracted furnace above the fire box with a steam drum above the same, a casing inclosing the boiler, partitions independent of the tubes, forming descending return flues within the casing at the sides of the furnace, two series of ascending water tubes connecting the steam and distributing drums through the fire box and furnace, and two series of descending water tubes connecting the steam and distributing drums through the return flues, as and for the purpose set forth. 10th. In a water tube boiler, the combination, with a furnace and a steam drum above the same, of two distributing drums arranged at the opposite side of the furnace, two series of water tubes connecting the steam drum with the two distributing drums, a transverse mud drum beneath the distributing drums, a partition or division in each distributing drum above the mud drum, and separate pipe connections from the mud drum to the distributing drum at each side of such division, with valves in such pipe connections, as set forth. 11th. In a water tube boiler, the combination, with a steam drum arranged above a furnace, of distributing drums at opposite sides of the furnace, headers projected upward from such distributing drums, a series of water tubes connecting the face of each header with the bottom of the steam drum and extended upward within the drum above the water line, one or more descending water tubes connecting the upper end of each header with the shell of the steam drum adjacent to the water line, and a supplemental pipe extended from each end of the steam drum at its bottom with branches connected to the ends of the distributing drums, as and for the purpose set forth.

No. 50,238. Boiler. (*Chaudière.*)

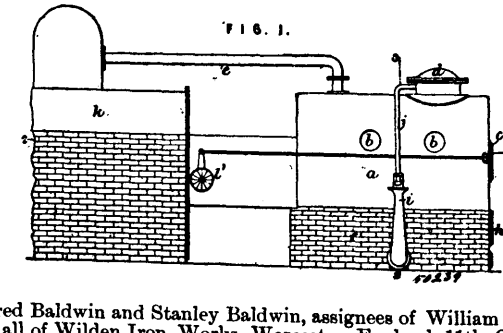


The Hogan Boiler Company, assignee of John J. Hogan, both of Middletown, New York, U.S.A., 11th October, 1895; 6 years.

Claim.—1st. A vertical sectional boiler having separate sections upon opposite sides, formed each in a single casting provided with a water column upon its inner side and a water column constituting a water jacket upon its outer side, and sloping water passages connecting the water jacket with the upper and lower ends of the inner column, as and for the purpose set forth. 2nd. A vertical sectional boiler having separate sections upon several sides formed each in a single casting provided with a water column upon its inner side and a water column constituting a water jacket upon its outer side, a water tube or connection between the tops of the columns, a sloping crown-piece between the water jacket and the bottom of the inner column, and an aperture through such crown-piece in the rear of the inner column for the circulation of gases between the columns, substantially as herein set forth. 3rd. A circular boiler having separate sections upon several sides formed each in a single casting provided with a water column upon its inner side, and a water column constituting a cylindrical jacket upon its outer side, the tops of the columns in each section being connected by a sector of a dome having a flat bottom, and a top sloped upwardly toward the centre of the boiler, and the bottom of the inner column being connected with the water jacket by a sloping crown-piece perforated to permit the passage of the gases upward into contact with the flat side of the steam dome, as and for the purpose set forth. 4th. A circular boiler having separate sections upon several sides formed each in a single casting provided with a water column upon its inner side, and a water column constituting a cylindrical jacket upon its outer side, such jacket being extended below the inner column to form a fire-box casing, the tops of the columns in each section being connected by a sector of a dome, and the bottom of the inner column being connected by a sloping crown-piece with water pillars formed upon the inner side of the jacket, and a smoke passage being provided between the water pillars and through the crown-piece to permit the access of the gases upward into contact with the under side of the steam dome, as and for the purpose set forth. 5th. A circular boiler consisting in four sections formed each in a single casting provided with a water column upon its inner side, and a water column constituting a cylindrical jacket upon its outer side, a sector of a dome connecting the tops of the columns, a sloping crown-piece connecting the bottom of the inner column with the water jacket and perforated for the passage of the gases, hollow lugs connecting with the exterior of the jacket upon the upper and lower corners of each section, and thimbles connecting the same laterally, as and for the purpose set forth. 6th. A circular boiler consisting in four sections formed each in a single casting provided with a water column upon its inner side, and a water column constituting a cylindrical jacket upon its outer side, a sector of a dome connecting the tops of the columns, a sloping crown-piece connecting the bottom of the inner column with the water jacket and perforated for the passage of the gases, hollow lugs connecting with the exterior of the jacket upon the upper and lower corners of each section, thimbles connecting the same laterally, and pipes connecting the lugs vertically, as and for the purpose set forth. 7th. A circular boiler having separate sections upon several sides formed each in a single casting provided with a water column upon its inner side, and a water column constituting a cylindrical jacket upon its outer side, a sector of a dome connecting the jacket with the inner column at their upper ends, and a sloping crown-piece connecting the bottom of the inner column with the water jacket and perforated for the passage of the gases, a sector of a collar upon the top of the steam dome, a cap or band applied to such collar to hold the sections together at the top, an outlet from the top of each section, and water connections between the several sections at the top and bottom, as and for the purpose set forth. 8th. A vertical sectional boiler having segmental sections at the ends, with square sections secured between the same substantially as described, and each section being provided with a dome and with the outer column *a* and inner column *b* connected therewith, and a sloping water connection between the lower ends of such columns for circulation through the same, substantially as herein set forth.

No. 50,239. Apparatus for Producing and Burning Gas. (*Appareil pour produire et brûler le gaz.*)

FIG. 1.

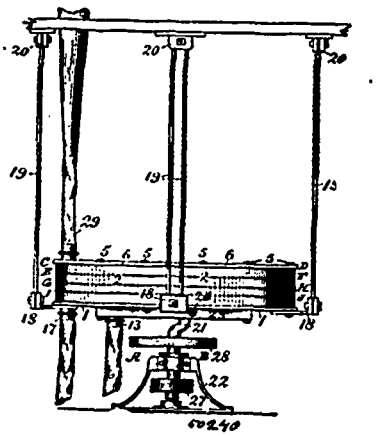


Alfred Baldwin and Stanley Baldwin, assignees of William Felton, all of Wilden Iron Works, Worcester, England, 11th October, 1895; 6 years.

Claim.—1st. A gas producer consisting of a fuel chamber, the lower part of which is built in brickwork or otherwise without water space, and has a boiler over it in which steam is generated under pressure and is drawn off for use and which has a blower for introducing air at the lower part beneath the fuel. 2nd. A gas producer consisting of a fuel chamber, the lower part of which is of brickwork

or otherwise without water space and the upper is a double shelled boiler-like structure inclosing a water space in which steam is generated under pressure, and is drawn off for use, and which has a blower for introducing air at the lower part beneath the fuel, a lateral opening or openings in the upper part by which the gas issues, and other openings for introducing fuel and for stoking. 3rd. The combination of a steam yielding gas producer, a combustion chamber and a steam boiler so arranged that gas issues laterally from the gas producer, traverses the combustion chamber, where it meets with air and is ignited, and passes through or beneath the boiler all in a direct and nearly horizontal course. 4th. The combination of a steam yielding gas producer, a combustion chamber, an openwork structure built of refractory material within the combustion chamber serving to reignite the gas and a furnace flue or chamber into which the flame passes in order that its heat may be utilized. 5th. The combination of a steam yielding gas producer, a gas chamber, a reverberatory furnace bed and passages so arranged that the gas meets with air at the furnace bridge and is burnt as it passes over the bed. 6th. The combination of a steam yielding gas producer, a reverberatory furnace bed and a steam boiler, the said furnace bed situate between the producer and the boiler and the water and steam spaces in the producer and boiler being connected so as to maintain the same water level.

No. 50,240. Flour Milling Machine. (*Moulin à farine.*)



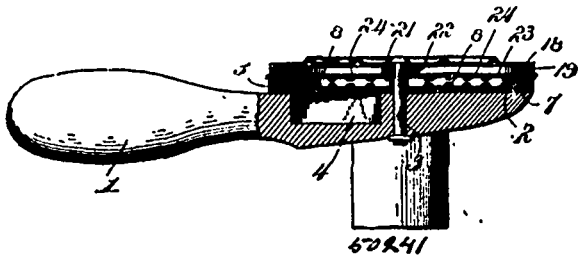
Charles Sylvester Rider, Stratford, Ontario, Canada, 11th October, 1895; 6 years.

Claim.—1st. In grain milling machines, a sieving and bolting machine having and being inclosed within a cylindrical casing supported by pendent rods at its periphery and driven in a circular vibratory course, every point within the machine moving in precisely the same velocity, direction, and space of time, substantially as described. 2nd. In grain milling machines, a sieving and bolting machine having and being inclosed within a cylindrical casing, supported by pendent rods and having internal casings concentric with the same centre as the outer casing, and the annular chambers formed between said inner and outer casings divided horizontally into sections by sieving materials as specified for bottoms or divisions of said chambers, substantially as set forth. 3rd. In grain milling machines, the combination of a cylindrical outer casing having internal casings concentric therewith, means at the periphery of said outer casing by which it is supported, pendent rods or bars supported above the machine and allowing of easy and frictionless vibration, the bottoms arranged horizontally between said casings and dividing the space into sections as provided and being constructed of adapted wire, bolting cloth, glazed cloth, and bolting silk, and the needles disposed round each section and inclining forward at their outer ends, substantially as shown and described. 4th. In grain milling machines, a needle secured in contact with the sieving material and at an angle to the direction of vibration, said needle being low at its outer end and inclining higher at its opposite end, substantially as shown and described. 5th. In grain milling machines, the combination of the cylindrical outer casing having a floor and cover and inner casings as provided, floors of bolting and sieving materials dividing the chambers between said casings into sections horizontally, needles arranged on the floor of each section and inclined as provided, sieves at the terminations of the sections and exit pipes under the sieves as provided, means on the periphery of the outer casing to support the same by pendent rods by which the casing is supported, and means beneath the casing by which it is vibrated, substantially as shown and described.

No. 50,241. Nutmeg Grater. (*Râpe à muscade.*)

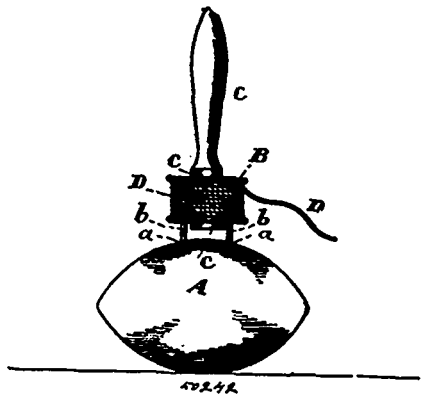
Karl A. Lantan, Chicago, assignee of Henry William Schoff, Oak Park, both of Illinois, U.S.A., 11th October, 1895; 6 years.

Claim.—1st. In a nutmeg grater, the combination of two plates located alongside each other and rigidly connected, each plate having an inwardly-projecting peripheral flange formed with a notch, said notches being matched with each other, a moving grating disc rotatably mounted between the plates and having its peripheral dis-



posed between the bearings against the flanges thereof, and a nutmeg receptacle carried by one plate and capable of pressing the nutmeg into engagement with the moving grating plate, substantially as described. 2nd. In a nutmeg grater, the combination of two plates mounted side by side and rigidly connected by a centre pin or common bolt, each plate having an inwardly-projecting flange formed with notches therein, said notches being registered with each other, a nutmeg receptacle carried by one plate, a stationary grating disc rigidly secured directly against the inner side of the plate having the nutmeg receptacle and within the flange thereof, and a moving grating disc rotatably mounted between the said plates and having its periphery disposed between and bearing against the flanges thereof, said disc being formed with a radial extension beyond its periphery to receive an operating handle, substantially as described. 3rd. In a nutmeg grater, the combination of two plates rigidly connected to each other and mounted side by side, said plates having peripheral flanges thereon projecting inwardly toward each other and formed with matching notches therein, a cap removably secured to the outer side of one plate and communicating with the inner side thereof, a spring within the cap, a block movable within the cap and pressed toward the remaining plate by means of the spring, said block having a concave inner face formed with teeth thereon, a fixed grating disc immovable, secured directly against the inner side of the plate having the cap, a movable grating disc rotatably mounted between the two plates and having its periphery disposed between and bearing against the flanges thereof, and a handle mounted upon and extending beyond the common bolt or centre pin and forming a stop for the nutmeg tube or receptacle, substantially as described. 4th. In a nutmeg grater, a pair of annular plates having peripheral flanges disposed toward each other, the handle to which said plates are connected, and a common bolt or pivot passing through the centre of said plates and into the handle, in combination with a stationary grating disc arranged within the flange of and secured to one of said plates, a rotary grating disc mounted upon said common bolt or centre pin, means for revolving said grating disc, and a pressure collar disposed between the inner face of one of said annular plates and the rear face of the rotary grating disc, substantially as and for the purpose specified.

No. 50,242. Spinning Top. (*Toupie.*)



Daniel W. Long and Harry H. Walsh, both of Lockport, Illinois U.S.A., 11th October, 1895; 6 years.

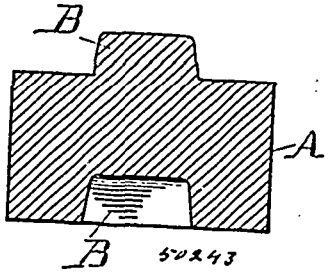
Claim.—A spheroidal top with the side holes *a*, *a*, combined with a handle, and a pronged spool that turns on said handle, as and for the purpose set forth.

No. 50,243. Building Brick. (*Brique.*)

George S. Balsley, Detroit, Michigan, U.S.A., 11th October, 1895; 6 years.

Claim.—1st. In a hollow wall, the combination of standard bricks having interlocking projections and recesses on top and bottom respectively, and bonding bricks of a length greater than the length of the standard bricks having end portions corresponding to the

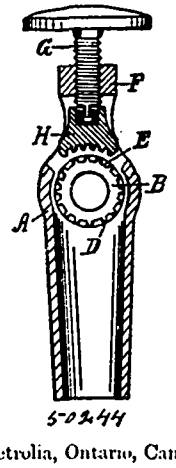
halves of the standard bricks with an intermediate portion between the end portion, substantially as described. 2nd. In a hollow wall,



the combination of three sizes of manufactured brick, one of standard size, one half length standard size, and one of increased length beyond the standard size, and adapted to form a bonding brick, said bricks having pyramidal projections and corresponding recesses provided on top and bottom respectively whereby the bricks are adapted to interlock, substantially in the manner and for the purpose described.

No. 50,244. Adjustable Bicycle Handle.

(*Manche ajustable pour bicycles.*)

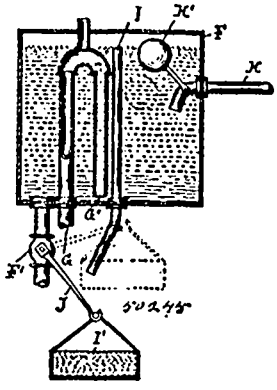


Wilson D. Snively, Petrolia, Ontario, Canada, 11th October, 1895; 6 years.

Claim.—1st. In a bicycle, the head A, formed with the longitudinal opening E, in combination with the handle bars B, B¹, which turn freely and are adjustable in said head, and means for rigidly holding the handle bars at the position to which they may be adjusted, substantially as and for the purpose set forth. 2nd. In a bicycle, the head A, formed with the longitudinal opening E, in combination with the handle bars B, B¹, in which the longitudinal indentations D, are formed, which handle bars turn freely and are adjustable in said head A, and means engaging with said indentations for rigidly holding the handle bars at the position to which they may be adjusted, substantially as and for the purpose set forth. 3rd. In a bicycle, the head A, formed with the longitudinal opening E, in combination with the handle bars B, B¹, in which the longitudinal indentations D, are formed, which handle bars turn freely and are adjustable in said head A, and means projecting through a lateral opening in said head A, for engaging with the indentations D, for holding the handle bars at the position to which they may be adjusted, substantially as and for the purpose set forth. 4th. In a bicycle, the head A, provided with the bracket F, and formed with the longitudinal opening E, in combination with the handle bars B, B¹, in which the longitudinal indentations D, are formed, which handle bars turn freely, and are adjustable in said head A, and means projecting through a lateral opening in the latter for engaging with the indentations D, for holding the handle bars at the position to which they may be adjusted, substantially as and for the purpose set forth. 5th. The head A, in which the longitudinal opening E, is formed, the bracket F, set screw G, and toothed jaw H, in combination with the handle bars B, B¹, in which the indentations D, are formed, and the handles C, C, substantially as and for the purpose set forth. 6th. The coupling J, formed with an interior opening *f*, the handle C, and spindle I, in combination with the handle bar provided with the flange or extension *d*, in which the recesses K, are formed, substantially as and for the purpose set forth. 7th. The head A, in which the longitudinal opening E, is formed, and the handle bars B, B¹, in which the indentations D, are formed, and which are provided with the flange or extension *d*, in which the recesses K, are formed, and means for holding said handle bars at the position to which they may be adjusted, in combination with the coupling J, formed with an interior opening *f*, the handles C, C, and spindles I, substantially as and for the purpose set forth.

No. 50,245. Apparatus for Storing and Feeding Oil.

(*Appareil d'alimentation.*)

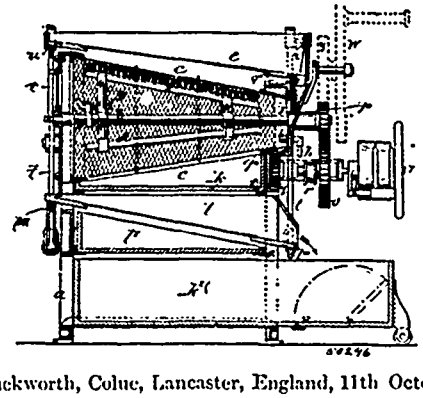


Luther C. Snell, Detroit, Michigan, U.S.A., 11th October, 1895; 6 years.

Claim.—1st. In an oil feed apparatus, the combination of an oil tank, a steam generator, a heating pipe leading from the generator to the top of the tank and having a coil located in the top of the tank, and a discharge pipe from the coil for the water of condensation leading to and discharging at the bottom of the tank, substantially as described. 2nd. In an oil feed apparatus, the combination of an oil tank, an oil pipe and a water pipe leading therein, an automatic valve for controlling the water supply, a tank in which said valve is located, an overflow pipe leading therefrom above the level of the supply pipe, and means for supplying oil under pressure into the tank to force the water out through the overflow pipe, substantially as described. 3rd. In an oil feed apparatus, the combination of an oil tank, an oil supply pipe, a water supply pipe, a source of water supply under pressure connected with the water supply pipe, an automatic valve controlling the connection, means for closing said valve upon the ingress of oil into the tank, an overflow, and means actuated by the liquid from the overflow, for controlling the water pipe valve, a valve in the water pipe, substantially as described. 4th. In an oil feed apparatus, the combination of an oil tank, an oil pipe, a water pipe, a tank into which said water pipe leads, a water supply pipe leading into the tank, an automatic valve controlling said water supply pipe, an overflow pipe having a branch leading from near the bottom to a point above the water supply, an auxiliary overflow above the top of the primary overflow, a valve in the water pipe between the two tanks, and means for closing that valve when the secondary overflow takes place, substantially as described. 5th. In an oil feed apparatus, the combination of a tank having oil and water pipes leading thereto, the water adapted to be forced out upon the ingress of oil, and automatic means for closing the out-flowing pipe when the tank is filled with oil, substantially as described.

No. 50,246. Fruit Cleaning Machine.

(*Machine à nettoyer les fruits.*)

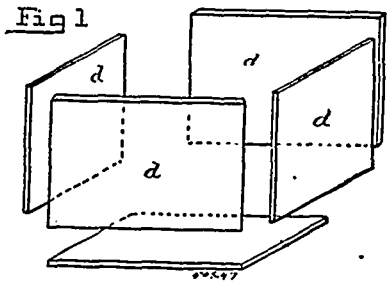


Caleb Duckworth, Colne, Lancaster, England, 11th October, 1895; 6 years.

Claim. 1st. The general construction and arrangement of the improved fruit cleaning machine, substantially as above, more particularly described and represented by the annexed drawings, and especially I claim. 2nd. In fruit cleaning machines, the combination with a conical sieve mounted horizontally upon an axle and revolving in one direction, of an internal conical brush or series of

brushes mounted on the same axis and caused to revolve rapidly in the reverse direction. 3rd. I claim in such machines, the combination with a revolving conical brush, of a screw or equivalent device for the adjustment of such conical brush in the interior of the conical sieve. 4th. I claim in such machines, the combination with a revolving conical sieve of a feeding trough to which a to and fro sliding or shaking motion is given to facilitate the self-feeding of the fruit. 5th. I claim in such machines, the combination of a shaking feeding trough with a shaking delivery trough having a sieve bottom both worked by the same levers and eccentric. 6th. I claim in such machines, the combination with a revolving conical sieve, of means for admitting a spray of water into the said conical sieve through the feeding inlet.

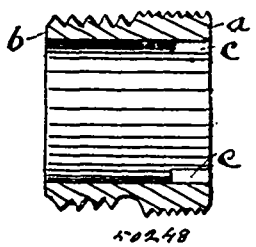
No. 50,247. Sugar Case. (*Boîte à sucre.*)



William Wale, London, England, 11th October, 1895; 6 years.

Claim.—A case or receptacle adapted for containing sugar of different kinds, consisting of four stationary sides and a fixed bottom and a lid or cover, and having a supported false bottom of suitably meshed wire or perforated metal or the like, and a removable solid cover for same, and four removable panels or false sides, said false bottom partitioning off the case into an upper and a lower chamber, the latter having an opening provided with a sliding or other door for the purpose of allowing the contents of such chamber to be removed, substantially as and for the purpose described and illustrated.

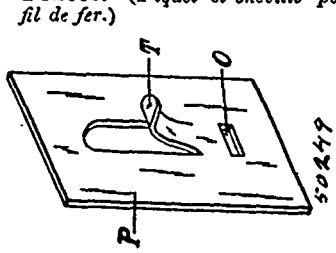
No. 50,248. Nipple. (*Mamelon.*)



Charles Patullo Kinnell, Borough of Southwark, London, England, 11th October, 1895; 6 years.

Claim.—1st. A differential screw nipple that will upon rotation be caused to travel in one direction through the parts to be coupled, but faster through one of such parts than the other, for the purpose set forth. 2nd. A coupling nipple having screw threads of differing pitch thereon, for the purpose set forth. 3rd. A coupling nipple, having screw threads of differing pitch thereon for connecting two flat surfaces of metal, which surfaces may or may not be turned or faced to make joint without intervening washer or for use with intervening washer of any suitable material. 4th. A coupling nipple, having its perimeter of differing diameter and the part of larger diameter bearing a finer screw thread than the smaller part, for the purpose set forth.

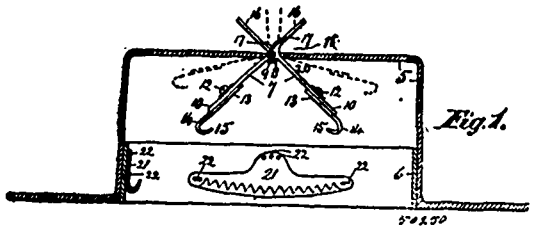
No. 50,249. Combined Picket and Clip for Wire Fences. (*Piquet et cheville pour clôtures en fil de fer.*)



Alonzo Badgley, Euphemia, Ontario, Canada, 11th October, 1895; 6 years.

Claim.—1st. As a new article of manufacture, a picket P, formed with the tongue T, and with the opening O, substantially as and for the purpose set forth. 2nd. A picket P, formed with the tongue T, and with the opening O, in combination with the longitudinal fence wires F, F, substantially as and for the purpose set forth.

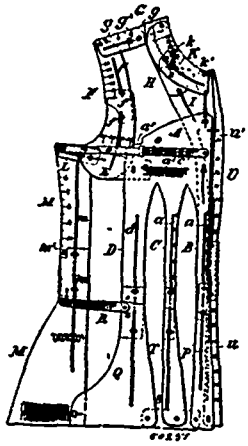
No. 50,250. Hat-Holder. (*Porte-chapeau.*)



George J. Johnson, St. Paul, Minnesota, U.S.A., 14th October, 1895; 6 years.

Claim.—1st. In combination with a hat, a hat-holding device comprising one or more curved plates 21, having V-shaped upwardly and inwardly extending teeth at the lower edge, and attached inside the hat to the sides, or back or front, to take hold of the hair of the wearer, as set forth. 2nd. In combination with a hat, a hat-holding device comprising curved plates 21, having a turned serrated edge to engage the hair, and attached to the inside of the hat near the brim, as set forth. 3rd. A hat-holding device, consisting of plates with inturned serrated edges attached to a pair of spring closed levers, the upper end of said levers extending through the crown of the hat, and attached to the hat by a safety pin inside the hat, substantially as set forth. 4th. The combination, with a hat of a pair of spring closed levers hinged together and attached to the crown of the hat from within, the upper end of said levers projecting through the hat and the lower end having teeth to take hold of the hair, as set forth. 5th. A hat-holding device, comprising a pair of levers hinged together near the middle, the pintle of the hinge formed as a safety pin to fasten the holder to the hat, said levers extending through the top of the hat, a coiled spring interposed at the hinged joint of the levers and holding the exposed ends apart, and plates having an inturned serrated, or toothed edge secured to said levers within the hat, substantially as and for the purpose set forth.

No. 50,251. Adjustable Garment Pattern. (*Patron adjustable pour vêtements.*)

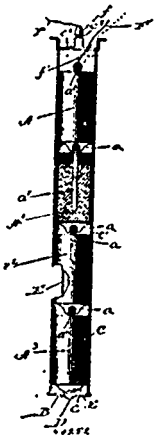


Hamilton M. Lambright, Akron, Ohio, U.S.A., 14th October, 1895; 6 years.

Claim.—1st. The combination in a front-waist form, of a main templet, slidably connected dart templets carried by said main templet and connected at their lower extremities by a pivotal cross templet, an arm's eye templet comprising relatively-adjustable members, an intermediate templet E, slidably mounted upon the main templet and pivotally connected to the lower member of the arm's eye templet, an extensible side-templet slidably connected for transverse adjustment to the rear dart templet, an intermediate under-arm horizontal templet connecting the upper extremity of the side templet to the lower extremity of the arm's eye templet by a sliding joint, an extensible shoulder templet, a front-extension templet slidably mounted upon the main templet, a segmental neck templet pivotally connected at its extremities to the shoulder and front-extension templets, relatively-slidable measuring strips carried respectively by the main and side templets, and a pivotal extensible full-front templet slidably connected at its upper end to the front extension templet and pivotally connected at its lower end to the front dart

templet, substantially specified. 2nd. The combination in a back form, with the back and under-arm extension templets, of a neck templet B^1, slidably connected to the upper end of the back templet, an arm's eye templet D^1, pivotally connected to the under arm templet, an extensible shoulder templet pivotally connected to the neck and arm's eye templets, said under-arm templet being slidably connected to an extension of the neck templet, and a pivotal strip carried by the under-arm templet and provided with a scale, the measurements upon which are indicated by a dart on the back templet, substantially as specified. 3rd. The combination in a sleeve pattern, of the inner-seam slidably connected templets A^4 and B^4, the latter being provided with a transverse slotted extension b^4, a wrist templet C^4, slidably connected to said extension and bearing a scale transversed by the end of the extension b^c, outer-seam templets D^4 to G^4, inclusive, of which the parts E^4 and F^4, are pivotally connected, and the parts D^4 and E^4, and the parts F^4 and G^4, are slidably connected, a cross-arm tongue arranged at b^4, integral with the pivotal end of the templet F^4, and provided with a slidable extension f^n, which is provided with a scale and is slidably connected to the inner seam templet A^4, slidably connected arm's eye templets H^4 and I^4, respectively connected to the templets G^4 and A^4, the latter being provided with a slotted extension a^4, and an inside templet K^4, pivotally connected to the arm's eye templet H^4, and slidably connected to the outer seam templet F^4, substantially as specified.

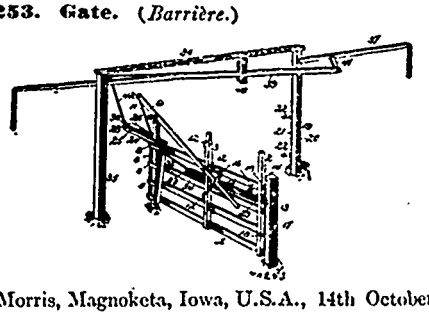
No. 50,252. Electric Battery. (*Pile électrique.*)



Samuel H. Hoggson, St. Louis, Missouri, U.S.A., 14th October, 1895; 6 years.

Claim.—1st. The herein described electric battery, the same consisting of the vertical series of cells, the containing-tube of non-conductor material, the plates at the ends, respectively, of said tube, and the wires on the opposite sides of said tube electrically connected to the upper case-plate, said cells being electrically connected with each other in series, the lowermost cell being electrically connected with said wires, and the uppermost cell and the upper case-plate being respectively provided with terminals, substantially as described. 2nd. The combination of the cells arranged in a vertical series and electrically-connected as described, the case C, having the tubular part c^1, and the end plates c, and c^2, the spring plate B, secured to plate c, by the bolt D, and the wires E, E, on the opposite side of the tube, substantially as described. 3rd. A battery tube of non-conductor material, the plates at the end of said tube, the upper of conducting material, and the wires uniting said tube and plates, said wire made of conductor material and electrically connected to the upper plate and provided with means for engaging the terminal of the lowermost cell. 4th. In an electric battery having cells arranged in series and connected by adjacent terminals, the combination of the spring-clamp a, the cell above or beyond said clamp, and the terminal a^1, of the adjoining cell, substantially as described.

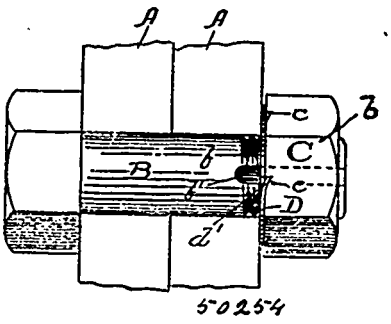
No. 50,253. Gate. (*Barrière.*)



John H. Morris, Magnoketa, Iowa, U.S.A., 14th October, 1895; 6 years.

Claim. 1st. The combination with a swinging gate having an arm projecting in rear of its pivotal point, of opposite hand-levers, an intermediate lever pivoted between its ends and having the extremity of one of its arms arranged above and at a point between the vertical planes of the gate-arm when the gate is in its open and closed positions, the arms of the intermediate lever being connected to the hand-levers whereby a downward movement of the outer end of either hand-lever will cause the elevation of the extremity of the intermediate lever which is arranged contiguous to the gate-arm, a bell-crank lever mounted upon the gate-arm, a latch on the gate connected to one arm of said bell crank lever, and connections between the said extremity of the intermediate lever and the other arm of the bell-crank lever, whereby the gate latch is retracted to release the gate and lateral strain is exerted upon the gate-arm through the bell-crank lever to impart a swinging movement to the gate, substantially as specified. 2nd. The combination of a swinging-gate having an arm projecting beyond its pivotal point, of pivotal hand-levers arranged with their free ends upon opposite sides of the plane of the gate when the later is in its closed position, an intermediate lever pivoted between its extremities, its short arm being connected to one of the hand-levers between its pivotal point and outer end, and its long arm being connected at an intermediate point to the extremity of the inner arm of the other hand-lever which is pivoted at an intermediate point, the free end of the long arm of the intermediate lever being arranged in a plane midway between the vertical planes of the gate when in its closed and open positions and above the plane of the gate-arm, and a link connecting said extremity of the long arm of the intermediate lever with the end of the gate-arm, whereby downward movement of either hand-lever will cause an upward movement of the long arm of the intermediate lever to impart swinging movement of the gate, and whereby the weight of the long arm of the intermediate lever operating through the link by which it is connected to the gate-arm continues said movement of the gate, substantially as specified. 3rd. The combination of a pivot post, a swinging gate provided at its rear end with a tapering frame receiving the pivot post, the rear side of the frame being vertical to bear against the outer side of the post, an arm extending from the top of the gate and provided with a counterbalancing weight, a lever fulcrumed at an intermediate point on the pivot post above the gate and having its rear end connected with the latter, and means for detachably securing the front portion of the lever to the gate, substantially as specified. 4th. The combination of a pivot post, a gate provided at its rear end with a tapering frame receiving the pivot post, an arm extending rearward from the gate and provided with a counterbalancing weight, a vertical pivot mounted at the top of the pivot post, a lever hingedly connected with the pivot and adapted to swing vertically on the same, and to swing horizontally on the pivot post, and having its rear end connected with the gate, and a series of catches mounted on the gate for detachably engaging the lever, substantially as and for the purpose specified.

No. 50,254. Nut and Bolt Lock. (*Clé à écrou et boulon.*)



John G. Hodgson, Maywood, Illinois, U.S.A., 14th October, 1895; 6 years.

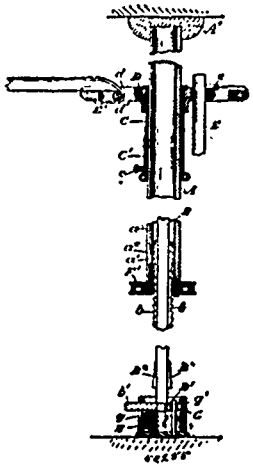
Claim.—The combination of bolt B having longitudinal groove b^1, of a nut C having a series of notches c in its face, and a washer D having a number of differentially located teeth d^1, the difference in the radial position of said teeth being an aliquot portion in respect to the number of teeth of the space between successive notches in the nut, so that one of said teeth at a time engages a notch in the face of said nut, substantially as specified.

No. 50,255. Clothes Dryer. (*Séchoir à linge.*)

Edward John Downey, Guelph, Ontario, Canada, 14th October, 1895; 6 years.

Claim.—1st. In a clothes dryer, the combination with the post, of a disc secured thereto, and a series of arms having hooked inner ends, grasping pins within radial openings in the disc, side ribs for such openings, and pins c at the opposite ends of the arms, as and for the purpose specified. 2nd. In a clothes dryer, the combination with the arms supported in the disc, the sleeve to which the disc is

attached and the spring-pressed pin extending through the sleeve, of a portion A provided with a narrow groove and holes in such



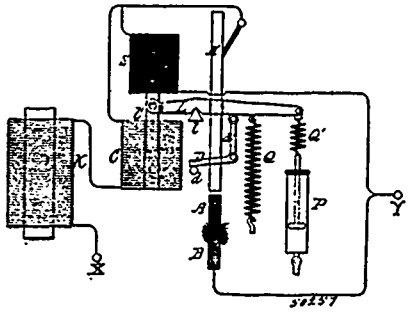
groove with bevelled upper portions a^2, as and for the purpose specified. 3rd. The combination with the portion A, having a flat top A^1, of the portion B extending into the same and having the rack b secured at both sides thereof, and the spring pressed dogs F pivoted within the closed collar F^1 and designed to engage with the rack, and the disc B^1 secured to the bottom of the portion B and fitting within the socket G, and the springs H arranged as and for the purpose specified. 4th. The combination with the portion A having a flat top A^1, of the portion B extending into the same and having the rack b secured at both sides thereof, and the spring-pressed dogs F pivoted within the closed collar F^1, and designed to engage with the rack, the disc B^1 secured to the bottom of the portion B fitting within the socket G, and having an outwardly extending end b^1 projecting through a slot g in the socket, and the springs H all arranged as and for the purpose specified. 5th. The combination with the portion A, of the portion B extending into the same, and the dogs F pivoted within the closed collar F^1 at the bottom of the portion A, and the projections B^2 secured to the sides of the portions B, as and for the purpose specified.

No. 50,256. Spoon. (*Cuillère.*)

Felix Arthur Belcher, Toronto, Ontario, Canada, 14th October, 1895; 6 years.

Claim.—The combination of a straight edged flange with an ordinary spoon, substantially as and for the purpose herein set forth.

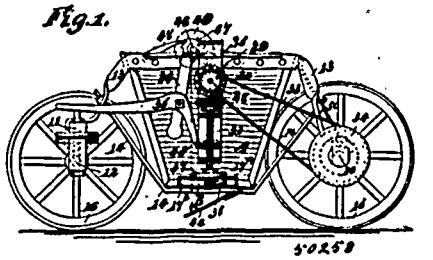
No. 50,257. System of Electric Arc Lighting.
(*Système de lampe électrique à arc.*)



Daniel Higham, Boston, Massachusetts, U.S.A., 14th October, 1895; 6 years.

Claim. The combination of an arc lamp or lamps having suitable carbon feeding or regulating mechanism, with an inductive coil in the main circuit in series with the arc and series windings of said lamp or lamps, and an elastic and slow yielding connection arranged serially together between the said mechanism and frame of said lamp or lamps, substantially as described and for the purpose set forth.

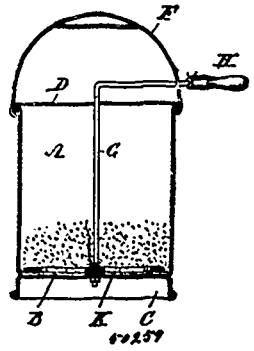
No. 50,258. Fertilizer Distributer.
(*Distributeur d'engrais.*)



Lewis Roat, Milton, Henry Roat, Morresburg, and Luther E. Roat, Milton, all in Pennsylvania, U.S.A., 14th October, 1895; 6 years.

Claim.—1st. In a fertilizer distributer, the combination, with the hopper-like, wheel-supported body and rotating axle, of the removable pulverizer and spreader, composed of a toothed cylinder, a detachable shaft having a spline connection with said cylinder, a drive shaft connected with such detachable shaft, and means which operatively connect the axle and drive shaft, as shown and described. 2nd. In a fertilizer distributer, a hopper-like body, wheel supported and provided with an opening in its bottom, the detachable riddle held to reciprocate in said opening, the detachable auxiliary spreader held to revolve above the riddle, its spined shaft which is also removable, a drive shaft, a connection between the said drive shaft and an axle of the machine, a crank disc carried by the drive shaft, having a pitman connection with the riddle, a drop door capable of closing the opening in the body of the said hopper body, a winding shaft carried by the said hopper and the connection between the said shaft and the drop door, as and for the purpose specified. 3rd. In a fertilizer distributer, the combination with a wheel supported hopper body having an opening in its bottom, and a riddle sliding in said opening and removable therefrom, of a horizontal shaft journalled in a support at one side of the hopper body, and provided with a pulley and a bevelled gear, a second shaft journalled vertically and adapted to slide endwise and provided with a gear adapted to mesh with the said bevelled gear of the first shaft, a crank disc carried by the adjustable second shaft, a pitman connection between the crank disc and the riddle, a shifting lever connected with the second shaft and a driving connection between the first shaft and an axle of the machine, substantially as and for the purpose set forth.

No. 50,259. Plant Duster.
(*Appareil à épousseter les plantes.*)



George Wilber, Escott, and Reuben Alexander McLelland, Brockville, both in Ontario, Canada, 14th October, 1895; 6 years.

Claim.—The combination of the can A, having a perforated bottom B, rim C, and fixed cover D, provided with a removable section or door E, and a fixed bail F, the rock-shaft G, journalled through the top and bottom of the can and bent exteriorly at right angles thereto and provided with a handle H, and the agitator K, secured to said shaft near the bottom of the can, as set forth.

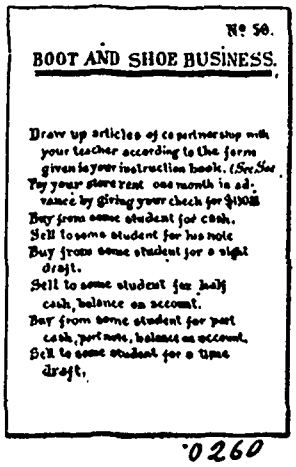
No. 50,260. Method of Teaching Book-keeping.
(*Méthode d'enseigner la tenue des livres.*)

John Keith and George McLaurin, both of Ottawa, Ontario, Canada, 14th October, 1895; 6 years.

Claim.—1st. A method or means of teaching book-keeping, consisting in placing in the hands of the students besides the necessary books, blanks and stationery, a set of instructions for making entries and drawing papers and documents, a numbered task containing work for a limited period of time less than the whole period which the student is expected to be engaged upon the whole branch of the

subject, such as a day, and consisting among others of instructions to buy from and sell to other students and which may contain a reference to the set of instructions, a purchase card and a sales card each containing an identical table of terms upon which he may be called upon to do business with an abreviated mark for each and a column of such marks and combination of the same with adjoining spaces for writing upon and spaces for the name and number of the student, an envelope having printed heads with spaces for writing in the name and number of the student and for the numbers of the addresses to whom it is to be sent in turn to transmit written communications and commercial papers through the medium of the teacher after being examined by him, and the registration by the teacher of the number of transactions made by the student, substantially as set forth. 2nd. In a method or means of teaching book-keeping, task cards containing work for a limited period, say a day, but less than the whole period which the student will be engaged upon the whole branch of the subject to which it relates, such work consisting in part of orders to buy from and sell to other students, substantially as set forth. 3rd. In a method or means of teaching book-keeping, a pair of similar cards, each containing a space for name and number of the student, a table of terms on which business is conducted with abreviation marks and a column of such marks, and combinations of such marks with blank spaces adjoining such column and used as purchase card and sales card respectively and marked as such, substantially as set forth. 4th. In a method or means of teaching book-keeping, an envelope bearing blanks for the name and number of the student and for the number of his task card and purchases and sales required, also a series of numbered spaces each adapted to have the number of a student written in to which it is to be delivered and also a space in the centre for the numbers of addressees who are not purchasers, substantially as set forth. 5th. In a method or means of teaching book-keeping, a pair of similar cards to be used for marking thereon respectively the purchases and sales required to be made and each containing a space for the number of the student, a table or statement of terms on which business is conducted with a representative mark for each, a column of such representative marks and combinations thereof with adjacent spaces for writing upon, and an envelope containing blanks for the number of the student and numbered spaces in which the number of an addressee is to be written, substantially as set forth.

Fig. 1

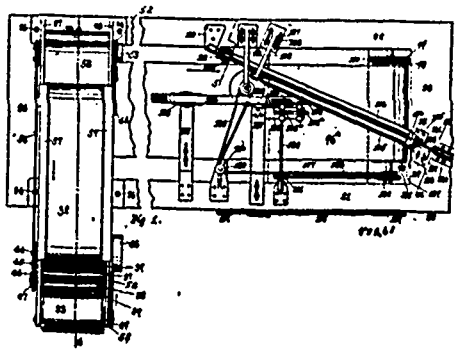


No. 50,261. Cigarette Machine.

(*Machine pour faire les cigarettes.*)

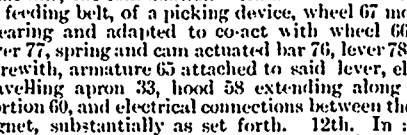
William Maxfield and Edmond Congar Brown, both of Brooklyn, New York, U.S.A., 14th October, 1895; 6 years.

Claim.—1st. In a cigarette machine, the combination with a travelling apron upon which the tobacco is deposited, of two parallel rollers on said apron in close proximity to each other and means for conducting a wrapper underneath one of the rollers at an oblique angle to the direction of said roller, substantially as set forth. 2nd. In a cigarette machine, the combination with a travelling apron upon which the tobacco is deposited, of two parallel rollers placed at an oblique angle to the direction under which the apron travels, and means for guiding the tobacco into the space between said rollers and said apron, the paper being fed in at an angle oblique to the rollers, substantially as set forth. 3rd. In a cigarette machine, the combination with a travelling apron, of two parallel rollers adjusted to revolve close to said apron, means for guiding the tobacco toward the head of one of said rollers, and into and along the space between said rollers, and adjusting devices for varying the relative position of said rollers laterally, substantially as set forth. 4th. In a cigarette machine, the combination with a travelling apron, of two parallel rollers adjusted to revolve close to said apron, one of said rollers having a conical end which extends



along the body of the other roller, and means for guiding the tobacco into the space between said conical end and the opposite roller, substantially as set forth. 5th. In a cigarette machine, the combination with a travelling apron, of two parallel rollers adjusted to revolve close to said apron, one of said rollers having a conical end which extends along the body of the other roller, and a disc adjusted to revolve above the apron for guiding the tobacco into the space between the rollers, substantially as set forth. 6th. In a cigarette machine, the combination with a travelling apron, of two parallel rollers adjusted to revolve close thereto, one of said rollers being provided with a conical forward end, and a guide disc inclined with reference to the operative face of the apron, substantially as set forth. 7th. In a cigarette machine, the combination with a travelling apron, of a roller adjusted to revolve in contact therewith and a second roller adjusted to revolve in the same direction with aforesaid roller and slightly elevated above said travelling apron, appliances for introducing the tobacco between said rollers and means for applying the wrapper to the filler between said rollers, substantially as set forth. 8th. In a cigarette machine, the combination with a travelling apron, of two rollers adjusted to revolve close thereto and parallel to each other, mechanism interposed between said rollers for imparting revolving motion of one to the other, appliances for conducting the tobacco into the space between apron and rollers and means for applying the wrapper to the filler between said rollers, substantially as set forth. 9th. In the feeding and disintegrating mechanism of a cigarette machine, the combination with a picking device for disintegrating the tobacco and adapted to be operated intermittingly, an endless travelling belt upon which the tobacco is discharged by the picking device, a wall placed along said belt and comprising a movable portion, and means for causing stoppage of the feed belt by the movement of said movable portion, substantially as set forth. 10th. In a feeding and disintegrating mechanism of a cigarette machine, the combination with the feed belt, of a picking device for disintegrating the tobacco, an electro-magnet, mechanism interposed between its armature and the feed belt adapted to produce stoppage of said belt, an endless travelling belt upon which the tobacco is discharged by the picking device, a wall placed along said belt and comprising a movable portion, and electrical connections between said portion and the electro-magnet, substantially as set forth. 11th. In a feeding and disintegrating mechanism of a cigarette machine, the combination with a wheel 66 for actuating the endless feeding belt, of a picking device, wheel 67 mounted in a movable bearing and adapted to co-act with wheel 66, slide 73, notched lever 77, spring and cam actuated bar 76, lever 78 in varying contact therewith, armature 65 attached to said lever, electro-magnet 64, travelling apron 33, hood 58 extending along the same, movable portion 60, and electrical connections between the same and electro-magnet, substantially as set forth. 12th. In a cigarette machine, the combination with mechanism for forming the filler and applying the wrapper, of stationary tube 141, sliding tube 142 mounted thereon, and provided with hangers 144, rocking shaft 145, carrying tappet arms 146 and 147, cam 148 with projections 153, spring 143, idler 152, and endless knife 150 passing over suitable pulleys and said idler, substantially as set forth.

No. 50,262. Forceps. (*Forceps.*)

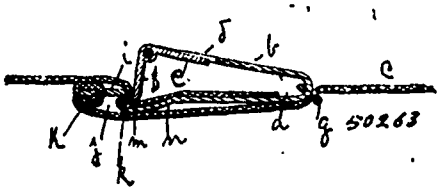


Elisha Whisson and Herbert Waitstell Wilcox, both of Le Mars, Iowa, U.S.A., 14th October, 1895; 6 years

Claim. The improved obstetrical forceps consisting of the handles A, having the inclined portions *b*, *b*, handle portions *d*, *d*, and crossed ends *c*, *c*, and the bowls or heads B, having the rib or edge *f*, substantially as set forth.

No. 50,263. Garment Supporter Clasps.

(*Support d'agrafe de vêtements.*)



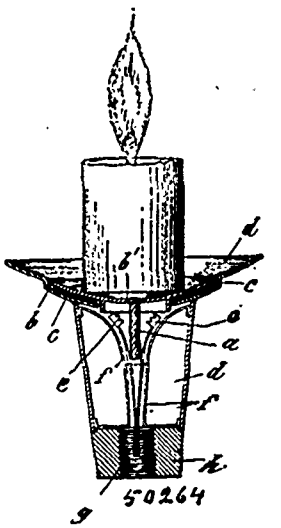
Fred D. Harding, Baldwin, Maine, Byron G. Clark and Charles H. Reed, both of Boston, Massachusetts, all in the U.S.A., 14th October, 1895; 6 years.

Claim.—1st. In a garment supporter clasp, a metallic plate folded back upon itself to form jaws, the open end of the base extending beyond the top and being set up to form underneath a space to receive the free end of the fabric supporter, and on the inside a stop to receive the clamp, a transverse slot in said set up portion, an opening in the top jaw, and a clamp pivotally mounted on said jaw and adapted to swing in said opening, substantially as and for the purposes set forth. 2nd. In a garment supporter clasp, a metallic plate folded to form jaws, a base extending beyond the top and having an upwardly extending set-off and a transverse slot in said set-off portion, the top having a hole therein and a clamping device pivotally attached to said top, a loop passing loosely around the back part of the jaws and means for preventing said loop from drawing back over the base, substantially as and for the purpose set forth. 3rd. In a garment supporter clasp, a metallic plate bent to form jaws, the base having an upwardly extending set-off, a transverse slot in said set-off, the top having a hole therein, and a clamping device pivotally attached thereto, a loop passing loosely around the back end of the jaw, in combination with a fabric supporter having one end inserted through said transverse slot and under said set-off portion and terminating in front of the vertical part of the set-off, and the body part bent around the end of the jaw and carried along the base over the end of the fabric and thence passing under said loop, substantially as and for the purposes set forth. 4th. In a garment supporter clasp, a plate folded to form jaws, the base having an upwardly extending set-off therein near its forward end and a slot in the vertical wall of said set-off, the top having an angular clasp pivotally attached thereto, one end adapted to press the garment down upon the base and forward into said slot and the other end serving as a lever, and means for attaching the clasp to the supporter strap, substantially as and for the purposes set forth. 5th. In a garment supporter clasp, a plate bent over to form jaws, the base having an upwardly extending set off therein near its forward end, and a slot in the vertical wall of said set-off, a clamping jaw pivotally attached to the top and having a set-off on its lower extremity adapted to enter said slot, and means for attaching said clasp to the supporting strap, substantially as and for the purposes set forth. 6th. In a garment supporter clasp, a metallic plate bent to form jaws, the base having an upwardly extending set-off therein near its forward end, a clamping device pivotally attached to the forward end of the stop, said device having shoulders projecting from the sides thereof adapted to limit the rotary motion of said clamping device, and means for attaching said clasp to the supporting strap, substantially as and for the purposes set forth. 7th. In a garment supporter clasp, a plate folded back upon itself to form jaws, a clamp pivotally mounted in the top jaw having a lever arm and a locking arm, an upward set-off in the base and a portion of the base back of said set-off depressed below the plane of the base, said locking arm being adapted to press the garment forward against said set-off, downwardly upon the bottom of the depressed portion of the base and laterally against the side walls of said depression, and means for attaching the supporter strap, substantially as and for the purposes set forth. 8th. In a garment supporter clasp, a plate folded back upon itself to form jaws, and upward set-off in the lower jaw, and a depression in the lower jaw back of said set-off, a slot formed between said upward set-off and the forward extremity of said depression, a clamp pivotally attached to the upper jaw having a lever arm and a locking arm, said locking arm being adapted to swing in said depression and to hold the garment inserted between said jaws by pressing it forward against the set-off, downwardly upon the bottom of the depression, and laterally against the side walls of said depression, substantially as and for the purpose set forth.

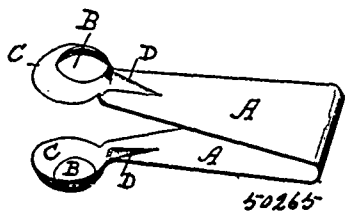
No. 50,264. Candle Holder. (*Porte-chandelle.*)

Richard Koss, Sassnitz, Prussia, German Empire, 14th October, 1895; 6 years.

