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The Canadian Patent Office RECORD

Vol. XXVII.—No. 10. OCTOBER 31st, 1899. Price free by post in Canada and the United States, $2.00. SINGLE NUMBERS, - - - 20 Cts

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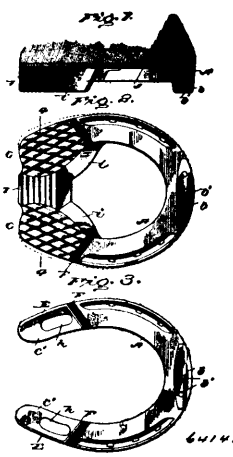
INVENTIONS PATENTED.

NOTE.—Patents are granted for 18 years. The term of years for which the fee has been paid, is given after the date of the patent.

No. 64,148. Horse Shoe. (*Fer à cheval.*)



Camden Mears, Frank Warren Mears, and Jules August Collet, all of Brooklyn, New York, U.S.A., 3rd October, 1899; 6 years. (Filed 15th June, 1899.)

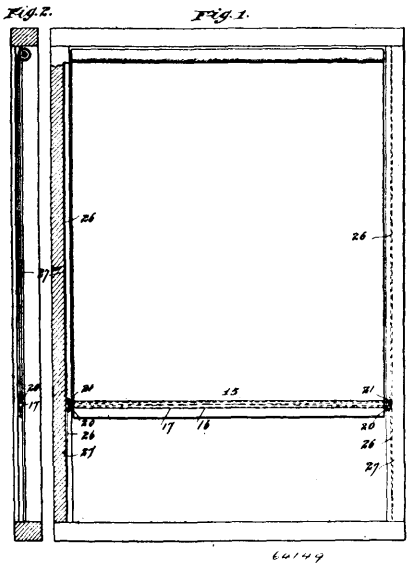
Claim.—1st. A horse shoe, having near the heel thereof elastic cushions extending inwardly and adapted to bear upon the frog of the foot and to project vertically therefrom below the tread of the shoe to form a direct elastic support between the frog and the ground, and a bar or bridge piece also projecting below the tread and forming with said heel cushions a full bar cushion, and constituting a direct elastic support between the ground and bar of the frog. 2nd. A horse shoe, comprising a metallic frame provided near the heel thereof with cushions projecting inwardly and adapted to bear upon the frog of the hoof, and a cushion bar or bridge piece connecting the same and adapted to bear upon the bar of the frog and hoof, the said cushions and bar being composed of a single piece of resilient material secured by vulcanizing and extended vertically below the plane of the tread of the frame to form a direct elastic support between the ground and said frog and the bar thereof, substantially as described. 3rd. A horse shoe, comprising a metallic frame provided near the heel thereof with cushions projecting inwardly and forming elastic supports for the frog of the hoof, and a bar or bridge piece connecting the cushions, the said cushions and bar being composed of a single piece of resilient material beveled at the front edge thereof to shed gravel and dirt and thereby prevent accumulation of the same within the hoof, substantially as described. 4th. A horse shoe provided at the heel thereof with a transverse full bar cushion adapted to bear upon the frog and bar of the foot, and to extend vertically to approximately the plane of the tread of the shoe and form a direct elastic support between both said frog and bar and the ground, substantially as described. 5th. A horse shoe, comprising a metallic frame A, provided in its upper and lower faces at the heel with seats C-C^1 in communication through openings *h*, the said seat C being formed by an outer wall D and the seat C^1 by an outer wall E and transverse wall F, and cushions G having their upper and lower parts seated in said seats and bound by integral portions extending through said openings said cushions extending inwardly and forming elastic supports for the frog of the hoof, substantially as described. 6th. A horse shoe, comprising a malleable metal frame made somewhat larger than its normal indicated size so that it may be shaped cold and contracted at the heel and quarters to fit hoofs of different contour, and provided at the heel thereof with a full bar cushion adapted to be compressed when the frame is contracted to better resist wear, said cushion adapted to bear upon the bar and frog of the foot and to extend vertically to approximately the plane of the tread of the shoe and form a direct elastic support between said frog and bar and the ground, substantially as described. 7th. A horse shoe, comprising a metallic frame A having a solid fore part, non-grooved or channeled except as to the nail crease and provided in its upper and lower faces at the heel with seats C-C^1 in communication through openings *h*, the said seat C being formed by an outer wall D and the seat C^1 by an outer wall E and transverse wall E^1, cushions having their upper and lower parts seated in said seats and bound by integral portions extending through said openings, said cushions extending inwardly and forming elastic supports for the frog of the hoof, and a cover J adapted to be interposed between the shoe and hoof, substantially as described.

No. 64,149. Curtain Fixtures. (*Attache de rideau.*)

The Forsyth Brothers Co., Chicago, Illinois, U.S.A., 3rd October, 1899; 6 years. (Filed 6th June, 1899.)

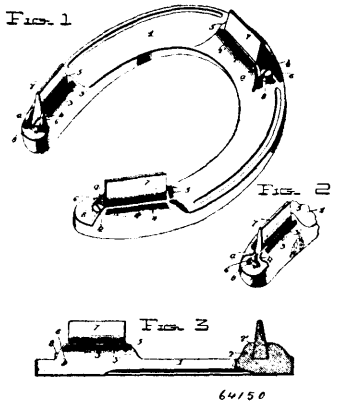
Claim.—1st. The combination, with a flexible shade or curtain and its spring actuated roller, of flexible guides adapted to maintain the lower edge of the shade in substantial parallelism with the roller, apertured heads carried by the shade and through which the flexible guides extend, a plurality of antifriction rollers mounted in each head and over which the respective guides pass, and spring pressed friction shoes pivotally mounted upon said heads and adapted to contact with the window frame, substantially as described. 2nd. The combination, with a flexible shade or curtain and its spring actuated roller, of flexible guides adapted to maintain the lower edge of the shade in substantial parallelism with the roller, and spring actuated friction shoes carried by the curtain and adapted to contact with the window frame and each comprising a head and a friction shoe proper having a tilting or rocking connection with the head and free to move bodily towards and from the same, said head bearing on said shoe when in operative position, substantially as described. 3rd. The combination, with a flexible shade or curtain and its spring actuated roller, of flexible guides adapted to maintain the lower edge of the shade in substantial parallelism with the roller, and spring actuated friction shoes carried by the curtain and adapted to contact with the window frame and each comprising a head through which the flexible guides pass, and a friction shoe which is bodily movable towards and from the head, whereby the space within the head may be increased to facilitate the insertion of

the flexible guides, substantially as described. 4th. The combination, with a flexible shade or curtain and its spring actuated roller,



of a tube mounted in the lower edge of said shade or curtain, heads carried by said tube and apertured in line with the bore thereof, a plurality of antifriction rollers journalled in said heads on opposite sides of the apertures thereof, flexible guides passing over said rollers and through said heads and tube in opposite directions, friction shoes mounted upon said heads and having a tilting or rocking connection therewith, said heads and shoes slidably mounted in the tubes, and springs for pressing them outwardly, substantially as described. 5th. The combination, with a flexible shade or curtain and its spring actuated roller, of flexible guides adapted to maintain the lower edge of the shade in substantial parallelism with the roller, and spring actuated friction shoes carried by the curtain and adapted to contact with the window frame, and each comprising a head and a friction shoe proper having a pin and slot connection with each other, and said head having a centrally projecting portion to bear upon the back of the friction shoe proper, substantially as described. 6th. In a fixture of the character described, a combined head and shank consisting of two similar parts divided on a median plane, a ring or band fitting over the shank, and pins connecting the two parts and carrying guide rollers, substantially as described. 7th. In a fixture of the character described, a head provided with guiding means for the converging flexible guides, and a laterally enlarged chamber at the point of convergence of said guiding means, substantially as described. 8th. The combination, with a flexible shade or curtain and its spring actuated roller, of a flexible tape or guide and heads detachably connected to the shade and adapted to receive said tapes or guides, substantially as described.

No. 64,150. Horseshoe. (*Fer à cheval.*)

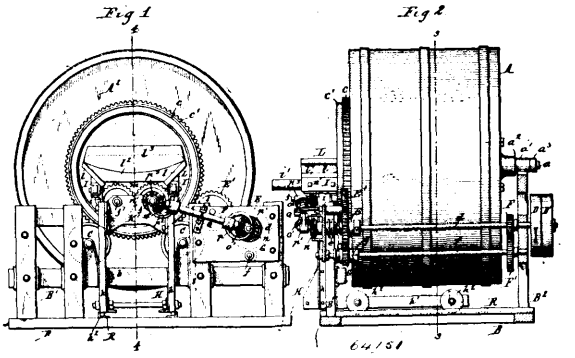


Albert James Davies and Joseph Hirsch, both of Kansas City, Missouri, U.S.A., 3rd October, 1899; 6 years. (Filed 24th April, 1899.)

Claim.—1st. A horseshoe formed with dovetailed sockets open at one end and closed at the other, the ribs forming said sockets being provided with compressible lips at the open end of said sockets, and calks having dovetailed portions to engage said sockets, and studs arranged at the open end of said sockets between the lips, whereby when the lips are compressed the removal of the studs is prevented, substantially as and for the purpose set forth. 2nd. A horseshoe formed with dovetailed sockets open at one end and closed at the other end, the ribs forming said sockets being provided with compressible lips at the open end of said sockets, calks having dovetailed portions to engage said sockets, and screw threaded studs arranged at the open end of said sockets between the lips, whereby when the lips are compressed the removal of the studs is prevented, substantially as and for the purpose set forth.

No. 64,151. Churn and Butter Worker.

(*Baratte et batte à beurre.*)

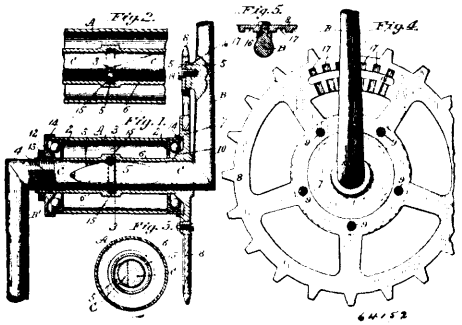


The D. H. Burrell Company, assignee of Harvey Feldmeier, all of Little Falls, New York, U.S.A., 3rd October, 1899; 6 years. (Filed 4th April, 1899.)

Claim—1st. The combination with a rotary drum having an open head and its stationary supporting frame, of a portable carriage or frame detached from the drum and its supporting frame, and butter working rollers mounted on said independent carriage or frame and adapted to be inserted into the drum through the open head thereof and to be removed therefrom by moving said carriage or frame toward or from the drum and its supporting frame, substantially as set forth. 2nd. The combination with a rotary drum having an open head and its stationary supporting frame, of a portable carriage adapted to be moved about on the floor, and butter working rollers supported on said carriage and adapted to be inserted into the drum through the open head thereof and to be removed therefrom by moving the carriage in proper direction, substantially as set forth. 3rd. The combination with a rotary drum having an open head and its stationary supporting frame, of a portable carriage or frame, adapted to be moved about independent of drum and its supporting frame, butter working rollers supported on said carriage or frame, and a hopper arranged on said carriage or frame above said rollers, said rollers and hopper being adapted to be inserted into and removed from the drum through the open head thereof by moving said portable frame or carriage toward or from the drum and its supporting frame, substantially as set forth. 4th. The combination with a rotary drum having an open head, of a removable butter worker, adapted to be placed in said drum through said open head and composed of a supporting frame, butter working rollers, a hopper arranged above said rollers and a removable bottom adapted to be placed in said hopper, substantially as set forth. 5th. The combination with a rotary drum having an open head and its stationary supporting frame, of a portable carriage or frame adapted to be moved about independent of the drum and its supporting frame, butter working rollers supported in said carriage or frame, a hopper arranged on said carriage or frame above said rollers, and a removable bottom adapted to be placed in said hopper for collecting the butter delivered to the same, said rollers and hopper being adapted to be inserted into the drum through the open head thereof, substantially as set forth. 6th. The combination with the butter working rollers and their supporting frame, of a hopper arranged above said rollers and capable of bodily movement on said supporting frame in the longitudinal direction of said rollers, substantially as set forth. 7th. The combination with the butter working rollers, of a supporting frame having longitudinal side bars arranged on opposite sides of said rollers, and a hopper mounted on said side bars and capable of movement on said bars in the longitudinal direction of said rollers, substantially as set forth. 8th. The combination with a rotary drum having an open head, of a butter worker adapted to be placed in said drum through said open head and composed of a supporting frame having its upper portion projecting into said drum, butter working rollers mounted in said upper portion of the frame, and a hopper supported on said upper portion of the frame above said rollers and capable of movement on the frame in the axial direction of the drum, substantially as set forth. 9th. The combination with the butter working rollers, of a hopper arranged above said rollers and provided with a removable intermediate board, a fixed bottom in front of said intermediate board and a removable bottom in rear of the same, substantially as set forth. 10th. A portable butter worker adapted to be combined

with a rotary drum having an open head and containing a carriage having its base frame and its upper horizontal portion extending from its upright portion rearwardly, or in the same direction, and butter working rollers arranged in the upper portion of said carriage, substantially as set forth. 11th. A portable butter worker adapted to be combined with a rotary drum having an open head and containing a carriage having its base frame and its upper horizontal portion extending from its upright portion rearwardly or in the same direction, butter working rollers arranged in the upper portion of said carriage, and a hopper arranged on said carriage above said rollers, substantially as set forth. 12th. The combination with a rotary drum having an open head, of a portable carriage or frame adapted to be moved about independent of said drum, butter working rollers supported on said carriage or frame, a driving shaft arranged on one side of said drum and connected with the same to rotate the same, and a detachable cross shaft geared at one end with said driving shaft and at the other with said rollers, substantially as set forth. 13th. The combination with a rotary drum having an open head, of a portable carriage or frame adapted to be moved about independent of the drum, butter working rollers supported on said carriage or frame, a driving shaft arranged on the same, a cross shaft provided at its ends with bevel wheels which mesh with bevel wheels on the driving shaft and on one of the roller shafts, and a housing in which said cross shaft is journalled and which is provided at its ends with sleeves by which it is connected with the driving shaft and one of the roller shafts, substantially as set forth.

No. 64,152. Crank Axle. (*Essieu coudé.*)



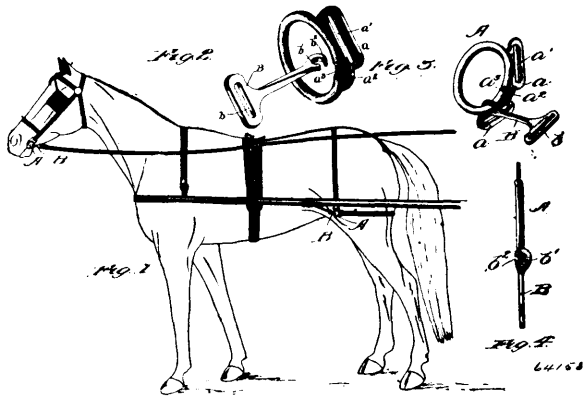
Moro D. Stebbins, assignee of Gomer Phillip Jones, Springfield, Massachusetts, U.S.A., 3rd October, 1899; 6 years. (Filed 12th March, 1899.)

Claim.—1st. A two part crank axle, each part consisting of a crank and an integral shaft section, the two shaft sections having overlapping bevels, one of said sections having a projection on its outer surface of such part of the bevelled shaft section as forms less than a semi-cylinder, combined with a sleeve having a recess into which said projection extends, the overlapping bevels holding the projection on the one shaft section into the recess in the sleeve, substantially as described. 2nd. A two part crank axle each part consisting essentially of a crank and a shaft section, the two shaft sections, having bevelled proximate faces and together forming a substantially cylindrical shaft, one of said sections having an external projection from its outer cylindrical surface at a point where the diameter of the section below the projection is less than half a cylinder, a sleeve with a recess therein to inclose the divided axle and receive the projection thereon, and means for securing one of the axle sections to the sleeve to prevent independent rotation, all combined substantially as described. 3rd. The combination in a divided crank axle comprising two axle and crank sections, and a tubular member within which said axle sections are united by a screw engagement of one of them with said member, of a ratchet and pawl devices located between said axle and said member, whereby said axle is rotatable in said member in one direction only, substantially as described. 4th. In a divided crank axle comprising two axle sections each having a crank thereon, of a sleeve whereby said axle parts are united by the screw-threaded engagement thereof with said sleeve, and means for preventing the unscrewing of said axle parts and said sleeve, consisting of a ratchet on one of said parts and a pawl on said sleeve for engaging said ratchet, substantially as described.

No. 64,153. Harness. (*Harnais.*)

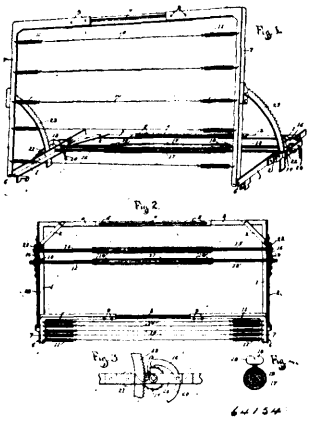
Joseph Rousseau, Joseph H. Lessard, and George A. Langevin, all of Thetford Mines, Quebec, Canada, 3rd October, 1899; 6 years. (Filed 4th July, 1899.)

Claim.—1st. A harness attachment, comprising a hook, having a slot at one end, a ring portion, having a slotted flange and grooves forming a passage into the interior of the ring for attaching the hook, substantially as described. 2nd. A harness attachment, comprising a hook, having a slot at one end, a ring portion, having a slotted flange, a narrow extension adjacent to said flange, and grooves formed in said ring portion, on each side of said extension, forming a passage into the interior of the ring for attaching the hook, substantially as described. 3rd. A harness attachment, comprising a hook, having a slot at one end, a ring portion, having a plurality of



slotted flanges, a narrow extension located between said flanges, and grooves formed in said ring portion, on each side of said extension, forming a passage into the interior of the ring for attaching the hook, substantially as described.

No. 64,154. Bed Head. (*Tête de lits.*)

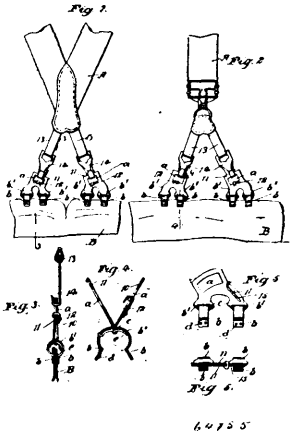


Charles H. Johansen and Simon Jorgensen Holdt, both of Chicago, Illinois, U.S.A., 3rd October, 1899; 6 years. (Filed 3rd July, 1899.)

Claim.—1st. As a new article of manufacture, a removable head section for beds, having in combination, two frames hinged together and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed or other support and remain normally stationary, and the other being adapted to move about the hinge joint, means carried by the movable frame for supporting the head portion of a matress or the like, a pair of racks, one disposed at each side of the frame, each rigidly connected at one end to the movable frame, the toothed faces of the racks being concentric with the hinge joint, a pair of pinions engaging the racks, respectively, a shaft extending from side to side of the frame, carrying the pinions and being incapable of rotation relatively thereto, a pair of ratchets, one at each side of the frame, carried by the shaft and being incapable of rotation relatively thereto, a pair of pawls engaging the ratchets, a rock shaft carrying the pawls and extending from side to side of the frame, the shaft carrying the pinions being provided outside of the frame with means for receiving a wrench for turning it, substantially as set forth. 2nd. As a new article of manufacture, a removable head section for beds having, in combination, two frames hinged together and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed or other support and remain normally stationary, and the other being adapted to be moved about the hinge joint, means carried by the movable frame for supporting a mattress or the like, a pair of racks, one at each side of the frame, each rigidly connected at one end to the movable frame, the toothed faces of the racks being concentric with the hinge joint, a shaft journalled in and extending from side to side of the stationary frame, a pair of pinions, one at each side of the frame, carried by the shaft, and engaging the racks, said shaft being provided at its ends outside of the frame with means for receiving a wrench for turning it, a pair of ratchets one at each side of the frame, carried by said shaft, a rock shaft journalled in the frame and extending from side to side thereof, a pair of pawls carried by the rock shaft and adapted to engage the ratchets, and means at each side of the frame for operating the rock

shaft and teereby moving the pawls into or out of engagement with the ratchets, substantially as set forth. 3rd. As a new article of manufacture, a removable head section for beds having, in combination, two frames hinged together, and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed and remain normally stationary, and the other being adapted to be moved about the hinge joint, means carried by the stationary frame for engaging the side rails and preventing its accidental displacement, means carried by the movable frame for supporting the head section of a mattress or the like, a pair of racks, one at each side of the frame, each having one end rigidly secured to the movable frame, the toothed faces of the racks being concentric with the hinge joint, a pair of pinions, one at each side of the frame, engaging the racks, a shaft extending from side to side of the frame, and carrying the pinions, a pair of ratchets, one at each side of the frame, carried by the shaft and being incapable of rotation relatively thereto, pawls engaging the ratchets, a rock shaft extending from side to side of the frame, and carrying the pawls whereby they may be simultaneously operated from either side of the frame, and a pair of plates, one at each side of the frame, said plates forming with the adjacent sides of the stationary frame housings enclosing the pinions, ratchets and pawls, substantially as set forth. 4th. As a new article of manufacture, a removable head section for beds having, in combination, two frames hinged together and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed or other support and remain normally stationary and the other being adapted to move about the hinge joint, said frames being adjustable in width in order to accomodate the device to beds of different widths, a shaft journalled in the stationary frame and having means for revolving it, said shaft being adjustable in length, means for transmitting the movement of said shaft to the movable frame for the purpose of moving it about the hinge joint, and means for holding the movable frame to its adjustment, substantially as set forth. 5th. As a new article of manufacture, a removable head section for beds having, in combination, two frames hinged together, and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed or other support and remain normally stationary, and the other being adapted to move about the hinge joint, said frames being adjustable in width for the purpose of accomodating the device to beds of different widths, a shaft journalled in the stationary frame and having means whereby it may be rotated, said shaft being adjustable in length, a pinion and a ratchet wheel carried by the shaft, a curved rack connected at one end to the movable frame, the toothed face of toe rack bar being concentric with the hinge joint and in engagement with the pinion, a ratchet wheel carried by the shaft, a pawl engaging the ratchet wheel, and a rock shaft journalled in the stationary frame and carrying the pawl, said rock shaft being adjustable in length, substantially as set forth. 6th. As a new article of manufacture, a removable head section for beds having, in combination, two frames hinged together and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed or other support and remain normally stationary, and the other being adapted to move about the hinge joint, said frames being adjustable in width, devices carried by the movable frame for supporting the head portion of a mattress or the like, said devices being elastic and adapted to accomodate themselves in the matter of length to the width of the frame, a shaft journalled in the stationary frame, said shaft being adjustable in length, means for rotating the shaft, a pinion and a ratchet wheel carried by the shaft, a rack connected at one end to the movable frame, the toothed face of the rack being concentric with the hinge joint and in engagement with the pinion, a pawl engaging the ratchet wheel, and a rock shaft carrying the pawl, said shaft being adjustable in length, substantially as set forth. 7th. As a new article of manufacture, a removable head section for beds having, in combination, two frames hinged together and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed or other support and remain normally stationary, and the other being adapted to move about the hinge joint, said frames being adjustable in width, a pair of racks, one disposed upon each side of the frame, each connected at one end to the movable frame, the toothed faces of the racks being concentric with the hinge joint, a pair of pinion engaging the racks, respectively, a shaft extending from side to side of the frame, carrying the pinions, said shaft being adjustable in length, a pair of ratchets carried by the shaft, one at each side of the frame, a pair of pawls engaging the ratchets, and a rock shaft, said rock shaft being adjustable in length, substantially as set forth. 8th. As a new article of manufacture, a removable head section for beds, having, in combination, two frames hinged together and adapted to extend from side to side of the bed, one of said frames being adapted to rest upon the side rails of the bed or other support and remain normally stationary, and the other being adapted to move about the hinge joint, said frames being adjustable n width, a pair of racks, one disposed at each side of the frame, each connected at one end to the movable frame, the toothed faces of the racks being concentric with the hinge joint, a pair of pinions engaging the racks respectively, a shaft extending from side to side of the frame, carrying the pinions, said shaft being made up of telescoping sections, adjustable longitudinally, means for preventing the relative rotation of said sections, a pair of ratchets carried by the shaft, a pair of pawls engaging the ratchets, and a rock shaft carrying the pawls, and extending from side to side of the frame, said rock shaft being made up of telescoping sections, adjustable longitudinally, substantially as set forth.

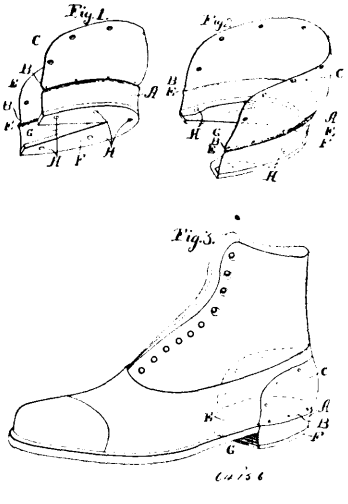
No. 64,155. Suspender Clasp. (*Agrafe de bretelles.*)



John Valentine Jannin, and Jacob Frederick Klein, both of Everett, Snohomish Co., Washington, U.S.A., 3rd October, 1899; 6 years. (Filed 12th June, 1899.)