Claim.—1st. A candle-holder mainly consisting of a tension or gripping device, such as *c*, for catching and retaining the wick of the candle, as shown at *a*, the candle being by such tension device held down upon its seat, constructed and arranged substantially as hereinbefore described. 2nd. One form of the candle-holder covered by the first claim, mainly consisting of a cup, such as *b*, having a perforation, such as b^1, for the wick *a*, of the candle to be passed through, such cup being placed upon the holder *d*, and adapted through the medium of a gripping device, such as *c*, which in descending, is compressed, so that it grasps the lower end of the wick of the candle, to cause the candle firmly to adhere to its seat, constructed and arranged substantially as hereinbefore described.



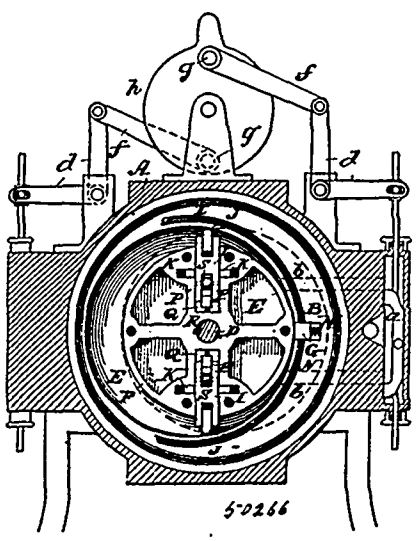
No. 50,265. Fruit Huller. (*Egrenoir pour fruits*)



Freeman Andrew Walker, Boston, assignee of John Andrew Murray, Winchester, both in Massachusetts, U.S.A., 15th October, 1895; 6 years.

Claim.—A fruit or berry huller consisting of the handles terminating at their free ends in the inwardly flaring rings, substantially as set forth.

No. 50,266. Rotary Engine. (*Machine rotatoire.*)



August W. R. Berr and Thomas Laidlaw, both of San Jose, California, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. In a rotary engine, independent eccentric chambers situated side by side having their eccentricity diametrically opposite and fitting within an outer case, discs secured to a central shaft and

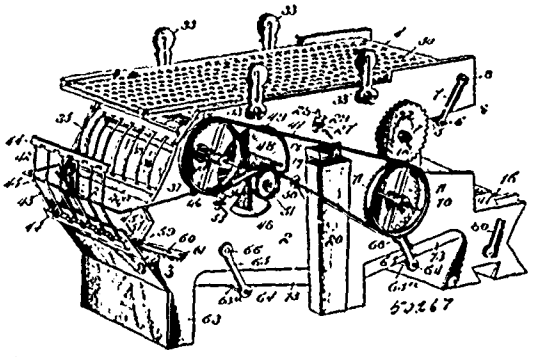
interposed between the eccentric chambers, and other discs exterior to the chambers, drums secured to said discs and shaft, with radial sliding pistons movable inside of the eccentric chambers and connections whereby the pistons are united to move in pairs. 2nd. A rotary engine consisting of an exterior case, eccentric chambers fixed therein side by side, with their eccentricity diametrically opposite, a shaft extending through the heads of the case having a disc fixed thereto intermediate between the eccentric chambers and other discs exterior to the chambers, *and piston-carrying drums* fixed to the shaft within the chambers, with radially sliding pistons connected in pairs in the two chambers, annular grooves in the opposite faces of the eccentrics with spring-actuated rings fitted therein, and corresponding flanges formed upon the central and exterior discs fitting against said rings to form steam-tight joints. 3rd. A rotary engine consisting of an exterior case, eccentric chambers fixed therein with their eccentricity diametrically opposite, a shaft extending through the heads of the case having discs fixed thereto outside of the eccentric chambers and intermediate between them, spring-actuated packing rings forming steam-tight joints between said discs and the faces of the eccentric chambers, radially slotted drums secured to the shaft within the eccentric chambers, pistons slidable in the radial slots having spring-actuated packing blocks upon their outer ends, and spring-actuated transverse packing blocks fixed in the eccentric chambers at points where the piston-carrying drums contact therewith. 4th. A rotary engine consisting of an exterior case having eccentric chambers fixed therein side by side, with their eccentricity diametrically opposite, a shaft extending through the heads of the case having fixed to and rotating with it a disc intermediate between the eccentric chambers and other discs exterior thereto, with spring-actuated packing rings forming tight joints between the chambers and the discs, piston-carrying drums fixed to the haft within the eccentric chambers, pistons slidable radially in channels in said drums having spring actuated packing blocks at the outer ends, channels formed in the drums at right angles with the radial channels in which the pistons slide and spring-actuated packing blocks fitting therein, forming contact with the sides of the pistons. 5th. A rotary engine consisting of an exterior case having eccentric chambers fixed therein side by side with their eccentricities diametrically opposite, a shaft extending through the heads of the case, discs fixed to the shaft intermediate between the eccentric chambers and exterior thereto with spring-actuated packing rings to form joints between the discs and chambers, piston-carrying drums fixed to the shaft within the eccentric chambers, pistons sliding in radial channels in said drums, and transverse bars fulcramed in the intermediate disc between the chambers, the ends of said bars engaging with the oppositely placed pistons whereby the inward movement of one piston is transmitted to produce an outward movement of the corresponding one in the other chamber. 6th. In a rotary engine, fixed eccentric chambers standing side by side having their eccentricity diametrically opposite, pistons sliding radially in drums fixed to a shaft rotating within said chambers, discs fixed to the shafts forming a diaphragm between the two chambers and closing the exterior faces thereof with suitable packing joints, transverse bars fulcrumed in the central disc having the ends extending into the pistons upon opposite sides thereof, said ends being made convex upon the contact surfaces, and anti-friction rollers journalled in the pistons and resting upon the ends of said bars. 7th. In a rotary engine, fixed eccentric chambers standing side by side, having their eccentricity diametrically opposite, exterior and intermediate discs closing the ends of the eccentric chambers, fixed to the shaft and rotating therewith, with suitable packing joints between the discs and the ends of the chambers, radially slotted piston-carrying drums fixed to the shaft within the chambers, piston slidable in said drums to follow the interior peripheries of the eccentric chambers, tilting arms fulcrumed in the intermediate diaphragm extending into the pistons upon opposite sides thereof with contact surfaces whereby the inward movement of one piston coincides with the outward movement of its fellow, and a fulcrum block upon which the tilting arm turns, said fulcrum block being adjustable to compensate for wear.

No. 50,267. Grain Cleaner and Separator.

(*Appareil à nettoyer et séparer les grains.*)

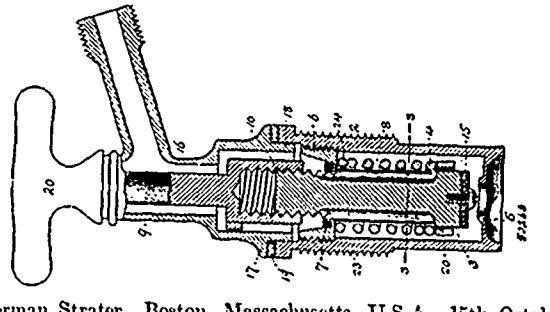
Edgar L. Fixler, Anson H. Williams, both of Delta, and Horace Tredway, Metamora, all of Ohio, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. In a grain recleaner, the casing, upper and lower cleaning shoes supported to vibrate within the casing and having separating sieves, a segmental grain grating arranged within one end of the casing and comprising upper and lower transverse bars and a series of parallel curved grating wires, the upper of said transverse bars being arranged directly under one end of the upper shoe, and a fan arranged between the two shoes to direct its blast through the falling grain passing from the upper to the lower shoe through said grating, substantially as set forth. 2nd. In a machine of the class described, a cleaning shoe provided with a flat floor and with a bottom seed pocket at an intermediate point, the separating sieve fitted within said shoe, a stationary vertically adjustable skeleton frame support arranged within the seed pocket of the shoe, and comprising a series of connected parallel frame bars, and a stationary rectangular sieve cleaning frame secured intermediately on said support so as to extend beyond both sides of the seed pocket, and provided with a series of transverse cleaner bars adapted to work against the under side of said sieve, and also over the flat floor o



the shoe to work the separations into the seed pocket, substantially as set forth. 3rd. In a grain recleaner, the casing, upper and lower vibrating cleaning shoes supported within the casing, the upper of said shoes being provided at an intermediate point with a bottom seed pocket, the separating sieve fitted in the upper shoe, a stationary rectangular sieve cleaning frame arranged on the bottom of the upper shoe longitudinally under the sieve therein, and adapted to provide for cleaning the sieve, and also for working the separations into seed pocket, a transverse skeleton frame support connected to said frame at an intermediate point, a transverse vertically adjustable bolt rod connected to said frame support to loosely and adjustably support the same, and a fan arranged between the two shoes, substantially as set forth. 4th. In a grain recleaner, the combination of upper and lower vibrating cleaning shoes, a grain grating arranged under the discharging end of the upper shoe, a fluted grain roller under the upper end of said grating, and the fan arranged between the two shoes, substantially as set forth. 5th. In a grain recleaner, the casing, the upper and lower cleaning shoes supported to vibrate within the casing and having separating sieves, a segmental grain grating arranged within one end of the casing and comprising upper and lower transverse bars and a series of parallel curved grating wires, the upper of said transverse bars forming a rest bar for one end of the upper shoe to slide on, an inclined grain board supported at an angle over and in contact with said grating, a longitudinally fluted grain roller mounted to rotate within said grating adjacent to the rest bar thereof, and a fan arranged to discharge its blast under said grating, substantially as set forth. 6th. In a grain recleaner, the combination of the casing, the vibrating separating shoe mounted within the casing and having a sieve therein, and an adjustable skimming apron supported at one end of the casing and adapted to have one end adjusted within one end of the shoe above the sieve therein, substantially as set forth. 7th. In a grain recleaner, the combination of the casing, the vibrating cleaning shoe mounted within the casing and having a sieve therein, a U-shaped adjusting bail pivotally connected to one end of the casing, and a skimming apron attached to said bail, said skimming apron comprising a series of parallel angular wires and transverse bars connecting the ends of said wires, one of said transverse bars being adapted to be adjusted to a position within the open end of the shoe above the sieve therein, substantially as set forth. 8th. In a grain recleaner, the combination of the casing, upper and lower vibrating shoes carrying sieves, a segmental grain grating arranged at one end of the casing below the plane of the discharging end of the upper shoe, a fluted grain roller arranged under the upper end of the grating, adjacent inclined cant boards arranged below the lower end of the grating and declining toward the lower shoe, a circular fan casing arranged between the two shoes and provided in one side with a door-inclosed blast opening disposed below the plane of the grating to discharge the blast through the grain as it falls to the lower shoe and the fan, substantially as set forth.

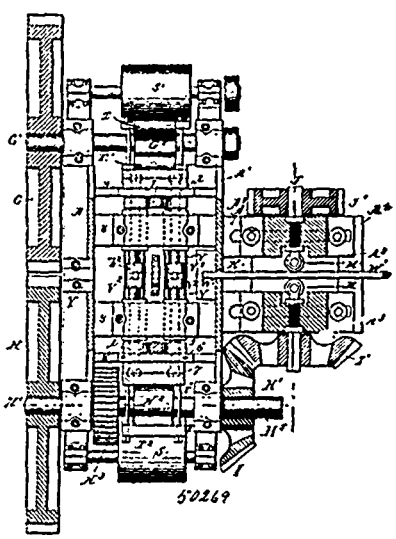
No. 50,268. Barrel Valve. (*Soupape de baril.*)



Herman Strater, Boston, Massachusetts, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. A liquid controlling device, as a duct for fluid discharge, comprising a tubular valve casing; rovided with a valve seat at one end and interiorly screw-threaded at the opposite end, a non-revoluble valve having a threaded shank, an annular retaining nut, and passages for the flow of liquid through the valve casing, combined with a discharge pipe, and a separable valve stem in said discharge pipe to engage the valve shank, said valve stem being adapted to revolve but having no endwise movement, substantially as explained. 2nd. A liquid controlling device which acts as a duct for fluid discharge, consisting of a valve casing interiorly screw-threaded in part, a spring-actuated valve for rise and fall therein, an annular nut to adjust the spring tension, and a valve shank having an attenuated portion, said portion adapted to slide through the nut to permit fluid discharge when the valve is open, substantially as stated and set forth. 3rd. The combination with a valve casing, a non-revoluble spring-actuated valve, and a nut for adjusting the spring tension, of a tubular coupling adapted to form a sealed joint with the valve casing, and a valve stem secured to the coupling and separably united with the valve shank, substantially as described and stated. 4th. In combination with a tubular valve casing interiorly and exteriorly screw-threaded in part, a valve within said casing, and a nut to limit the open movement of the valve, a revoluble coupling, and a valve stem secured to the coupling and adapted to engage the valve and transfer the spring tension from the valve to the flange of the coupling, substantially as specified. 5th. A device for controlling the flow of liquid, comprising a valve casing as a fixture in the liquid containing vessel, a non-revoluble valve having a screw-threaded shank end, an annular nut in the bore of the casing, a spring to hold the valve closed, combined with a tubular coupling or Y, a valve stem separably united with the valve shank and revoluble in the coupling, and passages for the flow of liquid from the vessel to the coupling when the valve is opened, substantially as described. 6th. The combination, with a valve casing, a spring-actuated normally closed valve, an annular nut interiorly of the casing to control the spring tension, of a valve shank longitudinally grooved in part and to extend through the bore of the nut, a detachable discharge pipe to engage with the valve casing, and a revoluble valve stem mounted in said pipe to engage the valve shank and cause the shank to reciprocate through the nut, as set forth. 7th. In a liquid controlling device adapted to serve as a duct from a source of supply to a discharge pipe system, a valve casing for attachment to the source of supply, a valve to close an aperture in the inner end of said casing, combined with an annular nut interiorly in the outer end of said casing and a valve stem having a screw-threaded end adapted to slide through the nut and to seal the outer end of the valve chamber against the entrance of substances from without, substantially as stated. 8th. A liquid controlling device comprising a tubular valve casing provided with a valve seat at one end, an annular nut interiorly near the opposite end, a non-revoluble valve, a valve shank to contact against the nut and limit the rise of the valve, a revoluble coupling, and a valve stem detachably united with the valve shank and adapted to force the coupling and valve casing together without rotary movement of the valve, as explained.

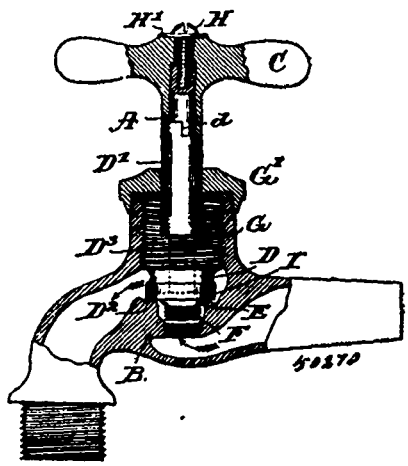
No. 50,269. Machine for Forging Spikes and other Metal Products. (*Machine pour forger les chevillettes, etc.*)



John Seaman Pessenger, Brooklyn, New York, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. The combination, with the revoluble swaging dies L, L^1, the two pivoted pairs of separable gripping dies V^2, the two vertically reciprocating heading dies *h* arranged over the gripping dies, and the two vertically reciprocating cutters *b* arranged respectively in front of and between the said heading dies, of driving mechanism operating the said dies and cutters, substantially as set forth. 2nd. The combination, with the two pivoted pairs of separable gripping dies V^2, the two vertically reciprocating heading dies *h* arranged over the gripping dies, and the two vertically reciprocating cutters *b* arranged respectively in front of and between the said heading dies, of driving mechanism operating the said dies and cutters, substantially as set forth. 3rd. The combination, with the revoluble die-beds V^3 provided with pinion teeth, and the racks *j*, engaging with the pinion teeth of the pivoted segments P, provided with lugs *a* and teeth engaging with teeth on the said racks, the reciprocating heading mechanism provided with heading dies *h*, and lugs *p* for operating the said segments, the grip rods carrying the dies V^2 and splined in the said die-beds, and means for reciprocating the grip rods in the die-beds, substantially as set forth. 4th. The combination, with the revoluble die-beds and means for turning them in their supports, of the grip rods carrrying the dies V^2 and splined in the said die-beds, the frames carrying the rollers T and connected to the ends of the grip rods, and the revoluble cams G^2 and H^2 arranged between the rollers T, and operating to open and close the grip dies, substantially as set forth. 5th. The combination, with the shaft F, and the cams F^1 and F^2 secured thereon, of the block R sliding in vertical guides, provided with the two heading dies *h*, and operatively connected to the cam F^2, the cross-bar a^1 operatively connected to the cams F^1, and the die rods carried by the said cross-bar, sliding in openings in the block R, and provided with the two cutters *b*, arranged respectively in front of and between the dies *h*, substantially as set forth.

No. 50,270. Faucet. (*Fausset.*)



Frank Henry Burrill, Concord, Massachusetts, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. In a cock or faucet, a main valve provided with a hollow spindle, a seat for said valve, an auxiliary valve provided with a stem extended through the spindle, a seat for the auxiliary valve, and detachable connections between said spindle and stem, to retain the auxiliary valve away from its seat whereby the spindle and stem are normally rotated and moved longitudinally in unison, substantially as described. 2nd. In a cock or faucet, a main and auxiliary valve seat; a main valve, an auxiliary valve detachably connected therewith and located below the main valve and between it and the auxiliary valve seat, and means to normally maintain said auxiliary valve adjacent to the under side of and movable with the main valve, substantially as described. 3rd. In a cock or faucet, a main valve provided with a hollow spindle having a shouldered end, and auxiliary valve provided with a stem extended through said spindle, a washer interposed between said valves and retained in place by the auxillary valve, a handle adapted to fit onto the stem and to engage the shouldered end of the spindle, and a screw to detachably secure the handle to the stem and maintain it in engagement with the shouldered spindle, substantially as described.

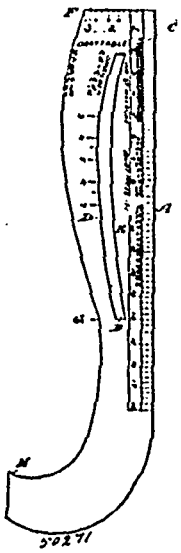
No. 50,271. Dress Chart or Rule.

(*Mesure pour robes ou règle.*)

William J. Marshall, Toronto, Ontario, Canada, 15th October, 1895; 6 years.

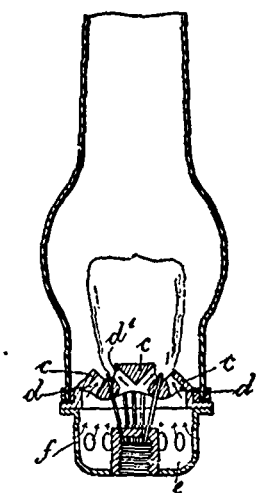
Claim.—1st. The within dress chart having one edge straight and provided with a graduated scale, the opposite edge being curved outwardly from one end along a portion of its length and throughout the remainder of its length curved inwardly, substantially as

shown, a curved slot B, C, formed in the body of the chart, the scale along the straight edge being divided into subdivisions for waist



measure and bust measure, the curved slot being formed with a shoulder scale along one edge, a dart table on the same face, and the obverse face being provided with neck measure scales, a front arm-scye measure, and a back arm-scye edge, substantially as and for the purpose described. 2nd. The within dress chart having one end straight, the opposite end curved, a longitudinally extending straight edge between the two ends, the longitudinally extending edge opposit the straight edge being curved outwardly from one end along a portion of its length and throughout the remainder of its length curved inwardly, substantially as shown, the longitudinally extending curved slot B, C, formed in the body of the chart, and appropriate measuring scales inscribed upon the chart, substantially as and for the purposes described.

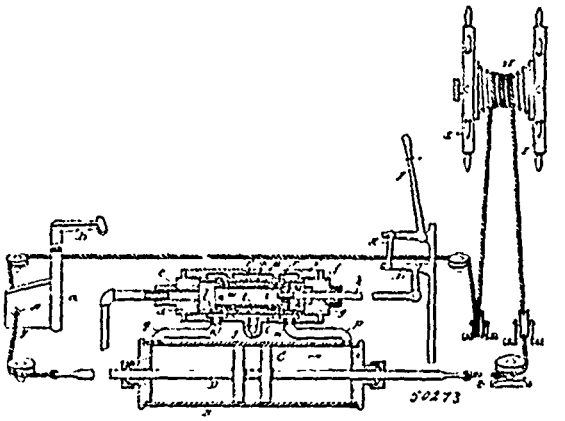
No. 50,272. Device for Conducting Air to the Flames of Gas, Petroleum, etc. (*Appareil à melanger l'air au gaz, etc.*)



August Heinrich Julius Schulke, Berlin, Empire of Germany, 15th October, 1895; 6 years.

Claim.—1st. In combination in a gas burner, the ring, the gas pipe extending through the same, and the independent ports formed through said ring and converging to the gas pipe, substantially as described. 2nd. In combination, the ring, the series of gas pipes extending through the same and arranged in a circle, and a series of inner and outer air ports independent of each other and formed by a series of openings in the ring, substantially as described. 3rd. In combination, the burner jacket *e*, having the opening *f*, and the nipple socket *b*, the ring *c* above the jacket having an inner and an outer row of openings, and the series of gas pipes *a* extending from the socket *b* through the ring *c*, between the rows of air ports, substantially as described.

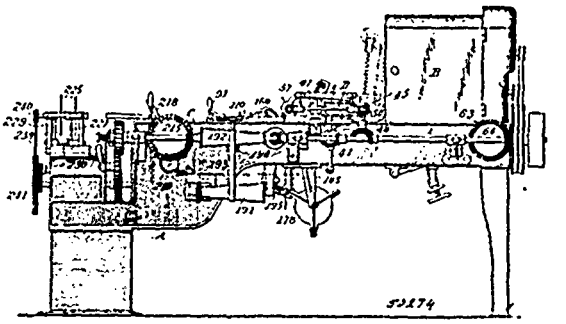
No. 50,273. Vessel Steering Apparatus.
(*Appareil pour gouverner.*)



John Bonner, Tilburon, California, U.S.A., 15th October, 1895; 6 years.

Claim.—The herein described steering apparatus, comprising essentially the following elements in combination, viz., the rudder, the steering wheel, the drum connected with the steering wheel and gradually increased in diameter from its middle to its opposite ends so as to enable it to take up slack of a cable, the cable or chain *y* connected at one end to the rudder, the cable or chain *z* also connected at one end to the rudder and connected at an intermediate point in its length to the middle of the drum and wound around the drum, the piston cylinder arranged between the contiguous ends of the two cables *y*, *z*, and extending in the same direction as said cables, the piston arranged in said cylinder and having its rod extended through the opposite ends thereof and disposed in the same direction as the cables, and also having the opposite ends of said rod connected to the contiguous ends of said cables *y*, *z*, a source of fluid pressure supply, a valve connected with the source of supply and piston cylinder and adapted to effect communication between the source of supply and the opposite ends of the piston cylinder, and communication between opposite ends of the piston cylinder and an exhaust, and also adapted to lock fluid in the piston cylinder on opposite sides of the piston, a handle J connected with the valve and arranged adjacent to the steering wheel, substantially as and for the purpose set forth.

No. 50,274. Cigarette Machine. (*Machine à cigarettes.*)



Bernhard Baron, New York, State of New York, U.S.A., 15th October, 1895; 6 years.

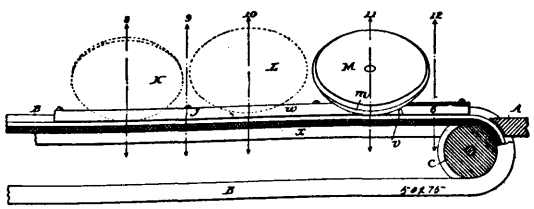
Claim.—1st. In a cigarette machine, the combination of two pairs of compressing discs having grooved edges, one pair set closer together than the other, intermediate guide blocks, and travelling belts above and below the compressing discs, substantially as set forth. 2nd. The combination in a cigarette machine, of two pairs of forming or compressing discs, one pair being set closer together than the other, intermediate guide blocks, and travelling belts respectively above and below said discs, substantially as described. 3rd. The combination in a cigarette machine, of pairs of grooved forming or compressing discs set one ahead of the other, means for imparting motion to said discs, guide blocks arranged between the discs, and travelling belts arranged above and below the discs, substantially as set forth. 4th. The combination in a cigarette machine, of a feed belt, a short belt above and parallel with the feed

belt, two pairs of grooved forming discs between said belts, the discs of one pair being closer together than those of the other pair, and guide blocks between the discs, substantially as described. 5th. The combination with the compressing discs having peripheral grooves, of intermediate blocks having their edges fitted to said grooves, and means for clamping the blocks to said compressing discs, substantially as set forth. 6th. The combination of the grooved compressing discs, intermediate blocks 7, retaining blocks 8, and horizontal screws 9, connecting said blocks and clamping them to the discs, substantially as set forth. 7th. The combination with the adjustable comprising discs having peripheral grooves, of intermediate blocks having their edges fitted to and supported in said grooves, and means for clamping said blocks to the discs, whereby the blocks are free to move with the discs, substantially as set forth. 8th. The combination in a cigarette machine, of pairs of compressing discs set one ahead of the other, means for imparting positive movement to the said discs, guide blocks between the discs arranged to diverge in the direction of the feed, and travelling belts above and below the discs, substantially as described. 9th. The combination with oppositely arranged compressing discs, of adjustable bearings therefor, and means for simultaneously shifting said bearings to different positions to carry the discs to and from each other, substantially as set forth. 10th. The combination, with two pairs of oppositely arranged compressing discs, of adjustable bearings therefor, and means for simultaneously shifting said bearings to carry the discs of each pair to and from each other, substantially as described. 11th. The combination of the pivoted frames, the oppositely arranged compressing discs carried thereby, and means for simultaneously adjusting said frames toward or from each other, substantially as set forth. 12th. The combination of the frames 10, 10 pivoted at one end, oppositely arranged compressing discs carried by the frames, pivoted links connecting the opposite ends of the frames, and means for adjusting said links to simultaneously separate or move the frames toward each other, substantially as set forth. 13th. The combination of the frames 10, 10 pivoted at one end, elongated bearings on the frames, oppositely arranged compressing discs mounted in said bearings, pivoted links 12, 14 connecting the opposite ends of the frames, one of said links terminating in an arm, a screw shaft 17, and a grooved nut on said shaft engaging said arm, substantially as set forth. 14th. The combination of the slides 25, 25, compressing discs 4, 4 mounted thereon, a pivoted lever 170, and connections between the lever and slides whereby the slides are moved toward or from each other as the lever is swung upon its pivot, substantially as set forth. 15th. The combination of the slides 25, 25, compressing discs 4, 4 mounted thereon, the pivoted lever 170 having inclined slots in its ends engaging studs on the slides, and means for moving the lever on its pivot to adjust the slides, substantially as set forth. 16th. The combination of the slides 25, 25, shafts 27, 27 mounted thereon and carrying the compressing discs 4, 4, frames 10, 10 pivoted at one end to said shafts, the compressing discs 3, 3 mounted in bearings at the opposite ends of the frames, and means for adjusting the free ends of the frames toward or from each other, substantially as set forth. 17th. The combination, with the compressing discs, of a swinging frame, an upper endless belt supported thereby, means for locking the frame in position with the belt pressed against the discs, and a lower support for the tobacco, substantially as set forth. 18th. The combination, with the compressing discs, of a swinging frame, an upper endless belt supported thereby, means for locking the frame in position with the belt pressed upon the discs, and a belt below the discs, substantially as set forth. 19th. The combination of the compressing discs, the rollers supporting an endless belt above said discs in position to contact with the tobacco, and supported in a swinging frame, means for positively driving the belt and discs, and a lower support for the tobacco, substantially as set forth. 20th. The combination with the pairs of oppositely arranged compressing discs, of a swinging frame, an endless belt supported thereby and extending over said pairs of discs, means for locking the frame in position with said belt pressed upon the discs, and a feed belt below the discs, substantially as set forth. 21st. The combination with the compressing discs, a lower support for the tobacco, and a frame pivoted to a horizontal shaft above the discs and carrying an endless belt, of a second frame also pivoted to said shaft and carrying a compressor wheel 57, at its free end, a support for the tobacco below said wheel, and means for positively driving said belt and wheel, substantially as set forth. 22nd. The combination with the compressing discs, a belt below the discs, and a frame pivoted above the discs and carrying an endless belt, of a second frame also pivoted above the discs and carrying a compressor wheel at its free end, a support for the tobacco below said wheel, and means for positively driving said discs, belts and compressor wheel, substantially as set forth. 23rd. The combination with the compressing discs, a lower support for the tobacco, and a frame pivoted to a horizontal driven shaft above the discs and carrying an endless belt, of a second frame also pivoted to said shaft and carrying a grooved compressor wheel 57 at its free end, a support for the tobacco below said wheel, and means for positively driving said belt and compressor wheel from said shaft, substantially as set forth. 24th. The combination with the paper former and a travelling tape passing therethrough, of laterally movable frames 68 and 70, below the former, guides for the tape and wrapper strip respectively mounted on said frames, and means for adjusting said frames independently of each other, substantially as set forth. 25th. The combination with the paper former and a travelling tape passing therethrough, of laterally movable frames 68 and 70 below the former, a guide roller 66, mounted on one of said frames, a guide 100, mounted on the other frame, and screw shafts 76 and 101, for adjusting said frames independently, substantially as described. 26th. In a cigarette machine, the combination of the tobacco rod moulding devices, the wrapping devices, and a table upon which the wrapping devices are assembled and which is movable toward and from the moulding devices, substantially as described. 27th. The combination of the trough and folding discs, the bearings and driving gears for the foldings discs, and shafts fitted removably to said bearings and gears, and supporting the folding discs, substantially as described. 28th. The combination with the trough and folding discs, of the bearings and gears of said folding discs, shafts fitted removably to said bearings and gears and supporting the discs, and means for adjusting the vertical height of the shafts, including rods 146 extending above the discs, substantially as and for the purpose set forth. 29th. The combination of the trough, the travelling tape, the folding disc 108 at one side of the trough, the pasting disc, and the folding disc 110 at the opposite side of the trough and arranged beyond the pasting wheel to fold down the paper and also to carry the standing edge of the paper away from the adjacent edge of the trough and toward the pasting disc, substantially as set forth. 30th. The combination of the paster wheel, revolving paste block for supplying paste to the edge of said wheel, a reservoir within which the said block revolves, a piston in said reservoir, and means for propelling said piston to expel the paste from the reservoir, substantially as set forth. 31st. The combination with the paste wheel, of a closed paste reservoir having a delivery slot at one side, a revolving block within the reservoir adjacent to said slot for delivering paste therethrough to the paster wheel, and means for adjusting the reservoir to and from the paster wheel, substantially as set forth. 32nd. The combination with the paster wheel, of a reservoir having a funnel-like end with a delivery slot in the side of said end, and a revolving cone within the reservoir in a position to deliver paste through said slot, substantially as and for the purpose described. 33rd. The combination with the paster wheel, of a reservoir having a conical end, with a delivery opening in said end at one side thereof, and a cone revolving in said end to deliver paste through said opening, and a bracket supporting the said reservoir and swinging to and fro from the paster wheel, substantially as set forth. 34th. The combination of the closed paste reservoir having a delivery opening at one end, and the paste delivery cone 135 in the reservoir adjacent to said opening, of a swinging bracket supporting the reservoir, and a shaft and gear for driving the said cone, the said shaft being in line with the axis of the reservoir, substantially as set forth. 35th. The combination in a paste delivery device, of a delivery casing 156 having a delivery opening at one side, and containing a revolving cone to deliver paste through said opening, and a reservoir connected detachably to said casing and provided with a feeding piston, substantially as set forth. 36th. The combination of the conical casing 156 having a delivery opening at one side, the reservoir 160 having a bent end connected with the said casing, and formed in two sections, the lower section being secured immovably and the upper section being detachably connected with the lower section and containing a delivery cone, and a piston adapted to enter the lower section, substantially as set forth. 37th. The combination with the main frame of the machine, of the swinging bracket pivoted thereto and carrying the paste reservoir and feeder, of the rack 201 on said frame, and the swinging frame 202 on the bracket and carrying a worm adapted to engage with said rack, and the lever 203 for swinging the frame 202 toward the rack, substantially as set forth. 38th. The combination with the paster wheel, of a reservoir having a conical end with a delivery opening at one side, and a revolving cone in said end, and means for adjusting the cone within the conical end, for the purpose set forth. 39th. The combination of a driving shaft, the paste feeding and delivery appliances, a bracket therefor adapted to swing to and from said shaft, and gears upon the shaft and carried by the bracket, arranged to mesh when the bracket is brought to the shaft to operate the paste feeding devices, substantially as and for the purpose set forth. 40th. The combination of the paste reservoir, having a tapering casing with openings 157 and z, at opposite sides thereof, a revolving conical feed block in said casing, and a paster wheel adjacent said opening 157, substantially as described. 41st. The combination with the paste wheel, of a paste reservoir having a delivery end with a revolving block, and an opening at one side, the said reservoir being adjustable to and from the paste wheel and in the direction of the axis of the block, substantially as described. 42nd. The combination with the paster wheel, the paste reservoir, and the piston therein, of devices for moving the piston longitudinally, and means for varying the speed of motion of the piston, substantially as described. 43rd. The combination of the swinging bracket carrying the paste reservoir and paste supplying devices, the shaft 176, and gears for driving the paste supplying devices from said shaft, and a clutch for throwing said shaft into and out of operation with the driving mechanism, substantially as described. 44th. The combination of the swinging bracket carrying the paste reservoir and paste supplying devices, and a shaft 176, and gears for driving the said paste supplying devices, said shaft being mounted upon yielding bearings and pivotally connected to a driving shaft, substantially as set forth. 45th. The combination with the compressing discs and a lower support for the tobacco, of an upper belt, and a plate extending over

and parallel to the discs above said belt, substantially as described. 46th. The combination with the compressing discs and a lower support for the tobacco, of an upper belt, a swinging frame supporting said belt and having a plate above the lower section of the latter, and means for locking the frame in position with the belt pressed by said plate upon the discs, substantially as described. 47th. The combination with the compressing discs, and a belt below the latter, of an upper belt, an adjustable frame supporting said upper belt and having a plate above the lower section of the latter, means for locking said frame in position with the upper belt pressed by said plate upon the discs, and scrapers between said belts and arranged to act against said discs, substantially as described. 48th. The combination of the compressing discs, the paper former adjacent thereto, the converging plates 81, pivotally supported at one end above the former, and scrapers carried by said plates at their free ends in position to act against said discs, substantially as described. 49th. The combination of the compressing discs, the paper former adjacent thereto, the plates 80 pivoted at one end above the former, and each having an edge flange or plate 81 extending into the former, and scrapers at the free ends of said plates 81 in position to act against said discs, substantially as described. 50th. The combination with the filler forming mechanism consisting of compressing discs, and belts respectively above and below the discs, of the paper former, the converging plates 81 pivoted at one end above the former and extending into the latter, and scrapers at the free ends of said plates, substantially as described.

No. 50,275. Cigarette Machine.

(*Machine à cigarettes.*)



Bernhard Baron, New York, State of New York, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. The combination in a cigarette machine, of a continuous travelling band having a longitudinal groove, means for supplying a wrapper strip to the groove, and pairs of oppositely inclined wheels with their edges projecting into said groove, the wheels of the first pair being arranged to act upon opposite sides of the tobacco to collect it, while the wheels of the last pair, with the band, give the tobacco its final compression, substantially as described. 2nd. The combination in a cigarette machine, of a continuous travelling band having a longitudinal groove, means for supplying a wrapper strip to the groove, and pairs of oppositely arranged wheels with their edges projecting into said groove, the wheels of the first pair being arranged to act upon opposite sides of the tobacco to collect it into a row of uniform width, while the wheels of the last pair, with the band, condense the tobacco to a greater extent than the size of the finished cigarette, substantially as described. 3rd. The combination of the continuous travelling band having a longitudinal groove with flaring sides, means for supplying a wrapper strip to the groove, plates projecting into said groove parallel to the flaring sides thereof, and overlying the edges of the wrapper strip, and oppositely inclined wheels above and parallel to said plates and arranged to compress the tobacco upon the strip between the edges of the plates, substantially as described. 4th. The combination, with the grooved travelling hand, and means for feeding a wrapper strip thereto, of inclined wheels G, G, having bevelled faces *b*, vertical and parallel to each other at the point of closest proximity, and separated and arranged to act upon opposite sides of the tobacco to collect it into a row of uniform with in the groove of said band, substantially as set forth. 5th. The combination, with the travelling band having a permanently formed groove with flaring sides and an intermediate rounded portion, of inclined wheels G, G, having bevelled faces *b*, *b*, vertical and parallel to each other at the point of closest proximity, and separated and arranged to act on opposite sides of the tobacco to collect it into a row of uniform width within said groove, and a vertical compressor wheel H having a peripheral groove forming a circle with said rounded portion of the band, said wheel H being in rear of the wheels G, G, substantially as described. 6th. The combination in a cigarette machine of a travelling band having a permanently formed longitudinal groove with flaring sides and an intermediate rounded or curved portion, and vertical and oppositely inclined compressing wheels working in said groove in connection therewith to condense and mould the cigarette, substantially as set 7th. The combination, with the travelling band having a longitudinal groove with flaring faces and an intermediate rounded or curved portion, of a vertical wheel F above the band, two inclined wheels G, G, with bevelled faces *b*, *b*, operating in the groove, a vertical compressor wheel H, and two inclined wheels I, I, in rear of said wheel H, and provided with edge grooves *e*, *e*, substantially as described. 8th. The combination, with the travelling band having a longitudinal groove with flaring faces, of the plates 4, 4, extending into the groove parallel with said faces, a vertical wheel F, two inclined wheels G, G, having bevelled faces *b*, *b*, parallel to each other at the point of closest proximity and adapted to act on opposite sides of the tobacco, a vertical compressor wheel H, two inclined final compressor wheels I, I, in rear of wheel H, and having edge grooves *e*, *e*, and means for positively driving said wheels, substantially as described. 9th. The combination, with the continuous grooved band of stationary bars extending into the grooves of said band and having projections 6,7, and folder wheels extending into said groove from opposite sides of the band, and arranged respectively in advance of said projection, substantially as set forth. 10th. The combination of a travelling band having a groove with flaring sides, means for feeding a wrapper strip to the said groove, and a vertical wheel F, having a transversely corrugated face *a*, arranged to compress the tobacco in the strip, and corrugated inclined faces *n n*, substantially as set forth. 11th. The combination with the continuous grooved band, of the bar J, having a vertical face *w*, the bar J^1, provided with the projection 7, a folder wheel in advance of said projection, a paster in rear thereof and opposite said vertical face, a second folder wheel, in rear of the paster, and a projection 6, supported by the bar J, in rear of the second folder wheel, substantially as set forth. 12th. The combination with the continuous grooved band, and means for feeding a wrapper strip thereto, of the bar J, at one side of the band and provided with a vertical face *w*, the bar J^1, at the opposite side of the band, the projection 7, upon said latter bar, the folder wheel in advance of said projection, the paster in rear thereof, a second folder wheel in rear of the paster, and the projection 6, in rear of the latter folder wheel, substantially as described.

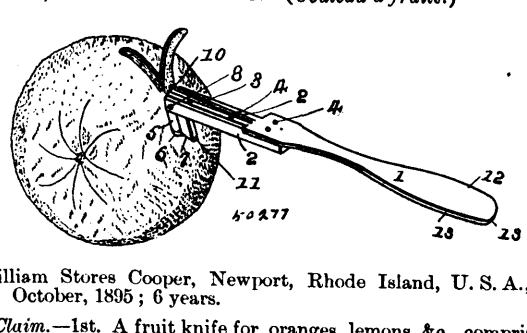
No. 50,276. Submarine Signalling System.

(*Signal sous-marin.*)

Lucien Ira Blake, Lawrence, Kansas, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. In a system of electrical submarine signalling, the combination of a source of current and signalling instruments at the shore station, an insulated submarine conductor extending from the shore station to the vicinity of the ship, lighthouse or other marine station, where it is suitably grounded, and a receiving circuit of low resistance connected with such marine station consisting of signalling instruments and a conductor, the terminals of which conductor are immersed at points of unequal potential in the electrified area surrounding the terminal of the conductor which leads from the shore station. 2nd. In a system of electrical submarine signalling, the combination of a source of current and signalling instruments at the shore station, an insulating submarine conductor extending from the shore station to the vicinity of the ship, lighthouse or other marine station, where it is suitably grounded, a step down transformer in the vicinity of the terminal of such conductor, and a receiving circuit of low resistance connected with such marine station consisting of signalling instruments and a conductor, the terminals of which conductor are immersed at points of unequal potential in the electrified area surrounding the terminal of the conductor which leads from the shore station.

No. 50,277. Fruit Knife. (*Couteau à fruits.*)

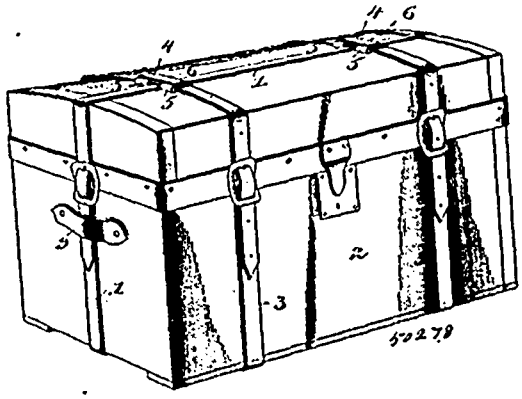


William Stores Cooper, Newport, Rhode Island, U. S. A., 15th October, 1895; 6 years.

Claim.—1st. A fruit knife for oranges, lemons &c., comprising a handle and a tubular or hollow cylindrical cutter disposed at an angle thereto, substantially as described. 2nd. A fruit knife for oranges, lemons, &c., comprising a suitable handle, a tubular or hollow cylindrical cutter, pivoted or rivetted so as to be capable of being disposed at an angle thereto, and a gauge for regulating the depth of cut thereof, substantially as and for the purpose specified. 3rd. A fruit knife comprising a suitable handle, a tubular or hollow cylindrical cutter pivoted thereto, a gauge for regulating the depth of

the cut thereof, and a spring for holding said tubular cutter open or closed, substantially as described. 4th. A fruit knife comprising a handle, a tubular or hollow cylindrical cutter pivoted thereto, a gauge for regulating the depth of cut thereof, a spring for holding said cut open or closed, and a curved extension of said handle for separating the rind from the pulp, all arranged and adapted to operate in the manner specified. 5th. In a fruit knife, a handle having a bifurcated end, or provided with two parallel arms for the reception of and in combination with a tubular or hollow cylindrical cutter pivoted thereto, and a spring lying between said parallel arms for holding said handle open or closed, substantially as and for the purpose specified.

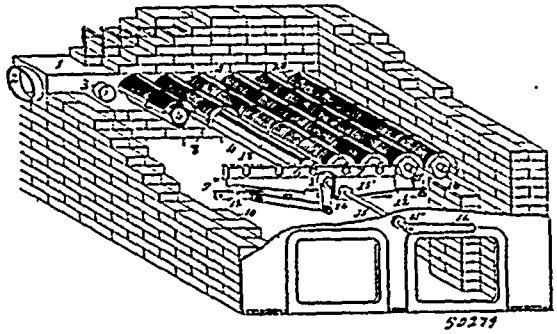
No. 50,278. Trunk Strap. (*Courroie de coffre.*)



Louis Phelan, San Francisco, California, U. S. A., 15th October, 1895; 6 years.

Claim.—1st. The combination with crossing trunk and package straps, of a keeper, located at the point of crossing of the said straps to hold them in a relative fixed position, the same consisting of three loops in communication at their contiguous ends for the passage of one of the straps through the several loops, and the middle loop having lateral openings intermediate of the end loops for the free passage therethrough of the other, or crossing strap, the two straps being held together at the point of crossing by the sides of the middle loop, substantially as described. 2nd. A keeper for crossing trunk and package straps to be located at the point of crossing of the said straps to hold them in a fixed relative position, after being properly adjusted, the same consisting of a blank of flexible material, having oppositely disposed side flaps at each end, said flaps being folded to form end loops, and a connecting portion spanning the space between the end loops and attached to the flaps on each side of their meeting or inner ends, the space comprised between the body portion of the blank and the said connecting portion, forming a middle loop, substantially as described, for the purpose set forth.

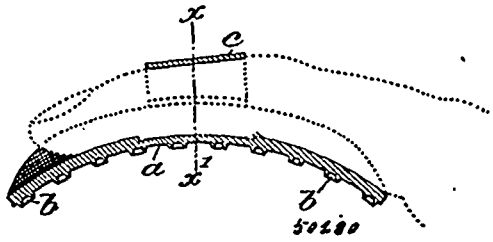
No. 50,279. Furnace Grate. (*Grille de fournaise.*)



James Luther White, West Superior, Wisconsin, U.S.A., 15th October, 1895; 6 years.

Claim.—1st. As a new article of manufacture, an improved grate comprising a slotted main portion and a slotted removable upper portion secured thereto with an air space between the two portions, substantially as set forth. 2nd. As a new article of manufacture, an improved grate comprising a hollow main portion having slots therein, a removable auxiliary portion secured thereto above said slots, and slots in said removable auxiliary portion, substantially as set forth. 3rd. As a new article of manufacture, an improved grate comprising a slotted main portion 4, a slotted removable auxiliary section 5 made semi-circular in cross-section, substantially as set forth. 4th. As a new article of manufacture, an improved grate comprising a main portion 4 having inclined slotted upper faces, a removable auxiliary section 5 secured to said main portion 4 and provided with slots therein, substantially as set forth. 5th. As an improvement in furnace grates, the combination of grate bars mounted at their rear ends on bearing pieces, and at their forward ends on a supporting bracket 6, depending arms 11, 11, secured to the forward end of each grate bar, a rocking bar 12 connecting said depending arms, a shaft 15 mounted in said bracket 6 in the front wall of the furnace, an operating lever 16 secured to said shaft, an arm 14 keyed to the inner end of said shaft, and a link 13 connecting the lower end of said arm 14 with said rocking bar 12, substantially as set forth. 6th. As a new article of manufacture, an improved grate bar composed of a main portion having inclined slotted upper sections, and provided with a lug 4^1 at each side, removable auxiliary sections 5 provided with a longitudinal bearing 22 supported by the upper portion of the grate bar 4, and with turned in fingers 8 engaging beneath said lugs 4^1, a strengthening web 21 for said sections, and slots in the inclined portions of the grate bars and in said auxiliary sections, substantially as set forth.

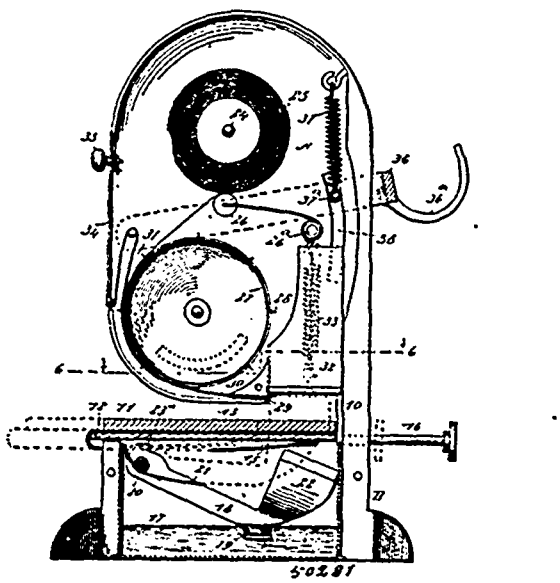
No. 50,280. Cleaning Device for Kid Gloves.
(*Appareil à nettoyer les gants de chevreau.*)



Charles John Bailey, Boston, Massachusetts, U.S.A., 16th October, 1895; 6 years.

Claim.—As an improved article of manufacture, the within described glove cleaner composed of a back flexible throughout and provided with a handle, and having the independent integral hollow frustro-conical projections on one side whose walls taper to a thin edge from the back and are adapted to operate by friction and suction, substantially as set forth.

No. 50,281. Machine for Stamping Letters, etc.
(*Machine pour imprimer des lettres.*)



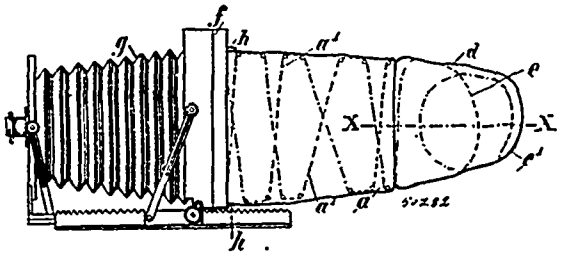
Winfield L. Dinsmoor, Portland, Oregon, U.S.A., 16th October, 1895; 6 years.

Claim.—1st. In a machine for stamping packages, a plunger, a lever operating the same, a table located beneath the plunger, means, substantially as shown and described, for moving the said table from beneath the plunger, and a moistening lever operated by the movement of the table, as and for the purpose specified. 2nd. In a device for stamping packages, a spring-controlled plunger, a sliding table located below the plunger, a stamp-feeding device independent of the plunger and operated simultaneously with the upward movement of the plunger, and a moistening device operated from the said table, as and for the purpose specified. 3rd. In a machine for stamping packages, a spring-controlled plunger, a lever operating the same, a stamp-feeding device operated from the said lever, the stamps being fed to the said plunger and beneath the

same, a cutting surface formed on the said plunger, a vertically-removable moistening device, and a movable table with which the plunger is adapted to contact, a movement of said table imparting motion to the moistening device, as and for the purpose specified. 4th. In a machine for stamping packages, a spring-controlled plunger, a lever operating the same, a stamp-feeding device operated from the said lever, the stamps being fed to the said plunger and beneath the same, a cutting surface formed on the said plunger, a table having sliding movement below the plunger, a spring-controlled lever provided with moistening material, and an extension from the table adapted for contact with the lever when the table is moved outwardly, causing the moistening material to be carried upward substantially to an engagement with the bottom of the plunger, as and for the purpose specified. 5th. In a device for stamping envelopes and other packages, the combination, with a spring-controlled plunger, a lever operating the same, a stamp-carrying wheel, and a dog operated by the said lever and operating said wheel, the wheel being adapted to feed the stamps carried thereby to the bottom of the plunger, of a water receptacle located beneath the plunger, a table mounted to slide on the said receptacle, a lever located in the said water receptacle, being provided with moistening material, and an extension from the table, adapted for engagement with the said lever, to elevate the moistening material thereof when the table is forced outward, as and for the purpose specified. 6th. In a device for stamping envelopes and the like, the combination, with feeding mechanism, of a water receptacle, a moistening device comprising absorbent material movable into and out of the said receptacle, and a part supporting an absorbent material in said water receptacle, serving to supply moisture to the movable absorbent material and also serving as a stop to limit the downward movement of said first named absorbent material, substantially as described.

No. 50,282. Photographic Apparatus.

(*Appareil photographique.*)



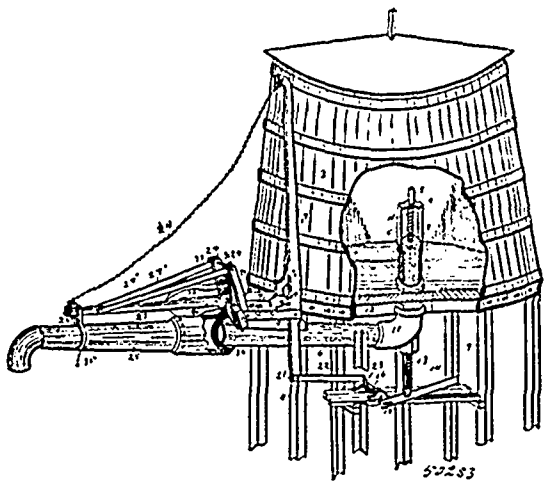
Gustav Franke, M. D., Berlin, Prussia, 16th October, 1895; 6 years.