Claim.—1st. A suspender clasp, comprising two clamping members slotted at like ends, and hinged together near their opposite ends, a coiled spring the limbs of which engage the said members near their hinge to normally spread them apart, and a detent hook on one member adapted to be brought into engagement with an edge of the other member, and hold the two members in clamped condition against the stress of the spring, as specified. 2nd. A clasp for suspenders, comprising clamping sections slotted near one end to receive a hook on a suspender band, each section having two spaced limbs, which limbs are indented at opposite points, the limbs of the one section being cross slotted to loosely receive the limbs of the other section and thus provide a hinged joint between said sections, a wire spring located in the indents of opposed limbs and engaging its ends therewith to normally spread said limbs apart, and a detent hook on one section adapted for interlocking engagement with an edge of the other section to hold the limbs thereon in clamped condition and the spring limbs compressed, as specified.

No. 64,156 Heel and Counter Protector.
(*Protecteur de talon et contrefort.*)

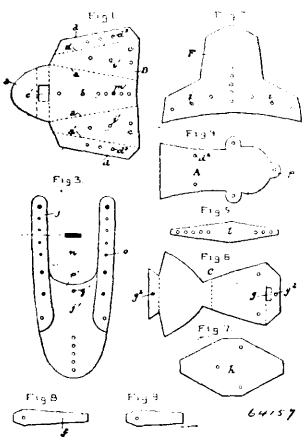


David Hayward Packard, Lestershire, New York, and William Gordon, Boston, Massachusetts, U.S.A., 3rd October, 1899; 6 years. (Filed 25th May, 1899.)

Claim.—1st. A shoe protector consisting of a metallic shell, shaped inwardly and outwardly to conform to the shape of the shoe heel and counter, and having an inwardly projecting lip or plate formed to engage the lower portion of the heel of the shoe. 2nd. A shoe protector consisting of a metallic shell, shaped inwardly and outwardly to conform to the shape of the shoe heel and counter, and having an inwardly projecting ridge formed to engage the space between the heel and the upper of the shoe, said protector being perforated near the bottom of its counter portion.

No. 64,157. Foot Support and Shoe.

(*Support de pieds et chaussure.*)

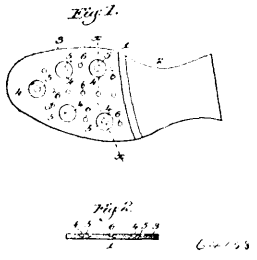


Richard Thomas Jones and Irving Bull, both of Baltimore, Maryland, U.S.A., 3rd October, 1899; 6 years. (Filed 22nd May, 1899.)

Claim.—1st. The combination with a shoe for persons having one limb shorter than the other, of a supporting plate for the sole of the foot, two rigid upright prongs at the heel part one at each side, with a space between them entirely open and serving to admit of entering the foot from the rear through said space. 2nd. The combination with a shoe for persons having one limb shorter than the other, of a supporting plate for the sole of the foot, two rigid upright prongs at the heel part, one at each side, with a space between them entirely open and serving to admit of entering the foot from the rear through said space, and means for varying or adjusting the size of the foot support as to length and height. 3rd. The combination of a support for the foot of lame persons, having two upright prongs, one at each side of the heel part of said foot support, with a space between the prongs entirely open, and a shoe enclosing the said foot support and provided at the rear or back with a vertical opening between said two upright prongs, whereby the foot may be inserted from the rear. 4th. The combination of a shoe which is closed at the front but is open at the rear or back, a support for the foot of lame persons, having two upright prongs, one at each side of the heel part of said foot support, with a space between the prongs entirely open, and means for fastening the shoe upper at the ankle part to each of the said upright prongs.

No. 64,158. Sole for Boots and Shoes.

(*Semelle de chaussures.*)



O'Sullivan Brothers, Lowell, Massachusetts, U.S.A., 3rd October, 1899; 6 years. (Filed 19th May, 1899.)

Claim.—A sole for boots or shoes, of elastic material, provided with a plurality of suction recesses in the tread face thereof, each suction recess having a centrally disposed stud or boss projected upwardly from the bottom of the recess to the level of the tread face of the sole, substantially as described.

No, 64,159. Lacing Hook and Fastener.

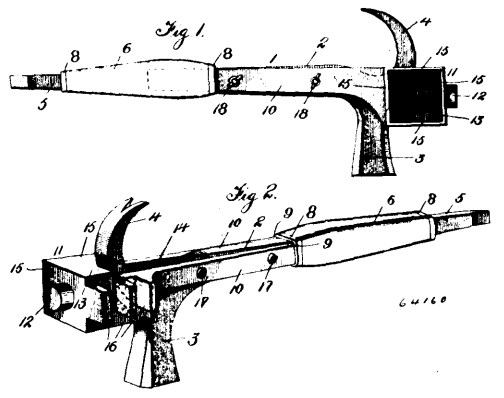
(*Crochet pour lacets.*)

The King Fastener Company, assignee of Phineas F. King, all of Cleveland, Ohio, U.S.A., 3rd October, 1899; 6 years. (Filed 16th May, 1899.)

Claim.—1st. A fastening device comprising a post or standard adapted for attachment to the article to be fastened, a head or top arranged laterally to said post or standard, and a stud or abutment extending downwardly from the top or head at one side of the post or standard, and forming a recess between itself and the latter. 2nd. A fastening device comprising a post or standard adapted for attachment to the article to be fastened, a head or top arranged laterally to said post or standard, and extended on opposite sides thereof, and a stud or abutment extended downwardly from the top or head, and forming a recess between itself and the latter. 3rd. A

fastening device comprising a post or standard adapted for attachment to the article to be fastened, a head or top arranged laterally to the post or standard, and a stud or abutment extending downwardly from the top or head at one side of the post or standard, and forming between itself and the latter an upwardly contracted recess. 4th. A fastening device comprising a cup-shaped head, a shank or standard consisting of a metallic strip secured thereto and extending downwardly and thence outwardly so as to become serviceable as a means of attachment, and a jam or abutment consisting of a metallic strip secured to the head and bent downwardly and thence outwardly so as to form an upwardly tapering recess. 5th. A lacing hook having a tapering stud or abutment projecting into the cord recess and a depression or cavity centered opposite to the apex of said stud or abutment. 6th. A lacing hook comprising a tubular fastening shank, a base, a standard, a top and a depending conoidal stud located above the opening of the tubular shank.

No. 64,160. Combination Tool. (*Outil à combinaison.*)



Frederick J. Turner, Boston, Massachusetts, U.S.A., assignee of Albert Turner, Falmouth, Nova Scotia, Canada, 3rd October, 1899; 6 years. (Filed 27th January, 1899.)

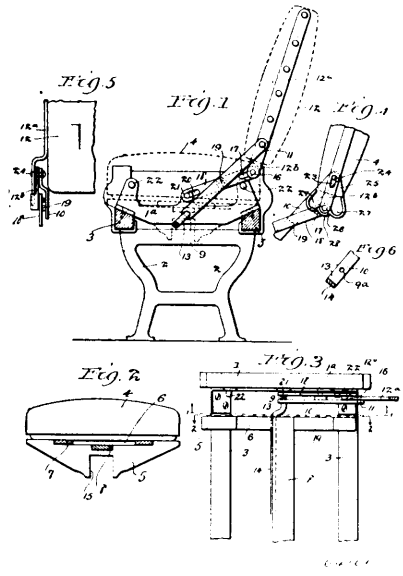
Claim.—A hammer, comprising a head and shank and a handle secured to said shank, said handle being provided with recesses between its sides and the said shank having their inner ends engaging the recesses of said handle and their outer ends developed into wrench jaws extending opposite sides of said arms, substantially as described.

No. 64,161. Car Seat. (*Siège de chars.*)

Harris A. Wheeler, assignee of Essington N. Gilfillan, Chicago, Illinois, U.S.A., 3rd October, 1899; 6 years. (Filed 26th January, 1899.

Claim.—1st. A seat having in combination a bodily shiftable back, a pivotal support having pivotal connection with said back, a lever having operative connection with said back, and with said support and a fulcrum fixed with relation to the back and with which fulcrum said lever has sliding connection longitudinally of the lever, substantially as set forth. 2nd. A seat having in combination a bodily shiftable back, a pivoted arm having pivotal con-

nection with said back, a lever pivoted to said arm and being movable longitudinally and having one end fixed against lateral move-

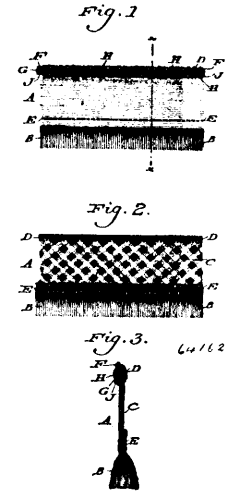


ment and its other end provided with operative connection with the back, substantially as set forth. 3rd. A seat having in combination a bodily shiftable back, a pivoted arm pivotally connected to said back, a lever pivoted to said arm, a fulcrum for said lever having sliding connection with one end thereof, a sliding connection between the other end of said lever and said back and stops for limiting the movement of said pivotal arm, substantially as set forth. 4th. A seat having in combination a shiftable back provided with an arm, an arm having a fixed pivot at one end and its other end having pivotal connection with said back, a lever pivoted to said pivoted arm and having one end fixed against lateral movement and the other end provided with sliding connection with the arm on said back, substantially as set forth. 5th. A seat having in combination a shiftable back, a pivoted arm having pivotal connection with said back and forming a support therefor, a lever having a slotted end and being pivoted to said pivoted arm, a fixed fulcrum or pivot engaging in said slotted end, an arm projecting down from said back and having pin and slot connection with said lever at a point between the pivots which connect the pivotal arm with the back and the lever with the pivotal arm, substantially as set forth. 6th. A seat having in combination a shiftable back, having a depending arm, a pivoted arm pivotally connected to said back, a lever pivoted to said pivoted arm at a point between the pivot of the latter and the pivot which connects said pivoted arm with the back, a fixed stud or fulcrum having sliding connection with said lever at a point between the pivot of said pivoted arm and the pivot of said lever, and a sliding connection between the other end of said lever and said depending arm of the back, said latter connection being located between the pivot of the lever and the pivot which connects said pivoted arm with the back, substantially as set forth. 7th. A seat having in combination a shiftable back having both pivotal and bodily movement and being also capable of being lifted with reference to its pivot, a lever having one end fulcrumed and the other operatively connected at two different points with the back for controlling the pivotal movement of the back, an arm projecting from the back and a series of sockets connected with said lever and adapted to receive said arm for holding the back at various inclinations, substantially as set forth. 8th. A seat having in combination a bodily movable pivotal back, a lever having one end fulcrumed and the other end operatively connected with said back for controlling the pivotal movement of the back, a series of sockets movable with said lever and a portion carried by said back and engaging in one of said sockets, substantially as set forth. 9th. A seat having in combination a shiftable back, a pivotal arm pivoted to said back, a lever having one end fulcrumed and being operatively connected with said arm, a plate pivotally connected with said arm and having sliding connection with the other end of said lever, a series of sockets carried by said plate, and a detachable projection on the back adapted to engage in said sockets, the end sockets being deeper than the intermediate one, substantially as set forth.

No. 64,162. Skirt Protector. (*Protecteur de jupes.*)

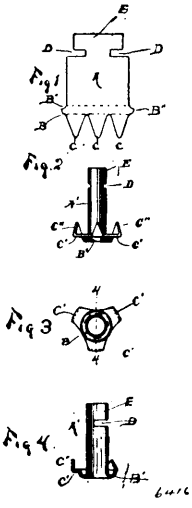
The Stewart Howe and May Company, assignee of Lucien Flanders Howe, all of New York City, New York, U.S.A., 3rd October, 1899; 6 years. (Filed 12th May, 1899.)

Claim.—1st. In a skirt protector or dress trimming, a head formed of a piece of fabric and a binding of stitches over the top cut edge of said fabric. 2nd. In a skirt protector, a head formed of a piece of fabric and a binding of stitches over the top cut edge of said fabric,



and a backing on said head of waterproof material. 3rd. A skirt protector or dress trimming consisting of a head, a brush pendant therefrom, and a backing on said head of waterproof material. 4th. In a skirt protector, a head formed of a piece of fabric, a backing of waterproof material on said head and binding of stitches over the upper cut edges of said piece and backing. 5th. A skirt protector having a head formed of a piece of fabric, whip stitches over the upper cut edge of said piece, and rows of longitudinally extending stitches on said head joining said whip stitches. 6th. A skirt protector having a head formed of a piece of fabric, whip stitches over and around the upper cut edge of said piece, a rib on said head, and rovings of thread extending above and below said rib and secured to said head. 7th. A skirt protector, having a head formed of a piece of fabric, whip stitches over and around the upper cut edge of said piece, a rib on said head, rovings of thread extending above and below said rib and secured to said head, and a waterproof backing on said head, the edge of said backing being bound with that of the fabric of the head by said whip stitches.

No. 64,163. Caster Socket. (*Socle de roulette.*)



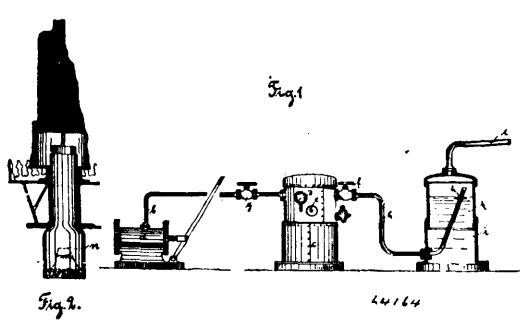
Francis C. Mason and Anna Bissell, both of Grand Rapids, Michigan, U.S.A., 3rd October, 1899; 6 years. (Filed 18th February, 1899.)

Claim.—1st. In a caster socket, a tube formed of a single piece of sheet metal and having but one longitudinal seam, an annular bead at one end thereof and integral therewith at its inner edge, and flat radially projecting portions integral with the outer rim of the bead and detached from each other at their adjacent sides, substantially as described. 2nd. In a caster socket, a tube formed of a single rectangular piece of metal and having a single longitudinal seam, an annular bead integral with said tube at its inner edge, flat triangular portions extending radially from the outer rim of said bead and integral therewith and detached from each other at their adjacent sides and having their outer angles turned upward, substantially as described. 3rd. In a caster socket, a tubular body having a suitable

flange at its lower end, and a pintle retainer at its upper end consisting of a transversely separated tubular extension of less diameter than said body and in parallel planes therewith, and having a single longitudinal seam at one side and a rigid connection with said body, said connecting portion also being in line with the side of the said body, substantially as described. 4th. In a caster socket, a tubular body formed of a single rectangular piece of sheet metal and having a single longitudinal seam, a transverse slot near the upper part of the same severing the side having the seam and leaving a connecting portion opposite the seam and in line with the balance of the tube, the portion of the tube above said slot being of less radius than the portion below the same and flexible at each side of the seam, substantially as described. 5th. A caster socket consisting of a single integral piece of sheet metal having a tubular body, having a single longitudinal seam and having a transverse slot leaving a narrow connecting portion, said portion being in line with the said body, the portion above the slot being of less radius than the portion below the same, an integral outwardly extended bead at the lower end of said tube, and triangular portions extending outward from the bead and having their ends turned upward at right angles, substantially as described. 6th. As an article of manufacture, a blank for caster sockets consisting of a single piece of sheet metal having a rectangular body portion to form a tubular body with a single longitudinal seam, a transverse portion to form a bead and having end extensions to complete the bead at the seam, and divided portions extending laterally from said transverse portion to extend radially from said bead, substantially as described. 7th. As an article of manufacture, a blank for caster sockets consisting of a piece of sheet metal having a rectangular portion, a T-shaped portion at one end thereof, a transverse portion at the other end thereof having end extensions, and triangular portions extending laterally from said transverse portion, substantially as described.

No. 64,164. Incandescent Light Burner.

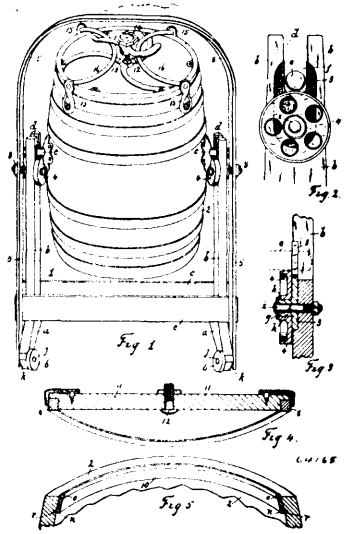
(*Brûleur de lampe incandescente.*)



Paul Wilhelm Von Gehlen, Plön, Germany, 3rd October, 1899; 6 years. (Filed 12th April, 1897.)

Claim.—A device for the production of benzine gas, incandescent light characterized thereby, that compressed air forced over a surface of benzine and thereby mixed with hydrocarbons, passes to an incandescent light burner where circular cone *n*, surrounding the tip *m*, is closed.

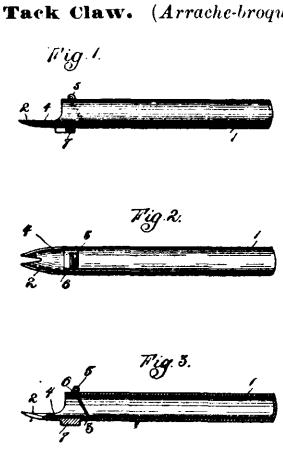
No. 64,165. Churn. (*Baratte.*)



William Hockin, Sr., London, England, 3rd October, 1899; 6 years. (Filed 23rd April 1898.)

Claim.—1st. In a barrel churn, the plate 3, in which the socket *f*, is formed, and which is provided with the axle *h*, in combination with the antifriction roller 4, and means for holding them together and securing them to a suitable support, substantially as and for the purpose set forth. 2nd. In a barrel churn, the plate 3, in which the socket *f*, and bolt hole *g*, is formed, and which is provided with a tubular axle *h*, in combination with the antifriction roller 4, the standard *b*, and the bolt *i*, substantially as and for the purpose set forth. 3rd. In a barrel churn, the bow 5, or its equivalent, the crank 7, and means for connecting said bow with said crank, in combination with the barrel 2, trunnions *e*, and antifriction rollers 4, substantially as and for the purpose set forth. 4th. In a barrel churn, the bow 5, or its equivalent, the connecting bar 8, and crank 7, in combination with the trunnions *e*, barrel 2, and antifriction rollers 4, substantially as and for the purpose set forth. 5th. The sleeve 9, provided with a flange *t*, the bolt *m*, and bow 5, in combination with the connecting bar 8, substantially as and for the purpose set forth. 6th. The ring 10, provided with rib *n*, and the barrel 2, in the interior face of which the recess *r*, is formed, in combination with the cover 11, and packing *s*, substantially as and for the purpose set forth. 7th. In a barrel churn, the plate 3, in which the socket *f*, is formed, and which is provided with the axle *h*, means for supporting said plate, and the antifriction roller 4, in combination with the barrel 2, and trunnions *e*, substantially as and for the purpose set forth. 8th. The bails 16, and the lugs 15, secured to the barrel 2, in combination with the cover 11, screw bolt 12, winged nut 13, and set nut 14, substantially as and for the purpose set forth. 9th. The bails 16, the lugs 15, secured to the barrel 2, in the interior face of which the recess *r*, is formed, and the ring 10, provided with a rib *n*, and bead *o*, in combination with the cover 11, packing *s*, screw bolt 12, winged nut 13, and set nut 14, substantially as and for the purpose set forth.

No. 64,166. Tack Claw. (*Arrache-broquettes.*)



Michael Henderson, Detroit, Michigan, U.S.A., 3rd October, 1899; 6 years. (Filed 30th January 1899.)

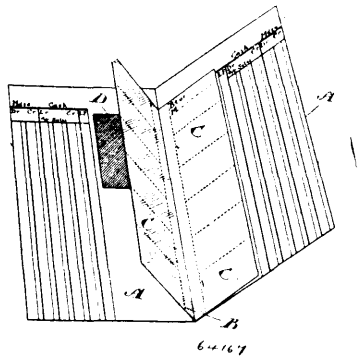
Claim.—1st. A tack claw comprising a suitable receptacle a claw proper mounted at the mouth of same, and a hanging gate adapted to close the inlet in the said receptacle, substantially as described. 2nd. In a tack claw, the combination with a suitable receptacle, of a tack drawing claw arranged at the open end of the same, a hanging gate mounted in the open end of said receptacle, and a handle connected to said gate for operating the same, substantially as described. 3rd. In a tack claw, the combination with a tube closed at one end only and having a tack drawing claw at its outer end, of a gate mounted in the open end of said tube so as to normally remain closed when the tool is in operative position but automatically open upon the tool being inverted, substantially as described. 4th. In a tack claw, the combination with a tube closed at one end and provided at its opposite end with an elongated slot and a tack drawing claw, of a gate mounted in the open mouth of said tube and provided with a handle adapted to project through the elongated slots, substantially as described.

No. 64,167. Account Book. (*Livre de comptes.*)

Angus Ray McEachern, Powassan, Parry Sound, Canada, 3rd October, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—In an account book, an account sheet in combination with detachable slips secured to a stub bound in with the sheet so that the slips overlap a portion of the same, the said sheet outside the slips being ruled with Dr. and Cr. cash columns, and Dr. and Cr. merchandise columns, substantially as and for the purpose specified. 2nd. In an account book, an account sheet in combination with detachable slips secured to a stub bound in with the sheet so that the slips overlap a portion of the same, the said sheet outside the slips being ruled with two Dr. and one Cr. cash columns, and Dr. and Cr. merchandise columns, substantially as and for the pur-

pose specified. 3rd. In an account book, an account sheet in combination with detachable slips secured to a stub bound in with the



sheet, so that the slips overlap a portion of the same, the said sheet outside the slips being ruled with account columns, substantially as and for the purpose specified. 4th. In an account book, an account sheet in combination with detachable slips secured to a stub bound in with the sheet so that the slips overlap a portion of the same, the said sheet outside the slips being ruled with a ledger folio column, two Dr. and one Cr. cash columns, and Dr. and Cr. merchandise columns, substantially as and for the purpose specified.

No. 64,168. Instrument for Facilitating the Measurements of Trigonometrical Ratios. (*Instrument pour faciliter le mesurage de rapport trigonometrique.*)

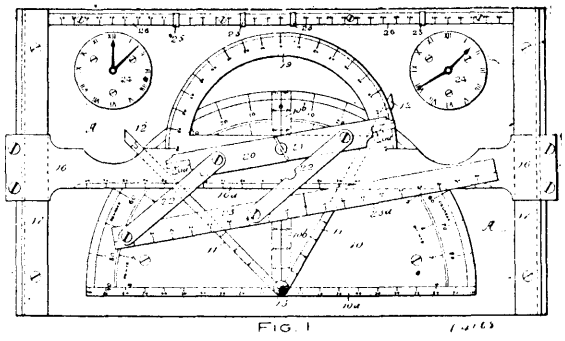
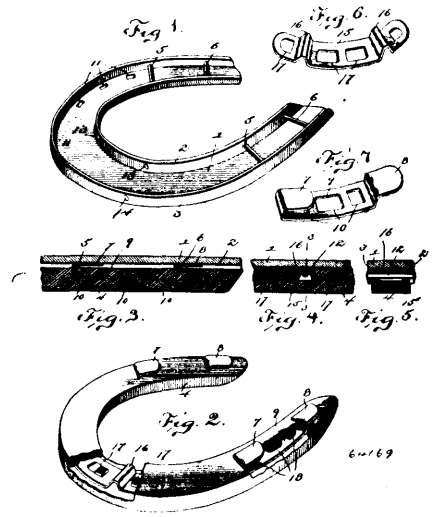


FIG. 1

Francis Joseph Bayldon and Arnold Huddart Armstrong, both of Vancouver, British Columbia, Canada, 16th February, 1899; 6 years. (Filed 16th February, 1899.)

Claim.—1st. In an instrument for determining the trigonometrical ratios of triangles having a suitable base, a semi-circular plate, the outer arc of which is set off in degrees and points of the compass, the base 10^a, or cord of said plate set off in units from the centre and graduated each way, and a scale 10^b, dividing the said plate into quadrants of a circle set off from the centre in the same manner as the scale 16^a, pointers 11, pivoted to the centre of the base 10^a, the same being susceptible of being set at any angle on the protractor, and sights 12 and 13 on said pointers, in combination with a slidable bar 16, made to move to and from the base 10^a parallel thereto, a scale 16^a on such bar, a protractor 19, on the opposite side of said bar, a bar 20 pivotally fixed to the base line of said protractor, susceptible of being set at any angle on the protractor, and bevelled portions on the ends of said bar to facilitate the reading of the points set, of a bar 23 having a scale 23^a, marked on the rear side thereof, and made to move in parallel lines to the bar 20, and means for temporarily recording the time of an observation taken and distances traversed, substantially as and for the purpose set forth. 2nd. In an instrument for the purpose set forth, having a suitable base which may be permanently mounted on a support, a plate 10, having quadrants of a circle, its outer circle being laid off in degrees, an inner arc laid off in points of the compass, and its quadral divisions being laid off in units graduated from the centre, pointers 11, pivotally fixed to the centre of the convergence of the quadrant scales, said pointers susceptible of being moved in a parallel plane over the said plate, and clamped at any angle thereon independent of each other, sights on said pointers for aligning with an object to be sighted, a graduated bar 16, movably fixed on suitable slideways parallel to and at right angles to the quadrant scales on the said plate, a scale 16^a, on said bar corresponding to the quadrant scales, a protector 19, integral with and on the same plane with said bar, a bar 20 pivotally fixed to the base of said protractor, the pivot of which aligns with its reading points 20, which lie over the protractor as it is swung round, a bar 23, having a graduated scale similar to the scale 16, on the bar 16, made to move parallel to the bar 20, for temporarily recording the time of an observation taken and for checking the numbers or distances shown on the pointers 11, the scale 10^b, the scale 16, and the scale 23, as the case may be, substantially as and for the purpose set forth.

No. 64,169. Horseshoe. (*Fer à cheval.*)



Charlotte E. Galley, Buffalo, New York, U.S.A., 3rd October, 1899; 6 years. (Filed 20th February, 1899.)