Claim.—1st. An attachment serving as a substitute for the ordinary hood or head curtain used for photographic cameras and consisting of the flexible frame-work *a* covered with suitable woven material, said frame-work which is movably attached to a head-piece *d* which is also flexible and covered with suitable stuff and ends in a suitably shaped aperture *e*, the latter *e* is shaped in such a manner that its edges can be made to closely fit the upper portion of any human face and exclude all external light therefrom. 2nd. The rotary junction of the frame-work *a*, with the headpiece *d*, in such a manner that the ring *c*, belonging to the headpiece *d* is of smaller diameter than the ring *b*, of the frame-work *a*, and is forced over the latter forming a movable joint between both parts, which excludes all external light, as herein duly set forth and particularly described.

No. 50,283. Water Tank. (*Réservoir à eau.*)

Cornelius Theobald, Plainwell, Michigan, U.S.A., 16th October, 1895; 6 years.

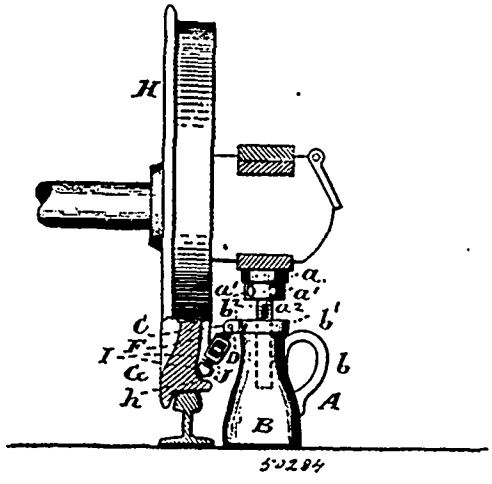
Claim.—1st. The combination of a tank, the fixed portion of the feed-pipe, a bolster pivotally mounted thereon, an adjustable portion of the feed-pipe hinged to said bolster, a supporting-arm having a sliding connection at one end with the adjustable pipe, and pivoted to the bolster at the other end, short projecting bars pivoted at one end to the same point, braces attached at one end to the supporting-arm, the other ends being pivoted at the ends of the projecting short arms, weight-bars pivoted to the bolster, and short-bars pivoted at the pivoted ends of the braces and to the weight-bars, substantially as set forth. 2nd. The combination of a tank, a fixed portion of the feed-pipe, a bolster pivotally mounted thereon, an operator's chain-lever pivoted to said bolster between its two ends, the rear end of said fixed portion of the feed-pipe being extended up through the floor of the tank, an escape-valve having a downwardly extended stem and adapted to rise against a spring resistance, a crank-shaft having a crank at one end and provided with a projecting arm, a lever pivoted at one end to the tank-frame and slotted at the other end, said slotted end connecting the crank of the crank-shaft, the lower end of the valve-stem being pivoted to the slotted lever between its two ends, and a connecting rod pivotally connecting the



arm of the crank-shaft and the lower end of the operator's lever, substantially as set forth. 3rd. The combination of a tank, a fixed portion of a feed-pipe, a bolster thereon, an adjustable portion of the feed-pipe hinged to the bolster, a supporting-arm having a sliding-connection at one end with the adjustable portion of the feed-pipe and pivoted to said bolster at the other end, short bars pivoted at one end to the same point, braces attached at one end to the supporting-arm, the other ends being pivoted at the ends of the projecting short arms, weight-bars pivoted to the bolster, and short bars pivoted at the pivoted ends of the braces and to the weight-bars, substantially as set forth.

No. 50,284. Railroad Lifting Jack.

(*Cric pour chemin de fer.*)



James A. Holman, Salida, Colorado, U.S.A., 16th October, 1895; 6 years.

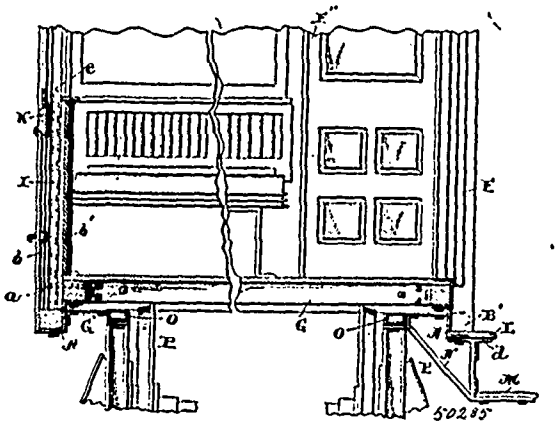
Claim.—The band C, nut and screw D, E, the eye screw F, the foot-piece G carrying a male screw I, and the yoke J working on the right and left screws F, I, in combination with the jack A, as and for the purpose described.

No. 50,285. Railway Car. (*Char.*)

Gustav C. Kuhlman, Cleveland, Ohio, U.S.A., 16th October, 1895; 6 years.

Claim.—1st. In cars, the two side sills, one arranged below the other, combined with angle plates for securing the sills together, substantially as shown. 2nd. In cars, the two side sills, one arranged below the other, combined with the side posts, which have their lower ends to rest upon the lower sills and which are bolted directly to the outer sides of the upper sills, substantially as described. 3rd. In cars, the floor sills B, the auxiliary sills B^1 placed below the floor sills, and the sidings *b*, b^1 of the car secured to the two sills, combined with the windows and doors which close into the spaces between the sidings but outside of the flooring of the car,

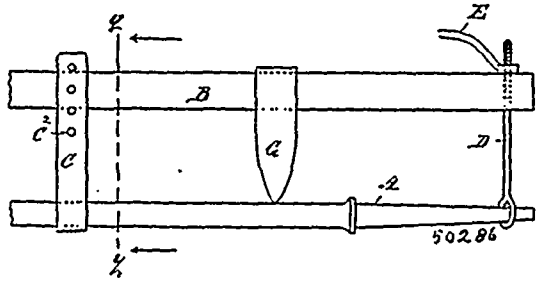
substantially as set forth. 4th. In a car, the upper sills extending the full length of the car, the lower sill formed in two parts, and



the sliding door moving about on a level with the floor of the car, combined with steps placed between the inner ends of the lower sills and below the door, substantially as specified.

No. 50,286. Axle Setting Machine.

(*Machine à dresser les essieux.*)

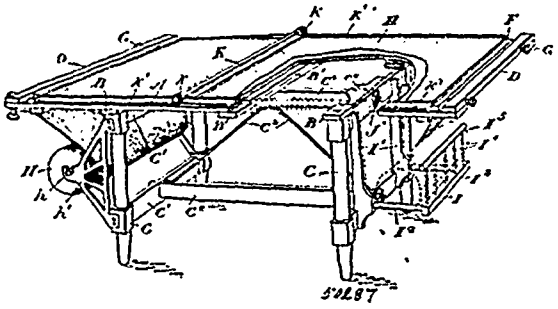


Alexander N. Cameron, Perth, and William C. Buck, Peterborough, both in Ontario, Canada, 16th October, 1895; 6 years.

Claim.—An axle setting machine, comprising a straight bar B, a yoke C sliding adjustably thereon, an eye bolt D inserted in a hole near one end of the bar and provided with a lever E screwing on said bolt, and a fulcrum block G sliding adjustably on said bar intermediately of the bolt and yoke, substantially as set forth.

No. 50,287. Drawing Table for Detail Work.

(*Table à dessin.*)

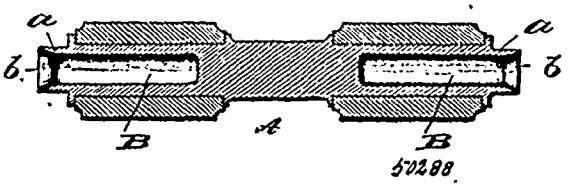


The Laughlin-Hough Drawing Table Company, assignee of Samuel John Laughlin and James Hough, all of Guelph, Ontario, Canada, 16th October, 1895; 6 years.

Claim.—1st. In a drawing table, the combination with the board forming the top and supported on the frame as specified, of end holding bars and end bars with hand screws extending through them against the holding bars, as and for the purpose specified. 2nd. The combination, with the longitudinal top boards, side rails and cross bars, of the slots a, and set screws a^1, all arranged and as for the purpose specified. 3rd. The combination, with the top board E, end bars with openings between them and the ends of the top board, of the roll H supported at one end in brackets and extending over the table, as and for the purpose specified. 4th. The combination, with the top board E, end bars with openings between them and the ends of the top boards, of the roll H extending through the opening at one end and supported by the holding frame I constructed and located underneath the top of the table, as shown and for the purpose specified. 5th. The combination, with the top of the ruler K, provided with end rollers k, the cords k^1 secured at one end of the top wound around the rollers, and extending through holes in the top to the spools L, provided with turning knobs L^1, ratchet pinions l, and spring dogs l^2, as and for the purpose specified. 6th. The combination, with the top boards, of legs connected together by cross-bars C^1, and the longitudinal connecting rails C^2, of the bolts J, having the inner ends provided with nuts j, in the recesses c^1, and the thumb nuts J^1 at the outer ends of the bolts, as and for the purpose specified. 7th. The combination, with the top board, of legs connected together by cross-bars C^1, and the longitudinal connecting rails C^2, of the bolts J, having the inner ends provided with nuts j, in the recesses c^1, thumb nuts J^1 at the outer ends of the bolts, and the bracing brackets c^2, secured on the top of the top rails C^2, and abutting the cross-bars C^1, as and for the purpose specified.

No. 50,288. Top Roll for Textile Machines.

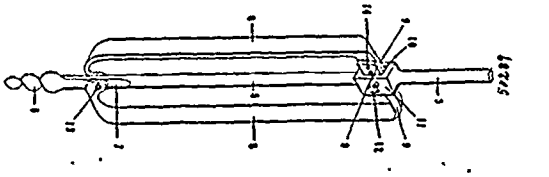
(*Rouleau pour machines à tissus.*)



Robert Gilmore Campbell, Salisbury, Carolina, U.S.A., 16th October, 1895; 6 years.

Claim.—1st. A top roll for textile machines, provided with open lint chambers in the journals at each end of the roll. 2nd. A top roll for textile machines, provided with open lint chambers in the journals at each end of the roll and said chambers having flaring ends. 3rd. A top roll for textile machines, provided with open lint chambers at each end of the roll which extend throughout the length of the roll.

No. 50,289. Post Hole Auger. (*Sonde à trépan.*)

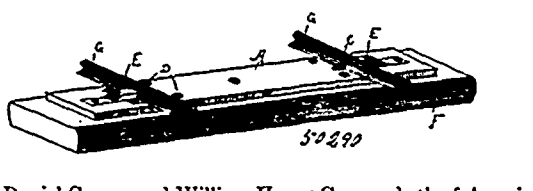


Jacob A. Smith, assignee of Franklin W. Mosure, both of Vera Cruz, and Isaac Warner, Linn Grove, all in Indiana, U.S.A., 16th October, 1895; 6 years.

Claim.—1st. A post hole auger consisting of a central rod terminating at its lower end in a short auger, knife blades arranged parallel or nearly so to said rod, their lower ends extended in a curved line and secured to said rod at a point just above the short auger, so that their cutting edges commence at their points of juncture with the rod, and horizontal arms rigidly attached to the upper ends of the knife blades, extended to said rod and secured thereto. 2nd. A post hole auger consisting of a central rod terminating at its lower end in a short auger, knife blades arranged parallel or nearly so to said rod, their lower ends extended in a curved line and pivoted to said rod at a point just above the short auger, so that their cutting edges commence at their points of juncture with the rod, horizontal arms rigidly attached to the upper ends of the knife blades, and extended to and beyond said rod and adjustably secured thereto.

No. 50,290. Safety Plate for Railway Ties.

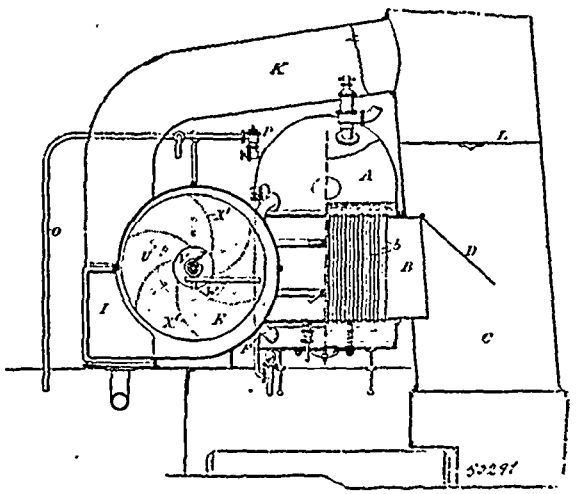
(*Plaque de sûreté pour traverses de chemin de fer.*)



Elmer Daniel Garner and William Henry Garner, both of America City, Kansas, U.S.A., 17th October, 1895; 6 years.

Claim.—The combination of a wooden tie, the metal plate A, mounted thereon, said metal plate being provided at each end with T shaped openings, to receive T-shaped clips fitting therein, and secured to the wooden tie by spikes, substantially as shown and described.

No. 50,291. Apparatus for Utilizing the Waste Heat of Furnace Gases. (*Appareil pour utiliser le gaz des fournaises.*)

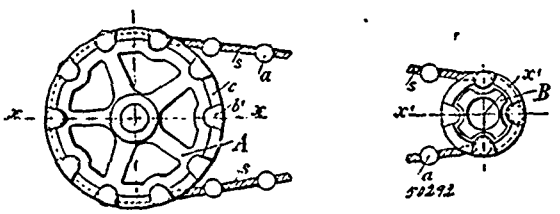


James Patterson, Gourock, and James Ramsay Sandilands, Glasgow, both of Scotland, 17th October, 1895; 6 years.

Claim.—1st. The combination of a fan communicating with the up-take or chimney through which hot gases from furnaces or other sources are conveyed by means of a flue or passage passing through a steam generator, such flue or passage having tubes arranged therein which connects the upper and lower parts of the generator, and against which the hot gases impinge on their way to the fan casing, all substantially as specified. 2nd. The combination of a fan communicating with the up-take or chimney through which the hot gases from furnaces or other sources are conveyed by means of a flue or passage passing through a steam generator, such flue or passage having tubes arranged therein which connect with the upper and lower parts of the generator, and against which the hot gases impinge on their way to the fan casing, and into or through which tubes water is forced in the form of a jet or spray, all substantially as specified. 3rd. The improved fan for treating gases from furnaces and other sources, consisting in blades secured to a hollow hub fixed to a spindle, and open on one side to the atmosphere, a water pipe projecting through the opening and supplying water to the space at the periphery of such hub, while openings or tubes lead from such space to the interior of the fan casing, all substantially as specified.

No. 50,292. System of Transmitting Rotary Motion.

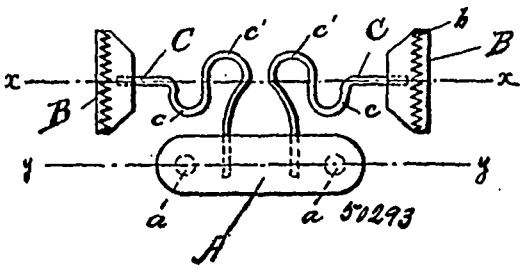
(*Moyen de transmettre le mouvement rotatoire.*)



Arthur Duffek and Adolph Merrel, both of Prague, Bohemia, 17th October, 1895; 6 years.

Claim.—1st. In combination, the pulleys having the grooves and cavities or pockets, and the rope or band adapted to run in said groove and having projections to engage the pockets. 2nd. In combination, the pulleys having the grooves and cavities and the rope, band or the like having the knots, said rope being adapted to the grooves and the knots to the cavities. 3rd. In combination, pulleys having the grooves and cavities, the rope or band having the knots and the balls or projections on the rope inclosing the knots, substantially as described. 4th. A transmission rope or band having balls or projections secured thereon by plugs or pins carried by the ball and engaging the rope. 5th. A transmission rope or band having balls or projections secured thereon by plugs or sleeves formed by pouring molten metal into a cavity in the ball and into contact with the rope or band. 6th. A transmission rope or band having balls or projections formed in sections and carried on the rope, substantially as described. 7th. A transmission rope or band comprising the two ropes and the projections secured thereto at intervals and extending between them. 8th. A transmission rope or band having the two rope strands and balls or projections formed in, sections said strands being held between the sections of the ball.

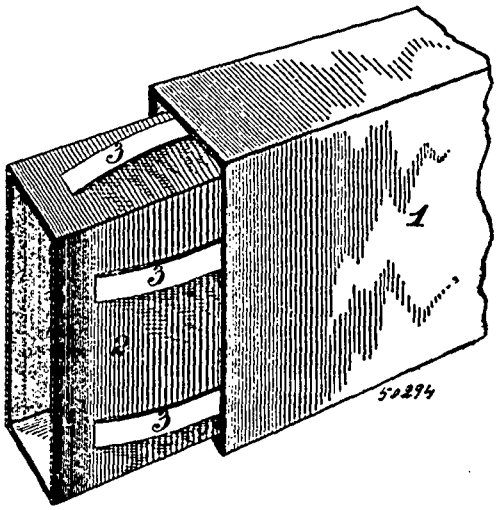
No. 50,293. Ice Creeper. (*Grappin.*)



Adelard Emile Charron, Montreal, Quebec, and Louis Charron, Ottawa, Ontario, both in Canada, 17th October, 1895; 6 years.

Claim.—1st. An ice creeper comprising a spiked sole plate, two recurved clips having sharp serrated edges, and two curved springs connecting the said sole plate with the clips, substantially as set forth. 2nd. An ice creeper comprising a spiked sole plate, two recurved clips provided with sharp serrated edges, and two springs each provided with two curved portions c and c^1 curved in opposite directions and connecting the said sole plate with the clips, substantially as set forth.

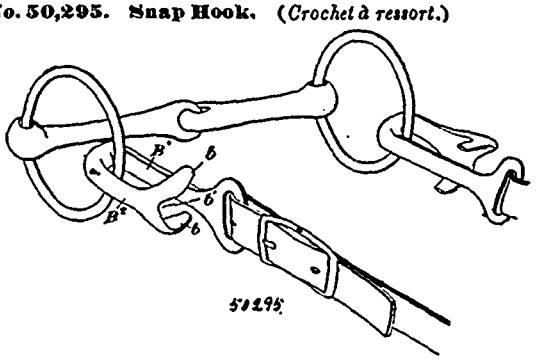
No. 50,294. Hot Air Flue. (*Carneau à air chaud.*)



William H. Brinker, Pittsburg, Pennsylvania, U.S.A., 17th October, 1895; 6 years.

Claim.—1st. In a flue composed of any suitable material, an inner flue carrying on its outer surface spring ribs, and an outer flue adapted to fit over the spring ribs, substantially as shown and described. 3rd. In a flue composed of any suitable material, an inner flue provided on its outer surface with spring ribs, an outer flue adapted to fit over the spring ribs, thereby forming an air space around the inner flue, substantially as shown and described. 3rd. In a flue composed of any suitable material, and consisting of two flues, one within the other, spring ribs secured to the outer surface of the inner flue or to the inner surface of the outer flue, and thereby forming an air space around the inner flue, substantially as shown and described.

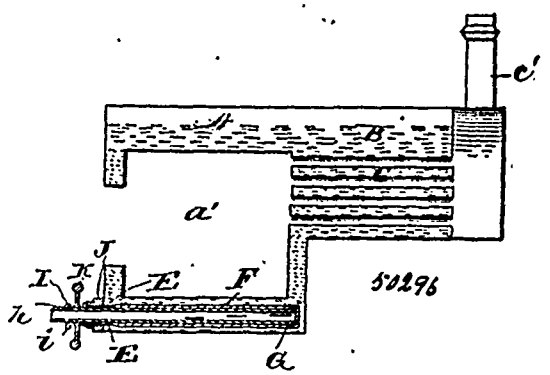
No. 50,295. Snap Hook. (*Crochet à ressort.*)



William Hogle Smith, Dresden, Ontario, Canada, 17th October, 1895; 6 years.

Claim.—1st. A snap hook for travellers, stays, rings, etc., comprising a shank with suitable end for fastening to the article desired to be hooked in position, and a hooked end provided with a laterally and inwardly extending wing formed at the free end of the hook and passing to one side of the shank, as and for the purpose specified. 2nd. A snap kook for travellers, stays, rings, etc., comprising a shank with a suitable end for fastening to the article desired to be hooked in position, and provided with laterally and inwardly extending wings passing one on each side of the shank and having a recess or depression centrally between them in the free end opposite the shank, as and for the purpose specified.

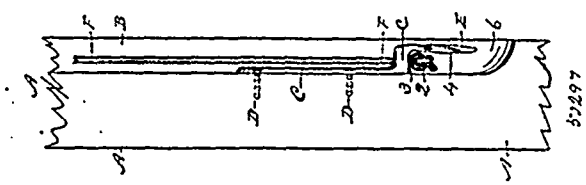
No. 50,296. Cleaner for Steam Boiler Furnaces.
(*Nettoyeur pour fournaises de chaudières à vapeur.*)



Isaac Clinton Gray, Ilion, Indiana, U.S.A., 17th October, 1895; 6 years.

Claim.—In a steam boiler cleaner, the outer pipe located in the bottom of the boiler furnace having a line or series of openings formed longitudinally and diametrically opposite each other on opposite sides thereof and on a horizontal plane the full length of the same, an inner rotatable pipe located or telescoped within the outer pipe and having a series of openings running spirally or in a substantially spirally course upon one side, the openings being of different planes relatively to each other, in combination with the stuffing box secured upon one end of the pipes and hand-wheel and nut secured upon the same end of the inner pipe, and a cap detachably secured upon the inner pipe and closing the opposite end of the pipes, substantially as described and for the purposes set forth.

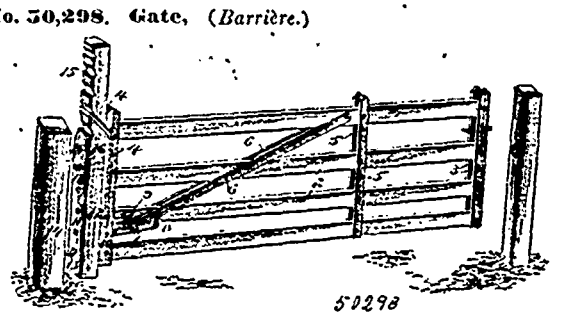
No. 50,297. Sash Cord Catche. (*Arrête-corde de croisée.*)



John Wheatley, Hamilton, Ontario, Canada, 17th October, 1895; 6 years.

Claim.—The combination in a window sash, of the vertical metallic plate, secured in lower part of groove thereof and having projecting and divided jaws forming opening E^1, and flared out as at 5, to admit cord with knot, and forming lower and inner shoulder 3, for said knot, substantially as and for the purpose hereinbefore set forth.

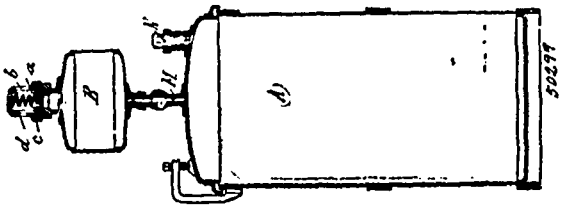
No. 50,298. Gate, (*Barrière.*)



Ralph E. Alfred, Weston, West Virginia, U.S.A., 17th October, 1895; 6 years.

Claim.—The combination of a post, a supporting bar hinged to the post and provided at its upper portion with a series of shoulders, and having at its lower portion a corresponding series of sockets, a gate having its bars pivotally connected with one another and capable of adjustment, a rack-bar mounted on the gate at the back thereof, and provided at its front portion with a series of teeth, and having its rear portion projecting from the gate and arranged to engage the sockets of the supporting bar, and an inclined brace pivoted at its upper end to the gate and having its lower end engaging the rack-bar, substantially as described.

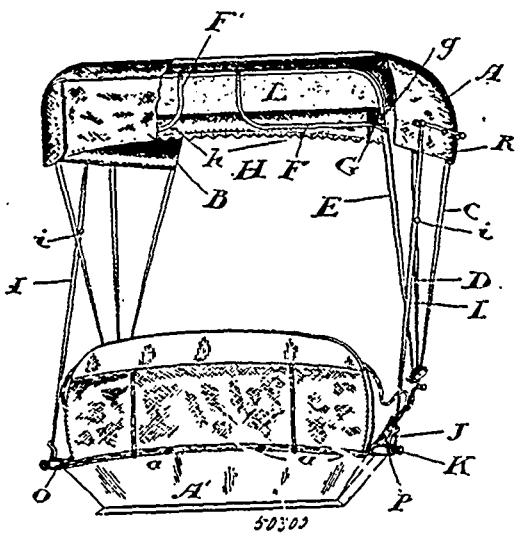
No. 50,299. Process of and Apparatus for the Treatment of Milk, Bouillon, Etc. (*Procédé et appareil pour le traitement du lait, bouillon, etc.*)



Emil Hilberg, Essen, Prussia, German Empire, 17th October, 1895; 6 years.

Claim.—1st. A process for the treatment of milk, bouillon or the like to produce a thoroughly germless and transportable alimentary product consisting in sterilizing under pressure milk or the like in a current of steam, air being totally excluded and the vessel automatically closed, and in then suddenly cooling, and again frequently repeating this process in a similar manner, and finally imparting to the sterilized liquid a constant pressure by either cooling the sterlizing vessel down to the temperature of the maximum density or increasing the density of the liquid by screwing down tightly into the vessel a screw for instance, whereby all the bacteria and more particularly the spores of the potato bacillus are killed or neutralized and by the stiffness or solidity given to the serum any rising of the globules of fat or the production of any buttering of the liquid is prevented, substantially as described. 2nd. A sterilizing apparatus for carrying out the process described in claim 1, consisting in an overflow vessel with an automatic closing device, provided on a transporting vessel and which by the action of outside influences, such for instance as atmospheric pressure or the pressure of weights or springs, is automatically closed at the requisite moment, substantially as described.

No. 50,300. Carriage Top. (*Couverture de voiture.*)

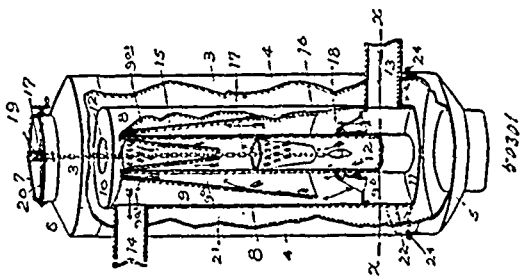


Daniel Conboy, Toronto, Ontario, Canada, 17th October, 1895; 6 years.

Claim.—1st. In a carriage top, the combination of the back bow E, with the cross-bars F, F^1, the outer valance B, the diagonal jointed arms I, connected with arms K, and one of the bows, the springs J, the spring roller G, and back curtain H, substantially as described and for the purpose specified. 2nd. In a carriage top, the combination of the back bow E, with sectional cross-bars F, F^1, the outer valance B, the diagonal jointed arms I, connected with arms K, and one of the bows, the springs J, spring roller G, back curtain H, and inner valance L, substantially as described and for the purpose specified. 3rd. In a carriage top, the combination of the back bow E, sectional cross-bars F, F^1, the inner valance L, the outer

valance B, the spring roller G, journalled on the back bow E, the back curtain H, and hooks M, substantially as described and for the purpose specified. 4th. The combination of the side bar P, the arm K, and the prop washer O, formed integral with the side bar, substantially as described and for the purpose specified. 5th. In a carriage top, the combination of the back bow E, with sectional cross-bars F, F¹, the outer valance B, the diagonal jointed arms I, connected with arms K, and one of the bows, the prop washer O formed integral with the side bar P, as a bearing for the rubber, the springs J, spring roller G, the inner valance L, the back curtain H with button holes *h*, and the buttons *a* on the back of the vehicle, and the hooks M, substantially as described and for the purpose specified. 6th. In a carriage top, the combination of the back bow E, the diagonal jointed arms I, connected with arms K, and one of the bows, the springs J, the spring roller G, and back curtain H, substantially as described and for the purpose specified.

No. 50,301. Heating Drum. (*Poêle sourd.*)

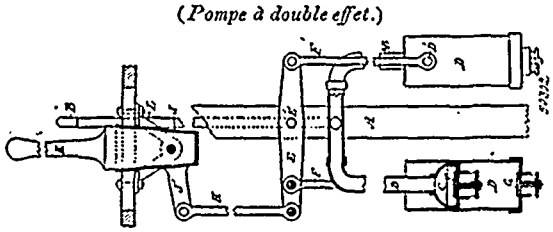


Thomas H. Wilson and Robert Humphreys, both of Logansport, Indiana, U.S.A., 17th October, 1895; 6 years.

Claim.—1st. A heating drum comprising an outer shell, an inner double walled cylinder connected with pipes to the outer air suspended therein to provide an intermediate air space and a central pipe for the passage of the products of combustion, a perforate conical heat intercepter fixed at the top of said central pipe and a movable conical heat intercepter below the same to telescope thereon substantially as described. 2nd. A heating drum comprising an outer shell connected at its upper and lower ends with smoke pipes, an inner double walled cylinder containing heat intercepting cones in the annular space between the walls of said cylinder, and intercepting cones within the central smoke pipe of said double walled cylinder, the annular space of which communicates with air receiving and air discharging pipes, which latter sustain the said double walled cylinder within the outer shell at suitable distance therefrom, substantially as described. 3rd. A heating drum comprising an outer shell adapted to be connected with the discharge pipe of a stove, an inner double walled air heating cylinder communicating with the outer air at its upper and lower ends and suspended within the shell to provide an annular space between them, a perforate ring plate crossing said annular space, a similar revolvable perforate ring damper to register therewith, and a heat intercepting conical damper adjustable within the central pipe of the air heating chamber, substantially as described.

No. 50,302. Double Acting Force Pump.

(*Pompe à double effet.*)



Vincent Mesmer, Walkerton, Ontario, Canada, 17th October, 1895; 6 years.

Claim.—1st. The combination of two inwardly valved vertical reciprocating cylinders D, operated simultaneously by a working beam E, and connecting rods F, F¹, said beam oscillated by a hand-lever K, and pump rod H, and a stationary water discharge pipe B, having branches connecting with a hollow piston C, within each cylinder, said pistons provided with an inlet valve C¹, whereby the cylinders when reciprocated force the water through the pistons and into the discharge water pipe, as set forth.

No. 50,303. Indicator Door Bolt. (*Verrou de porte.*)

William Saul Burgess, Three Rivers, Quebec, Canada, 17th October, 1895; 6 years.

Claim.—1st. In a door bolt, the combination with the bolt bar of a stem or pin rigidly secured to it and projecting through a slot in the door to which it is affixed, a plate secured to the projecting endof said stem or pin and bearing a legend and a covering plate secured to the door and covering said legend plate and transparent in the place where it covers said legend

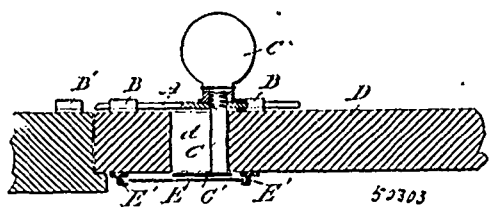
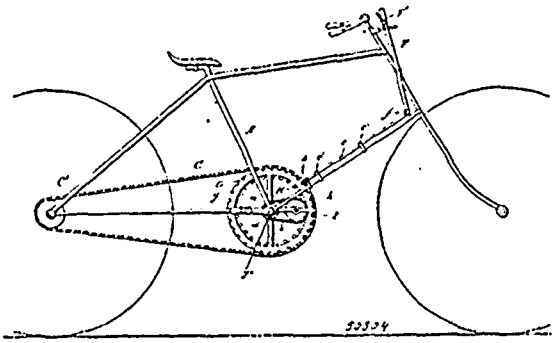


plate when the bolt is shot or closed, substantially as set forth 2nd. In a door bolt, the combination with a door and bar of the bolt of a stem or pin C, passing through said bar and secured therein by screw-threads, a handle C¹¹, acting as a jam-nut, secured upon the inner projecting threaded end of the stem, a plate secured to the other end of said stem or pin bearing a legend, a slot in the door through which said stem or pin projects and is adapted to slide, and a covering plate E, transparent in the place where it covers said legend plate when the bolt is shot or closed, substantially as set forth.

No. 50,304. Driving Mechanism for Bicycles.

(*Mécanisme conducteur pour bicycles.*)

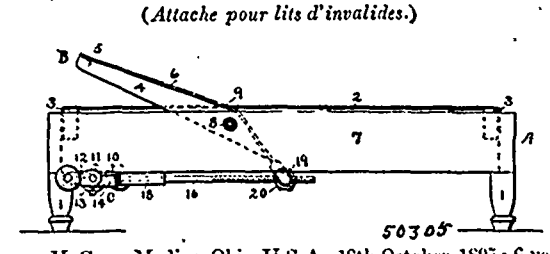


Arthur Dubreuil, Montreal, Quebec, Canada, 17th October, 1895; 6 years.

Claim.—1st. The combination, with a driving axle provided with a clutch-jaw, of an external drive wheel and an internal toothed wheel provided with a clutch-jaw and slidable on the said axle, a wheel G, provided with notches at its periphery and mounted on the said axle, a drive wheel I¹, secured to the said axle, a shaft journalled in an arm of the wheel G, a toothed pinion and a drive wheel I, secured on the said shaft, a drive chain passing over the wheels I and I¹, a stop for locking the wheel G, when the clutch-jaws are disconnected, and means for withdrawing the said stop and moving the clutch-jaws into engagement simultaneously, substantially as set forth. 2nd. The combination, with a driving axle provided with a clutch-jaw, of an external drive wheel and an internal toothed wheel provided with a clutch-jaw and slidable on the said axle, a pivoted lever provided with a curved end for sliding the slidable clutch-jaw into engagement with the clutch-jaw on the shaft, a wheel G, provided with notches on its periphery and journalled on the said axle, a drive wheel I¹, secured to the said axle, a shaft journalled in an arm of the wheel G, a toothed pinion and a drive wheel I, secured on the said shaft, a drive chain connecting the wheels I and I¹, and a slidable rod provided with a stop for locking the wheel G, and a lateral projection for operating the curved end of the clutch lever, substantially as set forth.

No. 50,305. Invalid Bed Attachment.

(*Attache pour lits d'invalides.*)



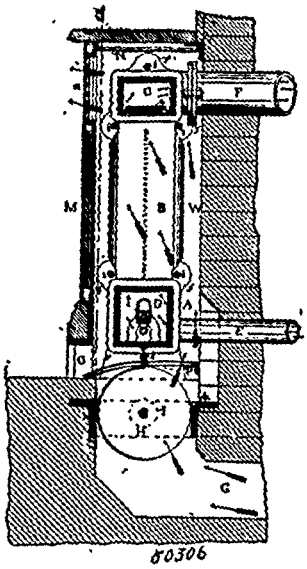
George H. Gove, Medina, Ohio, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. The combination in a bed attachment, of a rest pivotally attached to the sides of the bed and provided with lugs at the bases of its arms, a rod pivotally connecting said lugs and having threaded perforations therein, a crank shaft journalled to said sides, gears fast on said shaft and perforated box-bearings loose thereon, perforated finger-braces secured to said bearings, shafts ex-

tending through the perforations in said bearings and braces having threaded terminals for engagement with said perforated rod, and gears fast on the heads of said threaded shafts meshing with the gears on said crank shaft within said box-bearings, substantially as and for the purpose set forth. 2nd. In combination with a bed having a tilting rest, a crank shaft journalled to the sides of the bed, gears fast on said shaft and perforated box-bearings loose thereon, shafts extending through the perforations in said bearings having threaded terminals for engagement with a perforated rod pivotally connecting the arms of said rest, and gears fast on the heads of said threaded shafts meshing with the gears on said crank shaft within said box-bearings, substantially as and for the purpose set forth.

No. 50,306. Heating and Ventilation System.

(*Chauffage et ventilation.*)



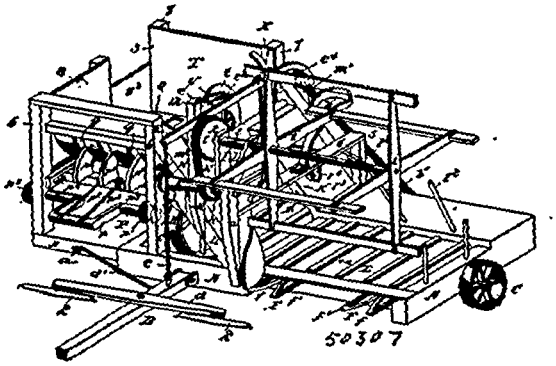
50306

William Bruce, Leeds, York, England, 18th October, 1895; 6 years.

Claim.—1st. The combination, as described, of a boiler, pipes and water vessels filled with a cooling liquid to cool the incoming air, and with hot water to warm the air during cold weather and to regulate the temperature in the building, all substantially as and for the purpose set forth. 2nd. The combination of burning gas or oil in the heating chamber of the apparatus for heating and ventilating and preventing the products of combustion from mixing with the inside atmosphere of the building, and regulating the supply of air with the valve, substantially as and for the purpose hereinbefore set forth.

No. 50,307. Corn Harvester and Binder.

(*Moissonneuse et lieuse pour blé-d'inde.*

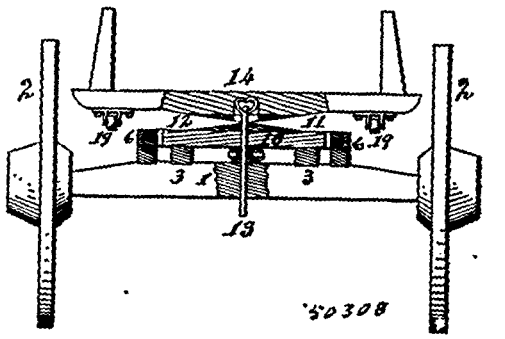


50307

Rinhart Prochl, Mapleton, Minnesota, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. In a corn harvester, the combination of a platform having at one end a cutting apparatus, a reel and a horizontally disposed travelling apron, and at the opposite end a gavel-forming compartment having a floor curved upwardly at its front end and provided with a series of slots, a bar having packers to operate through the said slots, actuating mechanism for the said packers, a binding arm adapted to operate through a slot in the said bottom, a wire-twisting mechanism arranged exterior to the gavel-forming compartment, an ejector arranged to operate through an opening in the floor of the compartment and moved by the packer-actuating mechanism, a gate closing an opening in the side of the aforesaid compartment, a spring for normally holding the gate closed, and connections between the said gate and the ejector, whereby the two operate simultaneously, substantially as described and for the purpose set forth. 2nd. In a corn harvester, the combination with the platform and a gavel-forming and binding mechanism at one end of the platform, of a cutting apparatus at the opposite end of the platform, a travelling apron disposed in the rear of the cutting apparatus, and bars arranged to engage with the top ends of the stalks and tilt the latter, whereby the butt ends are caused to advance toward the gavel-forming and binding provisions, substantially as set forth. 3rd. In a corn harvester, the combination with the platform having a gavel-forming and binding mechanism at one end, of a cutting apparatus at the opposite end of the platform, a travelling apron located in the rear of the cutting apparatus, a reel disposed to operate directly above the travelling apron, and bars arranged to co-operate with the reel and apron to reverse the position of the stalks and cause the latter to advance butt end foremost toward the gavel-forming and binding mechanism, substantially as specified. 4th. In a corn harvester, the combination with a platform having a cutting apparatus and travelling aprons, of a gavel-forming compartment having a bottom or floor curved upwardly at its front end and provided with a series of slots, a packer arranged to operate through the slots, a binding arm to move upward through the bottom of the compartment, a wire-twisting mechanism in the rear and exterior to the said compartment, a gate or door closing an opening in the side of the compartment, and an ejector adapted to operate through an opening in the floor of the compartment and operatively connected with the gate, whereby the said parts operate in unison, substantially as and for the purpose set forth. 5th. In a corn harvester, the combination with a platform provided with cutting apparatus and travelling aprons, of a gavel-forming compartment having its bottom curved upwardly on its front side and provided with slots, a bar provided with a series of packers to operate through the said slots, a binding mechanism, a door or gate closing an opening in the side of the compartment, an approximately U-shaped ejector frame having its upper portion normally closing a slot in the bottom of the compartment, and actuating means for the said ejector frame and gate, whereby these parts are operated at the same time to throw the bundle from the machine, substantially as set forth. 6th. The herein-specified corn harvester and binder, comprising a platform having a gavel-forming compartment at one end and the cutting apparatus at the opposite end, travelling aprons to convey the stalks to the compartment, a reel adjustably mounted over the horizontal apron, rods arranged in the rear of the apron and adapted to engage with the tops of the stalks and cause the latter to advance butt end foremost to the compartment, a wire-twisting mechanism arranged in the rear of the compartment, and comprising a slotted tube having a cutting edge, a wire holder, and a twister, the latter having hooked ends, a binding arm adapted to operate through a slot in the bottom of the compartment and through an opening in the rear wall of the said compartment to reach the wire-twisting mechanism, packers disposed to operate through slots in the front curved end of the compartment bottom, a door closing an opening in the side of the compartment, an ejector frame operatively connected with the door, and constructed to normally close a slot in the bottom of the compartment, actuating mechanism for the ejector frame, binding arm and twisting mechanism operatively connected with the packer driving mechanism, and a clutch under the control of the driver to throw the binding mechanism in gear when required, substantially as set forth.

No. 50,308. Wagon Running Gear. (*Train de voiture.*)



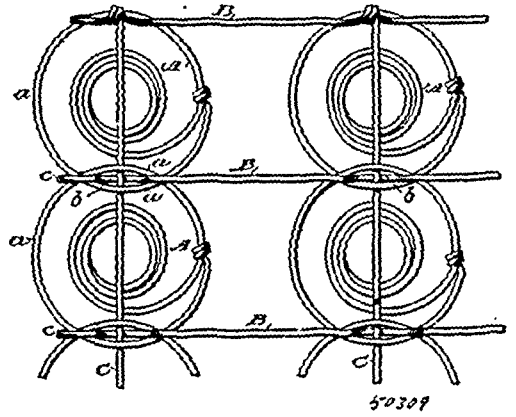
50308

Thomas Grimmitt, Rockford, Illinois, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. In a wagon running-gear, the combination of a front axle, a bolster having a pivotal connection with the axle through the medium of a king bolt, the king bolt having an opening extending transversely through its upper end and terminating in two branches, and a pin extending through the opening and through the bolster. 2nd. In a wagon running-gear, the combination of a front axle and a reach having a connection therewith, the combination consisting

of a bushing through which the king bolt passes and plates secured to the end of the reach supporting the bushing in a pivotal manner. 3rd. In a wagon running-gear, the combination of a front axle, plates secured to the front face thereof, each provided with a vertical series of perforations, a tongue having a pivotal connection with the axle, a bar spring secured to the tongue having one end passing between the plates, its other end curved upward having a vertical opening through which the bolt passes holding the evener to the tongue, and a pin located in the perforations over the end of the bar spring.

No. 50,309. Spring Bed Bottom. (*Sommier élastique.*)



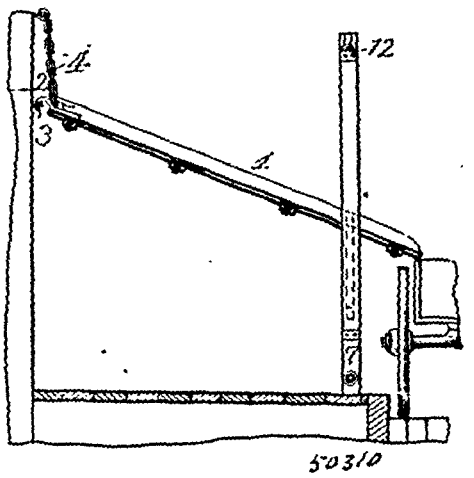
Thomas Armstrong Stoll, Trenton, New Jersey, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. A locking device, consisting of two overlapping coils, and two connecting members crossing each other in a plane within the lapped portion of said coils, substantially as shown and described. 2nd. In a spring bottom, a number of supporting springs, said springs lapping each other, in combination with connecting members crossing each other at said laps of said springs and forming locking junction thereat, substantially as shown and described. 3rd. In a spring bottom, a number of supporting springs, each pair of said springs lapping each other, in combination with connecting members crossing each other at said laps of said springs, and forming locking joints with said springs at said laps, and having their ends attached to the spring bottom at or near its ends and sides respectively, substantially as shown and described. 4th. In a spring bottom, the combination of a spring and a frame, portions of which spring and frame lap each other with two connecting members crossing each other in a plane within the lapped portions of said spring and frame and forming a locking junction at said point, substantially as shown and described. 5th. In a spring bottom, the combination of a spring and a frame, portions of which spring and frame lap each other, with two connecting members crossing each other in a plane within the lapped portions of said spring and frame, one of said connecting members being bent to receive and retain the other of said connecting members between said bend and the lapped portions of said spring and frame, and forming a locking junction thereat, substantially as shown and described. 6th. In a spring bottom, a number of supporting springs, and frames intermediate said springs, said spring and frames lapping each other, in combination with connecting members crossing each other at said laps of said springs and frames and forming locking junctions thereat, substantially as shown and described. 7th. In a spring bottom, a number of supporting springs, a number of frames placed intermediate said springs, said springs and said frames lapping each other in combination with connecting members crossing each other at said laps of said springs and frames at said laps, and having their ends attached to the spring bottom at or near its ends or sides respectively, substantially as shown and described.

No. 50,310. Skid. (*Rance.*)

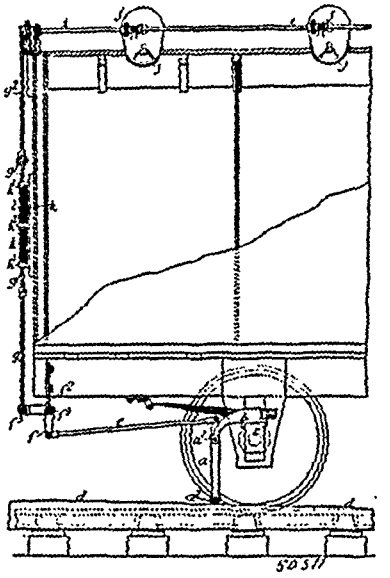
Theodore W. Sessinghans, St. Louis, Missouri, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. The combination, with a skid whose upper end is fastened by any suitable means, of a vertically adjustable support for its lower end, said support consisting of fixed standards and an adjustable cross frame carried thereby, substantially as described. 2nd. The combination, with a skid whose upper end is fastened by any suitable means, of a vertically adjustable support for its lower end, said support consisting of fixed standards and an adjustable cross frame carried thereby, and a stop for limiting the downward movement of said cross frame, substantially as described. 3rd. The combination, with a skid whose upper end is fastened by any suitable means, of a vertically adjustable support for its lower end, said support consisting of upright standards having longitudinal grooves therein, a cross frame adapted to slide in said slots, a pulley on each of said standards, and ropes each fastened to said cross frame at one end, passing over one of said pulleys and having a counterweight at its other end, substantially as described. 4th. The combination, with a skid whose upper end is fastened by any suitable means, of a vertically adjustable support for its lower end, said support consist-



ing of two upright standards each having a longitudinal groove and pin sockets therein, a cross frame adapted to slide in said grooves and carrying movable pins adapted to fit in said sockets, substantially as described.

No. 50,311. Apparatus for Giving Motion to Station Indicators on Railway Carriages. (*Appareil pour mettre en mouvement les indicateurs de station de chemin de fer.*)

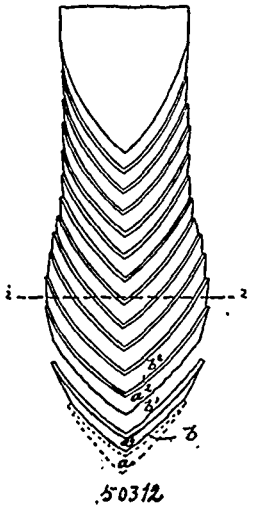


William Egerton Hubbard, St. Helen's Place, London, and Charles Edward Vernon, Victoria Docks, Essex, both in England, 18th October, 1895; 6 years.

Claim.—1st. The combination with station indicators on railway carriages, of a first motion lever mounted vertically on an axis carried by the axle of one pair of the wheels of the carriage in such a manner as to be moved always in a direction fore and aft of the carriage when acted upon by a double incline or trailing cam fixed in a suitable position on the track for the purpose of giving movement to the indicator operating mechanism, substantially as herein shown and set forth. 2nd. In means for operating station indicators on railway carriages, the combination with a first motion lever mounted on an axis carried by the axle of one pair of the carriage wheels and operated by a double incline or trailing cam of mechanism for keeping the first motion lever and other parts normally in, or returning them after each action to, a central position, such mechanism consisting of a spring-actuated rod fitted with two opposing springs, two sets of loose collars or washers, a fixed central collar mounted loosely in a bracket provided with a central and two end stops or lugs, the whole attached to the end of the carriage and forming an intermediate link in the device for conveying motion to the indicator operating mechanism, substantially as hereinbefore set forth. 3rd

mechanism for keeping the first motion lever of station indicators on railway carriages normally in, or returning it after each action to a central position the combination of a spring-actuated rod, fitted with two opposing springs, two sets of loose collars or washers, and a fixed central collar, with a bracket mounted on the end of the carriage and provided with a central and two end stops, substantially as set forth. 4th. The combination with mechanism for keeping the first motion lever of station indicators on railway carriages normally in, or returning it after each action to, a central position, of means for confining the action of the two opposing springs on the spring-actuated rod to that of returning it to its central position and allowing said rod to compress only one of the two springs at a time, leaving the other spring stationary, substantially as and for the purpose hereinbefore set forth. 5th. In means for operating station indicators on railway carriages, the combination of a double incline or trailing cam, a first motion lever mounted on an axis carried by the axle of one pair of the carriage wheels, a long substantially horizontal connecting rod connecting such first motion lever with the descending arm of a bell crank lever, said bell crank lever mounted in a bracket or brackets fixed to the carriage body, a vertical rod at one end of the carriage connected at its lower end with the normally horizontal arm of the bell crank lever, mechanism fixed to the end of the carriage for keeping the above mentioned parts normally in, and returning them after each action to their central position, mechanism for connecting such vertical rod and centreing mechanism with and giving motion to a horizontal shaft on the top of the carriage and gearing for communicating motion from such horizontal shaft to the station indicators, substantially as herein shown and described.