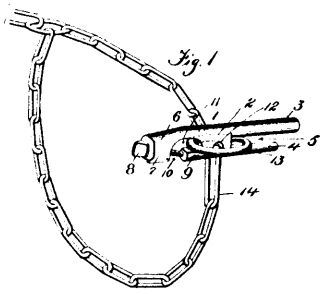
Claim—1st. In a device of the class described, the combination with a horseshoe, of a cushion arranged thereon and provided at its inner or upper face with means for attaching it to the horseshoe, substantially as and for the purpose described. 2nd. In a device of the class described, the combination with a horseshoe having a groove or channel and provided with cross pieces spanning the same, of a cushion arranged within the groove or channel and provided at its inner or upper face with tongues or anchors detachably interlocked with the cross piece, substantially as described. 3rd. A device of the class described, comprising a horseshoe, having a groove or channel and provided at opposite sides with cross pieces, a cushion fitting in the groove or channel, and the anchors mounted on the cushion and provided at the inner or upper face thereof with longitudinal tongues detachably interlocked with the cross pieces, substantially as described. 4th. A device of the class described, comprising a horseshoe provided with a groove or channel and having cross pieces, a cushion, and the anchors consisting of strips of metal imbedded in the cushion and having exteriorly arranged tongues detachably interlocked with the cross pieces, substantially as described. 5th. A device of the class described, comprising a cushion provided at its inner or upper face with anchors or tongues, and a horseshoe provided with devices arranged to be engaged by the anchors or tongues, whereby the cushion is interlocked with the shoe, substantially as described. 6th. A device of the class described, comprising a shoe having inner and outer walls and provided at opposite sides with cross pieces, a continuous cushion provided at opposite sides with anchors for engaging the cross pieces, said cushion being provided at its front with an anchor forming an eye, and a fastening device engaging the eye and the shoe, substantially as described. 7th. A device of the class described, comprising a shoe, a cushion, a front anchor consisting of a strip of metal imbedded in the cushion and provided with bonds forming eyes, fastening devices engaging the eyes and the shoe, and means for securing the sides of the cushion to the shoe, substantially as described. 8th. A device of the class described comprising a shoe provided with inner and outer walls, a continuous cushion fitting between the walls and provided at its inner or upper face with anchors interlocked with the shoe at opposite sides thereof, and means for securing the front of the cushion to the shoe, substantially as described.

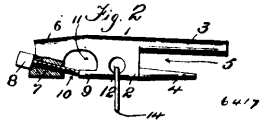
No. 64,170. Fastening for Stall Chains.
(*Attache pour chaines de stalles.*)

Robert Irving, Corwhin, Ontario, Canada, 3rd October, 1899; 6 years. (Filed 21st February, 1899.)

Claim.—1st. A fastening bar for chains, having recesses to receive and retain a removable attaching ring, and means for retaining said attaching ring within said recesses, substantially as described. 2nd. A fastening bar for chains, having a series of recesses formed therein, said recesses being adapted to receive and retain a removable fastening ring, and a set screw, mounted to close one of said recesses, said set screw being adapted to secure said ring in its operative position within said recesses, substantially as described. 3rd. A fastening bar for chains, comprising a shank portion, having one of

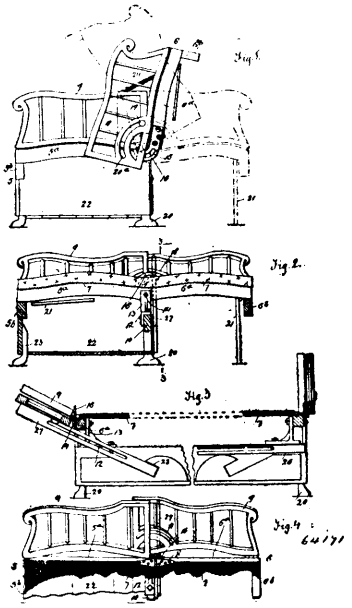
its ends bifurcated, to form a recess, and having its opposite end provided with a recess, said recesses being adapted to receive and





retain a removable fastening ring, and means for closing the inlet opening to one of said recesses, when said fastening ring is in position, substantially as described. 4th. A fastening bar for chains, having one of its ends bifurcated, to form a recess, and having a recess formed at its opposite end, said recesses being adapted to receive and retain the fastening ring, and a set screw, mounted in said shank portions, said set screw being adapted to close one of said recesses, to prevent the removal of said fastening ring when in its operative position, substantially as described.

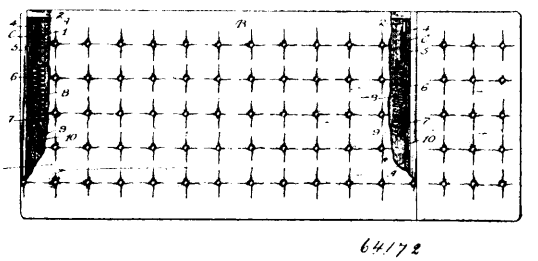
No. 64,171. Settee and Bed. (*Lit et canapé.*)



Napoleon Joseph Coté, Montreal, Quebec, Canada, 3rd October, 1899; 6 years. (Filed 6th March, 1899.)

Claim.—1st. A combined settee and bed, comprising a complete unbroken bed surface. 2nd. A combined settee and double bed, comprising a complete unbroken bed surface. 3rd. A combined settee and double bed, comprising when used as a settee, a reversible back and seat whereby a low or high back and a wide or narrow seat can be had. 4th. A folding bed, comprising a pair of frames each open at one side, and hinged together at their open sides, means for supporting said frames, for the purpose set forth. 5th. A combined folding bed and settee comprising a pair of frames each open at one side and hinged together at their open sides, a longitudinal extending from end to end of said frames, and beneath their adjoining edges, a pair of brackets carried rigidly by said longitudinal one adjacent to each end of one of said frames, a bolt taking through each end of said frame and the bracket adjacent thereto, a curved and slotted bracket carried rigidly by each end of the other frame and taking over said bolts, a pair of arms hinged one to each end of each frame, a slotted segmental guiding section carried by one of each adjacent pair of arms, and a pin projection upon the other arm of said pair and taking into the slot of said guiding section, means for maintaining said frames at any desired angle relatively to one another, a sliding bar for maintaining the arms at a predetermined angle relatively to said frames, and a pair of pivoted legs carried by the outer side edge of each frame, substantially as described. 6th. A combined folding bed and settee, comprising a pair of frames each open at one side and hinged together at their open sides, a longitudinal extending from end to end of said frames and beneath their adjoining edges, a pair of brackets carried rigidly by said longitudinal one adjacent to each end of one of said frames, a bolt taking through each end of said frame and the bracket adjacent thereto, a curved and slotted bracket carried rigidly by each end of the other frame and taking over said bolts, a pair of arms hinged one to each end of each frame, a slotted segmental guiding section carried by one of each adjacent pair of arms, and a pin projection upon the other arm of said pair taking into the slot of said guiding section, means for maintaining said frames at any desired angle relatively to one another, a sliding bar for maintaining the same at a predetermined angle relatively to said frames, a clothes box located beneath and supporting one of said frames, a clothes box located beneath and supporting one of said frames and a pair of pivoted legs carried by the outer side edge of the other frame, substantially as described. 7th. A folding bed, comprising a pair of upwardly curved end pieces and a longitudinal open at one side, and hinged together at their open sides, means for bracing said open sides apart, and means for supporting said frames, for the purpose set forth. 8th. A combined folding bed and settee, comprising a pair of transversely upwardly curved frames each open at one side and hinged together at their open sides, a longitudinal extending from end to end of said frames and beneath their adjoining edges, a pair of brackets carried rigidly by said longitudinal one adjacent to each end of one of said frames, a bolt taking through each end of said frame and the bracket adjacent thereto, a curved and slotted bracket carried rigidly by each end of the other frame and taking over said bolts, a pair of arms hinged one to each end of each frame, a slotted segmental guiding section carried by one of each adjacent pair of arms, and a pin projection upon the other arm of said pair and taking into the slot of said guiding section, means for maintaining said frames at any desired angle relatively to one another, a sliding bar for maintaining the arms at a predetermined angle relatively to said frames, and a pair of pivoted legs carried by the outer side edge of each frame, substantially as described.

No. 64,172. Hinge. (*Charnière.*)

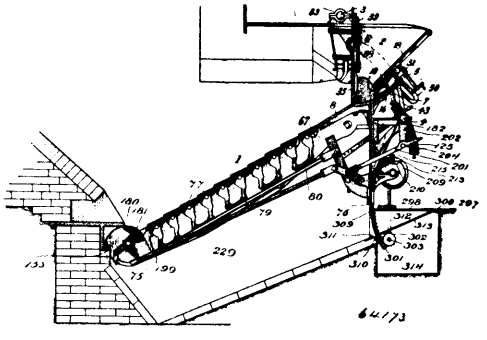


The Seng Company, assignee of Julius T. Seng, all of Chicago, Illinois, U.S.A., 5th October, 1899; 6 years. (Filed 3rd March, 1899.)

Claim.—1st. In a device of the kind specified, the combination with a box couch, of a hinge comprising a member rigidly secured to the cover and two arms pivotally mounted upon a rigid portion of the couch and pivotally connected with said first named member at different points, one of said arms being of less length than the other and pivoted at a point below said member on said cover to move said member in an arc approaching horizontal, and the other of said arms being pivoted at a point forward of said member and adapted to move the same in an arc transverse to the arc of said shorter arm, whereby said member on said cover will be moved forward at one point and upward at another point simultaneously, substantially as described. 2nd. In a device of the kind specified, the combination with a box couch, of a hinge comprising a member rigidly secured to the cover and two arms pivotally mounted upon a rigid portion of the couch and pivotally connected with said first named member at different points, one of said arms being of less length than the other and pivoted at a point below said member on said cover to move said member in an arc approaching horizontal, and the other of said arms being pivoted at a point forward of said member and adapted to move the same in an arc transverse to the arc of said shorter arm, whereby said member on said cover will be moved forward at one point and upward at another point simultaneously, and a spring interposed between said member on said cover and a rigid portion of said couch against the action of which said cover is adapted to be closed, substantially as described. 3rd. In a device of the kind specified, the combination with a member adapted to be secured to a box couch cover, of links pivotally connected therewith at different points, one of said links being pivotally connected with a plate secured to a wall of the box portion of the couch in vertical alignment with said member on said cover,

and a spring connected at one end with said member on said cover and at its other end with a rigid member on said box adapted normally to exert draught on said member on said cover in a direction transverse to said links, substantially as described. 4th. In a device of the kind specified, the combination with a plate mounted upon the cover of a box couch adjacent its rear end and provided with a downwardly extending tongue portion, a link pivotally connected at one end with the upper rear end portion of said plate and at its other end with a plate mounted upon the end wall of the box portion below said plate and forward of its pivotal connection therewith, and a link pivotally connected at one end with the front end of said plate and at its other end with a plate on said wall of said box portion forward of said plate in practically horizontal alignment therewith, of a spring connected at one end with the tongue portion of said plate and at its other end with a plate on said wall of said box portion and extending adjacent said last-named link whereby said spring will tend to normally raise said couch cover, substantially as described. 5th. In a device of the kind specified, the combination with a plate mounted upon the cover of a box couch adjacent its rear end and provided with a downwardly extending tongue portion, a link pivotally connected at one end with the upper rear end portion of said plate and its other end with a plate mounted upon the end wall of the box portion below said plate and forward of its pivotal connection therewith, and a link of greater length than said first-named link pivotally connected at one end with the front end of said plate and at its other end with a plate on said wall of said box portion forward of said plate in practically horizontal alignment therewith, of a spring connected at one end with the tongue portion of said plate and at its other end with a plate on said wall of said box portion and extending adjacent said last named link, whereby said spring will tend to normally raise said couch cover, substantially as described. 6th. A box couch hinge comprising a member adapted to be secured to the couch cover, members adapted to be secured to the end wall of the box portion of the couch, pivotal link connections between said members, said link connections being at angles to, but not crossing, whereby said member on said cover will move in two arcs, and a spring connected at one end to said member on said cover and at its other end to one of said members on said end wall of said box portion and extending transversely to one of said link connections and adjacent the other thereof, substantially as described.

No. 64,173. Furnace. (*Fournaise.*)



William McClave, Scranton, Pennsylvania, U.S.A., 5th October, 1899; 6 years. (Filed 23rd February, 1899.)

Claim.—1st. In a furnace, the combination with a suitable grate, of a hopper for feeding fuel thereto, the said hopper having a pivoted front and a curved lower portion, means for raising or lowering the pivoted front for permitting access to the interior of the furnace approximately on a line with the top surface of the grate for introducing kindling fuel, and a pusher mounted in the lower portion of the hopper for forcing the regular fuel out upon the grate, substantially as described. 2nd. In a furnace, the combination with a suitable grate, of a feed hopper, the said feed hopper having a hinged front for permitting access to the top of the grate, mechanical means for raising and lowering said hinged front and sliding gates adapted to regulate the size of the discharge opening of the hopper, and means for raising or lowering the same, substantially as described. 3rd. In a furnace, the combination with a suitable grate, of a hopper for feeding fuel thereto, the said hopper having a curved lower portion, and a hinged front and means for raising the said pivoted front to different heights and supporting the same in the various positions for permitting access to the interior of the furnace, substantially as described. 4th. In a furnace, the combination with a suitable grate, of a hopper for feeding fuel thereto, a pivoted front forming a part of the hopper wall, a screw engaging the said pivoted front for raising or lowering the said pivoted front to gain access to the interior of the furnace, substantially as described. 5th. In a furnace, the combination with a suitable grate, of a hopper for feeding fuel thereto, the said hopper having a pivoted front, comprising a plate pivoted at its upper end to the hopper having strengthening webs formed thereon, a screw mounted on the lower portion of the hopper and engaging a pivoted sleeve secured thereto, the upper end of the said screw being pivotally connected to the said plate, and a hand operating wheel secured to the said screw for rotating the same, the construction being such that the plate may be lifted to a proper height to permit of the introduction of kindling fuel on to the grate, substantially as described. 6th. In a furnace, the combination with a grate, of a hopper for feeding fuel thereto, the said hopper having a curved bottom, an oscillating pusher mounted in the said hopper, means for closing the joint between the pusher and the curved bottom of the hopper, a pivoted plate forming the front of the hopper, the lower end of the said plate when in its lower position engaging the oscillating pusher, and means for oscillating the said pusher whereby fuel may be forced upon the grate, substantially as described. 7th. In a furnace, the combination with a grate, of a hopper, for feeding fuel thereto, the said hopper having end walls and a central partition or housing, the said end walls and the partition being hollow and adapted to enclose the supporting arms of a pusher, an oscillating pusher secured to the said arms, and means for oscillating the said pusher for forcing the fuel out of the hopper, substantially as described. 8th. In a furnace, the combination with a grate, of a hopper for feeding fuel thereto, the said hopper having a curved pusher mounted in said hopper and pivotally supported so as to move along the surface of the curved bottom, a pivoted front mounted in the hopper extending down into close proximity to the said pusher, followers mounted in the said recesses in the lower end of the said plate and engaging the upper surfaces of the pusher for keeping the fuel from getting between the said pusher and plate, and followers mounted in the pusher for preventing the fuel from getting beneath it, substantially as described. 9th. In a furnace, the combination with a grate, of a hopper for feeding fuel thereto, said hopper being provided with a discharge opening at its lower end, a gate for partially closing the said discharge opening comprising a slide or plate mounted upon the rear wall of the hopper, and means for raising or lowering the said gate, substantially as described. 10th. In a furnace, the combination with a grate, of a hopper for feeding fuel thereto, the said hopper having a discharge opening, slides or gates for partly closing the same, the said slides being formed of plates having strengthening webs and having notches cut into their lower ends for presenting a broken line of metal to the heat, bell crank levers connected with the said gates by means of links, a bar or rod connecting the said bell crank levers, and a hand operating lever for operating the said bell crank levers, whereby the gates may be raised or lowered to open the discharge opening more or less, substantially as described. 11th. In a furnace, the combination with a grate, of a hopper, for feeding fuel thereto, a swinging pusher mounted in the said hopper, means for operating the said pusher comprising a power shaft mounted outside the furnace front, an arm secured to the said shaft, an arm secured to the shaft of the pusher, slides moving in both of these arms, and means for pivotally connecting them, a screw mounted upon one of said arms and engaging one of the slides, and means secured to the said screw for rotating it whereby the slides will be adjusted to regulate the feed of the pusher, substantially as described. 12th. In a furnace, the combination with a hopper, of a pusher mounted therein, means for oscillating the said pusher comprising a rock shaft mounted outside the furnace front, a slotted arm secured thereto, a slotted arm secured to the pusher, slides mounted in each of the said slotted arms and a pivot pin for connecting them, a screw mounted upon the power shaft arm and engaging a sleeve upon one of the slides, and a hand operating wheel secured to the said screw whereby the slides may be adjusted in the slots to vary the swing of the pusher, substantially as described. 13th. In a furnace, the combination with rocking grate bars and a feed hopper, of a rock shaft for operating the grate bars and the pusher in the hopper, a main power shaft mounted upon the furnace front above the hopper, means for connecting the said rock shaft with the said power shaft comprising an arm secured upon the rock shaft, a link connected with the power shaft, and means for conecting the said link with the said arm when it is desired to operate the grates and hopper, substantially as described. 14th. In a furnace, the combination with a rocking grate and a hopper, of a rocking shaft for operating the same, a main power shaft mounted above the hopper, an arm secured to the rock shaft, a link detachably secured to the said arm, a spring pressed clutch mounted upon the rock shaft, the construction being such that if the grate or hopper mechanism becomes clogged the clutch will permit the rock shaft to stop and at the same time make sufficient noise to attract attention, substantially as described. 15th. In a furnace, the combination with a grate principally made up of rocking grate bars, of means for rocking the said grate bars, means for adjusting the said rocking means, whereby the grate bars may be given a uniform movement throughout or may have a graduated movement from one end to the other, substantially as described. 16th. In a furnace, the combination with an inclined grate having rocking grate bars, of a rocking frame for actuating the same, adjustable means connecting said frame with the said bars, the construction being such that the frame will be adapted to rock the said bars uniformly or with a graduated movement with respect to each other, substantially as described. 17th. In a furnace, the combination with an inclined grate having rocking grate bars, of a rocking frame adapted to actuate the same, rods connecting the said frame with the bars, and means for adjustably connecting said rods to the said frame, the construction being such that upon rocking the frame a graduated or uniform movement will be given to the different por-

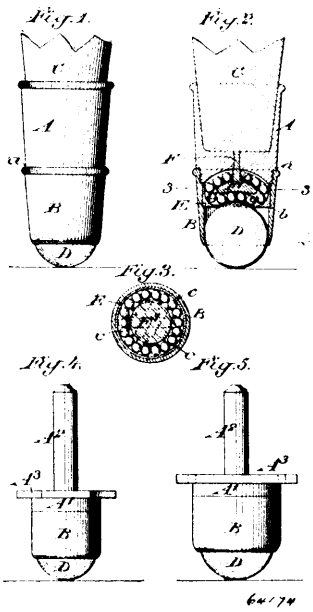
tions of the said grate, substantially as described. 18th. In a furnace, the combination with an inclined grate having rocking grate bars, of a rocking frame adapted to actuate the same, the said frame carrying movable journal blocks, means for adjusting the movable journal blocks, rods connecting the journals with portions of the grate, and means for rocking the frame, the construction being such that the movable journal blocks may communicate a uniform or graduated movement to the grate bars according to their position in the frame, substantially hs described. 19th. In a furnace, the combination with an inclined grate having rocking grate bars, of a frame pivotally mounted in the furnace, said frame having guide bars, movable journal blocks adapted to move upon the said guide bars, means for adjusting the said blocks, connecting rods interposed between the journals upon said movable journal blocks, and the grate bars, and means for rocking the frame whereby the rocking bars may be rocked simultaneously to a uniform extent or have a graduated motion with respect to each other, substantially as described. 20th. In a furnace, the combination with an inclined grate having rocking grate bars, of a rocking frame having guide bars formed therein, movable journal blocks mounted upon the guide bars, means for connecting the movable journal blocks to a single member or arm, and means for operating the said arm or member, whereby the position of the movable journal blocks may be regulated with respect to each other, the construction being such that the different portions of the grate bars will be adapted to move uniformly or with a graduated action, substantially as described. 21st. In a furnace, the combination with an inclined grate having rocking grate bars, of means for rocking the said bars comprising a rocking frame pivotally mounted in the furnace, movable journal blocks mounted in the said frame, means for connecting the journal blocks, and means for operating the said journal blocks, and connecting means, whereby all the journal blocks will be moved to regulate the throw of the grate bars, substantially as described. 22nd. In a furnace, the combination with an inclined grate having rocking grate bars, of means for rocking the same, comprising a rocking frame, movable journal blocks mounted therein, a rack for raising or lowering the said journal blocks, a pinion for engaging the said rack, and means for operating the said pinion, whereby the journal blocks are adjusted to impart different movements to the grate bars, substantially as described. 23rd. In a furnace, the combination with an inclined grate having rocking grate bars, of a frame for operating the same, said frame having supporting journals, guides formed in the said frame, movable journal blocks moving upon the said guides, a pivoted arm mounted upon the said frame, link sconnecting said arms with the said journal blocks, and means for raising and lowering said links and journal blocks, whereby each one has a graduated movement relative to the other, and means for connecting said movable journal blocks with different grate bars, the construction being such that the grate bars will be moved according to the position of said movable journal blocks, substantially as described. 24th. In a furnace, the combination with an inclined grate and rocking grate bars, of a pivoted frame for moving the same, movable journal blocks mounted in the said frame, racks for raising or lowering the said journal blocks, pinions engaging the said racks, an actuating pinion for operating the said pinions, a shaft for rotating the said actuating pinion, said shaft being adapted to extend through the front of the furnace, and operating means secured to the outer ends of said shaft, the construction being such that the movable journals may be adjusted in the frame from the outside of the furnace to regulate the throw of the grate bars, substantially as described. 25th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for actuating the same, movable journal blocks mounted in the said frame, racks connected with said journal block, a shaft having an actuating pinion adapted to engage said racks to raise or lower the said movable journal blocks, said shaft extending through the front of the furnace, hand operated means secured to the outer end of the shaft, and means for actuating the hand operating mechanism to its different adjusted positions, substantially as described. 26th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for operating the same, means for connecting the grate bars with the said frame, a shaft for adjusting the said connections to impart different movements to the parts of the grate, hand operating means upon the outer end of the said shaft, and an indicator mounted on the front of the furnace and actuated by the operating means, whereby the position of the grate bars may be determined and adjusted without inspecting the interior of the furnace, substantially as described. 27th. In a furnace, the combination with an inclined grate and rocking grate bars, of a frame for actuating the same, guides formed in the said frames, movable journal blocks mounted on the said guides, each of said journal blocks comprising a hollow casing adapted to enclose the said guides, and journal studs mounted thereon, means for connecting said journal studs with the rocking grate bars, and means for adjusting said journal blocks, substantially as described. 28th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for operating the same, movable journal blocks mounted in the said frame and connected with the said grate bars, said journal blocks comprising hollow casings adapted to receive guides formed in the frame, studs formed upon the faces of the said casings, and means for connecting all the studs with a pivoted arm, the construction being such that when one casing is moved all the other casings will be moved relatively, substantially as described. 29th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for actuating the same, movable journal blocks mounted in the said frame connected with said grate bars, racks connected with the said journal blocks, pinions for operating the said racks, and a stationary pinion adapted to actuate the said pinions on the rocking frame, said stationary pinion and the one with which it meshes being provided with teeth having curved edges, whereby the frame may rock with respect to the actuating pinion without throwing the parts out of engagement, substantially as described. 30th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for actuating the same, rods connecting said frame with separate grate bars, movable journal blocks mounted upon the said frame, means for adjusting said journal blocks, said rods being provided with engaging end portions having bifurcated hook for engaging the movable journal blocks, and means for connecting the other ends of the said rods to the grate bars, substantially as described. 31st. In an inclined feeding grate, the combination with rocking grate bars, of a rocking frame pivotally mounted with respect to the said grate, movable journal blocks mounted in said frame, means for connecting said journal blocks with single bars, and means for adjusting the journal blocks so as to give the bars a uniform or graduated movement, substantially as described. 32nd. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame co-operating with the same, movable journal blocks mounted in the said frame and connected with separate grate bars, racks connected with said movable journal blocks adapted to raise or lower the same, said racks being guided in slots in the said rocking frame, the upper end of the said rack being provided with an elongated slot adapted to receive a journal formed upon one of the movable journal blocks, and pinions for actuating the said racks, the construction being such that the racks may adjust themselves with relation to the said journal blocks, substantially as described. 33rd. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame connected therewith for operating the same, curved guides mounted in the said frame, movable journal blocks mounted upon the said guides, and means for raising or lowering the said movable journal blocks for regulating the throw of the grate bars, substantially as described. 35th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame connected with different grate bars for imparting the same or different movements to the same, means for rocking the said frame, said means comprising a rod having a bifurcated inner end, said rod passing through the front of the furnace, a journal upon the frame for engaging the said rod, and means outside the furnace for reciprocating the said actuating rod, substantially as described. 35th. In a furnace, the combination with an inclined grate, and rocking grate bars, of a rocking frame for actuating the same, movable journal blocks mounted in the said frame, means for bringing the said journal blocks upon the same line to impart a uniform movement to the grate bars, and means for lowering the said journal blocks to graduate the movement of the said grate bars more or less with respect to each other, substantially as described. 36th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for actuating the same, movable journal blocks mounted in the said frame, means for moving the said journal blocks upon a level and above and below the same, the construction being such that when the journal blocks are brought upon a level they will communicate a uniform movement to the said grate bars and when they are moved above and below the level, they will impart a graduated feed to the grate, substantially as described. 37th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for actuating the same, movable journal blocks mounted in the said frame, pinions for raising or lowering the said journal blocks, and an actuating pinion engaging one of said pinions for moving it, the said pinion which engages the said actuating pinion having teeth with curved edges to permit of the rocking of the frame without interfering with the engagment of the said pinions with the actuating pinion, substantially as described. 38th. In a furnace, the combination with an inclined grate, and rocking grate bars, of a rocking frame for actuating the same, movable journal blocks mounted in the said frame, means for moving the said journal blocks, the construction being such that when the journal blocks are brought upon a level, they will communicate a uniform movement to the said grate bars, when they are moved below the level, they will impart a graduated feed to the said bars with the maximum movement at the bottom, and when they are moved above the level, they will impart a graduated féed to the said bars with the maximum movement at the top, substantially as described. 39th. In a furnace, the combination with an inclined grate principally made up of rocking grate bars, of means for rocking the said grate bars for producting a feeding movement and a cut out movement, means for adjusting the said rocking means, whereby the grate bars may be given a uniform movement throughout or may have a graduated action, and means connecting the said rocking means with an actuating shaft outside the front of the furnace. 40th. In a furnace, the combination with an inclined grate and rocking grate bars, of a rocking frame for operating the same, means connecting the said bars and frame, a shaft for adjusting the said connecting means to impart the same or different movements to the parts of the grates, an indicator mounted on the front of the furnace, and gearing connecting said indicator with said shaft whereby it is adapted to indicate the position of the