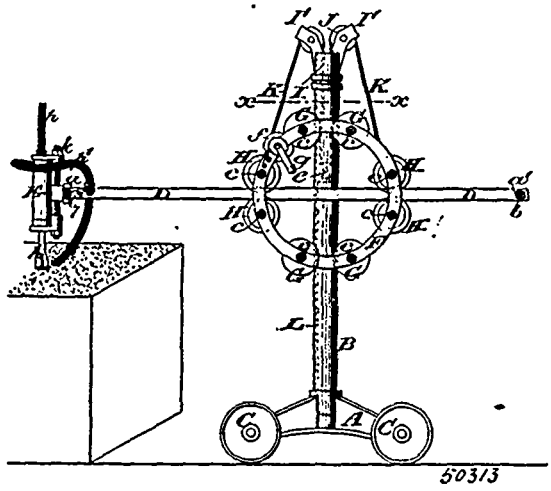
No. 50,312. Art of and Means for Reproducing the Working-Edges of Agricultural or other Implements. (*Art et moyen d'affûter les instruments d'agriculture.*)



Charles La Dow, Albany, New York, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. The art of renewing the working edge of an implement which consists in first forming in a single blade, tooth, or cutter substitute working edges pointing in the same direction and then wearing away the initial edge to expose a substitute. 2nd. The of reproducing the cutting portion of an implement, which consists art in causing a wearing away of the initial cutter by contact with the substance operated upon, to expose a previously outlined substitute cutter. 3rd. The art of reproducing the cutting portion of an implement, which consists in wearing away the initial cutter, dropping off the remnant thereof, and bringing into operation a previously outlined substitute cutter. 4th. The art of sharpening an implement, which consists in first forming a weakening element in one face thereof to outline and prepare a substitute cutter integral with the implement, then wearing away the initial cutter to expose the substitute cutter. 5th. The art of renewing the working edge of an implement formed of a single piece of metal, which consists in the following steps performed in the order stated first, forming alternate elevations and depressions upon and in the surface of the implement, thereby outlining substitute cutters, and second, subjecting the implement to a wearing action from the outer edge inward. 6th. The art of renewing the working edge of an implement, which consists in forming therein a depression tending in the general direction of the desired outline of the working edge, and increasing in depth toward such edge, and secondly, subjecting the implement so prepared to a facewise wearing, from the outer edge inward, whereby its material is worn along the line of the depression and the thin body previously constituting the bottom of such depression is made to form a new working edge. 7th. An implement comprising substitute cutters or working edges definitely outlined in a single blade or tooth, pointing in the same direction whereby, when the implement is subjected to a simultaneous edgewise and surface wear, the surface of each cutter may be thinned by such wear, while its working edge is being worn away. 8th. An implement comprising substitute cutters projecting one into another, the inner portion of the initial cutter being jointed to the rudimentary edge of the next succeeding cutter. 9th. An implement comprising substitute cutters pointing in the same direction, the inner portion of the initial cutter being joined integrally to the rudimentary edge of the next succeeding cutter. 10th. An implement comprising diagonally-arranged substitute cutters pointing in the same direction, the inner portion of the initial cutter being joined to the rudimentary edge of the next succeeding cutter. 11th. An implement comprising bevelled substitute cutters, the inner portion of the initial cutter being joined to the rudimentary edge of the next succeeding cutter. 12th. An implement comprising substitute cutters each of graduated width, the initial cutter being joined to the rudimentary edge of the next succeeding cutter. 13th. An implement comprising substitute cutters outlined by grooves of varying depth, each cutter being joined to the rudimentary edge of the next succeeding cutter. 14th. An implement comprising an initial cutter, a substitute cutter, an intervening weakening element, and a strengthening tie connecting the two cutters. 15th. An implement increasing in thickness from its outer edge inward, and comprising a series of cutters, the inner portion of the initial cutter being joined to the rudimentary edge of the next succeeding cutter. 16th. An implement having a thin wearing body provided with a series of ribs or elevations forming substitute working members, and bracing the body against transverse strain, whereby when the thickness of the implement is reduced by wear, it shall give way between the outermost and next succeeding rib and expose the latter as a substitute cutter or working member. 17th. An implement comprising an initial and a substitute cutter outlined therein, and an intervening weakening element, the initial cutter being joined integrally to the rudimentary edge of the next succeeding cutter. 18th. The art of renewing the working edge of an implement which consists in thinning an integral metal plate or body on a line within its initial cutting edge, thereby outlining a substitute cutter, and hardening or tempering the thinned portion, and then wearing away the outermost cutter to expose the hardened edge of the substitute cutter.

No. 50,313. Art of and Machinery for Dressing Stone. (*Art et appareil pour tailler la pierre.*)



James Sharon MacCoy, New York, State of New York, assignee of George Henry Williams of the same place, and Frank Hine Marsh, Newark, New Jersey, all in the U.S.A., 18th October, 1895; 6 years.

Claim.—1st. An improvement in the art of dressing stone, consisting in simultaneously subjecting the surface of the stone to the operation of a cutting instrument percussively acted upon, and causing a blast of air to act upon the stone at the point where said cutting instrument is so in operation, substantially as set forth. 2nd. An improvement in the art of dressing stone, consisting in simultaneously subjecting the surface of the stone to the operation of a cutting instrument percussively acted upon, and causing a blast of air to act upon the said cutting instrument while so in operation, substantially as herein set forth. 3rd. An improvement in the art of dressing stone, consisting in simultaneously subjecting the surface of the stone to the operation of a cutting instrument percussively acted upon, and causing a blast of air to act both upon the stone at the point where said cutting instrument is so in operation,

and upon the said cutting instrument itself while so in operation, substantially as set forth. 4th. An improvement in the art of cutting stone, consisting in subjecting the stone to the operation of a cutting instrument which is percussively acted upon and which is moved over said surface, and at the same time subjecting both the surface of the stone so operated upon and the said instrument so in operation to the action of a blast which follows the movement of the said instrument, substantially as set forth. 5th. The combination with a cutting instrument movable over the surface of stone for dressing the same, of an air blast pipe connected to and movable with said cutting instrument and directed into proximity with the point or edge of said instrument, and means for supplying air to said blast pipe while moving with said instrument, substantially as and for the purposes herein set forth. 6th. In a machine for dressing stone, *the combination of a cutting instrument, a pneumatic* hammer comprising a cylinder and piston, and means of admitting air to and exhausting it from said cylinder for producing the percussive action of said piston upon said instrument, a carrier for supporting said hammer movably over the stone to be dressed, and a blast pipe movable with said hammer for conducting the air exhausted from its cylinder to a point in proximity to the cutting edge or point of said instrument, substantially as set forth. 7th. The method herein described of producing on stone a multiple cut surface in a desired alignment, wherein the cutting instrument is held by the hand of the workman, and thereby directed over the stone with its edges in the desired alignment while the bodily movement of the said instrument may be in curved lines, substantially as herein set forth. 8th. In a machine for dressing stone, the combination of a support and a tool carrier movable around said support, of a power-operated tool attached to said carrier and movable therewith in axes around said support and a cutter fitted to said tool to turn freely therein that its edge may be directed in any alignment, substantially as herein set forth. 9th. In a machine for dressing stone, the combination of a pneumatic hammer comprising a cylinder and piston and means of admitting steam to and exhausting it from said cylinder for producing the operation on said piston, said cylinder being provided with a chuck for a cutting instrument, a carrier for supporting said hammer movably over the stone to be dressed, and a cutting instrument fitted to said chuck and capable of being turned freely therein, substantially as and for the purpose herein set forth. 10th. In a stone dressing machine, the combination with a chuck and a cross bit fitted to rotate freely therein, a blast pipe directed towards said cutter at one side of the centre thereof and means of supplying air to said blast pipe, substantially as and for the purpose herein set forth. 11th. In a stone dressing machine, the combination of a power-operated tool, a carrier to which said tool is attached, a frame within which the carrier is adjustably supported and a standard upon which said frame is suspended, substantially as and for the purpose herein set forth. 12th. In a stone dressing machine, the combination of a standard, a frame arranged both to move vertically on and to turn about said standard, a carrier arranged to move horizontally in said frame and to move with it relatively to the standard, and a power-operated tool attached to said carrier, substantially as herein set forth. 13th. In a stone dressing machine, the combination of a standard, a frame movable vertically upon and horizontally around said standard, a tool carrier movably horizontally relatively to said frame and standard, a power-operated tool attached to said carrier and a counterbalance for said frame, tool carrier and tool, substantially as herein set forth. 14th. The combination of a base, a standard supported thereon and provided at its upper end with a pulley, a counterbalanced roller frame and a carrier suspended from said pulley and a hammer adjustably secured to one end of the carrier, substantially as described. 15th. The combination, with a standard, of a frame and a tool carrier supported on said standard and provided with a cord and weight, rollers arranged on said frame to travel on the standard, and rollers carried by said frame and adapted to receive and support he ttool carrier, substantially as set forth. 16th. The combination, with the standard and carrier, of a suspended frame for supporting said carrier provided with counterbalancing devices within the standard, rollers mounted in the sides of said frame, a tool carrier supported by said rollers, and a hammer secured to one end of the carrier, substantially as described. 17th. A portable stone dressing machine, consisting of a base on wheels, a standard erected on said base, a frame on said standard, a tool carrier supported within said frame and having attached to it a power-operated hammer, a cutting tool or chisel and a counterbalance for said frame, carrier and tool, substantially as herein set forth. 18th. The combination, with the tool carrier and a support therefor, of a windlass and a rope or chain for raising and lowering the carrier on the support, substantially as herein described. 19th. The combination, with the supporting standard, the carrier frame adjustable vertically on said standard, the tool carrier adjustable horizontally in said frame, and the windlass on said carrier frame for raising and lowering the said frame and carrier on the standard, *substantially as described.*

No. 50,314. Electric Railway Switch.

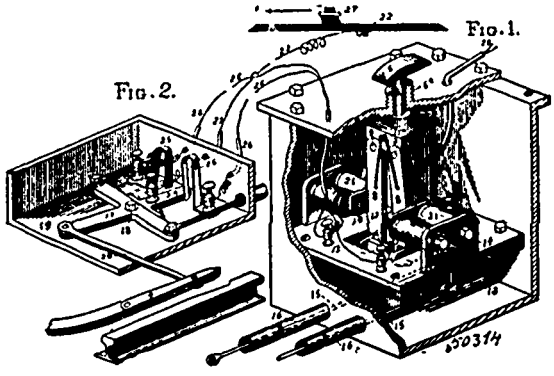
(*Aiguille de chemin de fer.*)

Isaac N. Saddler and Eugene D. Wmfield, both of Perrysburg, Ohio, U.S.A., 18th October, 1895; 6 years.

Claim. 1st. In a railway switch, a contact piece or shoe adapted to be engaged and actuated by a car, a switch point or rail, and

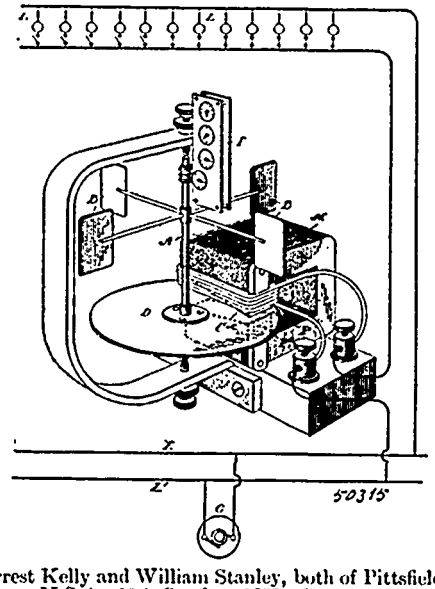
FIG. 1.

FIG. 2.



means intermediate said contact-piece or shoe and said switch-point or rail adapted to open and to close said switch, in combination with electro-magnets and an electrical switch adapted to throw said contact-piece into engagement alternately with the switch opening mechanism and the switch-closing mechanism, substantially as and for the purpose specified. 2nd. In a railway switch, means for throwing the switch-point or rail by the weight of the car, in combination with a normally open electric circuit, magnets in said circuit adapted to control said switch throwing mechanism, an electric switch in said circuit controlled by said switch-throwing mechanism and means upon said car for closing said circuit at will, substantially as and for the purpose specified. 3rd. In a railway switch, means for throwing the switch-point or rail by the weight of a passing car, in combination with a normally open electric circuit, magnets in said circuit adapted to control said switch-throwing mechanism, an electric switch in said circuit controlled by said switch-throwing mechanism, a contact-piece or plate 22, in said circuit, and a brush 27, upon said car adapted to engage said contact plate, and to close said circuit and to keep said circuit closed during a definite movement of the car, substantially as and for the purpose specified. 4th. In a railway switch, a contact piece or shoe adapted to be engaged and actuated by a passing car, means for holding said contact-piece normally in operative position, detents on said contact-piece, means for holding said detents normally in inoperative position, bell-crank levers adapted to be engaged by said detents, a switch-point or rail, and suitable connections intermediate said switch-point or rail and *said bell-crank levers, in combination with a normally open electric* circuit, electro-magnets in said circuit adapted to throw said detents into engagement with said bell-crank levers, means on said car for opening and closing said circuit, and an electric switch in said circuit whereby said electro magnets are energized alternately, substantially as and for the purpose specified.

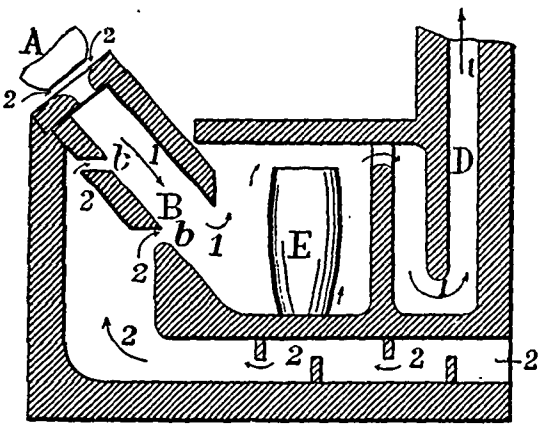
No. 50,315. Alternating Current Meter and Method of Measuring Alternating Currents.
(*Mètre et méthode pour mésurer les courants alternatifs.*)



John Forrest Kelly and William Stanley, both of Pittsfield, Massachusetts, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. In an alternating current meter, the combination of a field magnet having, when energized, an alternating asymmetrical field of uniform phase, a rotating armature having a conducting system symmetrical about the axis of rotation, and a device for indicating or recording the revolutions of the armature and operated thereby, substantially as described. 2nd. In an alternating current meter, the combination of a field magnet from the pole pieces of which the magnetic flux is asymmetrical, alternating and of uniform phase, a rotary armature having a closed conducting system symmetrical about the axis of rotation and a device for indicating, recording or registering the revolutions of the armature and operated thereby, substantially as described. 3rd. In an alternating current meter, the combination of a field magnet having, when energized by an alternating current, an asymmetrical field of uniform phase, a rotating armature having a closed conducting system symetrical about the axis of rotation, a suitable retarding load, and a device for indicating, recording or registering the revolutions of the armature and operated thereby, substantially as described. 4th. The method of measuring alternating currents which consists in producing by such currents or a part thereof an asymmetrical alternating magnetic field of uniform phase, by such field inducing currents in a conducting system lying within it and symmetrically mounted so as to be free to rotate under the action of such inducing field and induced currents, and registering the number of revolutions of said conducting system, substantially as described. 5th. The method of measuring alternating currents which consists in producing by such currents or a part thereof an asymmetrical alternating magnetic field of uniform phase, by such field inducing currents in a closed conducting system lying within it and symmetrically mounted so as to be free to rotate under the action of such inducing field and induced currents, retarding the speed of the conducting system and registering the number of its revolutions, substantially as described. 6th. In an alternating current meter a field magnet having, when energized by an alternation current, an asymmetrical alternating field of single or uniform phase, in combination with a disc of suitable material mounted symmetrically upon an axis so as to be free to rotate and lie partly within the asymmetrical field, a suitable retarding load and means for recording or registering the revolutions of the disc, substantially as described.

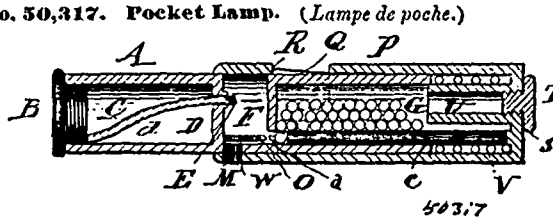
No. 50,316. Heating Furnaces by means of Liquid Hydrocarbon. (*Chauffage de fournaise au moyen de liquides.*)



La Compagnie Internationale pour l'Exploitation des Procédés, assignee of Adolph Seigle, Lyons, France, 18th October, 1895; 6 years.

Claim.—1st. In a liquid hydrocarbon furnace, the combination of a spraying apparatus, a combustion chamber and air inlets arranged in steps on one side of the periphery of the chamber. 2nd. In a liquid hydrocarbon furnace, a series of air inlets arranged in steps on one side of the periphery of the combination chamber.

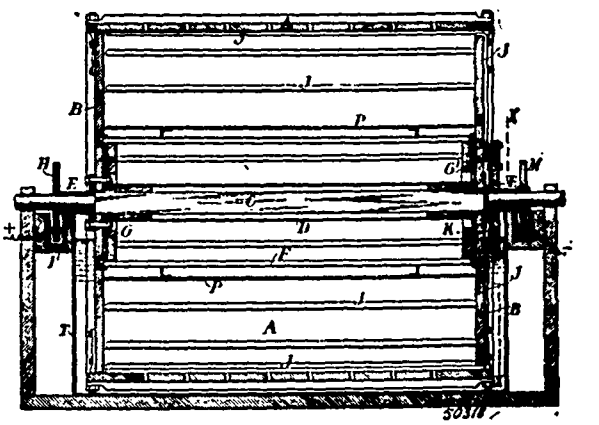
No. 50,317. Pocket Lamp. (*Lampe de poche.*)



Curran Pope, assignee of William Trabul, both of Louisville, Kentucky, U.S.A., 18th October, 1895; 6 years.

Claim.—1st. The combination of the tube containing the lamp body, and having a side notch, and the tube telescoping therewith and also having a side notch to be brought in register with the notch in the body tube, a spring interposed between the tubes and tending to hold them extended, and the pellet chamber in one of the tubes having a plunger to convey a pellet toward the lamp wick, all substantially as described. 2nd. The pocket lamp consisting essentially of the two telescopic tubes having chambers and notches substantially as described, the plunger operating to expel a single pellet from its chamber, and the spring igniter having roughened surfaces nearly in front of the pellet chamber and in proximity to the lamp wick, all combined, substantially as described. 3rd. In a pocket lamp, the telescopic tubes provided with chambers and notches substantially as described, the plunger operating through the pellet chamber and through a small opening in the end thereof, and the light spring arranged to prevent the escape of the pellets except when propelled by the plunger, all combined substantially as described. 4th. The pocket lamp described consisting essentially of two telescopic tubes and a distending spring, said tubes having notches and partitions substantially as described, the stop to limit the telescopic movement, and the plunger and spring igniter, all combined substantially as described.

No. 50,318. Process of and Apparatus for Electrolytic Deposit of Zinc and Other Metals. (*Procédé et appareil pour les dépôts électrolytiques de zinc et autres métaux.*



William S. Rrawson, Westminster, and Richard Heathfield, both in London, England, 18th October, 1895; 6 years.

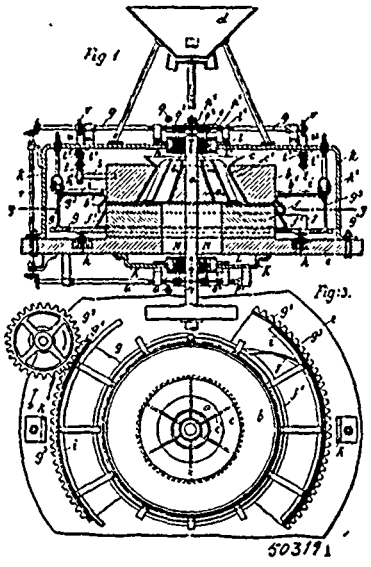
Claim.—1st. The herein described process for producing or enriching an alkaline solution of zinc oxide employed as an electrolyte by placing in the bath plates or pieces of zinc or of iron galvanized with zinc or of hard spelter in electrical contact with iron. 2nd. The herein described process for recovering zinc from galvanized iron or hard spelter, by placing pieces of these in electric contact with iron in an alkaline solution of oxide of zinc, and electrolytically depositing zinc from the solution. 3rd. The herein described method of promoting the electrolytic deposit of zinc or other metal capable of amalgamating with mercury on a metallic surface by first electrolytically coating that surface with mercury. 4th. Apparatus for electrolytically depositing zinc or other metal on small metallic articles, consisting of a central anode surrounded by a perforated barrel revolving partly immersed in electrolyte and containing as cathode the articles to receive the deposit lying on conducting rods which are connected to the negative terminal of a source of electricity through a commutator so arranged that those of the rods which in the course of their revolution have no cathode articles on them are then cut out of circuit, substantially as described. 5th. In electrolytic apparatus such as is above referred to, the construction of the central anode as a wire net cylinder containing small pieces of the anode metal and protected by a louvre casing, substantially as described. 6th. The modified construction of the central anode consisting of discs of the anode metal mounted on the central shaft and protected at their edges, substantially as described.

No. 50,319. Grinding Mill. (*Moulin à blé.*)

Johann Friedrich Wilhelm Amende, Malliss, and Fritz Schwartz, Domitz, both in the Empire of Germany, 18th October, 1895; 6 years.

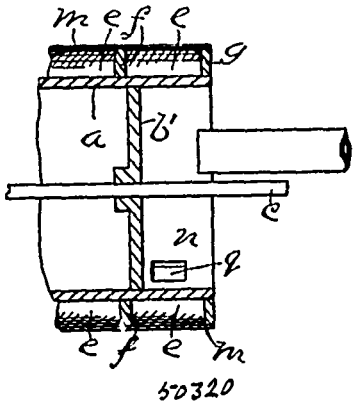
Claim.—1st. A grinding mill comprising the combination of an upper running stone mounted on rhind a^1 and rotated by the vertical mill spindle a, a striker s secured to the running stone b, and striking levers t when the upper stones are not horizontal, spindles q operated by pawls u of the levers t, racks p actuated by the spindles q and engaging with the wheels o^2 acting on the chocks and wedges n, m, substantially as described and shown. 2nd. In combination with a grinding mill having an upper running stone and a vertical mill spindle, a striker s, levers t with pawls u, wheels o mounted on spindles q and actuated by said pawls u, substantially as described and shown. 3rd. In combination with a grinding mill

with upper running stone and vertical mill spindle wedges *m*, chocks *n*, spindles *o*, on which latter wheels o^2 engaging with the racks *p*



are mounted, substantially as described and shown. 4th. In combination with a grinding mill with upper running stone and vertical mill spindle, a trimmer A, A^1 secured to the stones by bolts C, C^1, and connecting parts B, B^1.

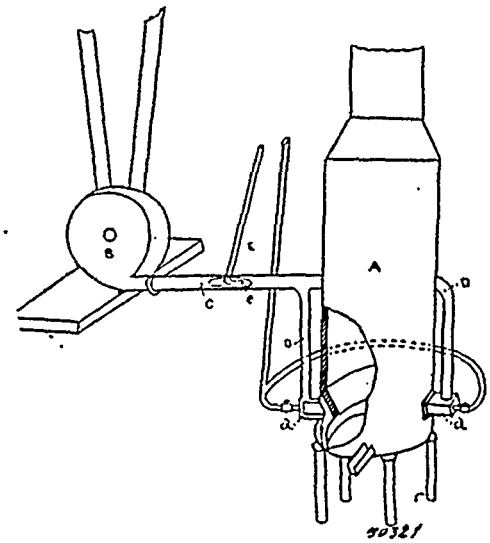
No. 50,320. Process of and Apparatus for Bolting Flour. (*Procédé et appareil pour bluter la farine.*)



John Wilson Lockwood and Gilbert Haskell Gilbert, both of Moulinette, Ontario, Canada, 19th October, 1895; 6 years.

Claim.—1st. The improved process of bolting flour which consists in feeding the flour into a bolting machine in separate small quantities and keeping them apart during agitation and separation of the bran from the pure flour for the purpose set forth. 2nd. A flour bolting apparatus in the form of a rotating carrier having a winding passage with inlet and outlet and covered by bolting material for the purpose set forth. 3rd. A flour bolting apparatus in the form of a rotating cylindrical carrier having upon its periphery a winding passage with inlet and outlet and covered by bolting material for the purpose set forth. 4th. A flour bolting apparatus comprising a rotating cylinder having upon its periphery a series of annular passages communicating with each other to form a continuous passage with inlet and outlet and covered by bolting material, for the purpose set forth. 5th. A flour bolting apparatus comprising a rotating cylinder having upon its periphery a series of annular passages communicating with each other to form a continuous passage with inlet and outlet and covered by bolting material, the inlet being in the form of an opening through the cylinder near one end thereof for the purpose set forth. 6th. A flour bolting apparatus comprising a rotating cylinder having suitable ends to allow of its being mounted on a driving shaft one of the ends being located inward to afford a receiving space at one end of the cylinder, a projecting strip or wall and end flanges upon the periphery of the cylinder to form a continuous encircling passage along same, a covering of bolting material for said passage, an inlet opening through the cylinder leading from the said receiving space to one end of the spiral passage, and a discharge opening at the opposite end of said passage, with operating means and supply for the purpose set forth. 7th. The combination of the rotating cylinder *a*, suitably mounted and having receiving space *n* at one end, projecting strip or wall *f*, and flanges *g* and *h*, forming passage *e* e^1 upon the periphery of the cylinder, the covering of bolting material *m*, inlet *q*, and outlet *k* with suitable supply and means for supporting and rotating the cylinder, substantially as described.

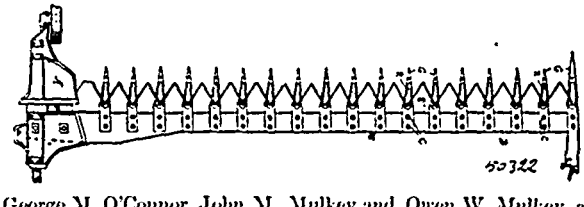
No. 50,321. Art or Process of Manufacturing Steel from Cast Iron. (*Art et procédé de fabriquer l'acier de la fonte.*)



Thomas Doherty, Sarnia, Ontario, Canada, 19th October, 1895; 6 years.

Claim.—1st The herein described process of manufacturing steel from cast iron consisting of injecting a jet of steam or water into a blast of air whereby it is carried into the furnace, substantially as described. 2nd. The herein described process of manufacturing steel from common ore consisting of injecting a combined blast of air and steam or water into the furnace, substantially as described. 3rd. The herein described process of manufacturing a fine grade of iron from the common ores consisting of injecting a jet of steam or water into the furnace, substantially as described.

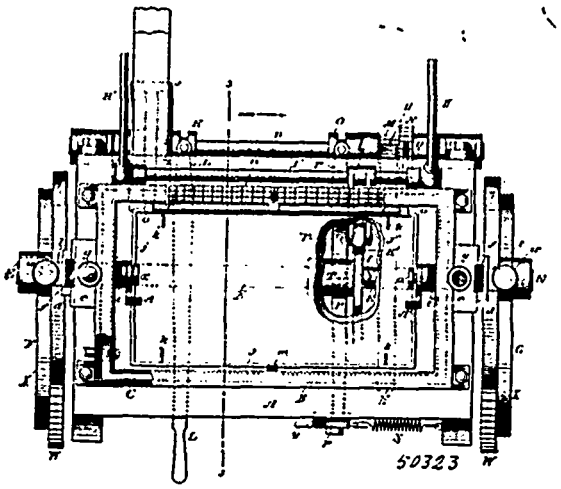
No. 50,322. Cutter Bars for Mowing Machines. (*Souche de lames pour faucheuses.*)



George M. O'Connor, John M. Mulkey and Owen W. Mulkey, all of Detroit, Michigan, assignees of Ort Cook, Hutchison, Kansas, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. In the cutter bar described, in combination with the main bar thereof, the finger guards made, respectively, in two duplicate parts fixed together at their forward end portion and jointly secured to the main bar at their rear end portion and shaped to provide the recesses P and P^1, substantially as set forth. 2nd. In the cutter bar described, in combination with the main bar thereof, the finger guards made in reversible duplicate parts G and G fixed together at their forward end portion, and jointly secured to the main bar at their rear end portion, and shaped to provide the recesses P and P^1 between their parts, and provided with the openings R in their body portion, substantially as and for the purpose set forth. 3rd. In the cutter bar described, the combination with the main bars thereof, of the finger guards G, respectively made in two duplicate parts shaped to provide the recesses P, P^1 between said parts wherein the sickle may operate, and with the body recesses R communicating with the recesses wherein the cutting sections of the sickle operate, wherein said duplicate parts are fixed together at their forward end portion and jointly secured to the main bar at their rear end portion, as shown, and adapted to be reversed in position on the main bar, substantially as and for the purpose specified.

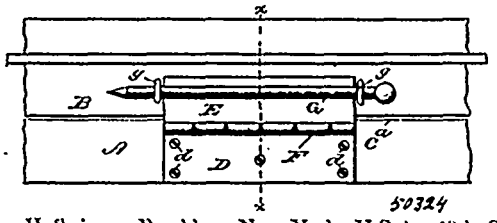
No. 50,323. Chocolate Dipping Machine.
(Machine pour tremper le chocolat.)



Messrs. Ganong Brothers, Saint Stephen, New Brunswick, Canada, assignees of The Walter Clamant Company, assignee of William Walter, both of New York, State of New York, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. In a machine of the character described, the receptacle to contain the coating substance, and the vertically movable tray reversibly mounted over said receptacle and adapted to hold the pieces to be coated, combined with the cams and chains for raising and lowering said tray, substantially as and for the purpose set forth. 2nd. In a machine of the character described, the receptacle to contain the coating substance, and a vertically reciprocating frame adapted to support the tray holding the pieces to be dipped into the coating substance, combined with cam-wheels supporting and directing the movement of said frame, and having the teeth to effect the jarring of said frame during a part of the revolution of said cam-wheels, and projections from said reciprocating frame to ride on said cam-wheels and to be engaged by said teeth, substantially as set forth. 3rd. In a machine of the character described, the receptacle to contain the coating substance, and the vertically movable tray adapted to hold the pieces to be coated, combined with the cams and chains actuated from the driving shaft for lowering and raising said tray, a clutch on said shaft by which the power may be cut off at any time, and a clutch for automatically arresting the operative mechanism at each upward movement of said tray, substantially as set forth. 4th. In a machine of the character described, the receptacle to contain the coating substance, and the vertically movable tray to receive the pieces to be coated, combined with an independent vertically reciprocating open frame adapted to receive and support the said tray when lowered thereupon, cams for lowering and raising said independent frame, and chains for elevating said tray carrying said pieces from said independent frame after the latter has completed its upward movement, substantially as set forth. 5th. In a machine of the character described, the vertically movable tray adapted to receive the pieces to be coated and reversibly mounted, combined with the vibrating rod adapted to contact with said tray when in its reversed position, substantially as shown and described. 6th. In a machine of the character described, the receptacle adapted to contain the coating substance, the vertically reciprocating frame *j*, the cover *n* hinged to said frame and having the lug *p*, and the lug *q* secured to said receptacle, combined with the tray C^1, having a series of pockets, the chains suspending said tray C^1, and the rock-shaft actuated by a cam and having rods connected with said chains, substantially as set forth. 7th. In a machine of the character described, the receptacle adapted to contain the coating substance, and the supporting frame *j* adapted to enter said receptacle, combined with the cam wheels F, G supporting said frame on their periphery, and having the teeth W, and cam-surfaces *a*, *b*, c and *d*, and bearing projections connected with said frame and riding on said cam wheels, substantially as set forth. 8th. In a machine of the character described, the receptacle adapted to contain the coating substance, and the supporting frame *j* adapted to enter said receptacle, and having bearings *t*, provided with cushions *x*, combined with the cams F, G supporting said frame at said bearings, and having the lateral flanges X, teeth W, and cam-surfaces *a*, *b*, c and *d*, the said bearings *t* resting on the periphery of said cams and the said cushions *x* being adapted to contact with said flanges X, substantially as set forth. 9th. In a machine of the character described, the receptacle to contain the coating substance, and the supporting frame *j* adapted to enter said receptacle, and having bearings *t*, provided with the contacts *x*, and adjusting screws *w*, combined with the cams F, G, supporting and directing the movement of said frame at said bearings and having the lateral flanges X, and teeth W, substantially as set forth.

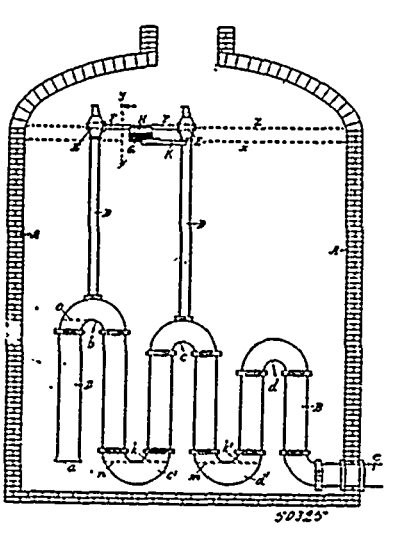
No. 50,324. Window Fastener. *(Arrête-croisée.)*



Laura Hofheimer, Brooklyn, New York, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. A sash lock consisting of two plates hinged together, one of which plates is adapted to be secured to a sash rail, and means to hold the other plate down upon the rail of another sash, substantially as shown and described. 2nd. A sash lock consisting of two plates hinged together, a pin or bar to lie over one of said plates, and eyes or staples to receive said pin, to hold it in position, substantially as shown and described. 3rd. The combination with the meeting rails A, B, of window sashes, of a lock consisting of two plates hinged together, one of said plates being secured upon the rails A, at a distance back of its edges *a*, and a pin and eyes on the other rail to hold the other plate down, substantially as shown and described.

No. 50,325. Flushing Device.
(Appareil de lavage pour latrines)



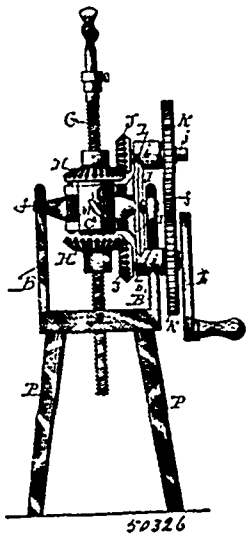
James Sharman and William Brandenberger, both of Stratford Ontario, Canada, 19th October, 1895; 6 years.

Claim.—1st. An automatic flushing device consisting of a tank and a tube contained therein, said tube being folded or coiled two or more times, and the fold or coil of said tube adjacent to the intake being higher than the succeeding fold or coil adjacent to the outlet, substantially as and for the purpose set forth. 2nd. In a flushing device, a float G formed with an arm, extension or auxiliary float H, substantially as and for the purpose set forth. 3rd. In an automatic flushing device, a float provided with an arm, extension or auxiliary float H, and connected with a rotary cock, said float being adjusted by the rising water to turn said cock, substantially as and for the purpose set forth. 4th. An automatic flushing device consisting of a tank, and a tube contained therein, said tube being folded or coiled two or more times, and the fold or coil adjacent to the intake being higher than the succeeding fold or coil adjacent to the outlet, in combination with a pipe or pipes opening into the second highest and subsequent higher folds or coils of said tube, a rotary cock located in the upper end of each pipe, and means adjusted by the rising water to turn said cock, substantially as and for the purpose set forth. 5th. An automatic flushing device consisting of a tank, and a tube contained therein, said tube being folded or coiled two or more times, and the fold or coil adjacent to the intake being higher than the succeeding fold or coil adjacent to the outlet, in combination with a pipe or pipes opening into the second highest and subsequent higher folds or coils of said tube, a rotary cock located in the upper end of each pipe, and a float secured to the stem of said cock, substantially as and for the purpose set forth. 6th. An automatic flushing device, consisting of a tank,

and a tube contained therein, said tube being folded or coiled two or more times, and the fold or coil adjacent to the intake being higher than the succeeding fold or coil adjacent to the outlet, in combination with a pipe or pipes opening into the second highest and subsequent higher folds or coils of said tube, a rotary cock located in the upper end of each pipe, and a float provided with a relieving arm secured to the stem of said cock, substantially as and for the purpose set forth. 7th. An automatic flushing device consisting of a tank and a tube contained therein, said tube being folded or coiled two or more times, and the fold or coil adjacent to the intake being higher than the succeeding fold or coil adjacent to the outlet, in combination with a pipe or pipes opening into the second highest and subsequent higher folds or coils of said tube, a rotary cock located in the upper end of each pipe, a float fixed to the stem of said cock, and a stop K, said float being adjusted so that the rising water acting on the arm H raises said float out of the balance so as to turn said cock, substantially as and for the purpose set forth.

No. 50,326. Duplex Drill for Miners.

(*Drille pour mines.*)



Edward Carnduff, What Cheer, Iowa, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. In a drilling machine, the combination with the frame of the sectional cylinder C, comprising two semi-cylindrical sections hinged together and provided with trunnions journalled in said frame, said cylinder being provided with an internal annular groove, a split sleeve comprising two hinged sections provided with a peripheral collar fitting in said groove, a threaded drill rod carried by said sleeve, a wheel feathered on the drill rod, means for rotating said wheel, a follower seated in the groove in said cylinder, and a set screw for forcing said follower against the split sleeve, substantially as described. 2nd. In a drilling machine, the combination with the frame, of the sectional cylinder C, comprising two hinged sections provided with trunnions *f* journalled in said frame, said cylinder being provided with an internal annular groove *c*, the split sleeve F comprising two hinged sections provided with a collar f^2 fitting in the groove *c*, a threaded drill rod carried by said sleeve, a wheel feathered on the drill rod, and means for rotating said wheel, substantially as described. 3rd. In a drilling machine, the combination with the threaded drill rod G, of the internally threaded split sleeve F engaging said rod and seated in a sectional cylinder, the sectional cylinder C mounted in bearings in the frame of the machine, bevelled pinions H feathered on the drill rod above and below the split sleeve, bevelled pinions J, meshing with the pinions H, and gear wheels K for driving said pinions, said wheels being geared together and one of them provided with means for driving it, substantially as described. 4th. In a drilling machine, the combination with the frame of the sectional cylinder comprising two hinged sections *c*, c^1, the sections *c* being provided with trunnions *f* journalled in said frame and having the oppositely projecting arms I, provided with bearings *i*, the split internally threaded sleeve F seating in the said cylinder, the threaded drill rod G fitted in said sleeve, shafts *j* journalled in the bearings *i* and carrying bevelled pinions J, bevelled pinion H followed on the drill rod and engaging the pinions J, and gear wheels K mounted on the shafts *j* and geared together, and means for driving one of said wheels, substantially as described.

No. 50,327. Enamelling Sheet Metal and Compound therefor. (*Composé pour émailler les métaux.*)

Harry D. Quimby, Denver, Colorado, U.S.A., 19th October, 1895; 6 years.

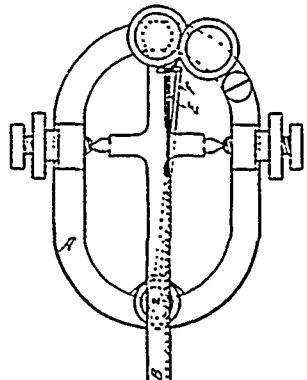
Claim. 1st. That improvement in the art of enamelling metal or metal ware which consists in first cleaning and roughening the surface of the metal or ware by a strong acid solution, next allowing it to dry, then dipping or coating the same with a glaze composed of the ingredients and substantially in the proportions herein named, allowing it to dry at the usual temperature of the atmosphere and then burning or firing, substantially as set forth. 2nd. That improvement in the art of enamelling metal or metal ware which consists in first cleaning and roughening the surface of the metal or ware by a strong acid solution, next allowing it to dry, then dipping or coating the same with a glaze composed of the ingredients and colouring matter substantially in the proportions named, allowing the metal to dry at the usual temperature of the atmosphere and then burning or firing, substantially as set forth. 3rd. The compound for enamelling metal or metal ware as herein described, consisting of silica, feldspar, borax, calcium fluoride, calcium phosphate and pipe clay, in substantially the proportions as herein set forth. 4th. The compound for enamelling metal or metal ware as herein described, consisting of silica, feldspar, borax, calcium fluoride, calcium phosphate, pipe clay and mineral salts, in substantially the proportions as herein set forth.

No. 50,328. Specific for the use of hard billed cage birds. (*Composition médecinale pour oiseaux.*)

Thomas Weir Robert Wellington Brock, London, Ontario, Canada, 19th October, 1895; 6 years.

Claim.—A composition of matter of linseed meal, cuttle bone, wheat screenings, German rape, domestic millet, screened gravel, salt, carbon, cayenne pepper, brown sugar, granulated sugar, glucose, saffron, honey, water, glue and man-seed, in the proportions and for the purposes specified, and also to be known as bird manna, bird tonic, or bird bread.

No. 50,329. Telegraph Key. (*Clef de télégraphe.*)

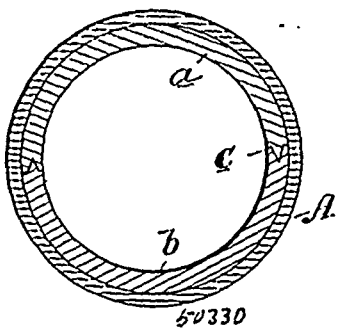


Walter E. Simons, Dublin, Ontario, Canada, 19th October, 1895; 6 years.

Claim.—The combination of the operating bar B, the operating non-conductive button C, the non conductive button working into C, called D, and the manner of its construction, the fastening of the bar E at *f*, and the side bar E, and the manner in which it is worked and is attached and the construction thereof, the spring F, and the position in which it is fastened at *%*, and on the bar B, by the double eye marked I, the double eye marked J, and the way it is constructed and the manner of its connection at the end of E, the upright standard J, and the thumb-screw *c*, and jamb nut X, and the position of the coil spring *a*, and the manner in which the same is inserted in the thumb-screw *c*, and inserted in the bar B, at the point marked *d*, substantially as and for the purposes hereinbefore set forth.

No. 50,330. Conduit for Electric Conductors.

(*Conduit pour conducteurs électriques.*)



James F. Cummings, Charles H. Freeman and William C. Yawkey, all of Detroit, Michigan, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. A conduit for electrical conductors, consisting of an outer armour of metal, and an inner lining of non-conducting material made in sections and clamped together by being forced into the outer casing or armour. 2nd. A conduit for electrical conductors, consisting of an outer metallic pipe, an inner lining consisting of a tube of wood made in sections clamped together by being forced into the outer tube. 3rd. A conduit for electrical conductors, consisting of an outer metallic tube, a lining consisting of an inner tube of wood, made in semi-cylindrical sections, oil soaked or otherwise rendered impervious to moisture, interlocking faces on the meeting edges of said sections, the wooden lining forced into the armour pipe.

No. 50,331. Process for Re-sweating and Preserving Cigars and Leaf Tobacco. (*Procédé pour ressuer et préserver les cigares et feuilles de tabac.*)

Henry Herman Straler and Ramon Solis, both of Denver, Colorado, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. The herein described process, which consists in simultaneously re-sweating and preserving the tobacco contents of a closed cedar box, which consists in immersing said box in a heated solution of an impregnating compound, capable of rendering the wood impervious to air and moisture, substantially as shown and described. 2nd. The herein described process of re-sweating and preserving cigars and tobacco contained in a cedar box, which consists in subjecting said box to a bath in a heated solution of an impregnating compound, substantially as shown and described. 3rd. The process herein described for simultaneously re-sweating and preserving cigars and tobacco, contained within cedar boxes, which consists in immersing the box in a solution of paraffine, or its equivalent, heated to 160 degrees, substantially as set forth.

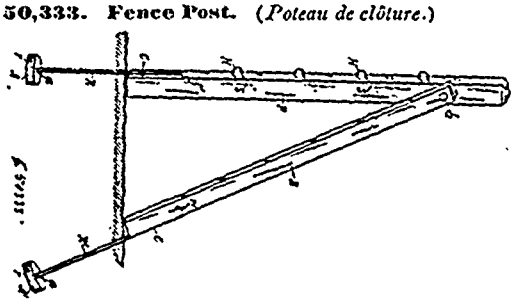
No. 50,332. Composition for Degumming Flax Straw.

(*Composition pour dégommer la paille de lin.*)

Hiram Belcher Ware and Robert John Whitfield, both of Fort Scott, Kansas, U.S.A., 19th October, 1895; 6 years.

Claim.—A composition of matter for degumming flax straw, consisting of a thousand gallons of water, sixteen pounds of potash, six gallons of kerosine 150 degrees and one gallon of glycerine, compounded and mixed as described and in or about the proportions named, substantially as set forth.

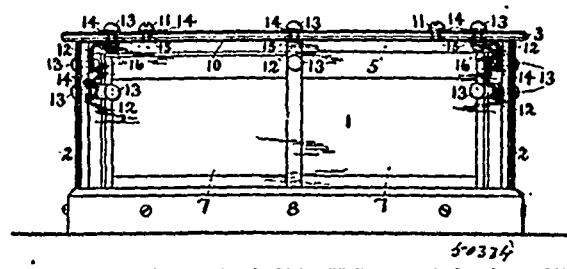
No. 50,333. Fence Post. (*Poteau de clôture.*)



Alfred E. Cody, Sweaborg, Ontario, Canada, 19th October, 1895; 6 years.

Claim.—1st. A fence post P, and a brace B, pivotally secured thereto by the pivot bolt *b*, in combination with the rods R, R¹, and the anchor blocks A, A¹, substantially as and for the purpose set forth. 2nd. A screw hook H, in combination with and inserted in a fence post P, at an angle of about 45 degrees, substantially as and for the purpose set forth.

No. 50,334. Show Case. (*Caisse d'étalage.*)

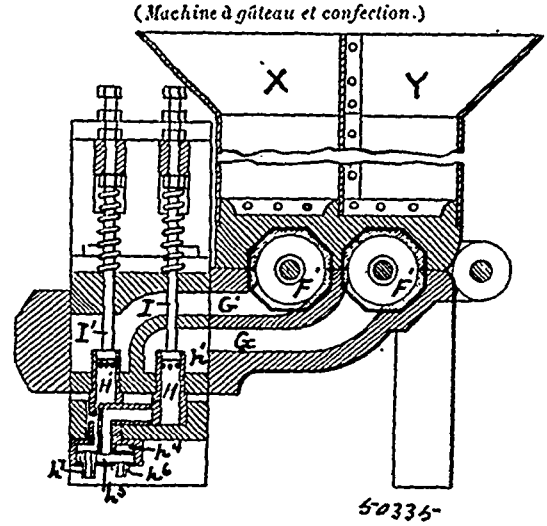


Frederick Pollard, Cleveland, Ohio, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. In a show-case, a base, a frame, and perforated glass plates forming the top, front, and ends of said case, in combination with brackets, screws passing through the perforations in said plates into said frame, bolts passing through said perforations and said brackets, washers and tubes of soft material encircling said screws and bolts to prevent contact between the same and the glass, and a filling between the adjacent edges of said plates, base, and frame, substantially as and for the purpose set forth. 2nd. The combination, in a show case, of a floor, a frame having doors therein, the outside slabs S, and the inside cleats 9, perforated glass plates forming the top, front, and ends of said case, brackets, screws passing through the perforations in said plates into said frame, bolts passing through said perforations and said brackets, washers and tubes encircling said screws and bolts, and a filling between the adjacent edges and surfaces of the several parts, substantially as and for the purpose set forth.

No. 50,335. Cake and Confection Making Machine.

(*Machine à gâteau et confection.*)

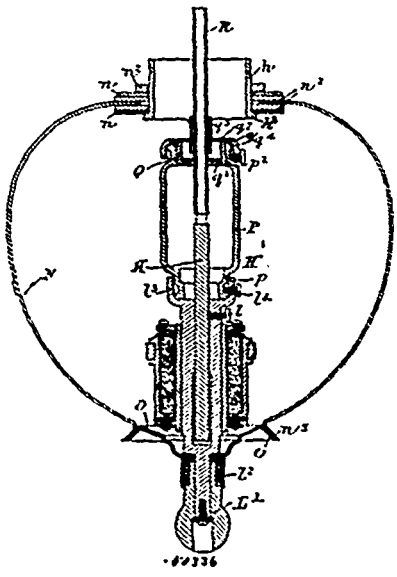


Alexander William Copland, Cincinnati, Ohio, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. Two or more cylinders adapted to receive different substances, pistons working therein, one piston adapted to make a full stroke in one direction, while another piston is making a partial stroke in the same direction, whereby the delivery of the substances is relatively controlled automatically, and delivery tubes connected with the outlets of the piston cylinders, substantially as and for the purpose described. 2nd. Two or more cylinders adapted to receive different substances, pistons working therein, means for adjusting the pistons relative to each other, whereby the delivery of the substances is automatically controlled, and delivery tubes connected with the outlets of the piston cylinders substantially as and for the purpose described. 3rd. Two or more cylinders adapted to receive different substances, pistons working therein, eccentric rods adapted to actuate the pistons and provided with adjustable sliding boxes, whereby the length of stroke of the pistons is adjusted, and mechanism for imparting motion to the eccentric rods, substantially as and for the purpose described. 4th. Two or more cylinders adapted to receive different substances, pistons working therein, eccentric rods adapted to actuate the pistons and provided with eccentrics having the position of eccentricity therein adjustable, whereby the time at which the eccentric rods move is regulated, and mechanism for imparting motion to the eccentric rods, substantially as and for the purpose described. 5th. Two or more cylinders adapted to receive different substances, pistons working therein, eccentric rods adapted to actuate the

pistons, eccentrics adapted to actuate the eccentric rods, having the degree of eccentricity therein adjustable whereby the length of the stroke of the eccentric rods may be adjusted, and mechanism for imparting motion to the eccentric rods, substantially as and for the purpose described. 6th. Two or more cylinders adapted to receive different substances, pistons working therein, eccentric rods adapted to actuate the pistons, eccentrics adapted to actuate the eccentric rods, and having the degree and position of eccentricity therein adjustable, and mechanism for imparting motion to the eccentrics, substantially as and for the purpose described. 7th. Two or more cylinders adapted to receive different substances, pistons working therein, eccentric rods adapted to actuate the pistons, adjustable sliding boxes in the eccentric rods, whereby the length of the stroke of the pistons may be adjusted, separate eccentrics adapted to actuate the eccentric rods, and means of adjusting the degree and position of eccentricity therein, substantially as and for the purpose described. 8th. A hopper having two or more divisions, each division provided with a worm, whereby the substance in that division is forced into a cylinder, cylinders, pistons working therein, eccentric rods adapted to actuate the pistons, adjustable sliding boxes in the rods, adjustable eccentrics adapted to actuate the rods, and a driving shaft whereby motion is imparted to the eccentrics, substantially as and for the purpose described. 9th. A hopper having two or more divistons, each division provided with a worm case, having an interior surface thereof corrugated parallel with the axis of the worm, a worm working therein, whereby the substances in each division of the hopper are forced into cylinders respectively, cylinders, pistons working therein, eccentric rods, adjustable sliding boxes therein, adjustable eccentrics adapted to actuate the eccentric rods, and a driving shaft adapted to actuate the eccentrics, substantially as and for the purpose described, 10th. A hopper having two or more divisions, each division provided with a worm actuated by adjustable gearing, whereby the substances in each division are forced into cylinders respectively, cylinders, adjustable pistons working therein, eccentric rods adapted to actuate the pistons, adjustable sliding boxes in the eccentric rods, eccentrics adapted to actuate the rods, the driving shaft adapted to actuate the eccentrics and provided with a crank arm, a connecting rod mounted thereon adapted to actuate a sprocket wheel carrying a sprocket chain, and a cam mounted on the driving shaft adapted to support an adjustable table, substantially as and for the purpose described. 11th. A depositor consisting of a depositor case having therein two or more reservoirs, stationary tubes connected therewith and extending without all the reservoirs, and a detachable bottom plate having partition or partitions attached thereto, substantially as and for the purpose described. 12th. Two or more cylinders adapted to receive different substances, pistons working therein, means for adjusting the pistons relatively to each other, each piston delivering a substance into a depositor consisting of a case having therein two or more reservoirs and tubes connected therewith and extending without all the reservoirs, substantially as and for the purpose described.

No. 50,336. Arc Lamp. (*Lampe à arc*)

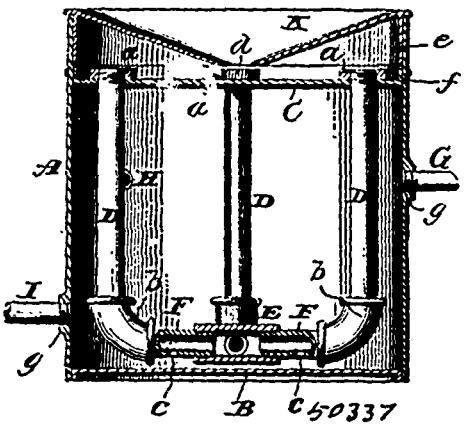


William Jandus, Victoria Works, Kent, England, 19th October, 1895; 6 years.

Claim.—1st. In an arc lamp, prolonging the life of the carbons by inclosing the arc within two or more chambers so arranged that the upper part of the outer chamber is made air-tight or nearly so while the lower part permits some communication with the outer atmosphere and the inner chamber permits a limited communication between its interior and the gaseous contents of the outer chamber or chambers, the combination of the chambers being so devised as to surround the arc with inert or non-oxidizing gases and prevent or minimize the access of the oxygen of the air to the carbons, as herein set forth. 2nd. In an arc lamp, the combination of inner and outer chambers, the inner chamber inclosing the arc being closed air-tight or nearly so at its lower end and having restricted communication at its upper end while the outer chamber is closed air-tight at its upper end and has some communication with the atmosphere at its lower end, the combination being so devised in order to cause the inner chamber to discharge its contents into and take its supply of gases from the upper part of the outer chamber where the hottest and most inert or non-oxidizing gases accumulate, for the purpose of prolonging the life of the carbons, as herein set forth. 3rd. An arc lamp, having an outer chamber as N, made air-tight at the top but opening freely outwards below by means of a valve as O, which valve also allows a limited air inlet, an inner chamber as P air-tight or nearly so below, but with a loosely fitting cover as Q at the top through which the carbon is fed, and arc lamp mechanism as at A of any known kind, substantially as hereinbefore described, with reference to the accompanying drawing.

No. 50,337. Feed Water Heater.

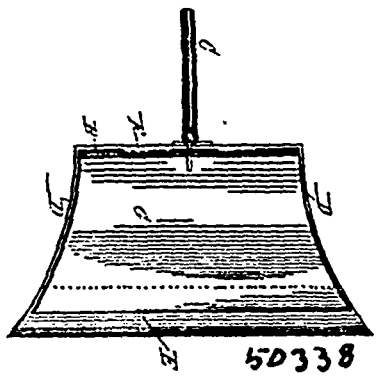
(*Réchauffeur de l'eau d'alimentation.*)



Birt Victor Harper, Illinois, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. In a feed water heater, the combination of the body or casing provided with a diaphragm near the top thereof, with water tubes extending down and converging to a common centre, and a coupling in common for all the water-tubes, said water-tubes being provided with holes on their converging sides which communicate with the interior of the casing, whereby the water of condensation and the heated feed water commingle, substantially as and for the purpose specified. 2nd. In a feed water heater, the combination of the body or casing provided with a diaphragm near the top thereof, with water-tubes extending downwardly therefrom, and a funnel-shaped top located over the diaphragm and having a central opening, substantially as and for the purpose described. 3rd. In a feed water heater, the combination of the casing provided with a diaphragm near the top thereof, an exhaust steam inlet and outlet, a water outlet with the water tubes extending down and converging to a common centre and provided with openings on their lower converging sides, and a funnel-shaped top located over the diaphragm and having a central opening, substantially as and for the purpose set forth.

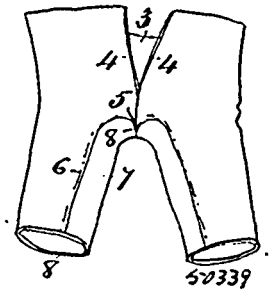
No. 50,338. Dust Pan. (*Porte-ordures.*)



Jacques S. Hill, Petit, New York, State of New York, U.S.A., 19th October, 1895; 6 years.

Claim.—1st. A dust pan provided with a handle and a hinged cover, said cover being adapted to be opened by the hand which grasps the handle, substantially as shown and described. 2nd. A dust pan provided with a back, a handle secured thereto, a bottom plate which is wider at the front than at the back, a hinged cover or top similar in form to the bottom plate and provided with a projection or arm by which it may be opened by the hand which grasps the handle, substantially as shown and described. 3rd. A dust pan provided with a back, a handle secured thereto, a bottom plate which is wider at the front than at the back, a hinged cover or top similar in form to the bottom plate and provided with a projection or arm by which it may be opened by the hand which grasps the handle, said pan being also provided at its front edge with a rearwardly extending strip or plate which forms part of the top thereof, substantially as shown and described. 4th. A dust pan comprising a bottom, a back to which a handle is secured, a hinged top or cover provided with a projection or arm adjacent to the handle, sides which are curved outwardly from the back to the forward edge, the bottom and the top being correspondingly formed, and said forward edge being provided with a strip or plate which forms part of the cover, substantially as shown and described.

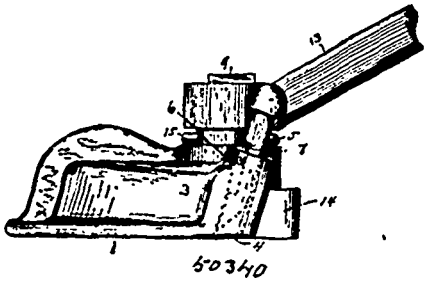
No. 50,339. Trouser. (*Pantalon.*)



Robert Hyman Blumenthal, Montreal, Quebec, Canada, 19th October, 1895; 5 years.

Claim.—1st. In the cutting of blanks for the manufacture of trousers, a pattern the contour of which is made up of seat edge 2, waist band edge 3, front opening or fly edge 4, leg portion edges 6, 7 and 8, and crotchet projection 5. 2nd. In the manufacture of trousers, a blank formed of a single piece of cloth comprising the front and rear body portion, the crotchet portion, and two portions each embodying a front and rear leg portion. 3rd. A pair of trousers made from a single piece of cloth. 4th. A pair of trousers made from a single piece of cloth and having a single seam. 5th. A pair of trousers made from a single piece of cloth and having a single seam extending from the inside lower edge of one leg portion upward, across the crotch and downward to the lower edge of the outer leg portion.

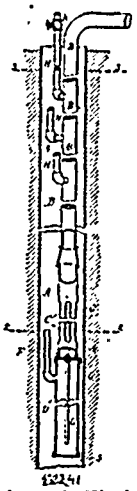
No. 50,340. Flooring Clamp. (*Crampon pour plancher.*)



John W. Smith and Franklin J. Perkins, both of Woburn, Massachusetts, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. The improved flooring-clamp comprising the frame or casing 1, containing the bearing 8, and sockets on opposite sides of said bearing, and provided with pins or studs loosely fitted to said sockets and adapted to be driven into the supports of the clamp for retaining it in position, the horizontal cam 10 having the pin or journal 9 fitted to the said bearing and provided at its edge with a face for acting against the edge of a flooring board, the said face having the straight portion 141, and the curved portion 142 formed as a volute and with a gradually increasing curve, and the handle or operating lever, substantially as described. 2nd. The improved flooring-clamp comprising the frame or casting 1, containing the bearing 8, and provided with pins or studs for retaining it in position, the cam 10 having the pin or journal 9 fitted to the said bearing and provided at its edge with a face for acting against the edge of a flooring board, and the said face having the straight portion 141, and the curved portion 142 formed as a volute and with a gradually decreasing curve, said curved portion having a gradually increasing slant or bevel to prevent the rising of the board, and the handle or operating lever, substantially as described.

No. 50,341. Water Raising Apparatus.
(*Appareil alimentateur d'eau.*)



James Edward Bacon, Richmond, Virginia, U.S.A., 21st October, 1895; 6 years.

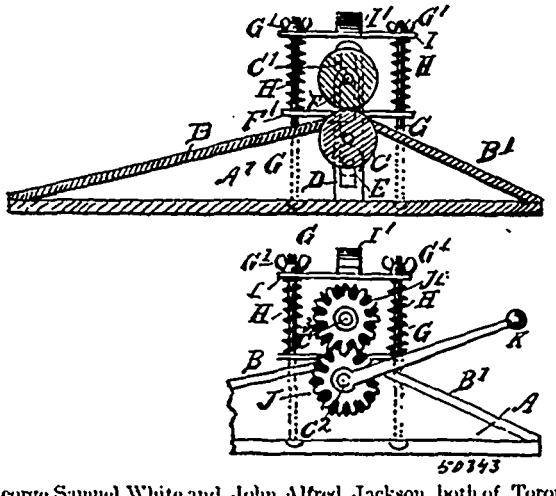
Claim.—1st. The combination with an uptake pipe, of a closed air reservoir below the lower end of the uptake pipe and connected therewith, and a pipe for supplying air into such reservoir, and a jet tube from the said reservoir extending up into the uptake pipe, there being an opening into the lower end of the uptake pipe for the admission of the liquid, substantially as set forth. 2nd. The combination with the uptake pipe in a water elevating apparatus, of a slotted tube at the lower end of such uptake pipe, a head screwed to such slotted lower end, a tubular reservoir connected with such head and having a closed lower end, an air inlet pipe for supplying air to the reservoir, an ejector nozzle passing from near the lower end of the air reservoir through the upper head of such reservoir and centrally within the uptake pipe above the lateral inlet openings, substantially as set forth.

No. 50,342. Process for the Treatment of Materials containing Cellulose for the Production of Spirit. (*Procédé pour le traitement des matières contenant du cellulose pour la production de spiritueux,*)

Einar Simonsen, Christiania, Norway, 21st October, 1895; 6 years.

Claim.—The process for the treatment of materials containing cellulose for the production of spirit, which consists in boiling one (1) part by weight of the said materials, with 2 parts by weight of acid of 0·4 to 0·8 per cent strength, under a pressure of $\frac{1}{10}$ atmospheres for half ($\frac{1}{2}$) an hour.

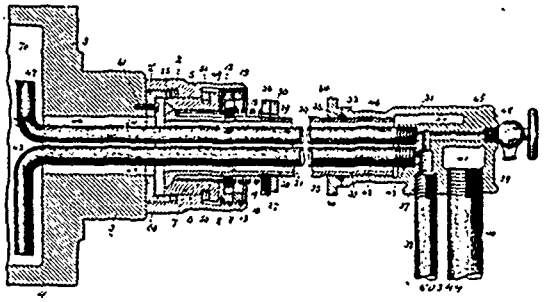
No. 50,343. Machine for Mangling Clothes.
(*Calandre pour habillements.*)



George Samuel White and John Alfred Jackson, both of Toronto, Ontario, Canada, 21st October, 1895; 6 years.

Claim.—1st. A mangle, comprising two rollers rotating in unison and located one above the other, and inclined tables extending downwardly from opposite sides of the lowermost roller and from near the top thereof, substantially as shown and described. 2nd. A mangle, comprising two rollers mounted to rotate in unison and located one above the other, slotted guides for the shafts of said rollers, friction rollers on which is mounted to turn the shaft of the lowermost roller, and a spring-pressed saddle engaging the shaft of the uppermost roller, substantially as shown and described. 3rd. A mangle, comprising two rollers geared together and located one above the other, slotted guides for the shafts of said rollers, friction rollers, on the peripheries of which is journalled the shaft of the lowermost roller, saddles engaging the shaft of the uppermost roller, each saddle being secured to a plate, fixed rods on which is fitted to slide the said saddle plate, springs coiled on said rods and pressing on said saddle plate, and a top plate held on said rods and engaged by nuts screwing on said rods, substantially as shown and described. 4th. A mangle, comprising two rollers geared together and located one above the other, slotted guides for the shafts of said rollers, friction rollers, on the peripheries of which is journalled the shaft of the lowermost roller, saddles engaging the shaft of the uppermost roller, each saddle being secured to a plate, fixed rods on which is fitted to slide the said saddle plate, springs coiled on said rods and pressing on said saddle plate, and a top plate held on said rods and engaged by nuts screwing on said rods, said top plates being rigidly connected with each other by a cross piece, as set forth.

No. 50,344. Rotary Steam Joint. (*Joint de vapeur.*)



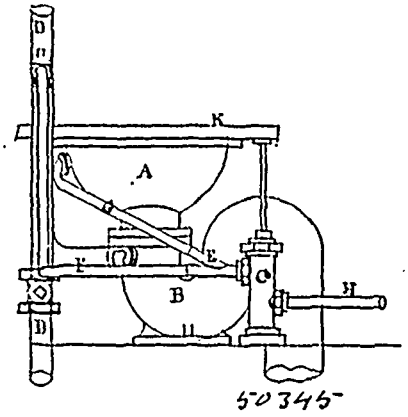
John Brainard Morgan, Rockland, Massachusetts, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. In combination with a revoluble steam cylinder, a stuffing box or shell affixed to the face of the journal, an adjustable gland and a flanged packing grasped between the stuffing box and the gland to form a chamber for condensed water, an interconnecting flange tube provided with a head which is contained within the packing, said packing extending circumferentially about the head and interposed between said head and the walls of the stuffing box, substantially as herein stated. 2nd. In a rotary steam joint, in combination, a shell or casing, a ring of wood within the casing, a bearing on one end of said wood ring, a bushing ring adapted to be secured in said shell or casing, a tube or pipe extending through the metal ring, a flange on its inner end having a bearing to fit the bearing of the wood ring, a ring on said tube, an annular screw nut next said ring, and a spring between said tube ring and the ring in the casing. 3rd. In combination, a cup-shaped stuffing box having internal holding screws to affix it to a revolving cylinder, a gland, and an annular packing for liquid absorption recessed at one end, an interconnecting tube flanged at one extremity with a straight screw-thread on the opposite end portion, a fixed pipe which engages the screw-thread on the tube, and a check nut to prevent said tube from rotating, substantially as specified. 4th. In a rotary steam joint, in combination, a shell or casing, a ring of wood within the casing, a circumferential groove in said wood ring, a metal ring in two parts loosely fitting in said wood ring provided with internal and external lugs or projections to engage with said wood ring and the shell or casing, a bearing on one end, a tube or pipe extending through the wood ring, and a flange on its inner end having a bearing to fit the bearing on the wood ring and adapted to be screwed together. 5th. In a rotary steam joint, in combination, a shell or casing, a ring of wood within the casing, a circumferential groove in said wood ring, a metal ring in two parts loosely fitting in said wood ring provided with internal and external lugs or projections, a socket in said wood ring, and a socket in the shell or casing open on one side to the end for said inner and outer projections respectively of the wood and metal rings. 6th. In a rotary steam joint, the combination with a revolvble shell or casing having a shoulder 5, of a ring of wood within the casing provided with a corresponding shoulder 50, a gland securing the wood ring in place, and a stationary flanged tube engaging said ring of wood.

No. 50,345. Double Flushing Water Closet.
(*Citerne de lavage.*)

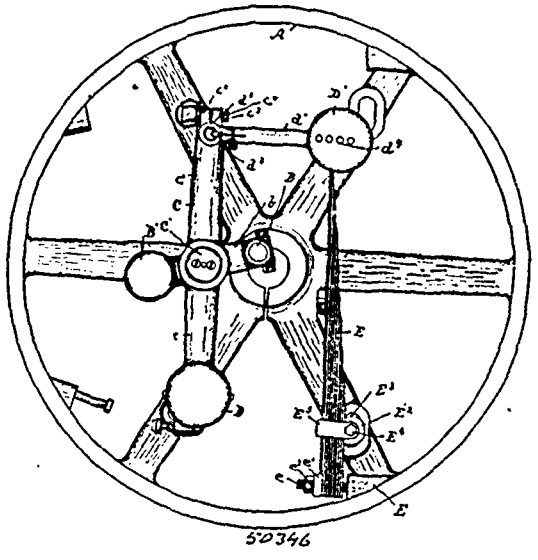
Philip Nicoll, Toronto, Ontario, Canada, 21st October, 1895; 6 years.

Claim.—1st. The combination of flushing valve, junction pipe, flushing pipe from junction to vent pipe and vent pipe to trap and flushing pipe from junction to bowl of closet. 2nd. The combination of trap and branches for flushing pipes from junction to trap,



and the combination of flushing pipes, stop cock and vent pipe to cellar to flush sewer trap. 3rd. The flushing pipe from junction entering closet trap at end opposite to soil pipe, in combination with the aforesaid valves, trap and pipes.

No. 50,346. Steam Engine Governor.
(*Gouverneur de Machine à vapeur.*)

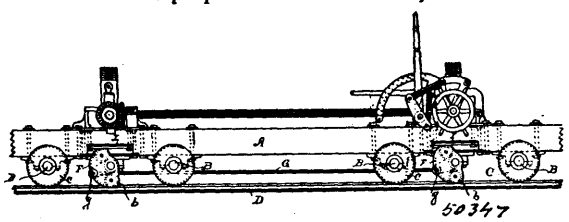


William George Shepherd, Erie, Pennsylvania, U. S. A., 21st October, 1895; 6 years.

Claim.—1st. In a steam engine governor, the combination with the governor wheel, of a pin to which is attached the valve gear, an arm carrying said pin, a pivot on the governor wheel and away from its centre, on which said pin-carrying arm is pivoted, a weight arm rigidly attached to said pin-carrying arm and extending at an angle thereto, a centrifugal weight attached to said weight arm, and a spring arranged to operate centripetally and attached to a moving part of said mechanism to counterbalance the centrifugal force exerted by the weight. 2nd. In a steam engine governor, the combination with the governor wheel, of a pin to which is attached the valve gear, an arm carrying said pin, a pivot on the governor wheel and away from its centre on which said pin-carrying arm is pivoted, a weight arm rigidly attached to said pin carrying arm and extending both sides thereof at an angle thereto, a weight rigidly attached to one end of the weight arm, an auxiliary weight attached to the opposite end of said weight arm, and a spring arranged to operate centripetally and attached to a moving part of said mechanism to counterbalance the force of the weights. 3rd. In a steam engine governor, the combination with a centrifugally acting governor weight therein, of a spring connected therewith and arranged to operate laterally, and means of varying the strength of said spring. 4th. In a steam engine governor, the combination with a centrifugally acting governor weight therein, of a spring connected therewith and arranged to operate laterally, means for varying the tension of said spring, and means of varying the strength of said spring. 5th

In a steam engine governor, the combination with a swinging centrifugally acting governor weight therein, of a spring link connected with said weight which controls the direction of the movement of said weight and is arranged centripetally against the movement of said weights and means of varying its strength of said spring. 6th. In a steam engine governor, the combination with the governor wheel and a swinging centrifugally acting weight, of a laterally tensioned longitudinally inextensible spring attached to the governor wheel and connected with the governor weight, the direction of said spring being such as to properly control the direction of the movement of the governor weight and so arranged as to centripetally restrain the movement of said weight, and an adjustable fulcrum for said spring. 7th. In a steam engine governor, the combination with the governor wheels, of the pin to which is attached the valve gear, an arm carrying said pins, a pivot on the governor wheel on which said pin-carrying arm is pivoted, a weight arm rigidly attached to said pin-carrying arm and extending both sides thereof, a weight rigidly attached to one end of said weight arm, an auxiliary weight hung by a pivoted link to the other end of said weight arm, and a spring link attached to said governor wheel and connected with said weight which controls the direction of movement of said auxiliary weight and is tensioned centripetally against the movement of said weight. 8th. In a steam engine governor, the combination with the governor wheel, of a pin to which is attached the valve gear, an arm carrying said pin, a pivot on the governor wheel on which said pin-carrying arm is pivoted, a weight arm rigidly attached to said pin-carrying arm, a weight hung by a pivoted link to the end of said weight arm, and a spring link attached to said governor wheel and connected with said weight which controls the direction of the movement of said weight and is tensioned centripetally against the movement of said weight.

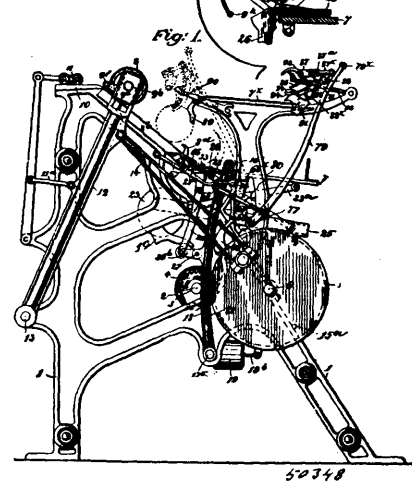
No. 50,347. Automatic Off-set Mechanism for Saw Mill Carriages. (*Mécanisme compensateur automatique pour chariots de scierie.*)



Charles Elvidge, Oakland, California, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. An offsetting mechanism for saw-mill carriages consisting of a cam or segment F mounted on the carriage, and power transmitting connections E, *e*, *a* from said cam or segment to effect the offset and return of the carriage at the beginning of the gigging and feeding movements respectively. 2nd. An offsetting mechanism for saw-mill carriages, consisting of a shaft E mounted on the carriage, a cam or segment F fixed on the shaft and provided with anti-friction rollers *b* freely rotatable in one direction and locked against rotation in the reverse direction, said rollers adapted to impinge against a fixed surface D, whereby the cam or segment F is oscillated by traction, and the shaft E is turned, and power transmitting connections *e*, *a* from said shaft to effect the offset and return of the carriage at the beginning of the gigging and feeding movements respectively. 3rd. An offsetting mechanism for saw-mill carriages, consisting of a shaft E mounted on the carriage and provided with a cam or segment F, having anti-friction rollers *b* mounted therein to freely rotate in one direction and to be held against rotation in the opposite direction whereby the cam or segment F is oscillated by traction and the shaft E turned, and power transmitting connections *e*, *a* from said shaft to effect the offset and return of the carriage at the beginning of the gigging and feeding movements respectively, consisting of a screw thread *e* on the shaft and a nut *a* on the carriage in which the thread is seated. 4th. In an offsetting mechanism for saw-mill carriages, the combination of a traction cam or segment F, carrying anti-friction rollers *b*, adapted to rotate freely in one direction and to be held against rotation in the opposite direction, and to engage a fixed track surface D, the screw shaft E, upon which the cam or segment is mounted, the nut *a*, on the carriage in which said shaft is seated, and the adjustable box J, in which the shaft is mounted whereby the cam or segment may be adjusted. 5th. In an offset mechanism for saw-mill carriages, the combination of the traction cam or segment F, provided with anti-friction rollers *b*, freely rotatable in one direction and held against rotation in the opposite direction, and the buffer rods I, or rubber cushions, for limiting the movement of the cam or segment and returning it to its traction impingement. 6th. In an offsetting mechanism for saw-mill carriages, the combination of the screw-shaft E, seated in a nut *a*, on the carriage, the traction cam or segment F, provided with anti-friction rollers *b*, freely rotatable in one direction and locked against rotation in the reverse direction, the arm g^1, of the shaft, and the drop-link K, for engaging the arm and locking the shaft and its cam or segment. 7th. An offsetting mechanism for saw-mill carriages consisting of shafts E E, transverse to the carriage with screw-threads *e e*, turning in a nut *a*, upon the carriage, segments F, fixed to the shaft adapted to impinge upon a fixed track or surface D, whereby they are rotated the length of their arcs and the screws *e*, advanced in the nuts *a*, when the carriage travels in either direction along the track, and wheels *b*, journalled in the segment ends to impinge and travel upon the track D, after the segments reach the limit of their oscillation whereby wearing friction upon the segments is prevented. 8th. In an offsetting mechanism for saw-mills, transverse screw-shafts E, E, turning in nuts *a*, *a*, upon the carriage and adapted to move it to one side or the other with relation to the saw, segments F, fixed to the screw-shafts and having their circular peripheries travelling upon fixed tracks D, so that the longitudinal movements of the carriage rotate them and the screws E, a fixed distance, wheels *b*, journalled in the segment ends and adapted to travel freely upon the tracks and prevent friction when the segments have completed their rotation in either direction, and locking pawls or devices C, whereby the wheels are prevented from rotation when the carriage begins a reverse movement, substantially as described. 9th. In an offsetting mechanism for saw-mill carriages, transverse screw-shafts E, E, having circular segments F, fixed to them, anti-friction rollers *b*, mounted in the segments and freely rotatable in one direction, and adapted to impinge upon a fixed track D, by the friction on which said segments are rotated the length of their arcs by the movements of the carriage along the track, means for preventing the rotation of the rollers in a reverse direction, nuts *a*, through which the screws *e* pass, bars *m*, to which the nuts are fixed, having sleeves *n*, loosely surrounding the axles B, and collars *o*, upon the axles between which the sleeves are held and prevented from end movement when the screws *e*, turn in the nuts.

No. 50,348. Printing Machine. (*Presse d'imprimerie.*)

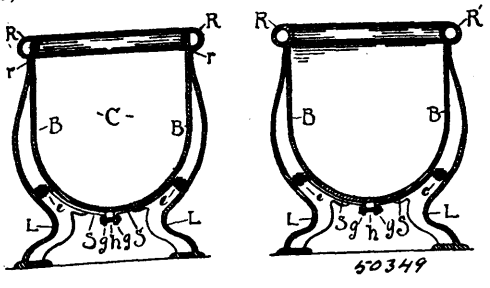


Charles Rogers Clarke, Montel, Texas, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. A printing machine having a normally non-rotative impression cylinder which moves to and fro over the type on the type-bed, automatic means for unlocking the cylinder at the beginnn of its forward movement, automatic means for compelling the cylinder to rotate during its forward printing movement, automatic means for locking the cylinder after the completion of its forward printing movement, whereby it is prevented from rotating during the latter part of its forward movement, and automatic means for operating the cylinder gripper at the proper times, as set forth. 2nd. A printing machine, having a normally non-rotative impression cylinder, automatic means for moving said cylinder to and fro over the type on the type-bed, automatic means for compelling said cylinder to rotate during the first part of its forward movement, automatic means for arresting the rotation of the cylinder before the completion of its forward movement, automatic mechanism for operating the cylinder gripper at the proper times, automatic mechnism for feeding the sheets to the cylinder gripper, and automatic mechanism for delivering the printed sheets, as set forth. 3rd. In a printing machine, the combination with a type-bed, an impression cylinder, a frame in which said cylinder is carried, automatic means for moving said frame and cylinder over the type on the type-bed, automatic means for compelling said cylinder to rotate during the first part of its forward movement, and automatic means for locking said cylinder against rotation during the remainder of its forward movement, of a sheet-guard connected to and moving with the frame carrying the cylinder, whereby the sheet is kept out of contact with the type while

it is being placed, and a feeder which supplies sheets to the cylinder, as set forth. 4th. In a printing machine, the combination with the type-bed, the vibrating frame which carries the impression cylinder to and fro over the type-bed, and the said impression cylinder, of the automatic locking and unlocking mechanism, and the rack and pinion, which control the rotation of the cylinder, a gripper on the cylinder for seizing the sheets, and a controller, carried by the said cylinder which prevents the unlocking of the cylinder when no sheet is seized, substantially as set forth. 5th. In a printing machine, the combination with an impression cylinder having a gripper, of a feeder to feed the sheets to said gripper, comprising a vibrating suction-roller, its air exhauster, a vibrating segregating blade moving in unison with the roller and adapted to take under the top sheet when the latter is lifted by the roller, mechanism for operating said roller, air-exhaust and blade, and means for depressing said blade when in its advanced position, substantially as and for the purposes set forth. 6th. In a printing machine, the combination with the stationary type-bed, the vibrating impression cylinder provided with a gripper, and the frame about said cylinder, of a flexible sheet-guard connected to said frame at one end and a take-up for taking up said sheet-guard when the cylinder makes its forward printing movement, substantially as set forth. 7th. In a printing machine, the combination with the type-bed, the rack 8^b, the rotatable impression cylinder, its frame, and its wheels, of means for moving said cylinder to and fro, a lock, substantially as described which locks the cylinder to its frame when its parts are in one position, and locks the cylinder to its wheels when its parts are in their other position, and means on the machine frame for operating said lock automatically, as set forth. 8th. In a printing machine, the combination with a vibrating and intermittently rotating impression cylinder, provided with a gripper, and means for operating said cylinder and gripper, of a vibrating delivery-gripper for the printed sheets, said delivery-gripper comprising the fixed jaws 84, the rock-shaft 82, the movable jaws 85, fixed on said shaft, the spring 86, for closing the jaws of the gripper, the lever 88, on the shaft 82, the bracket 81, and the toggle connecting one arm of said lever 88, with the bracket, and means for operating said delivery-gripper, substantially as set forth. 9th. In a printing machine, the combination with the type-bed, the rack thereon, the tracks on which the impression cylinder rolls, the said cylinder, its wheels, the frame which carries the cylinder, and means for moving the cylinder to and fro over the type-bed, of the double-acting lock which locks the cylinder to its frame when its parts are in one position and to its wheels when its parts are in their other position, said lock comprising the diametrically arranged bolt 30, on the cylinder, said bolt having a tip 31, at one end to engage a socket 32, in the frame and a stud 33, at the other end to lock the cylinder to its wheels, the toggle for operating the bolt, coupled at one end to the bolt and at the other end to the cylinder, and the spring 34, arranged to shoot the bolt when freed by the breaking of the toggle knuckle, and automatic means for operating said lock, substantially as set forth.

No. 50,349. Bath-tub. (*Baignoire.*)

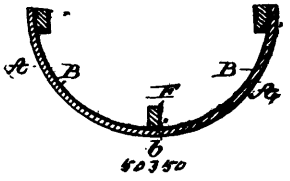


50349

Robert Manning Wilson, Rome, New York, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. In a bath-tub, the combination of the body of the tub, and a rim for the body consisting of a tube of greater length than the upper edge of the body of the tub having its adjacent ends lapped and provided with a lengthwise slot for receiving the upper edge of the body of the tub, substantially as and for the purpose specified. 2nd. In a bath-tub, the combination of a body consisting of head, foot and intermediate sections formed of substantially rigid sheet metal and having their adjacent edges secured together, and a rim for the body consisting of a tube provided with a lengthwise slot for receiving the upper edge of the body of the tub, substantially as and for the purpose described. 3rd. In a bath-tub, the combination of the body of the tub, opposite legs for supporting said body, a connection between said legs having its upper face engaged with the adjacent portion of the body and consisting of separate sections having their opposite ends secured to the legs, and an adjuster for engaging the adjacent ends of the sections of said connection, substantially as set forth. 4th. In a bath-tub, the combination of the body of the tub, opposite legs for supporting said body, a connection between said legs having its upper face engaged with the adjacent portion of the body and consisting of separate sections having their opposite ends elevated above their adjacent ends and removably secured to said legs and having their adjacent ends provided with ears, and an adjuster engaged with said ears, substantially as and for the purpose described. 5th. In a bath-tub, the combination of the body of the tub, opposite legs shaped to conform to the outline of said body for supporting said body but disconnected therefrom, and an adjustable connection between the opposite legs for drawing them against the sides of said body, substantially as described and shown. 6th. In a bath-tub, the combination of the body of the tub formed of head, foot, and intermediate sections of sheet metal in one thickness, an ornamental stiffening ring attached to the upper edge of said body, and four legs shaped to conform to the outline of the tub body set in pairs and adjustably connected to support the same, substantially as described and shown.

No. 50,350. Row Boat. (*Embarcation à rames.*)

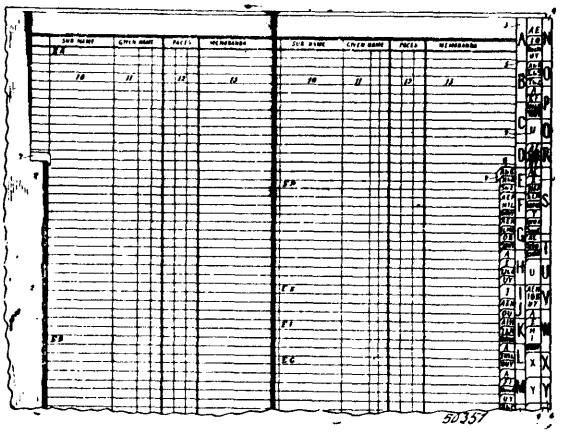


50350

Michael Frank Davis, Detroit, Michigan, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. In the manufacture of row boats, a wooden skin lined on the inside only with the fabric or light material, in the manner and for the purposes set forth. 2nd. In a row boat, the combination of a wooden skin lined, as described, with stiffening pieces covered as set forth and each secured by means of its said cover to the inside face of the skin. 3rd. In a row boat, the body or skin A, lined internally at B, with suitable material and combined with the strip C, covered with the material D, and secured to the inside face of the boat by the margins of said covering, all as set forth. 4th. In a row boat, the skin A, lined on the inner face as set forth, and having between it and the keelson several layers of the lining, substantially as and for the purpose set forth. 5th. In combination with the wooden skin of the boat, the covered strengthening strips C, secured by cement, or otherwise, to and upon the inside of said skin by means of the free ends of the cover.

No. 50,351. Index Book. (*Livre à index.*)



50351

Adam Clarke Bansman, Minneapolis, Minnesota, U.S.A., 21st October, 1895; 6 years.

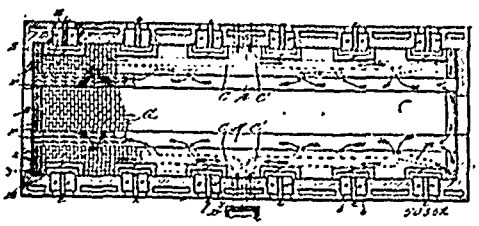
Claim.—1st. In an index book, marginal tabs each containing a plurality of initial letters, the tabs extending beyond sets of leaves, and secondary letters on margins of the leaves of such sets and arranged in suitable groups at the sides of the initial letters to which they relate, substantially as set forth. 2nd. In an index, initial letters on margins extending beyond sets of leaves, and secondary letters on tabs attached to shorter margins of the leaves of the sets, arranged in appropriate groups at the sides of their respective initial letters and varying in colour, substantially as set forth. 3rd. In an index, initial letters on margins extending beyond sets of leaves, and secondary letters on shorter margins of the leaves of the sets and arranged in appropriate groups at the sides of their respective initial letters, substantially as set forth.

No. 50,352. Brick Kiln. (*Four à briques.*)

George S. M. Rutter, Canton, Ohio, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. A brick kiln provided in its bottom with parallel main longitudinal flues A, transverse end flues B, extending to the corners of the kiln and communicating between their ends with the ends of the flues A, the tops of said flues A, B, being foraminated, or intersticed to receive heat and gases from the kiln, auxiliary

longitudinal closed or covered passages C, C¹, communicating with the passages A at different points and leading to a stack, the closed



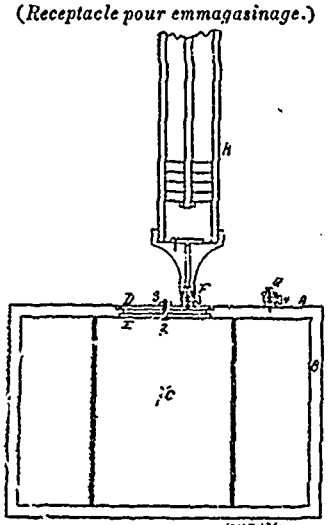
or covered passages E, connecting the inner ends of the flues C C¹, with the ends of the end flues B, to regulate the heat in the extreme corners of the kiln, and a damper or gate mechanism for said flues, substantially as set forth. 2nd. A brick kiln comprising the masonry work, the main chamber or kiln proper, a series of twin furnaces in the side walls of the kiln, each pair of furnaces opening at their rear open ends into a common bag or combustion chamber, a transverse air passage *k* in the bag wall, and having a series of openings *l* leading from it into the bag or chamber, and inlet passages *h h* extending through the furnace walls and up through the bag wall to the respective ends of the passage *k*, parallel longitudinal flues A A in the bottom of the kiln, transverse end flues B B communicating between their ends with said flues A, the flues A, B, having perforated covers, auxiliary longitudinal flues C, C¹, communicating at their one end with the flue A, and also having transverse passages *a* connecting them therewith, flues E E connecting the ends of flues B, B, with opposite ends of the flues C C¹, to regulate the heat in the extreme corners of the kiln, the flues C, C¹, and *a* being closed or covered with respect to the interior of the kiln, a stack into which flues C, C¹ discharge, and a gate or damper mechanism for the flues, substantially as set forth. 3rd. The combination, in a brick kiln, with twin furnaces built into the side of the kiln, and having a common bag or combustion chamber into which their rear ends open, air inlets in the bag wall and discharging into the bag, and air inlet passages leading through the front walls of the furnaces at opposite sides of the door openings inwardly and upwardly to said air inlets of the sliding doors adapted to close the respective air inlet passages when moved from over the door openings, substantially as set forth.

No. 50,353. Fire Extinguisher. (*Extincteur d'incendie.*)

Charles Edgar Kennedy, Reefe Plain, Quebec, Canada, 21st October, 1895; 6 years.

Claim.—The compound of water, common salt, sulphate of ammonia, and liquid ammonia, substantially in the proportions and for the purpose set forth.

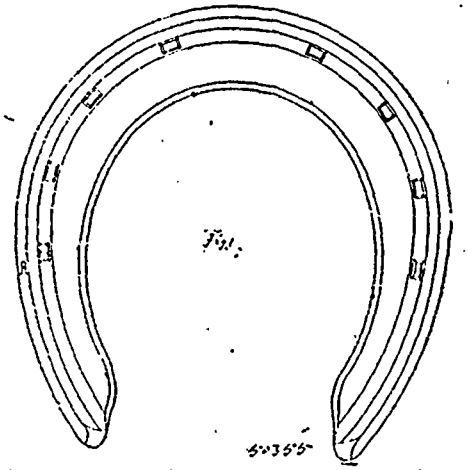
No. 50,354. Storage Receptacle.
(*Receptacle pour emmagasinage.*)



John McPherson, Southwold, Ontario, Canada, 21st October, 1895; 6 years.

Claim.—1st. The combination with a storage-receptacle of an insulating chamber or chambers entirely surrounding the storage-receptacle, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with a storage receptacle enclosed within an insulating chamber or chambers, of an ice chamber or compartment contained within the said receptacle, and means of exhausting the air from any or all the chambers or compartments substantially as and for the purpose hereinbefore set forth.

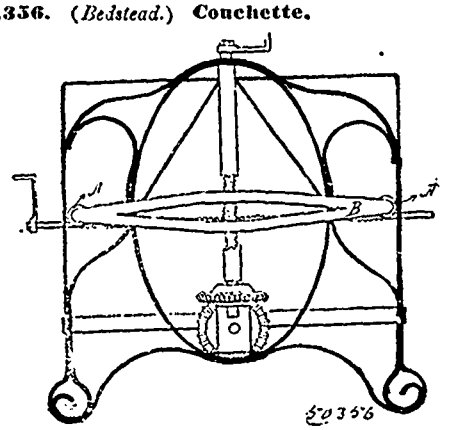
No. 50,355. (*Horse-shoe rim.*) **Nervure de fer a Cheval.**



Charles Lamothe, Montréal, Québec, Canada, 21 octobre, 1895; 6 ans.

Résumé.—La nervure A, comme décrite sur le plan et la section.

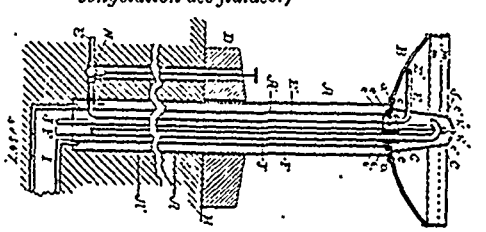
No. 50,356. (*Bedstead.*) **Couchette.**



Calixte Ethier, Montréal, Québec, Canada, 21 Octobre, 1895; 6 ans.

Résumé.—L'arrangement des pièces A, A, avec les pièces B, B, les branches de ces dernières étant légèrement écartées à leur milieu, réunies à leurs extrémités et pliées à angle droit de manière à pouvoir les introduire dans les pièces A, A, le tout tel que décrit et pour les fins indiquées.

No. 50,357. Apparatus for Retarding the Congelation of Fluids. (*Appareil pour retarder la congélation des fluides.*)



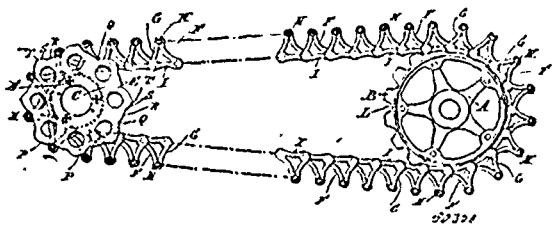
Arnold E. Smith, Ogdensburg, New York, U. S. A., 21st October, 1895; 6 years.

Claim.—1st. A non-congealing apparatus for fluids, comprising a hollow standard communicating directly with the open sewer and containing the supply, waste and air pipes, a fluid receptacle superimposed thereon, a hollow curb, or cover located therein or connected therewith, enclosing the waist and air pipes and imperforate where in contact with the upper portion of the body of fluid in said receptacle, a siphon extension to the waist pipe with its intake located within said curb or cover, and a short distance below the level of the exterior overflow of said receptacle, and a pipe conducting air from the sewer and discharging within said curb, or cover, above the level of the siphon pipe. 2nd. A non-congealing apparatus for fluids, comprising a hollow standard communicating directly with the open sewer and containing the supply and waste pipes, a fluid receptacle superimposed thereon, a hollow curb, or cover located therein or connected therewith, enclosing the intake to the waste pipe and im-

perforate where in contact with the upper portion of the body of fluid in said receptacle, a siphon extension to the waste pipe with its intake located within said curb or cover, and a short distance below the level of the exterior overflow of said receptacle, an air intake to said curb or cover, opening above the level of said siphon pipe, and a fluid supply orifice discharging tangentially into said receptacle outside of said curb or cover. 3rd. A non-congealing apparatus for fluids, comprising a fluid receptacle having a curb, or cover located therein or connected therewith, which is imperforate where in contact with the upper portion of the body of fluid in said receptacle, a waste pipe having its intake located within said curb or cover, a supply pipe discharging into said receptacle outside of said curb or cover, and a pipe conducting air from the sewar and discharging within said curb or cover. 4th. A non-congealing apparatus for fluids, comprising a fluid receptacle having a curb or cover located therein, or connected therewith, which is imperforate where in contact with the upper portion of the body of fluid in said receptacle, a waste pipe having its intake located within said curb or cover, and a supply pipe discharging into said receptacle outside of said curb or cover,

No. 50,358. Cycle Chain and Gear Wheel.

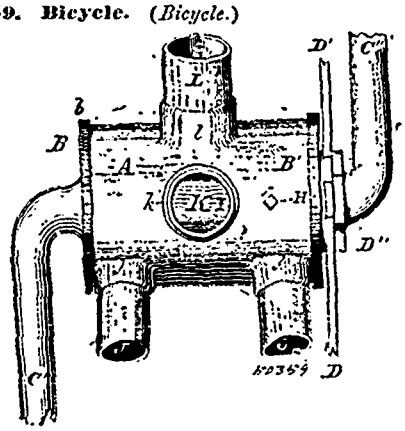
(*Chaine de bicycle et roue d'engrenage.*)



William Speirs Simpson, 49 Battersea Park Road, London, England, 21st October, 1895; 6 years.

Claim.—1st. In a cycle chain, triangular shaped links, pin jointed at J, J, and M, the latter pins projecting outwardly from each side and carrying rollers N, on said outwardly projecting ends, as specified. 2nd. A cycle chain driving wheel appliance mounted on the axle thereof, said appliance having a roller or base socket on which the bases of the chain links bear, said socket having extended sides with shaped peripheries in or on which the pulling power is obtained at a distance from the bearing socket by rollers on projecting ends of the links, as specified. 3rd. In combination with triangular shaped linked cycle chain having joint pins J, J, and M, connecting the side bars and outwardly projecting extensions, carrying rollers N, a wheel composed of discs C, C, with central bearing boss D, and having segmental edges each formed with three curved surfaces R, S, P, on and against which the rollers N, bear and move, as specified.

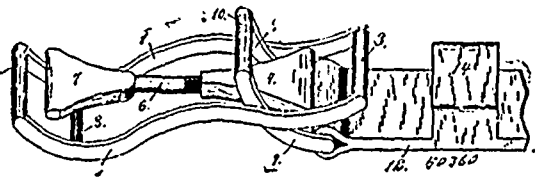
No. 50,359. Bicycle. (*Bicycle.*)



George Seyfang, Buffalo, New York, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. In a bicycle, the crank hanger described consisting of a barrel having in both ends casings, the central bore of one of which is larger than the other, a crank shaft having the pedal cranks formed integral and provided with a swell and collar for one of the cones, and with a further enlargement for the opposite cone, and an adjusting screw-collar upon said last mentioned swell and provided with a set-screw, said adjusting collar being located within the barrel, and the whole constructed and combined in the manner as and for the object set forth. 2nd. In a bicycle, the combination, with the barrel having on both ends removable casings, of a crank shaft having cones as described, and the adjusting nut having the set-screw provided with a collar and wrench section, said barrel having an aperture for the passage of a socket-wrench, whereby said set-screw may be manipulated and prevented from falling out of the collar into the barrel, as set forth. 3rd. In a bicycle, the combination, with the barrel having the wrench-opening as described, of a crank shaft, the enlarged screw-threaded swell on said shaft, a screw-threaded collar upon said swell, and a set-screw in said collar having a flange larger in diameter than the wrench-opening in said barrel, whereby said set-screw is prevented from being entirely screwed out of the collar when in position within the barrel, as specified. 4th. In a bicycle, a crank bracket, in combination with a crank shank being formed integral with the pedal cranks, the said crank shaft with the pedal cranks being adapted to pass through the barrel, as and for the object set forth.

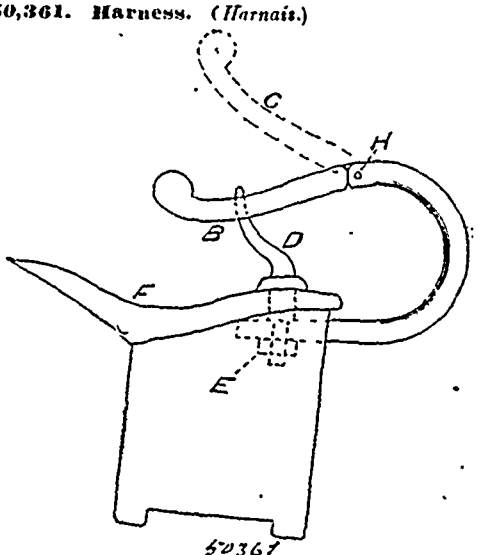
No. 50,360. Harness Buckle. (*Boucle de harnais.*)



Bennett Parkinson, Buffalo, New York, U.S.A., 21st October, 1895; 6 years.

Claim.—A trace or other buckle provided with a base-plate pivoted to the frame, a bearing-plate in screw-threaded adjustable engagement with the pivoted base-plate, an intermediate cross-bar upon which the bearing-plate rests when in operative position, and an end cross-bar between which and the pivoted bearing-plate, the trace or strap is tightly gripped.

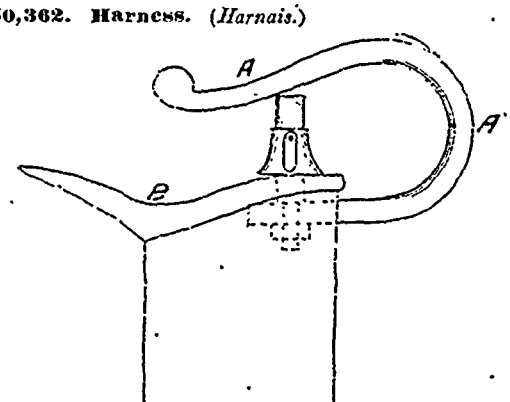
No. 50,361. Harness. (*Harnais.*)



Francis H. Burke, Peterboro', Ontario, Canada, 21st October, 1895; 6 years.

Claim.—The combination in a lock check hook, comprising hook A, B, hinge H, with the key D, and nut E, substantially as and for the purpose hereinbefore set forth.

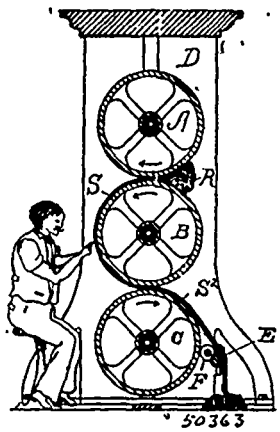
No. 50,362. Harness. (*Harnais.*)



Francis H. Burke, Peterboro', Ontario, Canada, 21st October, 1895; 6 years.

Claim.—A device for preventing check reins working out of the check hook of harness, comprising a hollow bolt D, slot F, nut G, and bolt c, with pin E, in same and pressed out by a spiral spring, all formed as and for the purpose hereinbefore set forth.

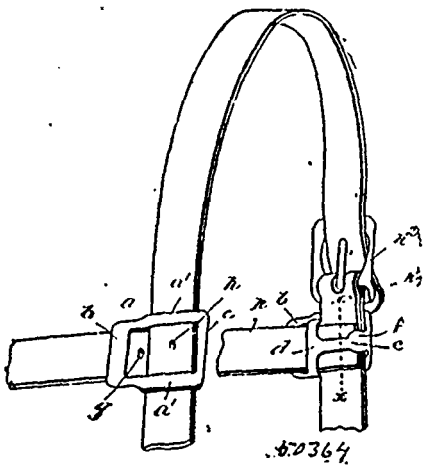
No. 50,363. Art of Treating Plastic Rubber Compound. (*Art de traiter les composés plastique de caoutchouc*)



Wheeler Cable, Boston, Massachusetts, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. The improvement in the art of treating plastic rubber compounds, which consists in spreading such material in a very thin sheet upon a moving surface, inspecting and removing impurities therefrom while so spread and moving, and then thickening said sheet at its forward end and removing the thickened sheet from its carrying surface, substantially as and for the purpose set forth. 2nd. The improvement in the art of treating reclaimed rubber compounds, consisting in spreading such material in a very thin sheet, inspecting and removing impurities therefrom while so spread and moving forward, then transferring such material to a surface moving at a reduced speed, and simultaneously increasing the thickness of the sheet in a corresponding ratio, and subsequently removing the thickened sheet from said surface and depositing it in a mass, substantially as set forth. 3rd. The combination of the calender rollers A, B, geared for moderate surface speed, with the lower calender roller C geared to run at about half said speed, and with the supplementary delivery roller E, driven at somewhat higher speed and adapted to pull the thickened sheet of compound from such slow roller, substantially as and for the purpose set forth.

No. 50,364. Halter Trimmings. (*Garniture de licou.*)

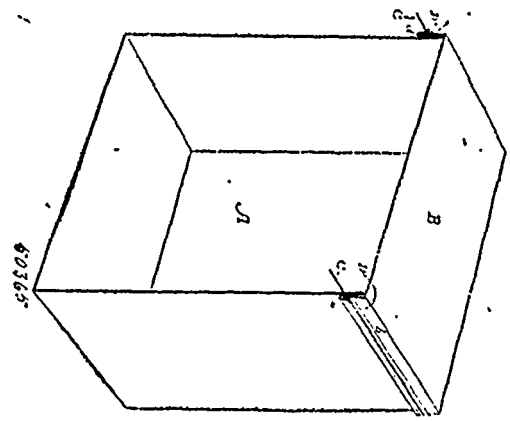


Hilorius E. Wildermuth, Columbus, Ohio, U.S.A., 21st October, 1895; 6 years.