parts inside the furnace, substantially as described. 41st. In a furnace, the combination of a suitable feed hopper, an inclined grate composed of rocking grate bars, mechanical means for automatically rocking the bars slightly forward and backward to feed the fuel down the incline, said means being capable of being adjusted to give the grate bars a greater movement in an upward and backward direction from the general plane of the feed movement for the purpose of cutting out clinkers and ashes or entirely dumping the fire, the grate bars, when rocked, in an opposite direction, returning to the general plane of the feed movement, substantially as described. 42nd. In a furnace, the combination of a suitable hopper, an inclined grate composed of rocking grate bars, means for automatically rocking the bars slightly forward and backward to feed the fuel down the incline, and means for varying the feed of the fuel, and means comprising a yoke or link attached to the power shaft, a slide adjustable upon the yoke and connected with the connecting rod or rods which operate the grate bars, and means for holding and clamping the slides in any adjusted position, substantially as described. 43rd. In a furnace, the combination of a suitable hopper, an inclined grate, having rocking grate bars, means for automatically rocking the bars slightly forward and backward to feed the fuel down the incline, and means for varying the feed of the fuel, said means comprising a yoke or link attached to a power shaft, a slide adjustable upon the yoke and connected with the connecting rod or rods which operate the grate bars, and a right and left screw for clamping the slides in an adjusted position, substantially as described. 44th. In a furnace, the combination of a suitable hopper, an inclined grate composed principally of moving grate bars, a cut out located at the lower end of the grate, a moving mechanical element for moving the said grate bars, and means for transmitting motion continuously from the said mechanical element to the said grate bars and intermittently from said element to the cut out, substantially as described. 45th. In a furnace, the combination of a suitable hopper, an inclined grate composed principally of rocking grate bars, a rocking cut out located at the lower end of the grate, a moving mechanical element for rocking the said grate bars and the cut out, and means for transmitting a rocking motion continuously from said mechanical element to the said grate bars and intermittently from said element to the cut out, substantially as described. 46th. In a furnace, the combination of a suitable feed hopper, an inclined grate composed of movable bars, power rock shaft, means connected with the power rock shaft and the grate bars for rocking the latter, a rocking cut out located at the lower end of the grate, and means connecting the cut out with the power rock shaft which means are independent of the means connecting the power rock shaft with the rocking grate bars, substantially as described. 47th. In a furnace, the combination of a suitable feed hopper, an inclined grate, a rocking cut out located at the lower end of the grate, means for automatically operating the said cut out, the cut out being capable of being operated preferably intermittently, substantially as described. 48th. In a furnace, the combination of a suitable, feed hopper, an inclined grate composed of rocking grate bars, mechanical means for automatically rocking the bars slightly forward and backward to feed the fuel down the incline, said means being capable of being adjusted to give the grate bars a greater movement in an upward and backward direction from the general plane of the feed movement for the purpose of cutting out clinkers and ashes or entirely dumping the fire, the grate bars, when rocked, in an opposite direction, returning to the general plane of the feed movement, a rocking cut out located at the lower end of the grate, and means for operating the cut out independent of the means for feeding the fuel down the grate, substantially as described. 49th. In a furnace, the combination of a suitable feed hopper, an inclined grate composed of rocking grate bars, mechanical means for automatically rocking the bars slightly forward and backward to feed the fuel down the incline, said means being capable of being adjusted to give the grate bars a greater movement in an upward and backward direction from the general plane of the feed movement for the purpose of cutting out clinkers and ashes or entirely dumping the fire, the grate bars, when rocked, in an opposite direction, returning to the general plane of the feed movement, a rocking cut out located at the lower end of the grate, and means for automatically and intermittently operating the cut out independent of the means for feeding the fuel down the grate, substantially as described. 50th. In a furnace, the combination of a suitable hopper, an inclined grate, a rocking cut out, and means for automatically rocking said cut out at the desired time, said means comprising a rod connected at its lower end to said cut out, and so constructed at its upper end as to be operated by a power shaft at the proper time to rock the cut out, a ratchet wheel, a pawl connected to the power shaft and engaging the ratchet wheel, a cam on one face of the ratchet wheel which is formed with a depression, a pivoted arm carrying a roller at its outer end which latter bears and travels on the cam, an arm connected to the pivoted arm and provided with a trolley wheel at its outer end, which latter bears upon the underside of the rod which is connected to the cut out, the construction and arrangement being such that the ratchet wheel will be slowly revolved by the power shaft through the pawl, and the cut out operating rod will be kept out of connection with the power shaft until the roller on the pivoted arm enters the depression in the cam, at which moment the cut out operating rod will be operated by the power shaft and the cut out thereby rocked back and forth to cut out the clinkers and ash, which operation will be continued until the roller has passed out of the depression in the cam, substantially as described. 51st. In a furnace, the combination of a suitable hopper, a rocking cut out, an inclined grate composed of rocking bars, a stationary tie bar attached to the journal bars of the grate at its lower end, the said bar being grated on its top and on the upper portion of its rear side, and slightly concave on said rear side to adapt it to the movement of the cut out, the said rocking cut out being arranged between the bridge wall and the stationary end bar of the grate, said cut out being formed with an upwardly curved bridging portion, which practically bridges the space between the bridge wall and the stationary end bar of the grate when the cut out is operated in one direction, and also formed with a lower portion extending forward of the upper portion, and which when the cut out is operated in the opposite direction will bridge the space between the stationary tie bar of the grate and the bridge wall and form a pocket, and means for operating the grate bars, and the cut out, substantially as described. 52nd. In a furnace, the combination of a suitable hopper, an inclined grate, a rocking cut out, and means for automatically rocking said cut out at the desired time, said means comprising a rod connected at its lower end to said cut out, and provided at its upper end with a depression, a rock shaft carrying an arm provided with a wrist pin which is adapted to engage the depression in the cut out operating rod, a ratchet wheel, a pawl connected to the rock shaft and engaging the ratchet wheel, a cam on one face of the ratchet wheel which is formed with a depression, a pivoted arm carrying a roller at its outer end, which latter bears and travels on the cam, an arm connected to the pivoted arm and provided with a trollery wheel at its outer end which latter bears upon the under side of the rod which is connected to the cut out, the construction and arrangement being such that the ratchet wheel will be slowly revolved by the rock shaft through the pawl, and the depression in the cut out operating rod will be kept out of engagement with the wrist pin on the arm connected to the rock shaft until the roller on the pivoted arm enters a depression in the cam, at which moment the cut out operating rod will be operated by the power shaft and the cut out thereby rocked back and forth to cut out clinkers and ash, which operation will be continued until the roller has passed out of the depression in the cam, substantially as described. 53rd. In a furnace, the combination of a suitable hopper, an inclined grate, a dead plate supporting frame interposing between the hopper and the grate, a portion of said frame being made up of broken or short lines of metal, and an inclined dead plate composed of comparatively short sections of metal with a space between each section, each section being provided with a centrally arranged apertured lug and pins which pass through the lugs for securing the sections to the frame, substantially as described. 54th. In a furnace, the combination of a hopper, an inclined grate, a frame for supporting a dead plate interposed between the hopper and the grate, a portion of said frame being made of short or broken lines of metal, an inclined dead plate composed of comparatively short sections of metal with spaces between their adjoining edges, and lugs on the under side of the said sections of the dead plate, which bear against the supporting frame for holding the dead plate in position on the frame, substantially as described. 55th. In a furnace, the combination with a suitable hopper, an inclined grate having rocking grate bars capable of having a feed movement and a cut off movement, means for automatically rocking the bars slightly forward and backward to feed the fuel down the incline, means for varying the feed of the fuel and effecting the cut off movement, said means comprising a member attached to a power rock shaft, and having actuating arm portions which extend upwardly and downwardly and are connected directly or indirectly by a rod or rods with the grate bars, and means for holding the adjustable member in any adjusted position, substantially as described 56th. In a furnace, the combination of a suitable hopper, an inclined grate having rocking grate bars capable of having a feed movement and a cut off movement, means for automatically rocking the bars slightly and backward to feed the fuel down the incline, means for varying the feed of the fuel and effecting the cut off movement, said means comprising a member attached to the power shaft and having actuating arm portions which extend upwardly and downwardly from said shaft, a slide adjustable upon the said member and connected directly or indirectly with a connecting rod or rods which operate the grate bars, and means for clamping the slide in any adjusted position, substantially as described. 57th. In a furnace, the combination with an inclined grate having rocking grate bars and a hopper for feeding fuel to the said grate, of means for passing the fuel thus fed down the surface of the grate without permitting it to run through, comprising grate bars having pivoted tips or noses, the said noses occupying the space between the upper grate bar or bars and the dead plate, or between the grate bars, substantially as described. 58th. In a furnace, the combination with a rocking grate and a hopper for feeding fuel thereto, of grate bars having fingers provided with pivoted ends or noses for preventing fine fuel from running through, the said pivoted ends having bifurcated lower portions pivoted to the webs of the fingers and lugs upon the said fingers for limiting the movement of the pivoted ends, a sufficient space being left between the pivoted ends and the body portions of the fingers to permit of the expansion of the fingers, substantially as described. 59th. In a furnace, the combination of a hopper, an inclined grate, an ash pit beneath the