Claim.—A harness trimming consisting of a frame having parallel side and end bars, the side bars a^1, a^1 being inclined downwardly from their inner to their outer edges and being also bent downwardly at one extremity to bring one end bar *b* below the plane of their inner edges. the upper edge of the other end bar *c* being in substantially the same plane as the inner edges of the side bars, a cross bar *d* connected to the side bars and depressed below the body of the frame, an arm *e* connecting the cross bar and the end bar c, said arm being in the same horizontal plane as the cross bar, and studs projecting from the cross bar and the arm, substantially as and for the purpose specified.

No. 50,365. Means for Closing Ends of Cans.

(*Moyen de fermer les boîtes de fer blanc.*)



Andrew Jackson Ritter, Mammoth, Arizona, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. A means for closing the ends of cans and readily opening the same, consisting of a trough or channel on the can body parallel upon itself and then bending it upwardly parallel with the returned portion for a short distance and then bending it outwardly, a cover for the body having a depending flange adapted to enter the channel or trough between the returned portion of the edge of the can body and the upwardly turned portion thereof, a wire fitting said trough or channel and practically filling the space between the outer wall of the flange of the cover and the inner wall of the outwardly bent portion of the edge of the body portion, and a breakable layer of solder bridging the trough or channel over the wire and connecting the wall of the trough or channel with the can cover flange. 2nd. A means for closing the ends of cans and readily opening the same, consisting of a can body having its edges bent downwardly and then upwardly parallel with the body to form a U-shaped channel or trough with its open end presented upwardly, and a can cover having a flange to enter the channel, said channel being enlarged at its upper open end by bending its edge outwardly whereby an essentially V-shaped space is formed between the adjacent walls of the can cover flange and the outwardly bent portion of the trough or channel, a removable wire occupying the base of the V-shaped space and resting in contact with the outwardly bent portion of the trough or channel and the can body flange, and a breakable layer of solder over the wire and bridging the V-shaped space over the wire and connecting the wall of the trough or channel with the can cover flange. 3rd. A means for closing the ends of cans and readily opening the same, consisting of the outwardly folded and upwardly and outwardly bent top of the can body forming an exterior encircling trough or channel, below the top of the can and with its open end presented upwardly, into which the flange of the can cover extends, a removable wire lying in said trough or channel and a breakable layer of solder bridging the trough or channel over the wire and connecting the wall of the trough or channel with the can cover flange.

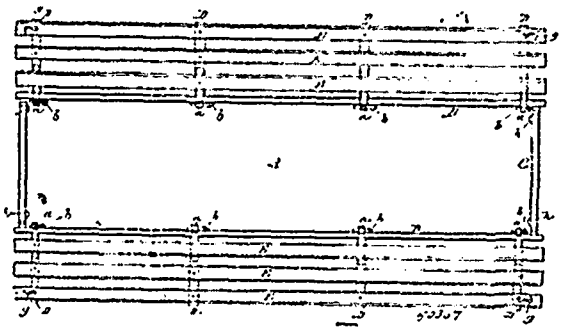
No. 50,366. Sack Holder. (*Accroche-sac.*)

Alexander Mayo, Sheffield, Illinois, U.S.A., 21st October, 1895; 6 years.

Claim.—An improved article of manufacture, a sack-holder comprising a funnel-like body having at the lower outer edges hooks to

support the sack, its ends being flared outward, the top of the front portion being disposed parallel with the bottom, the tops of the ends curving upward and rearward, the rear wall of the body being extended upward to form a shield or guide, the upper edges of which merge with the upper edges of the ends, said extension having apertures near the top, and a projecting handle member formed on the rear face of the body at a point beneath the aforesaid apertures, all arranged substantially as shown and for the purposes described.

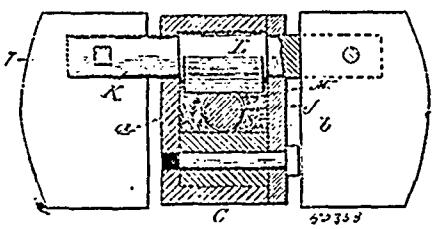
No. 50,367. Combined Hay and Stock Racks for Waggons. (*Ratelier pour wagon et bestiaux combinés.*)



James Adams, Paris, Ontario, Canada, 21st October, 1895; 6 years.

Claim.—1st. A combined hay and stock rack, consisting of a number of arms on each side of a wagon box, being hinged to the same, and constructed with a longitudinal slot in each, metal braces pivoted at their lower ends to a block secured to the outer side of the box, and their upper ends pivoted to an arm, the pivot pin of which is made to pass through the slot and operates therein, and allows the racks to be placed in a horizontal or vertical position, and a key bolt made to pass through each arm above the said pin when the racks are vertical to hold and lock them in that position, substantially as described. 2nd. In a combined hay and stock rack, the arms D constructed each with a slot c and hinged to the sides B, a pair of braces G, G, attached to each arm D by a bolt *e* made to pass through the braces and through a slot c, and the lower ends of the braces secured to a block H by a bolt *d* by which the racks are held in a diagonal or vertical position, substantially as described. 3rd. The combination of the slots E, slotted arms D, sides B, braces G, and lock pins 3, all substantially as described. 4th. The combination of the ends C, C, racks E, E, hooks *g* and eyes *h*, and bottom bolts *t*, *t* through the sides and ends, all substantially as described.

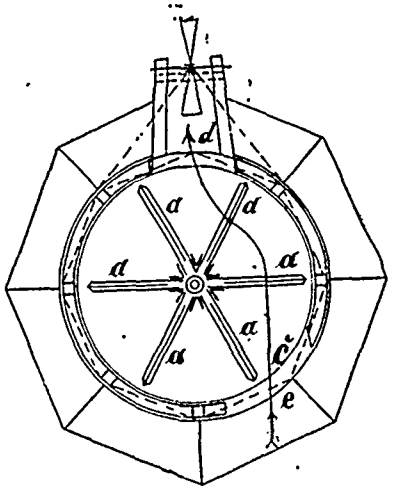
No. 50,368. Paint Agitator. (*Agitateur pour peinture.*)



Thomas Neal, Detroit, Michigan, U.S.A., 21st October, 1895; 6 years.

Claim.—1st. In an agitator for paint, etc., the combination with a receptacle, a shaft in the receptacle, a series of paddles or blades on the shaft and means for turning the blades at an angle to or in line with their line of rotation. 2nd. In an agitator for paints, etc., the combination with a receptacle, a shaft in the receptacle, a series of paddles or blades on the shaft and actuating means for adjusting the blades at an angle to or in line with their line of rotation extending to the outside of the receptacle. 3rd. In an agitator for paints, etc., the combination with a receptacle, a hollow shaft in the receptacle, a series of pins through the shaft, blades thereon, worm segments on the pins, a shaft within the hollow shaft having worm gears meshing with the segments on the pins, and having means at one end outside the receptacle for rotating it to adjust the blades. 4th. In an agitator for paints, the combination with the receptacle, of a hollow shaft therein, a series of adjustable blades thereon, actuating connections for the blades within the hollow shaft extending to the outside of the receptacle, substantially as described. 5th. In a paint agitator, the hollow shaft C, comprising the trough-shaped bottom, and a top, a series of adjustable blades on said shaft, actuating mechanism for the blades within the hollow shaft and a filling of tallow or similar compound in the hollow shaft, substantially as described. 6th. The combination with the receptacle, the shaft C, adjustable paddles, and the actuating shaft J, of the nut Q on a screw-threaded end portion of the shaft J, and the guide pin on the shaft C with which the nut has a sliding engagement, as and for the purpose described.

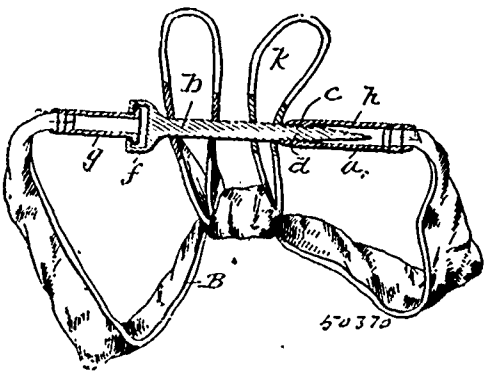
No. 50,369. Wind-Mill. (*Roue à vent*)



Carl Friedrick Krempelsdorf, Lubec, German Empire, 21st October 1895; 6 years.

Claim.—The improvements in wind-mills, having horizontally revolving vanes or sails, consisting in regulating the speed of rotation both by means of an adjustable inlet *opening c* in a casing or chamber surrounding the sails or vanes as well as by means of louvre or venetian shutters arranged on the vanes or sails themselves, whereby regulation may be effected, both when the wind blows high and when it blows in puffs, substantially as described.

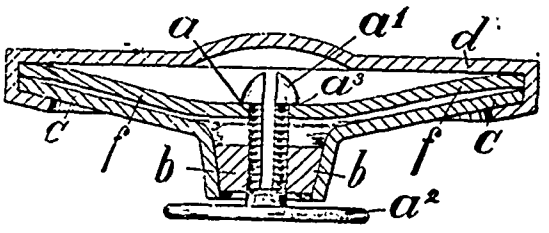
No. 50,370. Shoe Lace Fastener. (*Attache de lacets.*)



Kate Burgin, San Francisco, California, U.S.A., 21st October 1895; 6 years.

Claim.—1st. A shoe lace having a female tip on one end and a pointed male tip on the other having co-operating interlocking parts to secure the lace in a tied position, substantially as specified. 2nd. A shoe lace having a female tip on one end and a pointed male tip on the other end having co-operating interlocking parts, said male tip also having a swivel or loose joint so that it may be turned without turning or twisting the lace to which it is attached, substantially as specified.

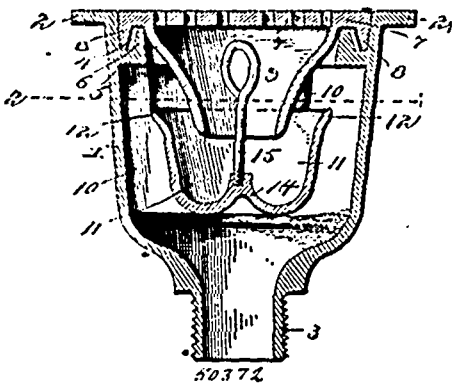
No. 50,371. Self-Fastening Button.
(*Attache automatique de bouton.*)



Carl Fr. Reichelt, Berlin, Prussia and German Empire, 21st October, 1895; 6 years.

Claim.—A self-fastening button consisting of two button plates secured together at their edges, the one plate having a conically-shaped neck at the centre of its under side, a cone nut having a roughened bone fitted within said cone neck, a perforated spring plate also held between the said button plates and a fastening consisting of a shank plate and a split shank having a thickened head adapted to penetrate the cone nut and spring plate and be secured thereto, substantially as described.

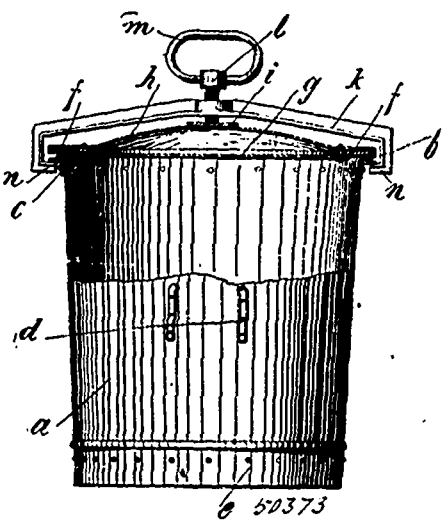
No. 50,372. Stench Trap. (*Puisards d'écoulement.*)



George Dunstan, Lorain, Ohio, U.S.A., 21st October, 1895; 6 years.

Claim.—As an improved article of manufacture, the herein shown and described stench trap, comprising a bowl-shaped casing having its lower end contracted to be fitted into a sewer or waste pipe, and having an interior annular groove 4 at its top, and having ribs 10 integral with and projecting from its inner side and compoundly curved on their inner edges, a sealing bowl 11 having imperforate bottom and sides and removably supported within the casing upon the said ribs, a handle secured centrally to the sealing bowl and extending above the top edge thereof, and a flat perforate cap removably fitted within the upper end of the casing and provided with an integral depending flange fitting within the said interior groove 4, and having an integral depending inverted trunco-conical neck projecting into the sealing bowl below the plane of its upper edge, substantially as and for the purpose described.

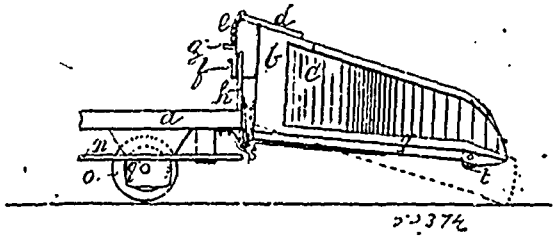
No. 50,373. Vessel for the Removal of Refuse.
(*Vaisseau pour enlever les rebuts.*)



Martin Witt, Neumünster, Holstein, German Empire, 21st October, 1895; 6 years.

Claim.—1st. The hermetically closed receptacle for garbage sweepings and the like having an upper bead-shaped edge *b* and a yielding cover, provided with a tightening ring *f*. 2nd. The combination of the receptacle having the beaded edge *b*, the ring *c* thereunder, the cover having the spring top, the ring *f* and the plate *g*, the yoke *k*, and the screw *l*, having the handle *m*, substantially as set forth.

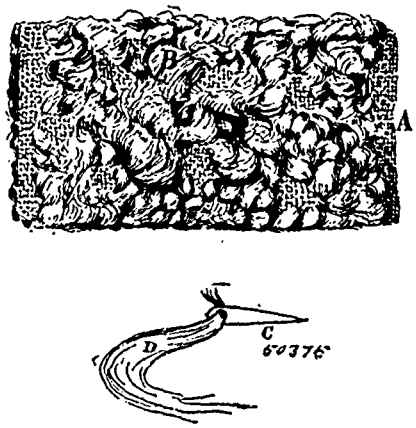
No. 50,374. Railway Snow Plough. (*Chasse-neige de tramway pour déblayer la voie des chemins de fer urbains.*)



Olivier Malette, Montréal, Québec, Canada, 23 Octobre, 1895; 6 ans.

Résumé.—1° Dans un chasse-neige de tramway, la combinaison du tablier *r* avec l'oreille courbe *c* recouverte d'un rebord, et du crampon *d* supportant une chaîne *e*, tel que ci-dessus décrit et pour les fins indiquées. 2° Dans un chasse-neige de tramway, la combinaison des charnières *k* avec les charnières *m* et les axes *l* ainsi que les équerres *s*, tel que ci-dessus décrit et pour les fins indiquées. 3° Dans un chasse-neige de tramway, la combinaison du devant de la voiture *h* avec le loquet *j* se rabattant sur les axes *l*, tel que ci-dessus décrit et pour les fins indiquées. 4° Dans un chasse-neige de tramway, la combinaison du crampon *f*, assujéti au derrière du chasse-neige *b*, avec le levier *q* attaché au devant de la voiture du tramway et se rabattant sur le crampon *f*, tel que ci-dessus décrit et pour les fins indiquées.

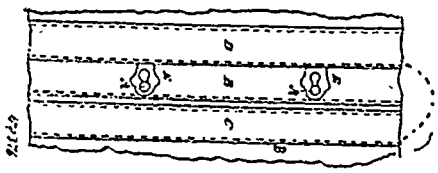
No. 50,375. Imitation Persian Lamb. (*Art de fabriquer des imitations textiles de pelleterie de mouton de Perse.*)



Ludger Beauregard, St. Joseph, Lévis, Québec, Canada, 23 octobre, 1895; 6 ans.

Résumé.—1° La manière d'arrêter le premier point de couture E, par un nœud tel que décrit. 2° La manière d'arrêter chaque point de couture ou frisure par un nœud tel que décrit. 3° La manière d'arrêter le dernier point de couture ou frisure par un nœud tel que décrit. 4° La combinaison du premier point de couture, ainsi fixé par un nœud, avec le deuxième point de couture, et le nœud pour le fixer, et les nœuds subséquents à chaque frisure, et le nœud final pour fixer le dernier point de couture tel que décrit et pour les fins indiquées.

No. 50,376. Corset Fastening. (*Attache de corset.*)



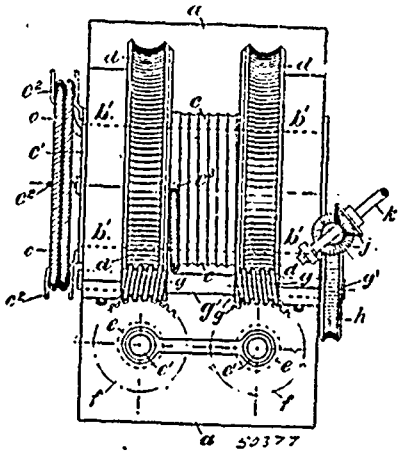
James Constable Gilroy, Clinton, Ontario, Canada, 23rd October, 1895; 6 years.

Claim.—The placing of studs A, upon the broad under steel B and their combination, with steel D, eyelets E, and steel fly C, substantially as and for the purposes hereinbefore set forth.

No. 50,377. Winch. (*Manivelle.*)

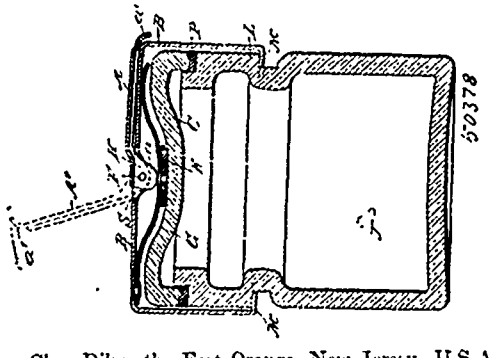
James Bell, West Derby, William Charles Melville, Liverpool, and James William Foster, Chester, all in England, 23rd October, 1895; 6 years.

Claim.—1st. In machinery for hauling wire ropes of large size, the combination of a barrel adapted to have wound upon it in a single



coil, the part of the rope being used, and a secondary barrel or reel rotated at the same rate of revolution as the winding barrel, and adapted to carry the part of the rope not being used, said rope being passed from said winding barrel, to said secondary reel or barrel, substantially as described. 2nd. In machinery for hauling wire ropes of large size, the combination of a barrel adapted to have wound upon it in a single coil, the part of the rope being used, a secondary barrel or reel rotated at the same rate of revolution as the winding barrel, and adapted to carry the part of the rope not being used, said rope being passed from said winding barrel to said secondary barrel, and a wire rope-gripping device carried with said parts, by which the rope is held, substantially as described. 3rd. In machinery for hauling wire ropes of large size, the combination of a hollow winding barrel adapted to have wound upon it in a single coil, the part of the rope being used, a secondary barrel or reel rotated at the same rate of rotation as the winding barrel, and adapted to carry the part of the rope not being used, said rope being passed from said winding barrel to said secondary reel or barrel through the interior of said barrel, and a wire rope-gripping device mounted in the interior of and carried with said winding barrel, through which said rope between the two barrels passes, and by which it is held, substantially as described. 4th. In machinery for hauling wire ropes of large size, the combination of a hollow winding barrel *c* adapted to have wound upon it a single coil the part of the rope being used, a secondary barrel or reel rotated at the same rate of revolution as the winding barrel, and adapted to carry the part of the rope not being used, the rope being passed thereto through the interior of said winding barrel, and frictional curved guides c^4 on the interior of the barrel, over which the rope is passed, and by which friction is put upon it, substantially as described. 5th. In machinery for hauling wire ropes of large size, the combination of hollow winding barrel *c*, guide supporting bearings *b*, b^1, a secondary barrel or winch c^2, on the end of the barrel *c*, carrying the unused portion of the rope, a worm wheel *d*, fixed on each end of the barrel *c*, and vertical driving worms *e*, meshing with the worm wheels *d*, and supported by thrust bearings at their lower ends, substantially as set forth. 6th. In machinery for hauling wire ropes of large size, the combination of a hollow winding barrel *c*, the worm wheel *d*, a worm *e*, driving the wheel D, a piston *r*, on which the foot of the shaft of the worm *e* is supported, and cylinder *s* in which said piston works, and adapted to contain liquid on which said piston floats, substantially as and for the purposes described.

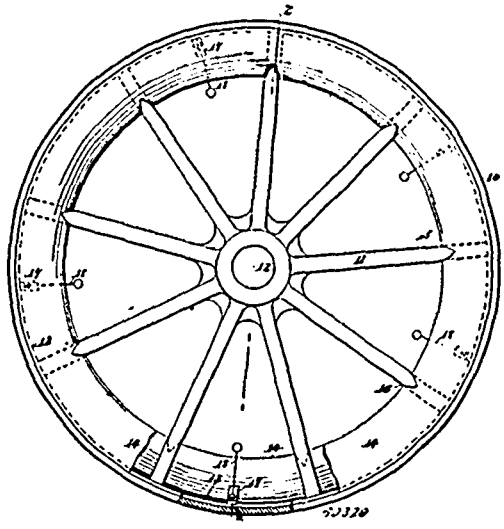
No. 50,378. Fruit Jar Clamp. (*Lien pour jarres à fruit.*)



Henry Clay Dilworth, East Orange, New Jersey, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. As an improved article of manufacture, a fruit jar clamp, comprising a clamping piece shaped to fit over the top of a fruit jar, a spring fastened at one end to the clamping piece and loose at the other and adapted to exert pressure upon the jar cap, and compressing means carried by the clamping piece for engaging the said spring, substantially as and for the purpose set forth. 2nd. As an improved article of manufacture, a fruit jar clamp comprising a clamping piece shaped to fit over the top of the fruit jar, a spring secured to the clamping piece, and adapted to exert pressure on the top of the jar cover, and a cam lever carried by the clamping piece and adapted to engage the said spring, substantially as described. 3rd. A fruit jar clamp, comprising a clamping piece shaped to fit the top of the fruit jar and provided with a slot and lugs at the sides of the slot, a curved spring fastened at one end to the under side of the clamping piece and extending beneath the slot, a cushion secured to the under side of the spring and adapted to press on the jar cap, and a cam lever journalled between the lugs of the clamping piece and adapted to bear on the springs directly above the said cushion, substantially as described.

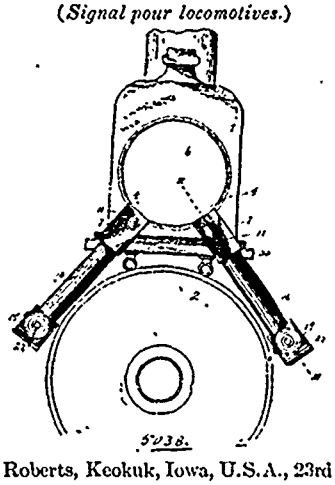
No. 50,379. Wheel. (*Roue.*)



Chilion Turner Pelton, Riverside, California, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. A wheel comprising a flat rim having a hub and spokes connecting the hub and rim, said rim having flanges on each side, and cover plates on each side of said rim and provided with latches located inside the cover plates and detachably engaging said flanges on the rim, said latches having handles located outside the cover plates, substantially as set forth. 2nd. A wheel comprising a hub, a rim having flanges near the opposite edges of its inner face, spokes connecting the hub to the rim, and cover plates having their edges fitting inside the wheel rim with their flanges abutting on the flanges thereon, said cover plates being provided with the spring latches detachably engaging flanges at opposite sides of the rim, substantially as set forth.

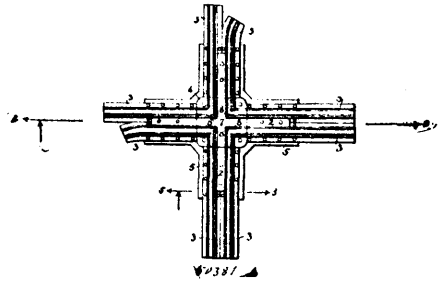
No. 50,380. Signal-Light for Locomotives.
(*Signal pour locomotives.*)



James Russell Roberts, Keokuk, Iowa, U.S.A., 23rd October, 1895; 6 years.

Claim.—The combination with the headlight of a locomotive, of a downwardly extending tubular conduit leading from the headlight, and a signal-light box at the lower end of the conduit located so as o appear in the dark shadow between the headlight and pilot-beam, substantially as described.

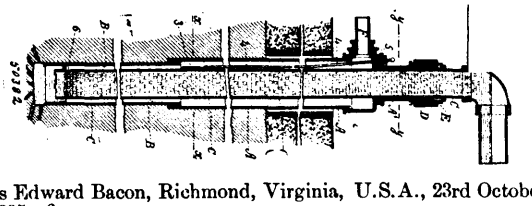
No. 50,381. Railway Frog. (*Rail de croisement.*)



John C. Shipman, Sunbury, Pennsylvania, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. In a crossing frog, the combination with the base block having a central platform, and arms radiating therefrom to which main and guard rails may be attached, of an angle block adapted to be seated upon the platform and provided on its upper surface with intersecting grooves and angular ridges or rails, substantially as described. 2nd. In a crossing frog, the combination with the base block having a central platform provided with V-shaped grooves and having arms, of an angle block adapted to rest on the platform and provided on its lower surface with ridges corresponding to the grooves and on its upper surface with angular ridges or rails separated by intersecting grooves, substantially as described. 3rd. In a crossing frog, the combination with the base plate, consisting of a central platform and arms radiating therefrom and adapted for the attachment of the rails, of a foundation plate beneath the base block connected thereto by rivets or bolts and an angle block seated upon the platform and provided with angular rails upon its upper surface separated by intersecting grooves, substantially as described. 4th. In a crossing frog, the combination with the base block having a central platform and radiating arms, and a central perforation, of an angle block adapted to rest on the platform and provided with a post or stud upon its lower side, and means for retaining the post in the perforation of the base block, the upper side of the angle block being provided with angular rails and separated by intersecting grooves, substantially as described. 5th. In a crossing frog, the combination with the base block having radiating arms and a central platform, of the rails attached to the arms, the foundation plate beneath the rails and the base block and connected thereto, and the angle block arranged upon the platform, and means for securing the angle block to the base block, substantially as described.

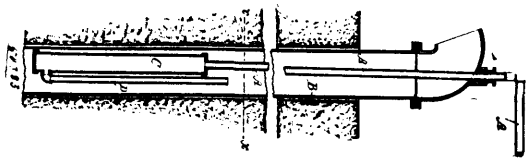
No. 50,382. Water-Raising Apparatus.
(*Appareil alimentateur d'eau.*)



James Edward Bacon, Richmond, Virginia, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. The combination in a water-elevating apparatus, of an up-take pipe, a surrounding tube extending to the lower end of the up-take pipe, or nearly so, an air-tight connection between the up-take pipe and its surrounding tube, and a pipe for supplying air or other fluid under pressure, an opening in the up-take pipe above the lower end thereof, a valve for opening or closing that opening, and a rod extending to the top of the well for operating the valve, substantially as and for the purposes set forth. 2nd. The combination in a water elevating apparatus with a drilled well, of an up-take pipe, a tube within the well surrounding the up-take pipe and extending below the lower end of the same, and an air-tight connection between the upper end of the exterior tube and the up-take pipe for forming an air chamber around the up-take pipe, and a pipe for supplying air or other fluid under pressure into the air chamber whereby the air chamber and the up-take pipe are of as great capacity as the drilled well is adapted to receive, there being two or more openings in the up-take pipe at different elevations, and a valve and means for opening or closing the same from the top of the well for regulating the inlet of air to the up-take pipe, substantially as set forth. 3rd. The method herein specified of discharging liquid from a well consisting in providing an up-take pipe extending above the top of the well and having two or more air inlets at different levels, and an air-tight space within which air under pressure can act upon the water standing at the ordinary level in such space and force the same down until the air escapes into one of the openings in the up-take pipe and continuing the air pressure and discharge of water until the level of water in the confined chamber descends in consequence of the level of the water in the well descending until the air escapes through the second opening in the up-take pipe, substantially as set forth.

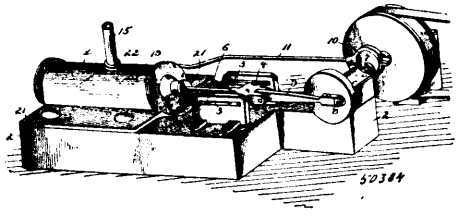
No. 50,383. Water-Raising Apparatus.
(*Appareil alimentateur d'eau.*)



James Edward Bacon, Richmond, Virginia, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. In an ejecting apparatus for wells, the combination with the up-take pipe, of a long air chamber near the lower end of the up-take pipe, a tube for supplying air into such chamber, and a pipe open at both ends and extending up from near the lower end of the air chamber into the up-take pipe above such air chamber and delivering a continuous jet of air into the water in the up-take pipe, substantially as specified. 2nd. A tubular well lining forming an up-take pipe and having a delivery upper end, in combination with an air forcing pipe, a long air chamber within and near the lower end of the tubular lining and to which the lower end of the air forcing pipe is connected, and a discharge pipe or nozzle receiving air from the lower part of the chamber and delivering the same as a continuous jet into the up-take pipe above such air chamber, substantially as specified.

No 50,384. Steam Engine. (*Machine à vapeur.*)

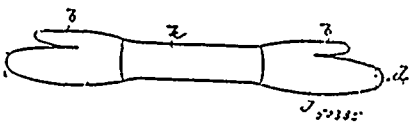


Taylor Ballew, Spring Creek, Missouri, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. An engine comprising a cylinder having a centrally-disposed ingress port and end exhaust ports, a reciprocating piston within the cylinder comprising heads which have passages therethrough and which enclose a space which is in communication with the ingress port, and a cut-off valve adapted to operate between the piston heads and close the passages therein, substantially as described for the purpose set forth. 2nd. An engine comprising a cylinder having a centrally-disposed ingress port and having end exhaust ports, a piston adapted to operate in the cylinder and provided with two heads which are located a distance apart and enclose a space which is in communication with the said ingress port, said heads having passages therethrough and connected by a casing, and a cut-off valve adapted to operate in the said casing to close the passages in the piston heads, substantially as described for the purpose set forth. 3rd. An engine comprising a cylinder having a centrally-disposed ingress port and having end exhaust ports, means for controlling the said exhaust ports, a piston adapted to operate in the cylinder and comprising two heads which are provided with passages, and which enclose a space that is in communication with the ingress port, and a cut-off valve adapted to operate between the piston heads and close the passages therethrough, substantially as described for the purpose set forth. 4th. The combination with a cylinder having a centrally-disposed ingress port and end exhaust ports, a valve for controlling the said exhaust ports and actuating mechanism therefor, of a piston comprising two heads located a distance apart and enclosing a space which is in communication with the said ingress port, and which have passages therethrough, a casing connecting the piston heads and having openings in its sides, and a cut-off valve adapted to operate in the said casing and close the passages in the piston heads, substantially as set forth. 5th. An engine comprising a cylinder having a centrally-disposed ingress port and having lateral flanges by means of which it is secured upon its bed, and having the lower portion thickened and provided with exhaust passages which communicate with the opposite ends of the cylinder and with an exhaust pipe, a valve at the junction of the exhaust passages and adapted to establish communication with one of the said exhaust passages and the exhaust pipe at a time, said valve being mounted in the thickened portion of the cylinder, a piston

located in the cylinder and comprising two heads which enclose a space in communication with the ingress port, and which have passages therethrough, a casing connecting the piston heads and having openings in its sides, and a cut-off valve adapted to operate in the casing, substantially as described for the purpose set forth.

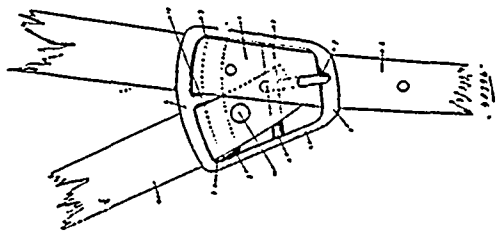
No. 50,385. Mittens and the Art of Making the same. (*Machine à tricoter des mitaines.*)



Augustus Ross Burpee, Laconia, New Hampshire, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. A double knit mitten formed from a single length of cut goods and having seams along the tips and inner sides of the thumb portions and along the tips and sides of the hand portions adjacent to the thumbs, the edges of the goods of the inner double part or portion along the seam of the thumb and side of the hand facing outward and opposite the inner surface of the outer double part or portion, and the edges of the goods along the seams of the latter part or portion facing inward and opposite the outer surface of the former part or portion. 2nd. The improvement in the art of making double knit mittens which consists in taking a suitable length of a tubular web folded inside out, properly cutting the same to form thumb and hand portions, then uniting the edges excepting at one end, then turning the web right side out and uniting the edges at the said end, and finally folding the part having the end last united or closed inside of the other part.

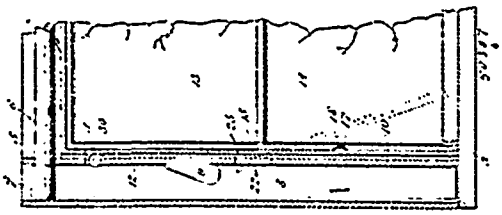
No. 50,386. Buckle. (*Boucle.*)



Johnson Marsh Soper, Windsor, Ontario, Canada, 23rd October, 1895; 6 years.

Claim.—1st. The buckle herein described, comprising the side bars 2, 2, cross bars 3, 4, 5 and 6, and the tongue pivoted on the cross bar 4, the cross bar 5 being on a lower plane than the bar 6, substantially as described. 2nd. As an improved article of manufacture, a buckle comprising the side bars 2, connected by the cross bars 3, 4, 5, 6, said cross bar 4 carrying a loose tongue whose upper end bears against the bar 3, and the bar 5 being on a lower plane than the bar 6, substantially as described.

No. 50,387. Window. (*Fenêtre.*)

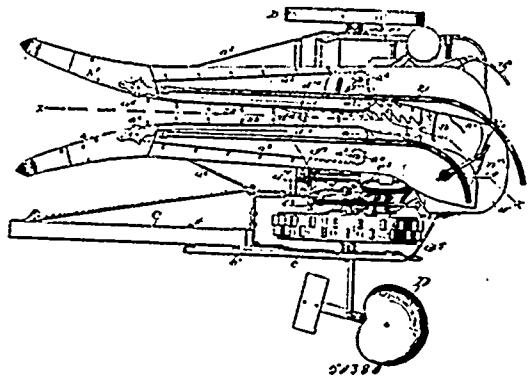


Judson A. Cleveland, Duluth, Minnesota, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. The combination, with the window frame having the openings 22, the upper filling-board provided with guide-ribs having grooves, the lower filling-board meeting the upper filling-board opposite said opening and also provided with ribs having grooves, pulleys arranged above the openings, weight-wires arranged over the pulleys, weights at the inner ends of the wires and rings at the outer ends thereof, said wires lying within the grooved ribs of the upper filling-boards, the ends of which act as stops for the rings when the lower filling-boards are removed, of sashes removably arranged in the frame and grooved to receive the ribs and provided with circular recesses adapted to receive the rings in a removable manner and retain the same by contact of their walls with the rings, substantially as specified. 2nd. The combination with a window-casing, having its sides extended above its top-sill, a transverse shaft loosely journalled in openings formed in said extended portions and terminating above the weight-boxes of the frame, and a partition-strip let into the ends of the shaft and depending loosely in the boxes, window-sashes, pulleys, wires passing over the same and connected to the sashes, and weights connected to the wires within the boxes at opposite sides of the partition, substantially as specified. 3rd. The combination, with a window-frame, its pulleys, weight-wires and weights, of sashes having circular recesses formed in their side-rails, split expanding rings connected to the wires and adapted to be compressed to enter the recesses and when released to expand and engage the same, substantially as specified. 4th. A window-frame having its usual guide-ribs provided at their outer edges or faces with open contractible longitudinal grooves, in combination with sashes grooved to span the grooves of the ribs and to receive said ribs, substantially as specified. 5th. The combination with a window-frame having inner and outer stop-beads, of an intermediate filling-board having intermediate guide and spacing ribs grooved longitudinally, and window sashes having grooves to receive the guide-ribs, substantially as specified. 6th. The combination with a window-frame having inner and outer stop-beads, of an inner filling-board provided with space and guide-ribs grooved at their inner edges and cone-shaped in cross-section, and sashes grooved to receive the guide-ribs, substantially as specified. 7th. The combination with a window-frame having its inner face provided with grooved guide and spacing-ribs, of sashes grooved to receive the guide-ribs, substantially as specified. 8th. The combination with a window-frame, the inner boards of which are provided with openings extending above their middles, and independent filling boards arranged removably on said board and meeting a distance above the meeting rails of the sashes equal to the depth of the head of the window-sill, and provided with grooved guide-ribs, of sashes grooved between their edges to receive said ribs, pulleys arranged in the upper portion of the frame, and weight-wires arranged on the pulleys detachably connected to the sashes and arranged in said grooves, substantially as specified. 9th. The combination with a window-frame, the inner board of which is provided with the openings 22, the upper and lower independent filling-boards 23 and 24, the former being undercut and terminating at the upper edge of the opening 22, and the latter bevelled to correspond therewith and extending from such joint to the lower sill, guide-ribs arranged on said filling-boards, and screws for retaining the boards in position, substantially as specified.

No. 50,388. Corn Harvester.

(*Moissonneuse pour le blé d'inde.*)

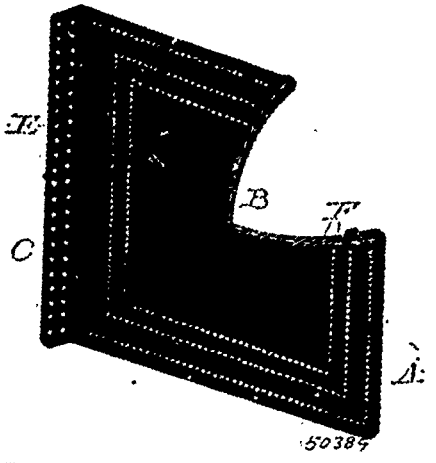


D. M. Osborne & Co., assignee of Charles Stephen Sharp, both of Auburn, New York, U.S.A., 23rd October, 1895; 6 years.

Claim.—1st. In a corn harvester, reciprocating feeding jaws, moving toward each other to grip the corn, and rearwardly to present it to the cutter. 2nd. In a corn harvester, two or more pairs of successively acting feeding jaws, arranged with their acting edges facing each other, the jaws of each pair moving toward each other to grip the corn, and moving rearwardly to feed the corn along. 3rd. In a corn harvester, two or more pairs of four-motion feeding jaws, arranged with their acting edges facing each other, and acting successively to grip and feed along the corn. 4th. In a corn harvester, a continuous upper or stalk feeding device, and a lower or butt-feeding device comprising reciprocating feeding jaws, arranged with their acting edges facing each other, adapted to grip and feed along the corn. 5th. In a corn harvester, a continuous upper or stalk feeding device, and a lower or butt-feeding device consisting of two pairs of successively acting feeding jaws or plates, arranged with their acting edges facing each other, and adapted to successively grip and feed along the corn. 6th. In a corn harvester, a continuous upper feeding device composed of a pair of continuously moving chains and a butt-feeding device consisting of a plurality of four-motion reciprocating jaws, arranged to approach and recede from each other to grip and feed along the corn. 7th. In a corn harvester, a butt feeding device comprising a pair of four-motion feeding jaws at a speed corresponding to the speed of the machine, and arranged to approach and recede from each other to grip and feed along the corn, combined with a pair of stalk-feeding chains moving at a faster speed than the butt-feeding jaws, substantially as described. 8th. In a corn harvester, reciprocating feeding jaws moving toward each

other to grasp the corn, and rearward to present it to the cutter, and deliver it to the binder

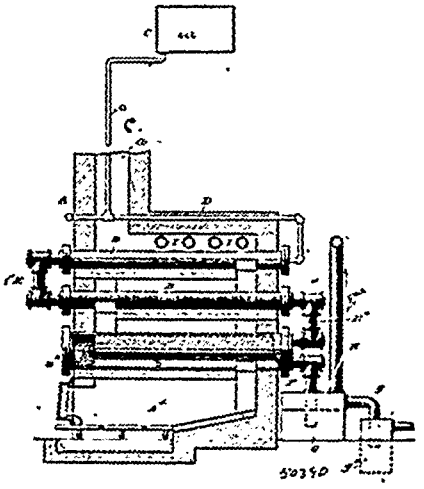
No. 50,389. Bridle-blinder. (*Œillères de bride.*)



The Butler Hard Rubber Company, New York, assignee of William Kiel, Butler, New Jersey, both in the U.S.A., 24th October, 1895; 6 years.

Claim.—The bridle-blinder substantially as described, comprising a perforated plate forming a core, and layers of hard rubber upon each side of the core extending through the perforations thereof and vulcanized thereto.

No. 50,390. Gas Retort. (*Cornue à gaz.*)



The American Incandescent Gas Company, Kansas, assignee of Thomas Hennessy, Excelsior Springs, both in Missouri, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. The combination of the retorts, one of which has upper passages b, b, and lower passage b^1, and serves as a fixing chamber, a pipe leading from said retort to the seal, a gas-conveying pipe leading from the seal to the exhauster, an oil supply pipe for the retorts which is so situated as to be heated from the products of combustion arising from the furnace, and the air supply pipe located above the retorts and connecting by a suitable pipe with the gas-conveying pipe, all arranged so that the air and gas may be separately heated before being mixed, substantially as described. 2nd. In a gas retort for making gas from oil and other carboniferous matter, the combination of the retort in which the gas is formed, the cooling device which receives the gas therefrom, an air supply pipe within which air is heated to a high temperature, a passage leading from the cooling device to the air supply pipe so that the cooled gas may be united with the previously heated air, substantially as described.

No. 50,391. Plug for Telephone Switch Boards.
(*Cheville pour échange de téléphone.*)

The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner and Frank McBerty, both of Chicago, Illinois, U.S.A. 24th October, 1895; 6 years.

Claim. 1st. In a connecting plug, the combination with a central conducting stem forming a conduit, of two contact portions carried

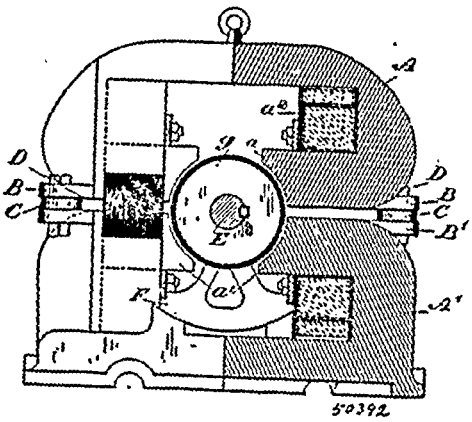
thereby and suitably insulated the one from the other and one insulated from such stem or conduit, and a wire extending through such conduit from the contact insulated from the stem, for the purpose set forth. 2nd. In a connecting plug, the combination with a tube forming or carrying one contact portion of the plug, of a second contact portion secured upon a projecting portion of said tube, and a wire extending from said second contact portion through the tube to the interior of the plug, substantially as described. 3rd. In a connecting plug, the combination with a tubular stem or conduit forming or carrying one contact portion of the plug, of a second contact portion secured upon a projecting portion of said stem or conduit, and a wire extending from said second contact portion through the conduit to the interior of the plug, substantially as described. 4th. The combination in a connecting plug, of a tube carrying one contact surface in an intermediate position, a second contact portion supported upon the projecting extremity of said tube but insulated therefrom, and a conductor extending from said second contact portion through the tube to a suitable connecting post within the body of the plug, substantially as described. 5th. The combination with a tube of conducting material carrying a collar or sleeve forming one contact portion of a connecting plug, but projecting beyond said collar, of a spherical tip constituting another contact piece of the plug supported upon the projecting extremity of the tube but insulated therefrom, and an insulated conductor extending through the tube and connected with the spherical tip, substantially as described. 6th. In combination, a conducting tube carrying a collar, constituting one contact piece of the plug but projecting beyond the same, the projection being enlarged at its outer extremity, a spherical tip constituting another contact piece of the plug having an axial opening corresponding in shape to the enlarged projection of the tube, insulating material filling the perforation in the tip about the tube, and an insulating conductor connected with the tip and extending through the tube, substantially as described. 7th. In combination, a tubular body or shank of a connecting plug having a portion formed into a contact piece for a spring-jack, a conducting tube extending longitudinally therein but insulated therefrom, a collar carried upon said tube constituting a second contact piece of the plug, said tube projecting beyond the collar, a spherical tip secured upon said projecting extremity of the tube but insulated therefrom, a conducting wire connected with said tip and extending through said tube, and independent means for connecting with both the tube and the conducting wire within the body of the plug, substantially as described. 8th. The combination with the tube g, of the spherical tip a having the lip a^2 formed thereon, said spherical tip being secured upon said tube but insulated therefrom, and a conducting wire connected with said tip within its central perforation, and extending through the tube, said lip a^2 being finally turned down to close the opening in the tip, substantially as described. 9th. The combination with the tube g carrying the collar b, and having the enlarged projecting extremity, of the sleeve t of insulating material surrounding said extremity, the tip a having an axial perforation corresponding in form to said enlarged extremity, and having the lip a^2 formed upon it, the insulating washer l placed over the extremity of the tube g, said lip a^2 being turned in to compress the enlarged portion of said tube into the corresponding opening of the tip to secure the latter firmly in place upon the tube, substantially as described. 10th. In combination with the lip a having the lip a^2 formed thereon, the tube g to which the said tip is secured, the washer l of insulating material covering the extremity of said tube, the conducting plate n forming the terminal of conductor m, and the soft conducting material o placed over the plate n, whereby when the lip a^2 is turned down the conducting material is compressed and caused to make perfect contact between the plate n and the tip a, substantially as described.

No. 50,392. Electric Motor. (*Moteur électrique.*)

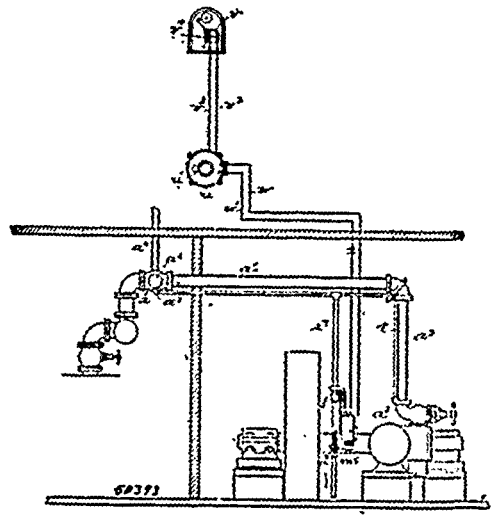
The John Abell Engine and Machine Works Company, assignee of James Watson Easton, Toronto, Ontario, Canada, 24th October, 1895; 6 years.

Claim.—1st. In an electric motor the combination with the armature secured to the shaft, which is suitably journalled, of field magnets having divided cores, the halves of which are separated by an air gap and are magnetically insulated from each other as and for the purpose specified. 2nd. In an electric motor the combination with the armature secured to the shaft, which is suitably journalled, of the top and bottom continuous frames A, and A^1, having the top halves of the cores forming part of the top frame and the bottom halves forming a portion of the bottom frame and lugs B, and B^1, forming part of the top and bottom frames respectively, the brass

collars separating the lugs and bolts for securing the lugs together as and for the purpose specified. 3rd. In an electric motor the combination with the shaft, of an armature comprising a cylindrical core secured to the shaft having reduced ends, insulated wrapping extending around the reduced ends and an insulated wrapping extending around the shaft and the entire core, and the wiring suitably wrapped around the core as and for the purpose specified.



No. 50,393. Apparatus for Stopping Engines.
(*Appareil pour arrêter les machines à vapeur.*)



Gilman Weld Brown, West Newbury, Massachusetts, U.S.A., 24th October, 1895; 6 years.

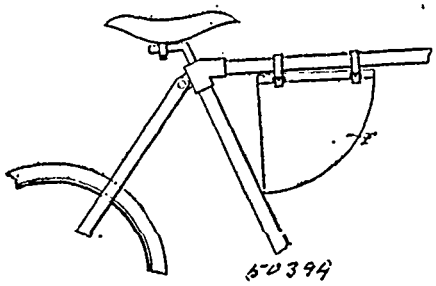
Claim.—1st. As a means for stopping an engine, a casing or conduit provided with a steam-outlet, a normally closed outlet-valve, a normally open shut-off valve, a normally inoperative pressure-actuated motor for simultaneously opening the outlet-valve and closing the shut-off valve, and a let-off device whereby the motor may be made operative. 2nd. As a means for stopping an engine, a casing or conduit provided with a steam-outlet and with a cylinder having a vent, a normally closed outlet-valve, and a normally inoperative governing piston movable in said cylinder and connected with the outlet-valve, said piston being operative by the steam pressure to open the outlet-valve when the vent is open. 3rd. As a means for stopping an engine, a casing or conduit provided with a steam-outlet and with a cylinder having a vent, a piston movable in said cylinder, a normally closed outlet-valve, and a normally open shut-off valve connected with said piston, the piston being operative by the steam pressure to open the outlet-valve and close the shut-off valve when the said vent is opened. 4th. A casing adapted to form part of a steam conduit and provided with a steam-outlet, a cylinder having a vent, and a partition having two steam-ports or passages, combined with a valve located between the outlet and one of said ports and adapted to be held against the outlet by steam pressure, a piston connected with said outlet-valve and located in said cylinder, and a shut-off valve connected with the outlet-valve and piston and adapted to close the other port or passage. 5th. An engine-stopping apparatus comprising a casing provided with a steam-outlet and with a cylinder having a vent, an outlet-closing valve within the casing adapted to be held in its closed position by the steam pressure, and a piston connected with the outlet-valve and located in the cylinder, said piston being formed to admit steam around it to the cylinder and maintain a balancing pressure therein, and means for opening said vent to release the said pressure and unbalance the piston. 6th. As a means for stopping an engine, a casing adapted to form a part of the steam conduit which supplies the engine and provided with a steam-outlet and with a cylinder having a vent, an outlet-closing valve within the casing adapted to be held in its closed position by the steam pressure, a valve-governing piston movable in said cylinder and connected with the outlet-valve, a valve adapted to close said vent, a valve-operating device adapted to be set for action, and a trigger or trip whereby said operating device may be released. 7th. As a means for stopping an engine, a casing adapted to form a part of the steam conduit which supplies the engine and provided with a steam-outlet and with a cylinder having a vent, an outlet-closing valve within the casing adapted to be held in its closed position by the steam pressure, a valve governing piston movable in said cylinder and connected with the outlet-valve, a valve adapted to close said vent, an external arm connected with the valve, a valve-operating weight movable on a fixed guide into and out of contact with said arm, a trigger or trip formed to engage said weight and hold it in an elevated position, and an electrically controlled trigger-locking and releasing device. 8th. A casing adapted to form a part of a steam conduit and provided with an offset partition between its receiving and discharge ends, said partition having two ports connecting the ends of the conduit, a steam-outlet at the discharge side of said partition, a valve-seat surrounding said outlet, and a cylinder also at the discharge side of the partition and provided with a vent, said valve-seat, ports, and cylinder being arranged in line with each other, combined with a piston located in the cylinder and prevented from moving therein when the vent of said cylinder is closed, a shut-off valve and an outlet-valve connected with said piston, and means for opening and closing the said vent. 9th. The combination of a steam conduit having a cylinder, a piston movable in said cylinder, a shut-off valve connected with said piston, a vent controlling the operation of said piston and valve as described, and speed-controlled means for opening said vent. 10th. A safety appliance for a steam conduit, the same comprising a casing forming a part of said conduit and provided with a cylinder, a piston movable in said cylinder, a shut-off valve in said casing connected with the piston, a vent controlling the operation of said piston and valve, and means whereby said vent may be opened. 11th. A safety appliance for a steam conduit, the same comprising a casing forming a part of said conduit and provided with a cylinder, a piston movable in said cylinder, a shut-off valve in said casing connected with the piston, and a closed tube communicating at one end with the cylinder and extending therefrom along the conduit, said tube being attached to the conduit, so that in the event of breakage of the conduit the tube will be broken and constitute a vent for the cylinder. 12th. In an apparatus of the character specified, the combination with a vent-controlling valve, of an actuator therefor adapted to be set for action and to open the valve when released, and speed-controlled actuator-releasing mechanism. 13th. In an apparatus of the character specified, the combination with a vent-controlling valve, of an actuator therefor adapted to be set for action and to open the valve when released, speed-controlled actuator-releasing means, and electrically controlled actuator-releasing means. 14th. In an apparatus of the character specified, the combination with a vent-controlling valve, of an actuator therefor adapted to be set for action and to open the valve when released, a shaft connected with a moving part of the engine, and a weighted arm on said shaft adapted to be moved centrifugally into position to release the actuator. 15th. In an apparatus of the character specified, the combination of a vent-controlling valve, an actuator therefor, and electrically operated automatic controlling means including an electric circuit and a circuit-closing device therein. 16th. An apparatus of the character specified comprising a vent-controlling valve, an actuator therefor, an actuator-arresting trigger or trip, a locking arm or detent which normally stands in position to lock said trigger, a shaft contiguous to said detent adapted to be driven by the engine, and a weighted arm pivotally connected with said shaft and adapted to be moved centrifugally into position to release said trigger. 17th. An apparatus of the character specified, comprising a vent-controlling valve, an actuator therefor, an actuator arresting trigger or trip, a locking arm or detent which normally stands in position to lock said trigger, an electro-magnet arranged to displace said detent when energized, a shaft contiguous to said detent adapted to be driven by the engine, and a weighted arm pivotally connected with said shaft and adapted to be moved centrifugally into position to release said trigger. 18th. In an apparatus of the character specified, the combination of a vent controlling valve, an actuator therefor, electrically operated actuator controlling means including an electric circuit and a circuit closing device therein, a shield or casing adapted to normally prevent the operation of said circuit closing device, a branch circuit which is broken by the cover of said shield when said cover is closed and is closed automatically when said cover is opened, and an alarm included in said branch circuit and adapted to be made operative by the opening of the casing.

No. 50,394. Bicycle Case. (*Caisse pour roues de bicycle.*)

Wallace Peck and Chas. T. B. Weyers, both of New York, State of New York, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. A casing for bicycle wheels, consisting of two semi-circular parts which are adapted to be connected and to enclose the

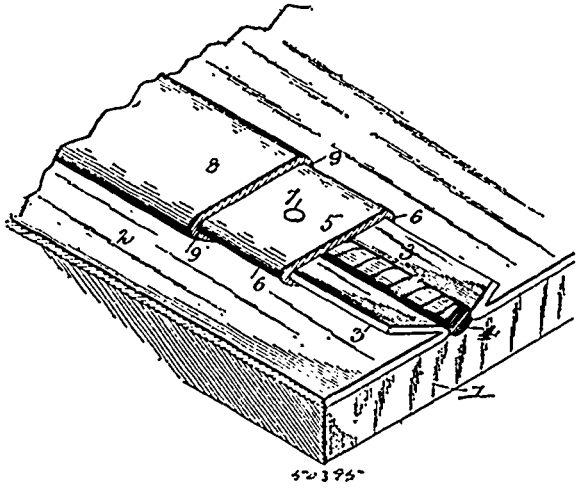
FIG. 1.



50394

wheel, substantially as shown and described. 2nd. The herein described casing for bicycle wheels, comprising two semi-circular sections, which are adapted to be secured together, said sections, each comprising side boards which are semi-circular in form, and united by flexible strips and said connections being also adapted to be folded in the middle, substantially as shown and described. 3rd. A casing for bicycle wheels comprising two semi-circular sections said sections being each composed of side boards, which are united around their circular portions by means of flexible strips, each of said sections being also adapted to be folded in the middle, and said casing when so folded being adapted to be placed in a receptacle which may be suspended from the frame of the bicycle, substantially as shown and described. 4th. A casing for bicycle wheels, comprising two semi-circular sections, each of which is composed of side boards, the circular surfaces of which are united by a flexible strip and each of said boards also divided and the separate parts thereof being united by flexible strips, substantially ass hown and described.

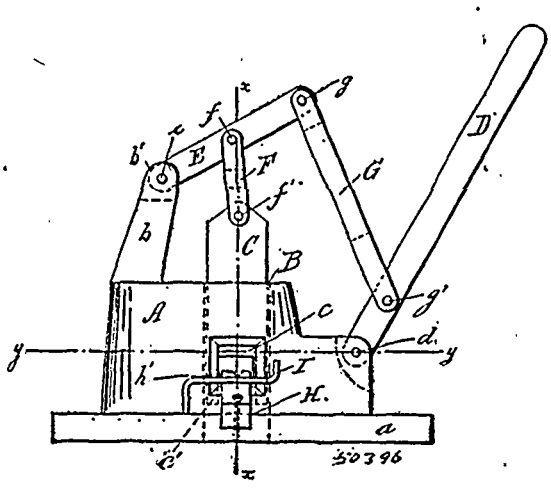
No. 50,395. Metallic Roof. (*Toiture métallique.*)



Louis Spencer Flatan, Dallas, Texas, U.S.A., 24th October. 1895; 6 years.

Claim.—1st. In a metallic roof, the combination with the covering sheets having their adjoining edges turned upwardly and backwardly, forming wings, the covers consisting of metal plates having their edges bent downwardly and inwardly, forming flanges engaging under said wings and the nails passing through apertures in said covers and between said sheets into the sheathing, of the caps consisting of the metal plates having their edges bent downwardly and inwardly and engaging under the flanges of the covers, and their ends bent downwardly and secured to the roof, substantially as and for the purpose specified. 2nd. In a metallic roof, the combination with the covering sheets having their adjoining edges turned upwardly and backwardly forming wings, the packing rope inserted between said sheets, the covers consisting of metal plates having their edges turned upwardly and backwardly and engaging with said wings and the nails passing through said covers and rope into the sheathing, of the caps consisting of the metal plates having their edges turned downwardly and inwardly and engaging under the flanges of said covers and their ends bent downwardly and secured to the roof, substantially as and for the purpose specified. 3rd. The method herein described of constructing metallic roofs consisting in the following steps, viz.: first turning the adjoining edges of the covering sheets upwardly and backwardly, then engaging the covers therewith and nailing the same to the sheathing, then applying the protecting caps, then flattening or pressing down the seam thus formed, and finally bending the ends of said caps downwardly and nailing to the roof, substantially as specified.

No. 50,396. Machine for Making Calks for Horse Shoes. (*Machine pour faire les crampons de fer de cheval.*)



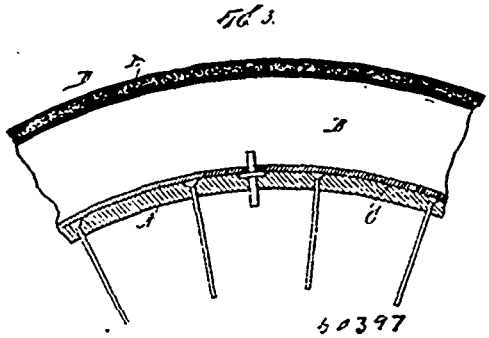
50396

Eli Robidoux, Milton East, Quebec, Canada, 24th October, 1895; 6 years.

Claim.—1st. In a machine for making calks for horse shoes, the combination, with a frame provided with a vertical guide slot and a lateral hole of less width than the guide slot, of a cutter block having an inclined front side and a notch at its top and being secured to the frame in front of the said hole, a cutter provided with projections at its lower part which slide in the guide slot on each side of the said hole, and operating mechanism for working the said cutter, substantially as set forth. 2nd. In a machine for making calks for horse shoes, the combination, with a frame provided with a vertical guide slot and a lateral hole of less width than the guide slot, of a cutter block having an inclined front side and a notch at its top and being secured to the frame in front of the said hole, a cutter provided with projections at its lower part which slide in the guide slot on each side of the said hole, a hand-lever pivoted to the frame on one side of the cutter, a lever pivoted to the frame on the other side of the cutter, and links pivotally connecting the free end of the said lever with the hand-lever, and the middle part of the said lever with the cutter, substantially as set forth.

No. 50,397. Bicycle Tire. (*Bandage de bicycle.*)

FIG 3.



50397

Harry A. Watson, Jersey, New Jersey, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. A pneumatic tire for bicycles, provided with a reinforcing or bearing surface or shield which is composed of cork or similar material and covered with rubber or similar material, substantially as shown and described. 2nd. A pneumatic tire for bicycles, the outer or bearing surface of which is provided with a reinforcing or bearing surface or shield composed of cork or similar material provided with a covering of rubber or similar material, said cork or similar material being also provided with an annular metal ring or plate located therein, substantially as shown and described 3rd. A pneumatic tire, the outer portion of which is provided with a reinforcement or bearing surface, or shield, consisting of an annular hollow ring which is segmental in cross section and secured to the tire, said ring being composed of rubber or similar material and provided with an annular chamber which is filled in with a packing of cork or similar material which is reinforced by a metal ring or

plate which is passed therethrough, substantially as shown and described. 4th. A pneumatic tire for bicycles or other vehicles, provided with a reinforcing or bearing surface, composed of packing material which is secured to the outer or bearing surface thereof and which is reinforced by a flat annular metal plate or ring, substantially as shown and described. 5th. A pneumatic tire for bicycles or other vehicles, provided with a reinforcing or bearing surface, composed of packing material which is secured to the outer or bearing surface thereof and which is reinforced by a flat annular metal plate or ring, said reinforcing or bearing portion being inclosed by a covering of rubber or similar material, substantially as shown and described.

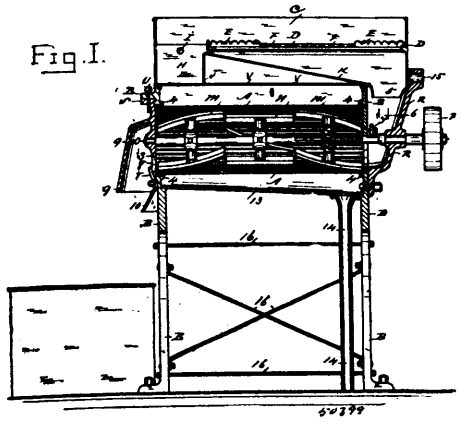
No. 50,398. Porous Plate or Electrodes and Method of Making the Same. (*Electrode et methode de fabrication.*)

John Johnson and James Hart Robertson, both of Brooklyn, New York, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. The herein described porous plate or body for electrodes and other purposes consisting of a mechanical mixture of a metal in its metallic form and an inert non-conducting porous substance, said plate containing air spaces in addition to those occupied by said substance. 2nd. The herein described porous electrode plate consisting of a mechanical mixture of a metal in its metallic form and an inert non-conducting porous substance, said plate containing air spaces in addition to those occupied by said substance and containing in its spaces an active material. 3rd. The herein described porous lead electrode, consisting of a mechanical mixture of metallic lead and granulated pumice stone. 4th. The herein described method of making a mechanical mixture of a metal and an inert non-conducting porous substance, wich consists in heating the metal until brought to a molten condition and then while in such condition adding and kneading the inert substance to such metal, whereby the air in said porous substance is expanded and caused to produce air spaces in the fluid metal 5th. The herein described method of making an electrode for a battery, which consists in making a mechanical mixture of a molten metal and an inert non-conducting porous substance, and subjecting the mixture to an electric current. 6th The herein described method of making an electrode for a battery, which consists in making a mechanical mixture of molten metallic lead and granulated pumice stone, and subjecting the mixture to an electric current.

No. 50,399. Fruit Dresser.

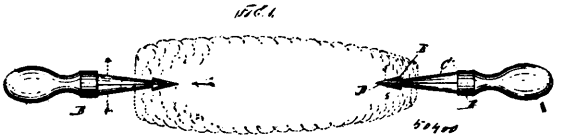
(*Appareil pour nettoyer les fruits.*)



Walter Northrop, Hamilton, Ontario, Canada, 24th October, 1895; 6 years.

Claim.—1st. In a machine for dressing dried fruit, the combination of two end frames arranged to support the rigid wire mesh cylinder A, having open ends, the interior circular flanges 4 of said frames, the rear frame having an opening to admit said cylinder, the cover S having lower opening 8, the through shaft in bearings R, and provided with adjustable spiral and horizontal brushes secured to said shaft, substantially as described and set forth. 2nd. In a machine for dressing fruit, the cylinder A constructed of a series of rings 2 with wire bent over, under and around to form the periphery of said cylinder, in combination with a front and rear frame having horizontal and crossed braces and provided with bearings R and S for shaft O, to revolve in said cylinder, substantially as described and set forth. 3rd. The combination in a machine for dressing fruit, the rigid and open cylinder supported on front and rear frame B, the shaft O capable of revolving with spiral and horizontal brushes adjusted thereon, the upper fruit receptacle C provided with a corrugated and apertured plate D, the reservoir H, having water inlet I, and opening J, the incline plane K, the plate having mesh V over said cylinder and under said incline plane K, the opening 5 into hopper 6, and the agitators 7 of said shaft, substantially as described and set forth. 4th. In a machine for dressing fruit, the combination of the front and rear frame with braces 16, and capable of supporting the cylinder having open ends with through shaft, the front frame provided with shaft bearing R forming a hopper, and opening through frame below the shaft, and opening in rear frame to admit said cylinder, and provided with a cover S, having central bearing and outer guard 9, the lower guide 10, the semi-circular and inclined plate 13 provided with vertical pipe 14, and the cleaned fruit receptacle Y, substantially as described and set forth.

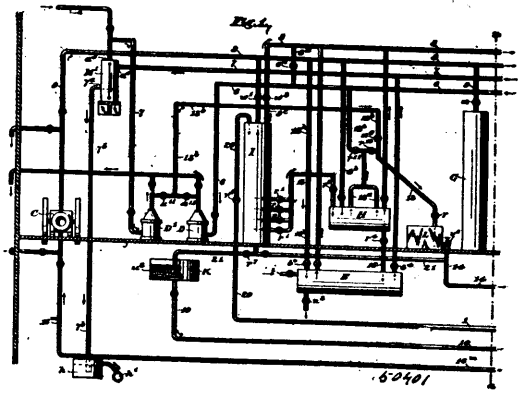
No. 50,400. Hot Corn Holder. (*Porte-blé d'inde.*)



David Ambrose, New York, State of New York, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. A holder or holders for ears of corn, comprising a handle, a blade or shaft connected therewith and a barbed head connected with the said blade or shaft, substantially as shown and described. 2nd. A holder or holders for ears of corn, adapted to be inserted into the ends thereof, comprising a handle, a blade or shaft connected therewith, and a barbed head formed on or secured to the point of the said blade or shaft, said blade or shaft and said barbed head being many sided or edged, substantially as shown and described.

No. 50,401. Process of and Apparatus for Treating Raw Wool and Similar Animal Fibres with Solvents. (*Procédé et appareil pour le traitement de la laine brute, etc.*)



Emile Maertens, Providence, Rhode Island, U.S.A., 24th October, 1895; 6 years.

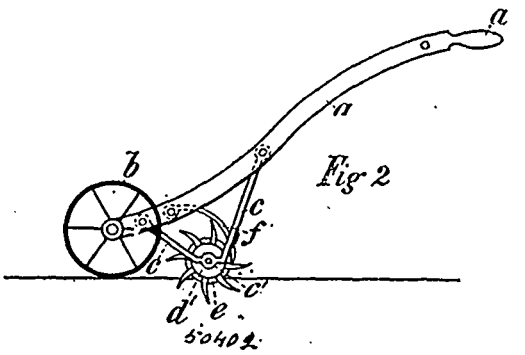
Claim.—1st. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to the action of solvents for such impurities, then removing said solvent from the digester, then expelling, in liquid form, the bulk of the solvent still adhering to the fibres by the action of a compressed gas forced through them, and freeing the fibres from the remaining adhering solvent, substantially as described and for the purpose set forth. 2nd. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to the action of solvents for such impurities, then removing said solvent from the digester, then expelling, in liquid form, the bulk of the solvent still adhering to the fibres by the action of a compressed gas forced through them, and then freeing the fibres from the remaining adhering solvent by distillation under the influence of heat and vacuum or by vaporization while contained in said digester, substantially as described and for the purpose set forth. 3rd. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to the action of solvents for such impurities, then removing said solvent from the digester, then expelling, in liquid form, the bulk of the solvent still adhering to the fibres by the action of a compressed gas forced through them, then freeing the fibres from the remaining adhering solvent, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 4th. The process of freeing fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to the action of solvents for such impurities, then expelling the solvent in liquid form from the contents of the digester by the action of compressed gas, then freeing said fibres from any adhering solvent by distillation under the influence of heat and

vacuum or by vaporization while contained in said digester, and then deodorizing said fibres, substantially as described and for the purpose set forth. 5th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in making the first impregnation of said fibres with solvents for such impurities, in vacuo, then continuing the subsequent treatments with solvent at atmospheric or higher pressure, and then freeing said fibres from any adhering solvent by distillation or vaporization while contained in a closed digester, substantially as described and for the purpose set forth. 6th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in making the first impregnation of said fibres with solvent for such impurities, in vacuo, then continuing the subsequent treatments with solvents at atmospheric or higher pressure and then freeing said fibres from any adhering solvent by distillation, under the influence of heat and vacuum, or by vaporization, substantially as described and for the purpose set forth. 7th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in making the first impregnation of said fibres with solvents for such impurities, in vacuo, then continuing the subsequent treatment with solvents at atmospheric or higher pressure, then freeing said fibres from any adhering solvent by distillation or vaporization while contained in a closed digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 8th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in making the first impregnation of said fibres, with solvent for such impurities, in vacuo, then continuing the subsequent treatment with solvents, at atmospheric or higher pressure, then freeing said fibres from any adhering solvent by distillation, under the influence of heat and vacuum, or by vaporization, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 9th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to alternate contacts, first, with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent, substantially as described and for the purpose set forth. 10th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to alternate contacts, first, with solvents for such impurities and each of a different degree of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent by distillation under the influence of heat and vacuum, or by vaporization, while contained in said digester, substantially as described and for the purpose set forth. 11th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to alternate contacts, first with solvents for such impurities and each of a different degree of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent, and then deodorizing said fibres, substantially as described and for the purpose set forth. 12th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in subjecting said fibres while retained in a closed digester to alternate contacts, first with solvents for such impurities and each of a different of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent, by distillation under the influence of heat and vacuum, or by vaporization, while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 13th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by aspirating air through them, then subjecting said fibres to the action of solvents for such impurities, then freeing said fibres from any adhering solvent by distillation or by vaporization, while contained in said digester, and then deordizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 14th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by aspirating air through them, then subjecting said fibres to the action of solvents for such impurities, then freeing said fibres from any adhering solvent by distillation, while contained in said digester, under the influence of heat or vacuum, or by vaporization, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 15th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester, by drawing air through them, and submitting said fibres to the combined action of heat and vacuum, then treating said fibres with solvents for such impurities, and then freeing said fibres from any adhering solvent by distillation or vaporization while contained in said digester, substantially as described and for the purpose set forth. 16th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester, by drawing air through them and submitting said fibres to the combined action of heat and vacuum, then treating said fibres with solvents for such impurities, and then freeing said fibres from any adhering solvent by distillation or vaporization while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 17th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester, by drawing air through them and submitting said fibres to the combined action of heat and vacuum, then treating said fibres with solvents for such impurities, and then freeing said fibres from any adhering solvent by distillation under the influence of heat and vacuum or by vaporization while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 18th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester, by drawing air through them and submitting said fibres to the combined action of heat and vacuum, then treating said fibres with solvents for such impurities, and then freeing said fibres from any adhering solvent by distillation under the influence of heat and vacuum or by vaporization while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 19th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by aspirating air through them, then subjecting said fibres to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent by distillation or vaporization while contained in said digester, substantially as described and for the purpose set forth. 20th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by aspirating air through them, then subjecting said fibres to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent by distillation under the influence of heat and vacuum, or by vaporization, and while contained in said digester, substantially as described and for the purposes set forth. 21st. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester, by aspirating air through them, then subjecting said fibres to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent by distillation or vaporization while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 22nd. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester, by aspirating air through them, then subjecting said fibres to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, the function of which is to remove the bulk of the solvent in liquid form, then freeing said fibres from any adhering solvent by distillation under the influence of heat and vacuum, or by vaporization, and while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 23rd. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them, then submitting said fibres to the combined action of heat and vacuum, then to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, and afterwards freeing said fibres from any adhering solvent by distillation or vaporization while contained in said digester, substantially as described and for the purpose set forth. 24th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them, submitting said fibres to the combined action of heat and vacuum, then subjecting said fibres to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, and afterwards freeing said fibres from any adhering solvent by distillation under the influence of heat and vacuum, or by vaporization, and while contained in said digester, substantially as described and for the purpose set forth. 25th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them, then submitting said fibres to the combined action of heat and vacuum, then subjecting said fibres to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, then freeing said fibres from any adhering solvent by distillation or vaporization while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 26th. The process of freeing animal fibres from their fatty and resinous

impurities, the same consisting in drying said fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them, then submitting said fibres to the combined action of heat and vacuum, then subjecting said fibres to alternate contacts, first with solvents for such impurities, and each of a different degree of saturation, and then with compressed gas, then freeing said fibres from any adhering solvent by distilation under the influence of heat and vacuum, or by vaporization, and while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 27th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in treating said fibres with solvents for such impurities, while contained in a closed digester, then replacing said solvents by compressed gas, and subjecting said fibres to alternate contacts with compressed gas and solvents of different degrees of saturation, then rinsing said fibres with pure solvent, then freeing them from any adhering solvent by distillation or vaporization while contained in said digester, substantially as described and for the purpose set forth. 28th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in treating said fibres with solvents for such impurities, while contained in a closed digester, then replacing said solvents by compressed gas, and subjecting said fibres to alternate contacts with compressed gas and solvents of different degrees of saturation, then rinsing said fibres with pure solvent, and then freeing them from any adhering solvent by distillation or vaporization while contained in said digester, and under the combined action of heat and vacuum, substantially as described and for the purpose set forth. 29th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in treating said fibres with solvents for such impurities, while contained in a closed digester, then replacing said solvent by compressed gas, and subjecting said fibres to alternate contacts with compressed gas and solvent of different degrees of saturation, then rinsing said fibres with pure solvent and freeing them from any adhering solvent by distillation or vaporization while contained in said digester, and then deodorizing them by drawing either air or steam or both through them, substantially as described and for the purpose set forth. 30th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in treating said fibres with solvents for such impurities, while contained in a closed digester, then replacing said solvent by compressed gas and subjecting said fibres to alternate contacts with compressed gas and solvents of different degrees of saturation, then rinsing said fibres with pure solvent, and then freeing them from any adhering solvent by distillation while contained in said digester and under the combined action of heat and vacuum, or by vaporization, substantially as described and for the purpose set forth. 31st. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them, and subjecting said fibres to the combined action of heat and vacuum, then making the first impregnation of said fibres with solvent while in vacuo, then replacing said solvent with compressed gas, and then subjecting said fibres to alternate contacts with compressed gas and solvents of different degrees of saturation, then rinsing said fibres with pure solvent, and then freeing them from any adhering solvent by distillation or vaporization while contained in said digester, substantially as described and for the purpose set forth. 32nd. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them and subjecting said fibres to the combined action of heat and vacuum, then making the first impregnation of said fibres with solvent while in vacuo, then replacing said solvent with compressed gas, then subjecting said fibres to alternate contacts with compressed gas and solvents of different degrees of saturation, then rinsing said fibres with pure solvent, and then freeing them from any adhering solvent by distillation under the influence of heat and vacuum, or by vaporization, while contained in said digester, substantially as described and for the purpose set forth. 33rd. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them and subjecting said fibres to the combined action of heat and vacuum, then making the first impregnation of said fibres with solvent while in vacuo, then replacing said solvent with compressed air, then subjecting said fibres to alternate contacts with compressed air and solvents of different degrees of saturation, then rinsing said fibres with pure solvent, then freeing them from any adhering solvent by distillation or by vaporization, while contained in said digester, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 34th. The process of freeing animal fibres from their fatty and resinous impurities, the same consisting in drying said fibres while contained in a closed digester by drawing air through them, and subjecting said fibres to the combined action of heat and vacuum, then making the first impregnation of said fibres with solvent while in vacuo, then replacing said solvent with compressed air, and then subjecting said fibres to alternate contacts with compressed air and solvents of different degrees of saturation, then rinsing said fibres with pure solvent, then freeing them from any adhering solvent by distillation while contained in said digester and under the combined action of heat and vacuum, or by vaporization, and then deodorizing said fibres by drawing air or steam or both through them, substantially as described and for the purpose set forth. 35th. In the art of extracting resinous, oily, essential, fatty or other matters from materials containing them, by means of volatile solvents, the improvement which consists in conducting the extracting operation in a confined atmosphere of gas or mixture of gases, replacing, removing or circulating the solvents by means of said atmosphere, then conducting such gas or mixture of gases free from the bulk of the solvent to a holder that it may be adapted for re-use, substantially as described. 36th. In the art of extracting resinous, oily, essential, fatty or other matters from materials containing them by means of volatile solvents, the improvement which consists in conducting the extracting operation in a confined atmosphere of an inert gas or mixture of such gases, removing, replacing or circulating the solvents by means of said confined atmosphere, then conducting such gas or mixture of gases free from the bulk of the solvent to a holder in order that it may be adapted for re-use, substantially as described. 37th. In apparatus for extracting resinous, oily, essential, fatty or other matters from materials with volatile solvents, the combination of a digester, reservoirs or tanks containing the solvents employed, a gas-holder, a vacuum pump and valved piping or connections, whereby the gas in the holder is carried to the said digester and reservoirs and returned to the holder, substantially as described for the purpose set forth. 38th. In apparatus for extracting resinous, oily, essential, fatty or other matters from materials, with volatile solvents, the combination of one or more digesters, reservoirs, or tanks for the solvents employed, a holder for gas, a gas compressor, a reservoir for compressed gas, a vacuum pump, a condenser and suitably arranged valved piping communicating with said instrumentalities, whereby the gas is returned to the holder after it has circulated through the system, substantially as described and for the purpose set forth. 39th. In apparatus for extracting resinous, oily, essential, fatty, or other matters from materials with volatile solvents, the combination of one or more digesters, reservoirs or tanks for the solvents employed, means for generating gas, a holder for the gas, a gas compressor, a reservoir for the compressed gas, a vacuum pump, a condenser and suitably arranged valved piping, whereby the gas in the holder is carried to the digester, reservoirs, compressor, &c., and back to the holder, substantially as described and for the purpose set forth. 40th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, the combination of a closed digester, two or more solvent tanks for holding solvents of different degrees of saturation communicating at their tops through valved piping with the bottom of said digester, and at their bottoms with the top of said digester, substantially as described. 41st. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, the combination of a series of digesters arranged in battery and in independent intercommunication at their tops and bottoms, a series of storage tanks for holding solvents of different degrees of saturation and pure solvent also independently intercommunicating, and valved piping connecting said digesters and tanks, arranged whereby any one or more of the said digesters and tanks are adapted for independent intercommunication at top and bottom, substantially as described. 42nd. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, the combination of a closed digester, two or more storage tanks for solvent, arranged to communicate with the top and bottom of the digester, valved inlet and outlet passages for said solvents, and valved piping communicating with said digester and tanks and with a source of compressed gas, substantially as described. 43rd. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, the combination of a plurality of closed digesters arranged in battery and in independent intercommunication at their tops and bottoms, a series of storage tanks for solvents also independently intercommunicating with each other and with said digesters, and a source of compressed gas in communication with the digesters and tanks, substantially as described. 44th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, one or more closed digesters, in combination with exhausting and condensing devices for solvent vapours connected therewith, a source of compressed gas, one or more reservoirs for solvents, and a trap-tank or water seal, substantially as described. 45th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, one or more closed digesters, in combination with exhausting and condensing devices for solvent vapours connected therewith, a source of compressed gas, one or more reservoirs for solvents, a trap-tank or water seal and an overflow tank, substantially as described. 46th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, one or more closed digesters, in combination with exhausting and condensing devices for solvent vapours connected therewith, a source of compressed gas, one or more reservoirs for solvents, a trap-tank or water seal, and an overflow tank, substantially as described. 47th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, one or more closed digesters, in combination with exhausting and condensing devices for solvent vapours connected therewith, a source of compressed gas, one or more reservoirs for solvents, a trap-tank or water seal, an overflow tank and a still, substantially as described. 48th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, one or more closed digesters, in combi-

nation with exhausting and condensing devices for solvent vapours connected therewith, a source of compressed gas, one or more reservoirs for solvents, a trap-tank or water seal, an overflow tank and a grease tank, substantially as described. 49th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, one or more closed digesters, in combination with exhausting and condensing devices for solvent vapours connected therewith, a source of compressed gas, one or more reservoirs for solvents, a trap-tank or water seal, an overflow tank and a filter, substantially as described. 50th. In apparatus for freeing animal fibres from their fatty and resinous impurities by volatile solvents, one or more closed digesters, in combination with exhausting and condensing devices for solvent vapours connected therewith, a source of compressed gas, one or more reservoirs for solvents, a trap-tank or water seal, an overflow tank and a gas generator, substantially as described.

No. 50,402. Cultivator. (*Cultivateur.*)

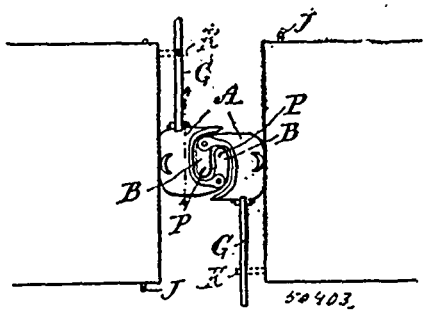


George Williams Shailer and John Samuel Watchorn, both of Palmerston, New Zealand, 24th October, 1895; 6 years.

Claim.—1st. In a cultivator, a cylinder formed of discs to roll upon the surface of the soil with tines to enter and cut up the soil, substantially as described herein. 2nd. A cultivator consisting of a cylinder formed of revolving discs fitted with tines and arranged substantially as described herein. 3rd. A cultivator consisting of a cylinder formed of revolving discs fitted with tines and arranged substantially as described herein.

No. 50,403. Car-Coupling. (*Attelage de chars.*)

Fig. 1



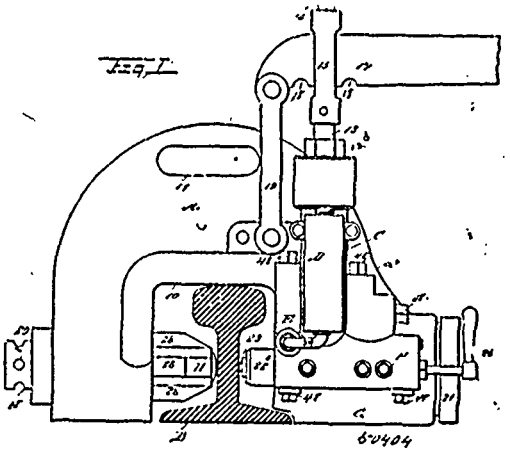
Jeremie Lessard, Cohoes, New York, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. In a car-coupling of the twin jaw type, the combination with the draw-head of the coupling knuckle B, the finger E formed integrally with the said coupling-knuckle, and the latch F, substantially as set forth. 2nd. In a car-coupling of the twin jaw type, the combination with the draw-head or jaw A, of the coupling knuckle B, a lug C formed integrally with the said knuckle and spring c, acting on the said knuckle by means of the said lug C, substantially as set forth. 3rd. In a car-coupling of the twin jaw type, the combination with the jaw A having a recess 10 formed in its back and side wall, the coupling-knuckle B, the finger E formed integrally with the said coupling-knuckle, of the latch F pivoted in the said jaw, a lever G formed integrally with the said latch, a chain or rod H, and the rocking shaft I having a handle J, and an arm K adapted to engage the said lever G, substantially as set forth.

No. 50,404. Portable Hydraulic Punch.
(*Poinçonneuse hydraulique portative.*)

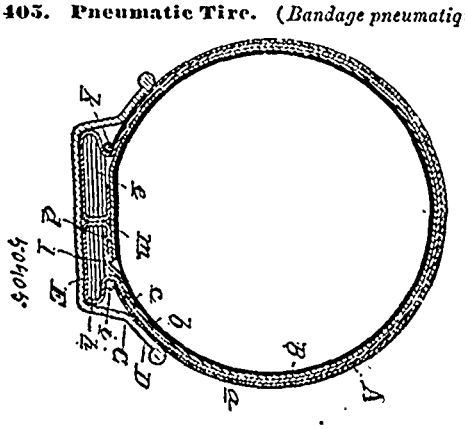
Elijah Beans Cornell, Philadelphia, Pennsylvania, U.S.A., 24th October, 1895; 18 years.

Claim.—1st. In a hydraulic punching machine, or the like, the combination of a main cylinder, a piston therein, a link pivoted ad-



jacent to the piston, a lever pivoted to the free end of the link and having a series of apertures in its under side, and a yoke mounted on the piston below its upper end and embracing said lever, the extremity of the piston being adapted to enter the recesses in the under side of the lever, substantially as set forth. 2nd. In a hydraulic punching machine, the combination of a reservoir, a pump having inlet and outlet ports provided with valves, a plunger cylinder having inlet and outlet ports, and having its inlet connected to the reservoir, a plunger therein adapted to carry a punch, a reversing cylinder having ports connecting with the inlet and outlet ports of the plunger cylinder, a valve having a chamber adapted to connect alternately with said ports, said chamber having a connection with the outlet of the pump, a connection between said reversing cylinder and the reservoir, and also between the reversing cylinder and the inlet of the pump, substantially as set forth. 3rd. In a hydraulic punching machine, or the like, the combination of a main cylinder, a piston therein, a lever adjustably pivoted adjacent to the cylinder and having apertures in its underside, a yoke mounted on the piston embracing the lever, the extremity of the piston being adapted to enter the apertures in the under side of the lever, and a spring bolt mounted on the yoke and adapted to engage the upper face of the lever whereby the end of the piston is held in engagement with the apertures on the under side thereof, substantially as set forth. 4th. In a hydraulic punching machine, or the like, the combination of a main cylinder, a piston therein, and a lever pivoted on the frame and connected to the piston and an adjacent yoke connecting the piston and said lever, substantially as set forth. 5th. In a hydraulic punching machine, or the like, the combination of a main cylinder, a piston therein, a link pivoted adjacent to the piston, a lever pivoted to the free end of said link, a yoke mounted to slide on the piston and embracing the lever, and means for setting the yoke fast to the lever, substantially as set forth. 6th. A hydraulic punch comprising a U-shaped body, a screw extending transversely through one leg of the body, and a transverse chamber in the opposite leg, a piston working in said chamber and having a reduced outer end having a punch socket or holder, and an external spring provided with a tension-regulating seat or head, a vertical chamber having a valved communication at its lower end with said transverse chamber, the valved plunger and its operating mechanism, substantially as set forth.

No. 50,405. Pneumatic Tire. (*Bandage pneumatique.*)

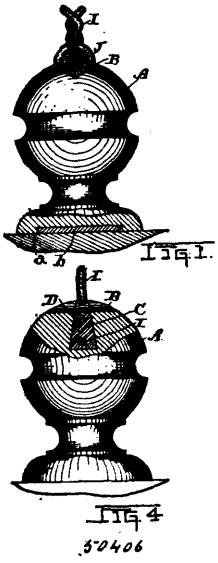


The Gendron Manufacturing Company, Toledo, Ohio, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. The combination with the inner tube of a pnuematic tire, of a split sheath enclosing the same, comprising a fabric layer or lining, of a flap, formed by an extension at one edge of the fabric, adapted to cover the joint at the meeting edges of the sheath, substantially as described. 2nd. The combination with the inner tube of a pneumatic tire, of a split sheath enclosing the same, composed of layers of rubber and fabric, of lacing ribs along the edges of the sheath, on the outside, lacing cords passing through the ribs, and a cover for the joint formed by a flap extension of one edge of the fabric layer, substantially as described. 3rd. The combination with the inner tube of a pneumatic tire, of a split tube sheath, comprising a layer of rubber and two layers of fabric united, of flaps formed at the edges of one layer of the fabric at each edge thereof, and strips enclosed by said flaps to form exterior lacing ribs, substantially as described.

No. 50,406. Electric Wire Insulator.

(*Isoloir pour fils électriques.*)

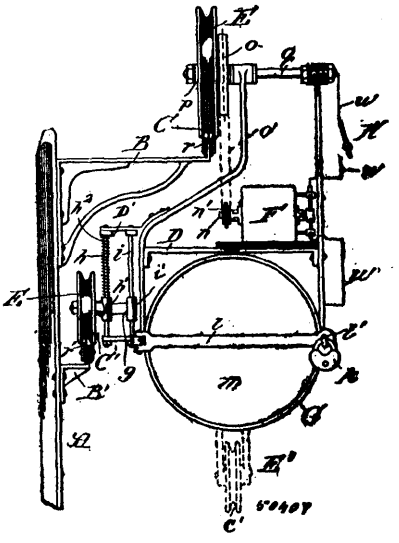


Daniel M. Rothenberger, Charles A. Inglis and Edward D. Reilly, all of Lancaster, Pennsylvania, U.S.A., 24th October, 1895; 6 years.

Claim.—1st. An insulator having at its inner end a means of attachment to an object, and at its outer end an inwardly extending opening, in combination with a tie wire placed in said opening, and a holding material within the opening surrounding the said wire, substantially as shown. 2nd. An insulator having an external groove to receive the line or main wire, an opening extending inward from the said groove and having its outer end extending into and communicating therewith, a tie wire placed within the said opening, and a holding material placed within the said opening and surrounding the said wire, substantially as described. 3rd. An insulator having an external groove to receive the line or main wire, an inwardly extending opening having its outer end extending into and communicating with the said groove, and a staple shaped tie wire having its doubled portion within the said opening, and a holding material placed within the said opening between and around the said doubled portion of the tire wire, substantially as specified. 4th. An insulator having an external groove for the line or main wire, an inwardly extending tie wire opening having its outer end extending into and communicating with the groove and its outer end preferably larger in diameter than the greatest width of said groove, a tie wire placed in said opening and held therein, the projecting portions of the tie wire extending out at each side of the said groove and having its inner end forming substantially a portion of the side walls of the said groove, whereby the wire is tightly grasped by the twisting together of the ends of the tie wire, substantially as set forth. 5th. An insulator having an external groove, adapted to receive a line or main wire, an inwardly extending opening having its outer end extending into and communicating with the said groove, and its inner end enlarged, a doubled wire placed within the enlarged end of the said opening, and holding material placed around the double portion of the wire and within the enlarged portion of the opening, substantially as and for the purpose specified. 6th. An insulator having its inner end provided with a recess, and a filling of cement extending to or slightly beyond the outer surface of said inner end, for the purpose specified. 7th. An insulator having a tie wire, and its inner end provided with a recess, and a filling of cement within the said recess extending to or slightly beyond the outer surface of said inner end, substantially as specified.

No. 50,407. Electric Transportation System.

(*Système de transportation électrique.*)



Dexter E. Kenyon, assignee of Richard Edwin Sherman, both of Chicago, Illinois, U.S.A., 24th October, 1895; 6 years.

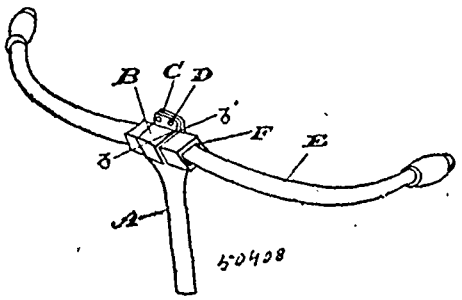
Claim.—1st. An overhead system of electric transportation comprising a current-carrying line and a track supported in elevated position in the route to be traversed, and a carriage provided with a drive-wheel at which it is suspended on said track and carrying an electric motor taking its supply of current from said line and geared to the drive-wheel, substantially as and for the purpose set forth. 2nd. An overhead system of electric mail-transportation comprising a current-carrying line and a track supported in elevated position to extend between postal-stations, and a carriage provided with a mail-bag receptacle and a drive-wheel at which it is suspended on said track and carrying an electric motor taking its supply of current from said line and geared to the drive-wheel, substantially as and for the purpose set forth. 3rd. An overhead system of electric transportation comprising a current-carrying outgoing and return line supported in elevated position in the route to be traversed, a carriage, an electric-motor on the carriage in the circuit of said line and a driving contact-wheel on the carriage by which it is suspended on said line and geared with the motor and affording the medium of current transmission from the line to the motor, substantially as and for the purpose set forth. 4th. An overhead system of electric transportation comprising a current-carrying outgoing and return line supported in elevated position in the route to be traversed, a carriage carrying a driving contact-wheel, at which it is suspended on the outgoing section of the line, and a contact bearing against the return section of the line, and an electric motor supported on the carriage in circuit with said contacts and geared to said driving contact-wheel, substantially as and for the purpose set forth. 5th. An overhead system of electric mail-transportation comprising a current-carrying line and a track supported in elevated position to extend between postal-stations, and a carriage comprising a frame, a mail-bag receptacle thereon having an open end provided with a cap and means for locking it, an electric motor on the frame taking its supply of current from said line, and a drive-wheel at which the carriage is suspended on the track and geared to the motor, substantially as and for the purpose set forth. 6th. An overhead system of electric transportation comprising a current-carrying outgoing and return line supported in elevated position in the route to be traversed, a carriage carrying a driving contact-wheel at which it is suspended on the outgoing section of the line, and a contact-wheel bearing against the return-section of said line, and an electric motor supported on the carriage and geared to said driving contact-wheel and having a switch-controlled electric connection with said wheels, substantially as and for the purpose set forth. 7th. An overhead system of electric mail transportation comprising a current-carrying line C, C^1, supported in elevated position to extend between postal-stations, and a carriage comprising a frame D, a mail-bag receptacle G thereon, an electric motor F, a shaft q carrying a driving contact-wheel E, at which the carriage is suspended on the line-section C, and a sprocket-wheel o, and a contact-wheel E^1, bearing against the line-section C^1, and journalled on a vertically movable spring-controlled shaft g, said motor being electrically connected with the contact-wheels E and E^1, substantially as and for the purpose set forth.

No. 50,408. Handle Bar for Bicycles.

(*Barre de poignée de bicycle.*)

Edwin Crickmore, assignee of A. M. Rice, both of Toronto, Ontario, Canada, 24th October, 1895; 6 years.

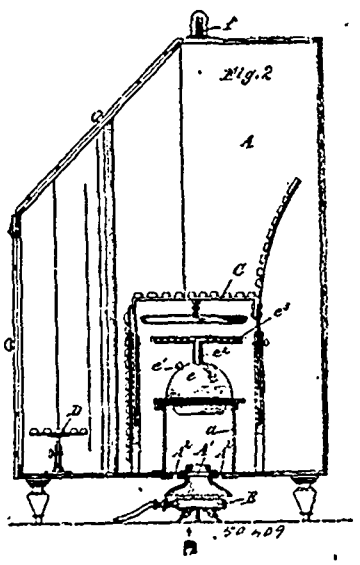
Claim.—1st. In a bicycle, the combination of the handle post, a socket at the head of the handle post, a wooden handle bar held by



the socket, and means for removably locking the handle bar to the handle post, substantially as specified. 2nd. In a bicycle the combination of the handle post, a socket for the handle post, a clamping device for the socket, a wooden handle bar adapted to be held by the socket, and securely locked within the socket by the said clamp, substantially as specified. 3rd. In a bicycle, the combination of the handle post, a socket for the handle post, a wooden handle bar, a metallic sleeve enclosing the middle part of the handle bar, adapted to be held by the socket, and means for locking together the socket, the sleeve, and the handle bar, substantially as specified. 4th. In a bicycle, the combination of the handle post, a socket for the handle post, a clamp for the socket, a wooden handle bar, a metallic sleeve enclosing the middle part of the handle bar, adapted to fit the socket, substantially as specified. 5th. In a bicycle, the combination of the handle post, a socket for the handle post, consisting of two sections, means for hinging together the adjacent meeting edges of the sections, at one side of the sections, a clamp for locking together the adjacent meeting edges at the opposite side of the sections, a wooden handle bar, a metallic sleeve for the handle bar, adapted to fit the socket, substantially as specified.

No. 50,409. Hot Air and Steam Bath Apparatus.

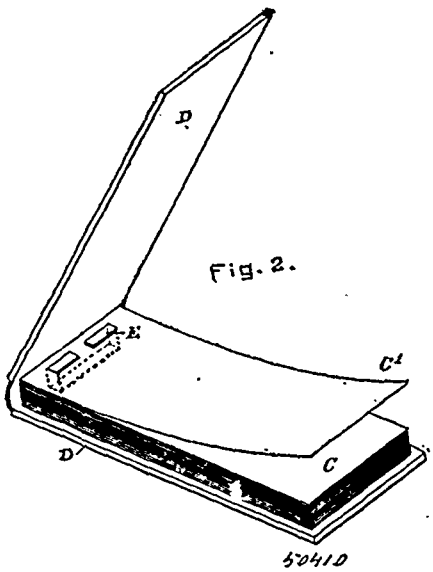
(*Appareil de bain à air chaud et vapeur.*)



Salli Maschke, Berlin, Prussia, German Empire, 25th October, 1895; 6 years.

Claim.—1st. In a hot air and steam bath apparatus, the combination of the cylinders *a* and *b*, the rim *c*, cover *d*, boiler *e*, substantially as described. 2nd. In a hot air bath apparatus, the combination of the cylinders *a* and *b*, and the rim *c*, having the apertures a^1, b^1, c^1, and b^3, arranged to correspond respectively and means for turning the the cylinder *b* and rim *c*. 3rd. In a hot air and steam bath apparatus, the combination of a cylinder *a*, rim *c*, boiler *e*, pipe e^3, with holes. 4th. In a hot air and steam bath apparatus. the combination of two cylinders and a rim, having openings in the upper edges of the cylinders and corresponding openings in the rim and enlarged portion of the lower edge of the upper cylinder, for the purposes set forth. 5th. In a hot air and steam bath apparatus, the combination of an outer box, adjustable seat and foot rest, and heating apparatus, adapted to supply steam or hot air separately, or together, as described.

No. 50,410. Sheet Soaps and Process of Manufacturing the same. (*Savon en feuille et procédé de fabrication.*)



William H. Roach and A. J Tourville, both of Seattle, Oregon, U.S.A., 25th October, 1895; 6 years.

Claim.—The process of making sheets of soap which consists in coating a fabric with thin layers of soap, drying the same, then oiling the surfaces and polishing them by the application of warm smooth metallic surface thereto under pressure, substantially as set forth.

No. 50,411. Refining and Separating Wool into sundry constituent parts. (*Procédé pour purifier et séparer la laine grasse.*)

Emile Maertens, Providence, Rhode Island, U.S.A., 25th October, 1895; 6 years.

Claim.—1st. The improved method or process of refining wool-fat and separating it into certain constituent parts, the same consisting in treating it with acetone, thereby separating from the wool-fat that part which is soluble in cold acetone and designated herein as product No. 5, then decanting the resulting solution, thereby leaving behind that part of the wool-fat which had not dissolved in cold acetone and is designated herein as product No. 4, and then eliminating the acetone from the said resulting solution to obtain the above named product No. 5, while the undissolved part when freed from acetone forms the above named product No. 4, substantially as hereinbefore described. 2nd. The improved method or process of refining wool-fat and separating it into three constituent parts, which consists in mixing or incorporating acetone with wool-fat and separating from said wool-fat that constituent part of it which is soluble in cold acetone and is herein designated as product No. 5, while the other constituent part herein designated as product No. 4 remains undissolved, then eliminating the acetone from the soluble constituent part to obtain said product No. 5, and from the residuary or undissolved part to obtain said product No. 4, (the thus resulting two products being the only separated constituent parts of the original wool-fat), then incorporating alcohol with said No. 5 product to separate therefrom that part which is soluble in cold alcohol (which said soluble part when freed from alcohol forms the product herein designated as No. 1), and leaving behind that part of said product which has not dissolved in cold alcohol and which when freed from its adhering alcohol forms the new product herein designated as No. 3, the resulting products No. 1 and No. 3 being separated constituent parts of said new product No. 5, substantially as hereinbefore described. 3rd. The method or process of refining wool-fat and separating it into three constituent parts, which consists in mixing or incorporating alcohol with wool-fat, then separating from said wool-fat by extraction that constituent part of it which is soluble in cold alcohol and is herein designated as No. 1 product, while the other constituent part which is designated herein as product No. 2, (and which is a mixture or combination of the constituent parts of the products designated herein as No. 4 and No. 3) remains undissolved, then eliminating the alcohol from this undissolved or residuary part, (and designated as product No. 2), and then incorporating acetone with it and separating therefrom by extraction that part which is soluble in cold acetone and is designated herein as product No. 3, and leaving behind that part which remains undissolved and which when freed from acetone forms the new product designated herein as No. 4, whereas that part which was dissolved out with

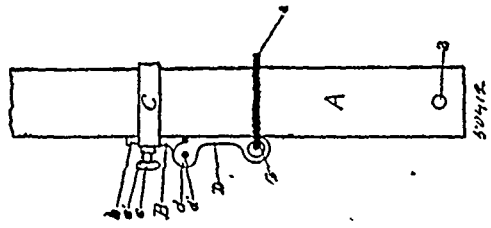
acetone when freed from the latter agent forms the new product No. 3, substantially as hereinbefore described. 4th. As a new article of manufacture the refined opaque solid or nearly solid and generally inodorous waxy and fatty product generally of a whitish or yellowish white colour hereinbefore described as No. 4 product, the same being insoluble or but slightly soluble in cold acetone and cold alcohol but completely soluble in about 30 times its volume of boiling acetone and which can be obtained as a residuum from wool-fat after the latter has been freed by extraction with acetone from its other constituent part (herein designated as product No. 5,) and which is soluble in cold acetone, substantially as set forth. 5th. As a new article of *manufacture the refined opaque solid or nearly solid* and generally inodorous waxy and fatty product generally of a whitish or yellowish white colour hereinbefore described as No. 4 product, the same being insoluble or but slightly soluble in cold acetone and cold alcohol but completely soluble in about 30 times its volume of boiling acetone and which can be obtained as a residuum from the wool-fat product herein designated as No. 2, after the latter has been freed by extraction with acetone from its other constituent part which is herein designated as product No. 3, which is soluble in cold acetone, substantially as set forth. 6th. As a new article of manufacture the refined transparent, or translucent or semi-opaque resinous, sticky and generally odorous fluid, semi fluid or semi-solid designated herein as product No. 5, the same being soluble in cold acetone and being one constituent part of wool-fat separated by extraction from its other opaque fatty, waxy, solid or semi-solid constituent part which is designated herein as product No. 4, which latter is not soluble or but slightly soluble in cold acetone, substantially as set forth. 7th. As a new article of manufacture the refined transparent, translucent or semi-opaque, oily fluid, semi-fluid or semi-solid product from wool-fat soluble in cold acetone but insoluble or but slightly soluble in cold alcohol, and which can be obtained by separation from the product designated herein as No. 5, when the latter is digested with cold alcohol, and which new product remains undissolved by such digestion and when freed from said alcohol constitutes the product designated herein as No. 3, substantially as described. 8th. *As a new article of manufacture the refined transparent,* translucent or semi-opaque or opaque, oily fluid, semi-fluid or semi-solid product from wool-fat, soluble in cold acetone but insoluble or but slightly soluble in cold alcohol, and which can be obtained by digesting the product designated herein as No. 2, (which is a mixture of No. 4 and No. 3 products) with cold acetone, which leaves behind undissolved the product herein designated as No. 4 and dissolves out the other constituent part of said mixture, which when freed from acetone is the product herein designated as No. 3, substantially as described. 9th. The improved method or process of refining wool-fat and separating it into two constituent parts, the same consisting in treating it with cold alcohol, thereby separating from the wool-fat that part which is soluble in cold alcohol, and designated herein as product No. 1, then decanting the resulting solution, thereby leaving behind that part of the wool-fat which has not dissolved in cold alcohol and designated herein as product No. 2, and then eliminating the alcohol from the said resulting solution to form one product, while the undissolved part when freed from alcohol forms another product, substantially as hereinbefore described. 10th. The improved process of refining wool-fat and separating it into two constituent parts, which consists in mixing or incorporating cold alcohol, or hot alcohol and subsequently cooling, with wool-fat, and separating from said wool-fat that part which is held in solution in this cold liquor and designated herein as product No. 1, while the other constituent part of the wool-fat, and designated herein as product No. 2, remains undissolved or in suspension in said solution, then eliminating the alcohol from the soluble constituent part and from the suspended or residuary constituent part, the thus resulting two products being separated constituent parts of the original wool-fat, substantially as described. 11th. As a new article of manufacture, the refined opaque, fatty product designated herein as product No. 2 and obtained from wool-fat after the latter is freed from its other constituents which are soluble in cold alcohol, substantially in the manner as hereinbefore described. 12th. As a new article of manufacture, the refined transparent or translucent product designated herein as product No. 1, and composed of the constituents of wool-fat soluble in cold alcohol and separated from the opaque fatty product forming the other constituent part of wool fat, substantially in the manner as hereinbefore described.

No. 50,412. Picker Stick for Looms.

(*Bâton de nopeur pour métiers.*)

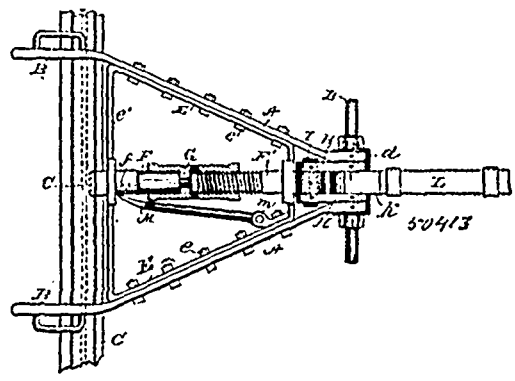
Ludger Beaulieu, Chambly Canton, Quebec, Canada, 25th October, 1895; 6 years.

Claim.—1st. The combination, with a pivoted picker stick, of an adjustable plate, clamping devices securing the said plate to the picker stick, an arm, pivoted to the said plate and provided with an *eye at its free end, and an operating cord* secured to the said eye, substantially as set forth. 2nd. The combination, with a pivoted picker stick, of an adjustable plate provided with a stop at one end, a clamp surrounding the said plate and picker stick, and provided with a set screw ...g the said parts together, an arm pivoted to the other end of ... plate and provided with an eye at its free end, and an operating cord secured to the said eye, substantially as set forth.



No. 50,413. Rail or Bar Bender.

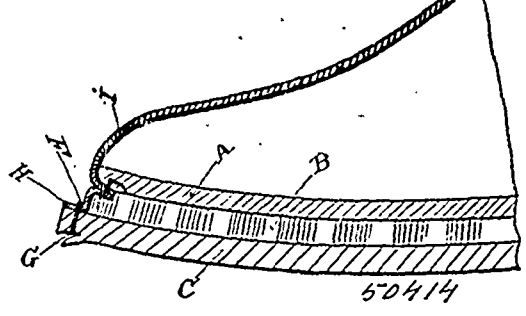
(*Machine à courber les rails ou barres.*)



Norris Henry Brown, Yonkers, New York, U.S.A., 25th October, 1895; 6 years.

Claim.—1st. In a rail or bar bender, the combination with the frame having jaws or hooks to hold the rail, and the ram slidingly supported between the jaws, of an eccentric for imparting pressure to the ram, and an operating lever attached to the eccentric shaft on the side opposite to the eccentric so that it moves away from the ram in operating the latter, substantially as described. 2nd. The combination of the extensible ram composed of two parts, and a coupling sleeve engaging by means of screw threads with one of the said parts, the operating eccentric and lever, and means for maintaining the pressure of the ram when the lever is reversed, substantially as described. 3rd. The combination of the triangular frame, the extensible ram sliding therein, the operating eccentric connected with the end of said ram, and a dog or holding bar pivoted to one side of the triangular frame and extending alongside of said ram so as to sustain the pressure thereof longitudinally, substantially as described.

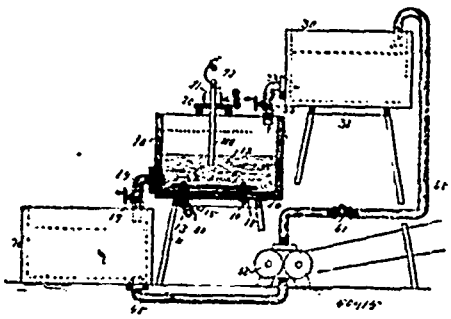
No. 50,414. Cork Sole. (*Chaussure à entre-semelle en liége.*)



Louis Migner, Québec, Québec, Canada, 28 Octobre, 1895; 6 ans.

Réclame.—Le perfectionnement utile dans l'art de faire et fabriquer une chaussure avec semelle en liége à l'intérieur et cela en pliant à angle droit, vers l'extérieur, l'enveloppe du liege au niveau inférieur de la semelle de liége appuyant alors cette enveloppe sur la franche semelle qui excède, puis joignant ensemble, par une couture ou autrement, cette enveloppe et la franche semelle à la partie excédante près de l'angle, tel que ci-dessus décrit et pour indiquées.

No. 50,415. Apparatus for Electrically Heating Metal. (*Appareil pour chauffer le métal par l'électricité.*)



George Dexter Burton, Boston, Massachusetts, U. S. A., 28th October, 1895; 6 years.

Claim.—In an electric bath metal heating apparatus, the combination of a vessel for containing an electrolytic bath and having an electrode of comparatively large area, a travelling carriage supported on said vessel and adapted to hold the metal to be heated, a receiving vessel disposed on a plane below the vessel containing the electrolytic bath, a reservoir vessel disposed above said electrolytic vessel, pipes connecting said vessels, a pump for elevating the liquid from the receiving vessel to the reservoir vessel, means for regulating the flow of said liquid, and conductors connecting the electrolytic bath and the metal to be heated with opposite electric poles.

No. 50,416. Apparatus for Electrically Heating Metals and Ores. (*Appareil pour chauffer par l'électricité les métaux et minerais.*)

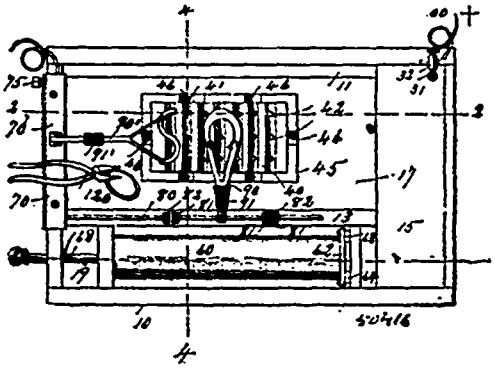


Fig. 1

George Dexter Burton, Boston, Massachusetts, U. S. A., 28th October, 1895; 6 years.

Claim.—1st. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated provided with perforation and electric conductors for connecting said solution and material with opposite electric poles. 2nd. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a perforated hearth for supporting the material to be heated provided with grooves on its upper face, and means for establishing an electric arc between the solution and the material on the hearth. 3rd. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting material to be heated, provided on its upper face with grooves, and intermediate plain surfaces, which prevent the formation of arcs at those points, and means for establishing an electric arc between the solution and the material on the hearth. 4th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the work to be heated, provided with perforations, a bed for supporting said hearth provided with openings for the inflow of liquid under said hearth, means for depressing and elevating said solution in relation to said hearth, and electric conductors for connecting the work and solution with opposite electric poles. 5th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated, a pivoted electrode adapted to be swung into contact with the material on said hearth, means for depressing and elevating said solution in relation to said hearth and electric conductors for connecting said solution and electrodes with opposite electric poles. 6th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated, a conductive bar, a hinged electrode in electric connection with said bar and adapted to be swung into contact with the material on said hearth, means for depressing and elevating said solution in relation to said hearth, and electric conductors for connecting said bar and solution with opposite electric poles. 7th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated, a conductive bar, a conductor movable into and out of contact with said bar, a hinged electrode on said conductor adapted to swing into contact with material on said hearth, means for depressing and elevating said solution in relation to said hearth, and electric conductors for connecting said bar and solution with opposite electric poles. 8th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting material to be heated, a conductive rest, a conductor, a hinged electrode connected to said conductor and adapted to be swung into contact with the material on said hearth, another electrode hinged to said rest, and also adapted to be swung into contact with material on said bed, means for elevating and depressing the level of the solution in relation to said hearth, and electric conductors for connecting said solution and material with opposite electric poles. 9th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated, a conductive rest, a slide rod adapted to be moved into and out of contact with said rest, a hinged electrode on said slide rod adapted to be swung into contact with the material on said hearth, a hinged electrode supported on said rest and adapted to be swung into contact with the material on said bed, and means for elevating and depressing the level of the solution in relation to said hearth, and electric conductors for connecting said bar and solution with opposite electric poles. 10th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated, means for elevating and depressing the level of the solution in relation to said hearth, sockets on insulating material inserted in the edge of said vessel, studs supported in said sockets, a conductive rest supported on said studs, and electric conductors for connecting said solution and rest with opposite electric poles. 11th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated, means for elevating and depressing the level of the solution in relation to said hearth, a plurality of electrodes adapted to be swung into contact with the material on said hearth, and electric conductors for connecting and disconnecting said electrodes in the same circuit to form a multiple-arc current through said material. 12th. In an electrolytic heating apparatus, the combination of a vessel for containing an electrolytic solution, a hearth for supporting the material to be heated, means for elevating and depressing the level of the solution in relation to said hearth, and an anode in said solution in the form of a serpentine plate, a perforated partition for protecting said plate, and conductors for connecting said anode and the material with opposite electric poles.

No. 50,417. Methods of and Apparatus for Electrically Heating Metals. (*Méthode et appareil de chauffer les métaux.*)

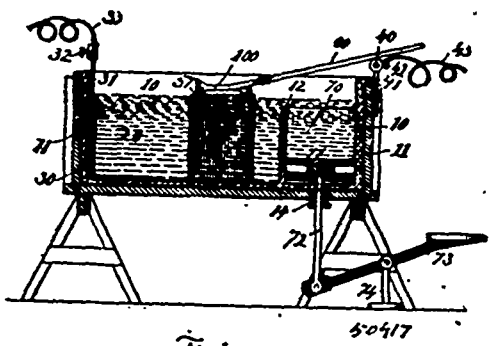


Fig 1

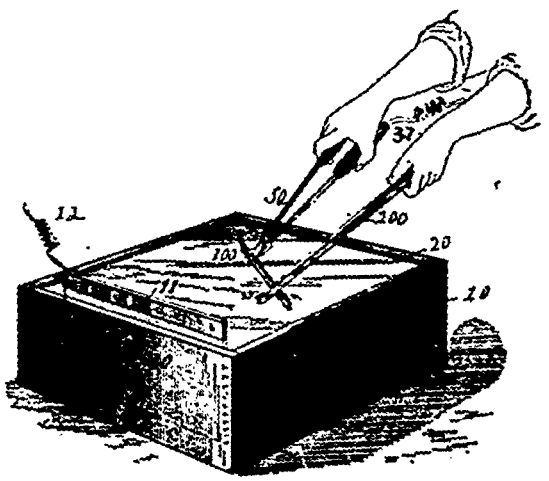
George Dexter Burton, Boston, Massachusetts, U.S.A., 28th October, 1895; 6 years.

Claim.—1st. The art of heating metal which consists in supporting the metal upon the surface of a non-conductive bed above the surface of an electrolytic bath, then shifting vertically the horizontal plane of one of said surfaces and bringing the bath and metal into electrical connection, and passing an electric current through the metal and bath, said current forming an electric arc or arcs between the metal and the liquid of the bath. 2nd. The art of heating metal, which consists in supporting it above the surface of

an electrolytic bath, then elevating the surface of said bath into contact therewith, and passing an electric current through said article and bath forming an electric arc between them, substantially as described. 3rd. The combination of a tank, an electrolytic bath therein, a non-conductive bed for the metal to be heated, the surface of said bed being above the surface of said bath in their normal relations, means for elevating and depressing one of said surfaces to bring the bath and metal on the bed into electric connection and separate them at will, and conductors for connecting said bath and metal with opposite electric poles. 4th. The combination of a tank, an electrolytic bath therein, a non-conductive bed for the metal to be heated provided with a roughened surface, the surface of said bed being above the surface of said bath in their normal relations, means for elevating and depressing one of said surfaces to bring the bath and metal on the bed into electric connection and separate them at will, and conductors for connecting said bath and metal with opposite electric poles. 5th. The combination of a tank, an electrolytic bath disposed therein, a work bed provided with irregular surface and disposed in said bath for supporting the metal to be heated, means for elevating and depressing the surface of the bath relatively to said work bed, and electric conductors connected with opposite electric poles and respectively with said bath and metal. 6th. The combination of a tank, an electrolytic bath disposed therein, a work bed provided with an irregular surface and disposed in said bath for supporting the metal to be heated, a plunger chamber, a plunger therein for elevating and depressing the surface of the bath, means for actuating said plunger, and electric conductors connected with opposite electric poles respectively. 7th. The art of heating metal, which consists in supporting it above the surface of an electrolytic bath, then elevating the surface of said bath into contact with the metal, and permitting the metal or conductor connected therewith to protrude above the surface of the bath, and passing an electric current through said metal and bath, said current forming an electric arc between them. 8th. The combination of a vessel, an electrolytic bath therein, a non-conductive bed upon which that portion of the metal to be heated rests during the heating operation, the surface of said bed being above the surface of said bath in their normal relations, conductors for connecting said bath and metal with opposite electric poles, and means for elevating and depressing one of said surfaces to cause the liquid of the bath to overflow said bed, and to bring the bath and the metal on the bed into electrical connection and separate them at will.

No. 50,418. Electric Metal-Heating Process.

(*Procédé électrique de chauffage.*)



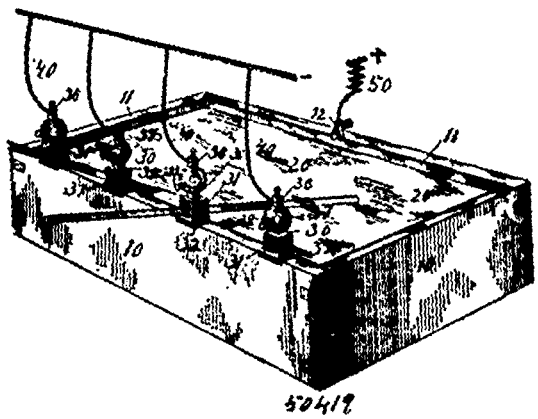
50418

George Dexter Burton, Boston, Massachusetts U.S.A., 28... October, 1895; 6 years.

Claim.—1st. The art of heating metal, which consists in submerging or partially submerging it in a bath consisting of an aqueous solution of carbonate of soda and borax, or their equivalents, and then passing an electric current through said metal and solution, forming an incandescent gas envelope or voltaic arc around the immersed metal, substantially as set forth. 2nd. The art of working metal, which consists in immersing or partially immersing a metal to be worked in a bath consisting of an aqueous solution of carbonate of soda and borax, and subjecting said metal while so immersed to the action of an electric current until it is raised to the desired working heat, and then subjecting the heated and softened metal to a metal working operation.

No. 50,419. Electric Bath Metal-Heating Apparatus.

(*Bain électrique pour le chauffage des métaux.*)

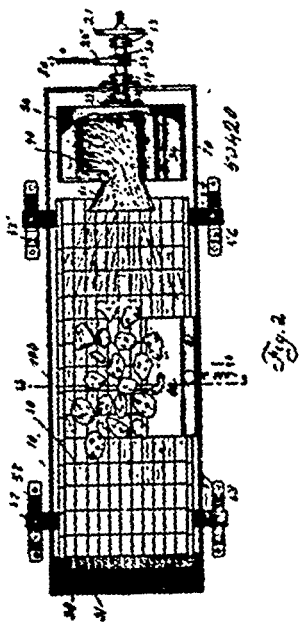


50419

George Dexter Burton, Boston, Massachusetts, U.S.A., 28th October, 1895; 6 years.

Claim. 1st. The combination of a bath, an automatic clamp for receiving a bar to be heated in said bath, and conductors for connecting said bath and metal holding device with opposite electric poles. 2nd. The combination of a tank, a bath composed of a suitable liquid disposed in said tank, an automatic clamp mounted on the edge of said tank, and means for connecting said bath and clamp with opposite electric poles. 3rd. The combination of a receptacle for containing a resistance bath, an automatic clamp mounted on the edge of said receptacle, the movable jaw of said clamp being provided with means for regulating its action, and conductors connecting said solution and clamp with opposite electric poles. 4th. The combination of a receptacle, a bath composed of a suitable liquid disposed in said receptacle, an automatic clamp mounted on said receptacle, the stationary member of which is provided with an eye flared at its upper outer edge and at its lower inner edge which permits the bar to be adjusted at any desired incline, and conductors connecting said solution and clamp with opposite electric poles. 5th. The combination of a receptacle for containing a resistance bath, an automatic clamp mounted thereon and comprising a stationary member provided with an eye flared at its upper edge and also at its lower inner edge, and a weighted pin sliding in said solution and clamp with opposite poles.

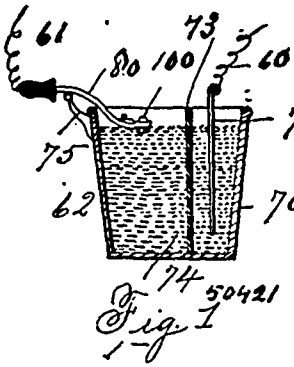
No. 50,420. Art of and Apparatus for Electrically Smelting Ore. (*Art et appareil pour la fonte électrique des minerais.*)



George Dexter Burton, Boston, Massachusetts, U.S.A., 28th October, 1895; 6 years.

Claim.—1st. The art of separating metals from ore containing them and from one another, which consists in subjecting the ore containing a plurality of metals to the action of a voltaic arc sprung between the ore and a chemical solution, the ore being partially submerged in the solution and partially exposed, until the metals contained in the ore are fused and exude from the ore in liquid form, said metals on contact with the solution forming into separate globules. 2nd. The combination of an inclined hearth composed of non-conductive material and adapted to receive ore, means for supplying a stream of liquid to said hearth, an electrode disposed on said hearth, and means for forming an electric arc between the ore and said liquid. 3rd. The combination of an inclined hearth, a device for discharging a conductive liquid onto said hearth, a cathode on said hearth, and means for forming an electric arc between said ore and liquid. 4th. The combination of a tank for containing a conductive liquid, a raceway disposed above said tank, and provided with an outlet for the liquid, a hearth adapted to receive the liquid from said outlet, means for elevating the liquid from said tank to said raceway, and means for connecting said liquid and hearth with opposite electric poles. 5th. The combination of a tank, an inclined hearth therein provided with a perforated receptacle at its lower end, a raceway at its upper end for discharging the liquid onto said hearth, means for elevating the liquid from said tank to said raceway, and means for connecting the liquid and the hearth with opposite electric poles.

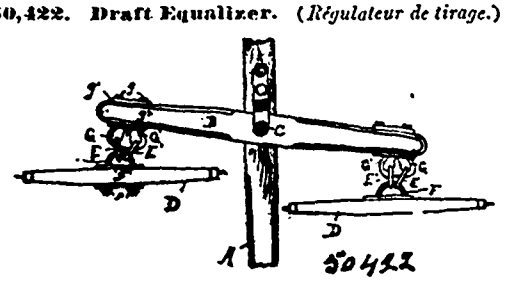
No. 50,421. Electric Bath Metal-Heating Apparatus. (*Bain électrique pour le chauffage des métaux.*)



George Dexter Burton, Boston, assignee of Edwin Elliott Angell, Somerville, all in Massachusetts, U.S.A., 28th October, 1895; 6 years.

Claim.—1st. A portable tank for heating metals provided with a porous partition and a bracket at one side serving as a rest for the work or work-holder. 2nd. A portable tank for heating metals provided with a porous partition and with a bracket at one side serving as a rest for the work-holder, said rest constituting one terminal of the tank. 3rd. A movable work-holder connected with an electric conductor and provided with an insulated handle and with holes for holding the metal to be heated. 4th. A movable work-holder connected with an electric conductor and provided with an insulated handle and with holes for heating the metal to be heated, said holes being surrounded by raised rims. 5th. A portable tank for heating metals provided with electric connections and with a bracket at one side which serves as a rest for the work, said rest constituting one of the electric terminals of the tank.

No. 50,422. Draft Equalizer. (*Régulateur de tirage.*)



James W. Gurnsey and Z. Ellis Kimble, both of Liberty, Pennsylvania, U.S.A., 28th October, 1895; 6 years.

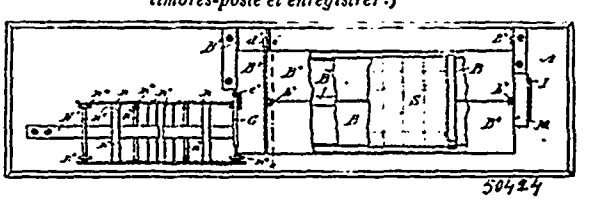
Claim.—In a draft equalizer, a doubletree, provided at each end with a double loop G, G^1, having a dividing piece g, and two tanks passing through the doubletree, in combination with a pair of whiffletrees each provided with a single U-shaped loop having its arms or shanks passing through the whiffletree, and a pair of links connecting the single loop of each whiffletree with the corresponding double loop of the doubletree, said links being adjacent in the single loop, and separated in the double loop by the part g^1, substantially as and for the purpose described.

No. 50,423. Process for Removing Suint from Wool, etc. (*Procédé pour extraire la sueur de la laine, etc.*)

John Henry Wingfield, New York, State of New York, U.S.A., 29th October, 1895; 6 years.

Claim. 1st. The process of removing suint from wool, which consists in subjecting the wool to the action of a warm petroleum oil, not lighter than 51 degrees Beaumé, which forms a solution of the suint, in which, if it is cooled, there is effected a separation of the constituents by the deposit of certain of the constituents and the retention of others in solution, substantially as described. 2nd. The process of removing suint from wool, which consists in subjecting the wool to the action of a warm petroleum oil of specific gravity 30 to 38 degrees Beaumé, which forms a solution of the suint, in which, if it is cooled, there is effected a separation of the constituents of the suint by the deposition of certain constituents and the retention of others in solution, substantially as described. 3rd. The process which consists in subjecting suint to the action of a warm petroleum oil, not lighter than 51 degrees Beaumé, which forms a solution of the suint, and depositing certain constituents of the suint from the solution by cooling it, substantially as described. 4th. The process which consists in subjecting suint to the action of a warm petroleum oil of specific gravity 30 degrees to 38 degrees Beaumé, which forms a solution of the suint, and depositing certain constituents of the suint from the solution by cooling it, substantially as described. 5th. As a new composition of matter, the liquid product consisting of a petroleum oil, not lighter than 51 degrees Beaumé in which are dissolved such constituents of suint as are held in solution therein at ordinary atmospheric temperatures, substantially as described. 6th. As a new composition of matter, the liquid product consisting of a petroleum oil, of specific gravity 30 degrees to 38 degrees Beaumé, in which are dissolved such constituents of suint as are held in solution therein at ordinary atmospheric temperatures, substantially as described. 7th. As a new composition of matter, the unctuous, flocculent, deposit having a neutral reaction substantially such as is obtained by subjecting suint to the action of a warm petroleum oil not lighter than 51 degrees Beaumé which forms a solution of the suint, in which, if it is cool, there is effected a separation of the constituents of the suint by the deposit of certain constituents and the retention of others in solution, and cooling the solution, substantially as described. 8th. As a new composition of matter, the unctuous, flocculent, deposit having a neutral reaction substantially such as is obtained by subjecting suint to the action of a warm heavy petroleum oil of specific gravity 30 degrees to 38 degrees Beaumé, which forms a solution of suint, in which, if it is cool, there is effected a separation of the constituents of the suint by the deposition of certain constituents and the retention of the others in solution, and cooling the solution, substantially as described. 9th. As a new composition of matter, the mixture of suint and petroleum oil, not lighter than 51 degrees Beaumé, substantially as described. 10th. As a new composition of matter, the mixture of suint and heavy petroleum oil of specific gravity of 30 degrees to 38 degrees Beaumé, substantially as described.

No. 50,424. Automatic Postage Stamp Attacher and Recorder. (*Appareil automatique à coller les timbres-poste et enregistrer.*)



John Keith, Ottawa, Ontario, Canada, 29th October, 1895; 6 years.

Claim.—1st. In a stamp affixer, the combination of a stationary cylinder adapted to hold on its shell a sheet of stamps, a gauge on one side adapted to receive the edge of the sheet, a circumferential gauge adapted to slide longitudinally, an arm secured to said gauge projecting through a slot in the shell into the interior of the cylinder, means of propelling said arm intermittently forward and backward, a spring retracted knife journalled at the centre of the cylinder and operating at the front edge of the shell thereof, a disc journalled at the centre and front end of said cylinder and having its edge level with said shell, means of rotating said disc intermittently a certain measured space, a short endless apron running over a roller at each end and pressed against the edge of said disc and extending near its centre line at the bottom, a lever pivoted near the centre of the disc and having its lower end bent to sweep close to the edge thereof and provided with a sponge or brush, a sliding table supported upon a spring frame and provided at its rear edge with a knife adapted to extend across the edge of said disc and a spring frame supporting said table and jerk it upward against the lower part of the edge of

the disc, substantially as set forth. 2nd. In a stamp affixer, the combination of a stationary cylinder adapted to carry upon its shell a sheet of stamps, a gauge on one side of said cylinder adapted to receive the edge of said sheet, a circumferential gauge adapted to receive the rear edge of said sheet and means of moving the same intermittently, a rotary disc of the same diameter as the cylinder and journalled upon a stationary bearing formed by the extended central part of the front end of the cylinder, a stationary plate parallel to the face of said disc to which said extended central part of the cylinder end is secured, a knife blad journalled upon said extended central part of the front end of the cylinder between said end and the rotary disc and having in its hub a spring adapted to return said blade after being drawn forward, a series of pins projecting from the face of said disc and each pressed against said stationary plate by a spring at its rear, said springs being equidistant from the centre of the disc and from each other and each adapted to engage a perforation in said stationary plate, a lever journalled upon the extended central part of the cylinder end and having in its hub a sprung tending to rotate it and provided with a cam adapted to retract the engaged pin and by it turn the disc until another pin engages said perforation, an arm pivoted to the outer face of the stationary plate and having its lower part made tubular and the end bent across the edge of the disc end perforated and provided with the sponge or brush and having its upper end connected by a link to the spring-actuated lever and a short endless apron passing over two rollers journalled in a frame or casing carried and pressed against the edge of the disc by a spring, substantially as set forth. 3rd. In a stamp affixer, the combination of a stationary cylinder having a slotted shell, a shaft journalled in the ends thereof, and having the portion between said ends screw threaded, an arm extending through the slot in the shell provided with a threaded hub adapted to travel upon said screw shaft, a gauge extending partly around the shell of said cylinder and being secured to the projecting end of said arm, and means of rotating said screw intermittently a certain measured part, substantially as set forth. 4th. In a stamp affixer and recorder, the combination of a stationary cylinder having a slotted shell, a screw journalled therein, an arm with threaded hub upon said screw and extending through said slot, a pinion at the end of said screw, a wheel gearing in said pinion, a spring coiled upon the arbour of said wheel tending to rotate the same, a notched disc upon the arbour, a spring detent adapted to engage the notches of said disc, a lever adapted to lift said detent, a pusher or presser guided by a pin in a slot near the top and by a pin below and pressed against the latter end upwardly by a spring on the opposite side and having a wedge-shaped projection adapted to pass against said lower guide pin and deviate said presser sideways and cause it to slip off the end of the lever after having depressed and lifted the other end sufficiently to disengage the detent from one of the notches, an index or pointer at the end of the arbour and a dial face, substantially as set forth. 5th In a stamp affixer and recorder, the combination of an arbour H, carrying a hand or pointer and passing through a dial plate, a spur-wheel h secured to said arbour, a spring H^{11} tending to rotate said wheel, a notched disk h^{11} secured upon said arbour, a hooked spring detent K adapted to engage the notches of said disc, a lever L adapted to lift said detent out of engagement, and a presser M having slot m and incline m^{111}, and guided by the pins m^{1} and m^{11}, and lifted and guided by the spring M^{1}, and adapted to engage, depress and slip off that end of the lever L, which is not in contact with the detent, substantially as set forth. 6th. In a stamp affixer and recorder, the combination of a stationary cylinder adapted to carry a sheet of stamps upon its shell, a disc of the same diameter journalled upon the centre of the cylinder at one end, a series of pins held slidingly projecting from the face of said disc and tending to engage a perforation in an opposite plate by the pressure of springs when opposite the same in being turned, a pin secured to the projecting part of each of said pins at a right angle and bent backwards and sliding in a perforation in said disc forming a guide, a lever journalled upon the same centre as said disc and provided with a spring tending to turn said lever upon its bearing, a segmental finger secured to said lever wedge or cam-shaped and adapted to press against the vertical parts of the guide pins and to cause them to retreat within said disc and then engage the pin so repressed by its broad heel and turn the disc by it and a stationary plate against which said spring pins bear and having a perforation adapted to be engaged by all the pins in succession and stopping the rotation of the disc, substantially as set forth. 7th. In a stamp affixer and recorder, the combination of a rotary disc journalled upon a stationary horizontal bearing, a stationary plate parallel to the face of said disc, a series of pins slidingly held in said disc equidistant from its centre and the end of each pressed against said plate by springs, a perforation in said plate adapted to be engaged by all the pins in rotation, a pin secured to each spring pin at a right angle to form a shoulder in the projecting portion and bent at a right angle backward into the disc to form a guide, a lever journalled upon the stationary bearing upon which the disc is journalled and having in its hub or drum a spring tending to rotate it, a segmental finger or cam on said lever narrow at the point and broad at the heel and adapted to bear on the shoulder of one of the spring pins when drawn in the direction contrary to the pressure of the spring and causing it to retreat from the perforation in the plate and causing the disc to rotate when the wheel of the cam engages it and the lever is allowed to follow the action of its spring, substantially as set forth. 8th. In a stamp affixer and recorder, the combination of a rotary disc journalled upon a stationary bearing, a series of spring actuated pins projecting from its face equidistant from its centre and equidistant from each other, numerals at the projecting ends of said pins, a stationary plate parallel to the face of said disc and having a perforation adapted to be engaged by each of said pins in rotation by the action of their springs, means of disengaging the pin from such perforation and tending to rotate said disc and a short endless apron running over rollers journalled in a frame pressed by a spring against the edge of said disc, substantially as set forth. 9th. In a stamp affixer, the combination of a rotary disc journalled upon a stationary bearing, a stationary plate parallel to the face of said disc end having a perforation adapted to receive a pin, a series of spring-actuated pins projecting from the face of said disc equidistant from its centre and equidistant from each other and pressing by the action of their springs with their ends against said stationary plate and adapted to engage said perforation in rotation, a lever having its hub journalled upon the stationary bearing of the disc and having a spring tending to swing it in one direction, a cam on said lever adapted to disengag the spring-actuated pin from the perforation in the plate and push against the pin to cause the disc to turn upon its bearing, and an arm pivoted to the external face of the stationary plate and having its lower end bent at a right angle across the edge of the disc and having the bent part and the part immediately above made tubular and the said bent part perforated and provided with a sponge or brush and its upper end connected by a link to the upper end of the spring lever, substantially as set forth. 10th. In a stamp affixer, the combination of a table having guide flanges at its lower surface, a gauge flange at one end of its rear edge and a spring knife at the other end, a spring support having rollers at its upper end upon which said table may run, and consisting of pairs of curved and inclined legs connected transversely and pivoted to the base and having their lower ends held down by springs, substantially as set forth. 11th. In a stamp affixer, the combination of two pairs of curved and inclined legs connected transversely and pivoted to the base arranged with opposite inclinations and having their inner and lower ends held down by springs and the upper ends provided with rollers, a table having guide flanges at its lower surface, an upward projecting gauge flange at the rear edge at one end, a spring knife at the rear edge at the other end, a rotary disc journalled upon a stationary bearing parallel to the longitudinal motion of the table so that the rear edge of the latter may pass transversely across it edge at the rear of its centre line, means of rotating said disc and presenting the end of a strip of stamps under its centre, a stationary plate parallel to said disc, and an arm pivoted to said plate and having its lower part made tubular and bent across the edge of said disc between it and the table and provided with a sponge or brush substantially as set forth. 12th. In a stamp affixer and recorder, the combination of a stationary cylinder adapted to carry a sheet of stamps upon its shell, a stationary gauge along one side adapted to receive the edge of the sheet, a movable transverse gauge, covers B^{1} hinged to said cylinder at their lower edges and meeting at the top so as to completely envelop that portion of the cylinder containing the stamps and provided with means of locking them to prevent interference with the stamps, substantially as set forth.

ERRATUM.—In the titles of Patents Nos. 49,879, 49,880, and 49,881, as printed in the *Record* for September, for John Robert Carter, read Francis Meisel, as assignor.

CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO THE FOLLOWING PATENTS.

4091. ORONHYAKEKHA and ALEXANDER McGILVRAY, 2nd five years of No. 35,173, from 10th October, 1895. Combined Vaporizer and Inhaler, October 1st, 1895.

4092. JOHN W. GARLAND, 2nd five years of No. 35,137, from 3rd October, 1895. Chain Link, October 3rd, 1895.

4093. JAMES WHITE PROVAN, 2nd five years of No. 35,270, from 24th October, 1895. Load Lifter, October 3rd, 1895.

4094. MOSES SEYMOUR McCRANEY, 2nd five years of No. 35,223, from 16th October, 1895. Dump Cart, October 4th, 1895.

4095. THE GENDRON MANUFACTURING COMPANY, 2nd five years of No. 35,196, from 11th October, 1895. Vehicle Wheel, October 5th, 1895.

4096. JAMES BAIRD, 2nd and 3rd five years of No. 36,072, from 4th March, 1895. Railroad Frogs, October 5th, 1895.

4097. OTTMAR MERGENTHALER, 3rd five years of No. 22,657, from 20th October, 1895. Machine for Producing Type Bars and Matrices, October 5th, 1895.

4098. RUFUS P. REDMOND and EDWARD CORDINGLY, 2nd five years of No. 35,193, from 11th October, 1895. Whip Socket and Rein Holder Combined, October 8th, 1895.

4099. RICHARD STANFIELD and THOMAS CLARKSON, 2nd five years of No. 35,208, from 15th October, 1895. Method of and Apparatus for Separating Metals and Minerals from Ores, October 10th, 1895.

4100. HARRIETT BROOKMAN DEVLAN, 2nd five years of No. 35,197, from 11th October, 1895. Packing for Journals, October 10th, 1895.

4101. HENRY FAIRBANKS and HOWARD PARKER, 2nd five years of No. 35,221, from 15th October, 1895. Machine for Forming Bodies from Successive Layers of Pulp, October 10th, 1895.

4102. WILLIAM SMITH, 2nd five years of No. 35,207, from 30th October, 1895. Metal Cutter, October 12th, 1895.

4103. CHARLES DAVIDSON, 2nd five years of No. 35,211, from 15th October, 1895. Rope Couplings, October 14th, 1895.

4104. GEORGE W. PELTON, 2nd five years of No. 35,338, from 3rd November, 1895. Propeller Wheel, October 14th, 1895.

4105. PHILIP VOLLMAR, 2nd five years of No. 35,287, from 25th October, 1895. Washing Machine, October 14th, 1895.

4106. THE GENDRON MANUFACTURING COMPANY, (assignee), 2nd five years of No. 35,243, from 18th October, 1895. Wagon Running Gear, October 16th, 1895.

4107. THE GENDRON MANUFACTURING COMPANY (assignee), 2nd five years of No. 35,244, from 18th October, 1895. Machine for Trueing Ties, October 16th, 1895.

4108. LOUIS JOSEPH HÉRARD, 3rd five years of No. 22,740, from 3rd November, 1895. Machine for Making Stovepipe Elbows, October 16th, 1895.

4109. JAMES WHITE PROVAN, 3rd five years of No. 23,000, from 16th December, 1895. Hay Carriers, October 16th, 1895.

4110. THE STEEL BRIGGS SEED COMPANY, (assignee), 2nd five years of No. 35,271, from 24th October, 1895. Display Box, October 17th, 1895.

4111. THE NOXON BROS. MANUFACTURING COMPANY, (assignee), 3rd five years of No. 22,813, from 18th November, 1895. Spring Locking Device for Drill Hoes and Cultivators, October 17th, 1895.

4112. THE NOXON BROS. MANUFACTURING COMPANY, (assignee), 3rd five years of No. 22,844, from 18th November, 1895. Spring Locking Device for Drill Hoes and Cultivator Teeth, October 17th, 1895.

4113. THE NOXON BROS. MANUFACTURING COMPANY, (assignee), 3rd five years of No. 22,927, from 2nd December, 1895. Feed Operating Gear of Seeding Machines, October 17th, 1895.

4114. THE NOXON BROS. MANUFACTURING COMPANY, (assignee), 3rd five years of No. 22,928, from 2nd December, 1895. Seeding Machine, October 17th, 1895.

4115. SOL WILE, 2nd five years of No. 35,298, from 25th October, 1895. Machine for Corking Bottles and Wiring the Corks thereto, October 21st, 1895.

4116. GEORGE R. FORD, 2nd five years of No. 35,262, from the 22nd October, 1895. Boiler Cleaner, October 21st, 1895.

4117. JOHN CEBURN WEST and JAMES PEACHEY, 2nd five years of No. 35,355, from 5th November, 1895. Steam Working Scow, October 21st, 1895.

4118. UBERT P. TARBOX, 2nd five years of No. 35,269, from 21th October, 1895. Pillow Sham Holder, October 22nd, 1895.

4119. FREDERICK A. ROBBINS, 2nd five years of No. 35,267, from 23rd October, 1895. Machine for Crimping Heads of Metal Cans, October 23rd, 1895.

4120. JOHN P. MANNY, 2nd five years of No. 35,497, from 26th November, 1895. Lemon Juice Extractor, October 25th, 1895.

4121. JOHN P. MANNY, 2nd five years of No. 35,498, from 26th November, 1895. Lemon Juice Extractor, October 25th, 1895.

4122. FRANCIS AUGUSTIN WALSH, 3rd five years of No. 22,712, from 2nd November, 1895. Sheet Metal Can, October 28th, 1895.

TRADE-MARKS

Registered during the month of October, 1895, at the Department of Agriculture—Copyright and Trade-Mark Branch.

5428. ERNEST JOSEPH MOSS, Foochow, Province of Fohkien, China. Tea, 1st October, 1895.

5429. GEORGE SEYFANG & ANDREW L. PRENTISS, Buffalo, N.Y., U.S.A. Bicycles and parts thereof, 1st October, 1895.

5430. J. SPENCER TURNER, New York, N.Y., U.S.A., successor to the firm of BRINCKERHOFF, TURNER & CO. Cotton Duck made into seamless bags, or intended to be used for sails of shipping, tents, belts, car coverings, aprons for agricultural machines, and other purposes, 2nd October, 1895.

5431. H. W. JOHNS MANUFACTURING COMPANY, New York, N.Y., U.S.A. Electrical Devices, 3rd October, 1895.

5432. } S. DAVIS & SONS, Montreal, Que. Cigars, Cigarettes and Tobaccos, 3rd
5433. } October, 1895.

5434. JOSEPH ALPHONSE DUSSAULT ET JOSEPH ERNEST DUSSAULT, Québec, Que., faisant affaires sous la raison sociale de B. HOUDÉ et CIE. Tabac, 3 octobre, 1895.

5435. BARTHOLOMEW COTTAM, London, Ont. Bird Bread, 3rd October, 1895.

5436. HENRY MARTYN CHILDS, Montreal, Que. Teas and Coffees, 9th October, 1895.

5437. JOSEPH EDOUARD WILFRID LECOURS, Montréal, Qué. Une Pommade pour la guérison du Rifle, Chapeau Echauffements, et autres maladies de la Peau, 9 octobre 1895.

5438. THE EDWARDSBURG STARCH COMPANY, LIMITED, Montreal, Que. Starch, 10th October, 1895.

5439. PRICE'S PATENT CANDLE COMPANY, LIMITED, Battersea, County of Surrey, England. Candles, Night Lights, Oils, Preparations for Laundry purposes and Glycerine, 11th October, 1895.

5440. PILLOW & HERSEY MANUFACTURING COMPANY, LIMITED, Montreal, Que. Horse-shoes, Spikes, Nails of all kinds, Bolts, Nuts, Tacks and Washers, 15th October, 1895.

5441. LOUIS GRIESINGER, junior, & ALBERT LEOPOLD IRION, Windsor, Ont., trading as THE BRITISH AMERICAN BREWING CO. Lager Beer, 16th October, 1895.

5442. HATTIE & MYLIUS, Halifax, N.S. A Toilet Preparation, 16th October, 1895.

5443. KING ARNOLDI, Ottawa, Ont. Mineral Water, 18th October, 1895.

5444. SAMUEL L. KILMER, South Bend, Indiana, U.S.A. Medicinal Remedies for the relief of pain due to Rheumatism, or Headache, or Neuralgia, or any disorder of the nervous system, 21st October, 1895.

5445. } SINGER SAFETY HOOK & EYE COMPANY, Grand Rapids, Michigan,
5446. } U.S.A. Hooks and Eyes, 21st October, 1895.

5447. EDWARD C. FRASER, Sherbrooke, Que. A Preparation for the prevention and cure of chapped hands and face, roughness of the skin, sunburn, freckles, &c., 21st October, 1895.

5448. THE EBY, BLAIN COMPANY, LIMITED, Toronto, Ont. Tea, 22nd October, 1895.

5449. ALEXANDER SHIELS, Glasgow, Scotland. Milking Machines and parts thereof, 23rd October, 1895.

5450. ROBERT CHARLES WILKINS, Montreal, Que. Shirts, Overalls and Ready-made Clothing, 24th October, 1895.

5451. HERBERT PERCIVAL ECKARDT & RICHARD PHILP, Toronto, Ont., trading as H. P. ECKARDT & CO. Tea, 24th October, 1895.

5452. ARTHUR GEORGE BROWN, Manchester, England. Cycles, Carriages and Vehicles, 24th October, 1895.

5453. LA COMPAGNIE FERMIÈRE DE L'ETABLISSEMENT THERMAL DE VICHY, Paris, France. Sels et Pastilles extraits des eaux minérales de Vichy, 24 octobre. 1895.

5454. LA COMPAGNIE FERMIÈRE DE L'ETABLISSEMENT THERMAL DE VICHY, Paris, France. Sels extraits des eaux minérales de Vichy, 24 octobre, 1895.

5455. M. BEETHAM & SON, Cheltenham, Gloucestershire, England. A Toilet Preparation for the Skin, 28th October, 1895.

5456. S. DAVIS & SONS, Montreal, Que. Cigars, Cigarettes and Tobaccos, 30th October, 1895.

5457. LOUIS OVIDE GROTHÉ, Montreal, Que. Cigars, Cigarettes and Tobaccos, 30th October, 1895.

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8143. THE RELIANCE SYSTEM OF ANNUITY RE-PAYMENTS. (Pamphlet.) The Reliance Loan and Savings Company of Ontario, Toronto, Ont., 1st October, 1895.

8144. THE SIGNS, MANNER AND TIME OF OUR LORD'S SECOND COMING. By Mrs. Mary Gilbert, Toronto, Ont., 2nd October, 1895.

8145. PRIZE SHORT STORIES. (Containing the Best Five Stories submitted in the Dr. Williams' Medicine Company's $300 Story Competition). George T. Fulford, Brockville, Ont., 2nd October, 1895.

8146. THE LAND OF THE MAPLE. (Patriotic Song). By J. Grant. Music by H. Collier Grounds. J. Grant, Ottawa, Ont., 3rd October, 1895.

8147. PTARMIGAN. (Lancers). On Airs from J. E. P. Aldous' Opera. Arranged by G. A. Allan. The Anglo-Canadian Music Publishers' Association, Limited, London, England, 4th October, 1895.

8148. UP TO DATE. (Medley Lancers). Arranged by F. W. Meacham. Whaley, Royce & Co., Toronto, Ont., 5th October, 1895.

8149. DIGEST OF THE DOCTRINAL STANDARDS OF THE METHODIST CHURCH. By the Rev. Principal Shaw, D.D., LL.D. Wm. Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 7th October, 1895.

8150. SICK ROOM ALTAR MANUAL. By Very Rev. H. Fummelen, Vancouver, B.C., 8th October, 1895.

8151. THE CANADIAN ALBUM; MEN OF CANADA, OR SUCCESS BY EXAMPLE. (Volume IV). Thomas S. Linscott, Brantford, Ont., 8th October, 1895.

8152. LIFE AND WORK OF MR. GLADSTONE. By J. Castell Hopkins. Thomas S. Linscott, Brantford, Ont., 8th October, 1895.

8153. CHEQUE AND COUPON FOR MILK AND CHEESE. Robert James Henderson, Chesterfield, Ont., 9th October, 1895.

8154. A TREATISE ON THE LAW OF LANDLORD AND TENANT. (Applicable to the Dominion of Canada). By S. R. Clarke, Barrister. The Carswell Co., Ltd, Toronto, Ont., 10th October, 1895.

8155. TORRENS TITLE CASES. By William Howard Hunter, B.A., Barrister. The Carswell Co., Ltd., Toronto, Ont., 10th October, 1895.

8156. WHALEY, ROYCE & CO.'S MUSICIANS' SCRIBBLING PAD, No. 1. By Angelo M. Read. Whaley, Royce & Co., Toronto, Ont., 14th October, 1895.

8157. ORAL LESSONS IN FRENCH FOR JUNIOR CLASSES. (Part III). By H. H. Curtis, Montreal, Que., 15th October, 1895.

8158. ORAL LESSONS IN FRENCH FOR JUNIOR CLASSES. (Teacher's Manual. Part III). By H. H. Curtis, Montreal, Que., 15th October, 1895.

8159. COVENANT OF THE YORK COUNTY LOAN AND SAVINGS COMPANY. Joseph Phillips, Toronto, Ont., 15th October, 1895.

8160. SPECIAL SALARY REPORT OF THE YORK COUNTY LOAN AND SAVINGS COMPANY. Joseph Phillips, Toronto, Ont., 15th October, 1895.

8161. RECEIPT OF MORTGAGE FROM THE YORK COUNTY LOAN AND SAVINGS COMPANY. Joseph Phillips, Toronto, Ont., 15th October, 1895.

8162. APPLICATION AND AGREEMENT FOR MORTGAGE INVESTMENT OF THE YORK COUNTY LOAN AND SAVINGS COMPANY. Joseph Phillips, Toronto, Ont., 15th October, 1895.

8163. EXTRAIT DU PAROISSIEN NOTÉ. (Revu, corrigé et augmenté. A l'usage des Enfants de Chœur). J. A. Langlais & Fils, Québec, Qué., 15 octobre, 1895.

8164. OPTICIAN'S RECORD BOOK. Designed by Lionel Laurence, Toronto, Ont., 18th October, 1895.

8165. EARLY CANADA. (Print). Richard R. Stevenson, Montreal, Que., 18th October, 1895.

8166. NOW AND THEN. Words by Arthur Penn. Music by Dora L. McMurtry, Toronto, Ont., 19th October, 1895.

8167. I'LL WAIT FOR DEAR OLD JACK. Words by Kathleen MacKenzie. Music by Wm. Caven Barron. Whaley, Royce & Co., Toronto, Ont., 21st October, 1895.

8168. GOD'S ETERNAL PURPOSE. By Rev. W. McGregor, Barton, N.S., 21st October, 1895.

8169. AVE MARIA. (No. 3. Op. 10. In E Flat. Solo for Contralto or Bass.) By J. A. Fowler. Whaley, Royce & Co., Toronto, Ont., 22nd October, 1895.

8170. MONTREAL SCHOOL MUSIC PAD. Wm. Foster Brown, Montreal, Que., 22nd October, 1895.

8171 HINTS ON IMPOSITION. (An Illustrated Guide for Printer and Pressman, in the Construction of Book Forms, &c.) By T. B. Williams, Toronto, Ont., 22nd October, 1895.

8172. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE, 1895. (Photo A.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8173. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE, 1895. (Photo B.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8174. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE, 1895. (Photo C.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8175. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE, 1895. (Photo D.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8176. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE, 1895. (Photo E.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8177. INDIAN SUN DANCE NEAR BATTLEFORD, JUNE, 1895. (Photo F.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8178. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE, 1895. (Photo G.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8179. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE, 1895. (Photo H.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8180. INDIAN SUN DANCE, NEAR BATTLEFORD, JUNE 1895. (Photo I.) Geraldine Moodie, Battleford, Sask., N.W.T., 22nd October, 1895.

8181. OUTLINES OF LECTURES ON CHURCH GOVERNMENT, Delivered in Knox College, by Rev. John J. A. Proudfoot, D.D., London, Ont., 23rd October, 1895.

8182. WHILE THE DANCE GOES ON. Words and Music by Chas. K. Harris. Whaley, Royce & Co., Toronto, Ont., 23rd October, 1895.

8183. A SUMMER RAMBLE. Rêverie Caractéristique, for Piano. By W. E. Barclay, Toronto, Ont., 23rd October, 1895.

8184. THREE SHORT ANTHEMS. (Call to Remembrance. The Lord is King. Grant to Us, Lord.) Composed by Arthur Dorey, Sherbrooke, Que., 24th October, 1895.

8185. BELL TELEPHONE COMPANY OF CANADA (LIMITED), EASTERN EXCHANGES, SUBSCRIBERS' DIRECTORY, ONTARIO DEPARTMENT, NOVEMBER, 1895. The Bell Telephone Company of Canada (Limited), Montreal, Que., 24th October, 1895.

8186. ONTARIO PRACTICE REPORTS. By T. T. Rolph, Barrister-at-law and Reporter to the Court. J. F. Smith, Q.C., Editor. (Volume XVI.) The Law Society of Upper Canada, Toronto, Ont., 25th October, 1895.

8187. LONDON CITY AND MIDDLESEX COUNTY DIRECTORY, 1895. The Might Directory Company of Toronto (Limited), Toronto, Ont., 26th October, 1895.

8188. DIRECTIONS FOR USING THE POLYGRAPH. (Or Copying Pad.) Geo. H. Burleigh, Gananoque, Ont., 28th October, 1895.

8189. ANDREWS' BI-CONICAL MAP OF THE WORLD. Thomas C. Andrews, Winnipeg, Man., 29th October, 1895.

90. LINK BELT MACHINERY CATALOGUE. The Waterous Engine Works Co., L'd, Brantford, Ont., 29th October, 1895.

8191. RULES OF THE GAME OF STOCK EXCHANGE. (Book.) Frederick Reesor James, Toronto, Ont., 30th October, 1895.