grate which is provided with an opening for the discharge of ashes, and means for removing the ashes, comprising a duct located beneath the ash pit in line with the discharge opening thereon and communicating therewith, and a reciprocating pusher which operates in the duct and forces the ashes before it toward the throat of the duct, the duct enclosing and guiding the pusher, substantially as described. 60th. In a furnace, the combination of a hopper, an inclined grate, an ash pit beneath the grate which is provided with an opening for the discharge of ashes, a duct located beneath the discharge opening in the ash pit and communicating therewith, a reciprocating pusher which operates in the duct and forces the ashes before it toward and into the throat of the duct and ultimately out at the discharge end of the duct, a portion of the ashes always remaining in the duct to seal it and prevent the escape of an under grate blast at that point, the movement of the pusher being regulated to accomplish this object, and means for reciprocating the pusher, substantially as described. 61st. In a furnace, the combination of a hopper, an inclined grate, as ash pit beneath the grate which is provided with an opening for the discharge of ashes and means for removing the ashes comprising an open ended duct located beneath the opening in the ash pit and communicating therewith, and a reciprocating pusher which operates in the duct and forces the ashes before it through and out at the dischnage end of said duct, operating rods attached to said pusher, and means for operating the said operating rods, substantially as described. 62nd. In a furnace, the combinationofahopper, an inclined grate, an ash pit beneath the grate which is provided with an opening, means for removing the ashes, comprising a duct located beneath the ash pit in line with the discharge opening thereof and communicating therewith, a reciprocating pusher which operates in the duct and forces the ashes before it toward the throat of the duct means for reciprocating the pusher and a car for receiving the ashes from the open end of the duct, and means for removing the filled car, substantially as described. 63rd. In a furnace, the combination with a hopper and an inclined grate, of a duct adapted to receive ashes from an ash pit, a pusher adapted to be reciprocated below the opening from the ash pit for forcing ashes through the throat of the duct, the delivery end of the said duct being formed with a flaring portion for preventing the clogging of the ashes in the said throat, substantially as described. 64th. In a furnace, the combination with a hopper and an inclined grate, of a delivery duct for receiving ashes from an ash pit, a reciprocating pusher mounted in the said duct, and scrapers carried by the said pusher and adapted to be raised so as to pass over the ashes as the pusher is forced inwardly but swinging downwardly to scrape the bottom of the duct as the pusher moves forward, substantially as described. 65th. In a furnace, the combination with a hopper, and an inclined grate, of a duct for receiving ashes from an ashpit, a pusher mounted in the said duct, said pusher comprising a body portion adapted to move upon supporting tracks, pivoted scrapers suspended from the said body portion, the said scrapers being connected by means of a link, means connecting the forward scraper with a rock shaft, and means for rocking the shaft whereby a reciprocating movement is imparted to the pusher, the construction being such that as the pusher receded the scrapers will be raised to pass over obstructions and when it moves forward, the scrapers will be lowered to push forward all the ashes in the said duct, substantially as described. 6th. In a furnace, the combination of a hopper, an inclined grate, an ashpit beneath the grate which is provided with an opening for the discharge of ashes, a duct located beneath the ash pit in line with the discharge opening and communicating therewith, a reciprocating pusher which operates in the duct and forces the ashes before it toward the throat of the duct, a car for receiving the ashes from the duct, and a truck adapted to receive the car for removing it bodily and the ashes contained therein, substantially as described. 67th. In a furnace, the combination of a hopper, an inclined grate, an ash pit beneath the grate which is provided with an opening for the discharge of ashes, means for removing the ashes comprising a duct located beneath the ash pit in line with the discharge opening thereof and communicating therewith, a reciprocating pusher which operates in the duct and forces the ashes before it toward the throat of the duct, a tunnel below and forward of the front of the furnace, cars for receiving the ashes from the ash pit, and trucks for removing the cars bodily through the said tunnel, the tracks for the truck being on a lower plane than the track for the ash car, substantially as described. 68th. In a furnace, the combination with a hopper and an inclined grate, of a duct for receiving ashes from an ash pit, a pusher mounted in the said duct and having scrapers suspended therefrom, reciprocating means connected with the said scrapers and lugs for limiting the movement of the said scrapers upon their pivotal points, substantially as described. 69th. In a furnace, the combination with a hopper and an inclined grate, of a duct for receiving ashes from an ash pit, a pusher mounted in said duct comprising a body portion, wheels for supporting the same, and pivoted scrapers adapted to scrape the tracks to the front and rear of said wheels, substantially as described. 70th. In a furnace, the combination of a hopper, an inclined grate, an ash pit beneath the grate which is provided with an opening for the discharge of ashes, means for removing the ashes comprising a duct located beneath the ash pit in line with the discharge opening thereof and communicating therewith, a reciprocating pusher which operates in the duct, and forces the ashes before it toward the throat of the duct, and means for connecting the said pusher with a power operated shaft for operating the said pusher automatically when thus connected, substantially as described. 71st. In a furnace, the combination with a hopper and an inclined grate, of an ash pit having inclined side walls, the front wall of the said ash pit being supported by truss irons, the said irons being supported by the cross beams of the furnace structure, substantially as described. 72nd. In a furnace, the combination with a hopper and an inclined grate, of an ash pit having a discharge duct at its lower end, the front wall of the said ash-pit being supported by truss irons, the said irons resting at their lower ends on the said duct and at their upper ends against a cross supporting beam on the front structure of the furnace, substantially as described. 73rd. In a furnace, the combination with an ash pit having a discharge opening, of ducts for receiving the ashes therefrom, reciprocating pushers mounted therein, means for connecting the said pushers with mechanical power, and means for changing the reciprocating movement thus secured from an intermittent motion to a continuous motion and vice versa, substantially as described. 74th. In a furnace, the combination with a suitable ash pit having a discharge opening, of a duct for receiving ashes therefrom, a reciprocating pusher mounted in the said duct and means for reciprocating the said pusher by mechanical power, either continuously or intermittently, and means for changing from one to the other, substantially as described. 75th. In a furnace, the combination with a reciprocating pusher, for removing the ashes from the bottom of an ash pit, of a power shaft for operating the same, means connecting the power shaft with the said pusher, comprising a rock shaft connected with the said pusher and a countershaft connected with the said power shaft, a connecting rod interposed between the said rock shaft and countershaft, and means for raising and lowering the said rod for communicating an intermittent or continuous motion to the pusher, substantially as described. 76th. In a furnace, the combination with reciprocating pushers for removing ashes from the ash pit, of a power shaft for actuating the same, a rock shaft connected with the said pushers, a countershaft connected with the said power shaft, an arm connecting the rock shaft with a countershaft, and gearing also operated by the said countershaft for intermittently causing the engagement or disengagement of the said connecting rod with the countershaft, substantially as described. 77th. In a furnace, the combination with reciprocating pushers, of a power shaft for operating the same, a countershaft having arms secured thereto and connected with the said pusher or pushers, a countershaft also carrying arms, one of which is connected by a link with an arm on the power shaft and the other of which carries a wrist pin, a connecting rod secured to one of the arms on the rock shaft having a half bearing formed in its under surface for engaging said wrist pin, a ratchet wheel mounted in suitable proxmity to the countershaft, a pawl for operating the same, a worm rotated by the said ratchet and engaging a worm wheel secured to a suitable shaft, a cam wheel also secured to the said shaft and a trollery carrying arm interposed between the said cam wheel and the under side of the connecting rod, the construction being such that when the trolley carrying arm engages a depression in the periphery of the cam wheel, it will permit the connecting rod to engage the wrist pin and thereby communicate motion to the pusher or pushers and when the trolley carrying arm engages the remaining portion of the cam periphery, the trolley will lift the said rod out of engagement with the wrist pin and thus stop the movement of the pusher or pushers, substantially as described. 78th. In a furnace, the combination with a reciprocating pusher, of means for connecting the same with a power shaft comprising suitable shafting and a connecting rod, a ratchet and worm mechanism also operated by the power shaft, a cam wheel supported in the pivoted frame, means operated in the pivoted frame, means operated by the said cam for engaging the said connecting rod to give an intermittent motion to the pusher, a hand operated rod supporting the forward end of the pivoted frame and extending through the floor and means for engaging the floor to hold the rod in its uppermost position the construction being such that when the rod is lifted an intermittent feed movement will be communicated to the pushers and when it is dropped, the intermittent connection will be disengaged and a continuous reciprocating motion will be given to the pushers, substantially as described. 79th. In a furnace, the combination with an ash pit having an inclined floor, of means for gaining access to the said ash pit, comprising a pivoted floor interposed between the main floor and ash pit doors, and means for raising and lowering the pivoted floor, whereby the ash pit may be closed and tightly sealed or may be opened and the ashes be pulled out upon the said pivoted floor to the main floor, substantially as described. 80th. In a furnace, the combination with an ash pit having an inclined floor, of a pivoted floor bridging the space between the outside floor and the front of the furnace, racks secured to the said pivoted floor, and pinions for engaging the said racks, whereby the floor may be raised or lowered, substantially as described. 81st. In a furnace, the combination with an ash pit having an inclined floor, of a pivoted floor for opening a sufficient space to extract ashes from the ash pit, the said pivoted floor having racks depending therefrom, pinions engaging the said racks, bevel gearing connecting the racks with an ordinary shaft, and hand operating means secured to the shaft, whereby the floor can be raised or lowered at will, substantially as described. 82nd. In a furnace, the combination with an ash pit having an inclined floor, of a hinged floor outside the front of the furnace for sealing the ash pit at that point when in its raised position and forming a floor over which the ashes may be drawn when

in its lowered position, means for raising and lowering the said floor, and side pieces for closing the sides of the space opened when the floor is depressed, the said sides having ledges formed along their lower edges to support the floor when down, substantially as described. 83rd. In a furnace, the combination with an ash pit having an inclined floor, of a pivoted floor outside the furnace front, means for raising and lowering the said floor, the inner free edge of the said floor having a projecting ledge or ridge adapted to engage a corresponding depression in the upper edge of the ash pit floor, whereby when the floor is down a smooth joint will be formed between the same and the said ash pit floor, and means for raising and lowering the said floor, substantially as described..

No. 64,174. Ball Caster. (*Roulette à boule.*)



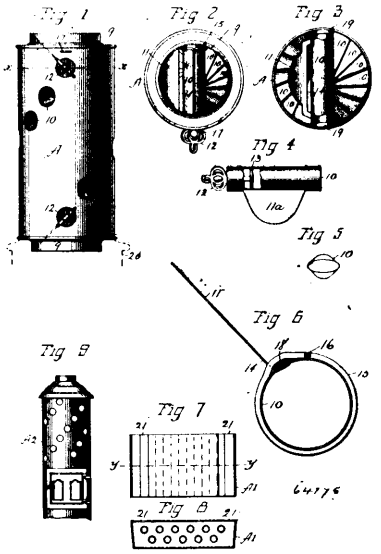
Walter Whitfield Bostwick, assignee of Ralph Marsh Grove, both of Brooklyn, New York, U.S.A., 5th October, 1899; 6 years. (Filed 3rd January, 1899.)

Claim.—A ball caster, comprising a hollow body composed of separable sections provided with an annular shoulder on its interior face, a central bearing ball, a removable ring resting within the hollow body on the said shoulder, the said ring being separable from the hollow body and forming a marginal support for the antifriction balls, a bearing disc having a concave face directed toward the top of the central bearing ball and spaced from its support and from the inner face of the said ring, and a number of antifriction balls surrounding said bearing disc and forming, between its face and the top of the bearing, ball bearings for the central bearing ball, the structure being such that the central bearing ball, ring and antifriction balls may be inserted into the hollow body through its top, substantially as set forth.

No. 64,175. Radiator. (*Calorifère.*)

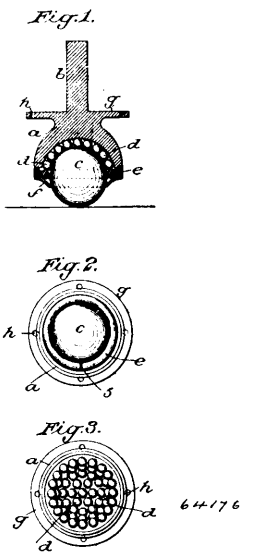
Oscar Edmund Wait, Springfield, Vermont, U.S.A., 5th October, 1899; 6 years. (Filed 7th March, 1899.)

Claim.—1st. A radiator consisting of a casing and cross tubes extending laterally through said casing with both ends of the tubes leading to the exterior of the casing, substantially as described. 2nd. A radiator consisting of a casing having influent and effluent openings, a series of cross tubes within said casing dividing the passage there through and dampers at the effluent and influent ends adapted to close the passage on either side of said series of cross tubes, substantially as described. 3rd. A radiator consisting of a casing having influent and effluent openings and a series of cross tubes extending laterally through said casing from side to side and arranged in a spiral series, substantially as described. 4th. A radiator consisting of a casing, a series of cross tubes extending laterally therethrough, one of said cross tubes being mounted to turn in its bearings and a damper mounted on said cross tube, substantially as described. 5th. In a radiator the combination of the casing having internal hollow bosses with the cross tubes extending laterally through said casing and having their ends surrounding the said hollow bosses for securing the said cross tubes in place, substantially as described. 6th. In a radiator, a cross tube having a locked longitudinal seam, and a damper having a folded edge 18 locked within the said longitudinal seam, substantially as described. 7th. In a radiator, the combination of the casing, cross tubes



mounted therein and a cleaner adapted to be moved longitudinally over said cross tubes and provided with a handle on the exterior of the said casing, substantially as described.

No. 64,176. Ball Caster. (*Roulette à boule.*)



Walter Whitfield Bostwick, Brooklyn, New York, U.S.A., 5th October, 1899; 6 years. (Filed 11th April, 1899.)

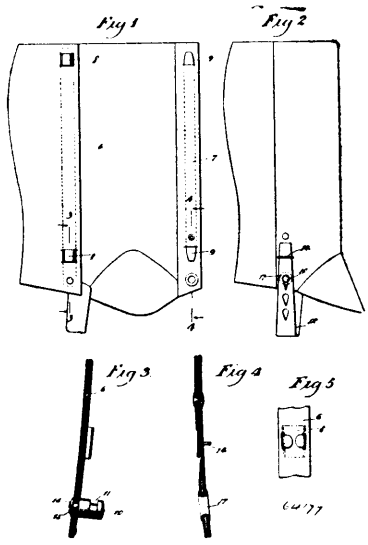
Claim.—1st. In a ball caster, the combination of an inverted cup, a bearing ball central within said cup, an upper ring fitted within said cup above the centre of said ball and upon which are supported antifriction balls located between the bearing ball and cup, and a lower ring secured to the cup and serving to retain the central ball therein and to retain or assist in retaining the said upper ring, substantially as herein described. 2nd. The upper ring, *c*, of resilient metal interrupted at one point in its circumference and by its resiliency retaining itself free from the central or main ball and retaining or assisting to retain itself in place in the cup, substantially as herein described.

No. 64,177. Leggings. (*Guêtre*)

Julius C. Clausen and John Zuefle, Hensall, Ontario, Canada, 5th October, 1899; 6 years. (Filed 27th April, 1899.)

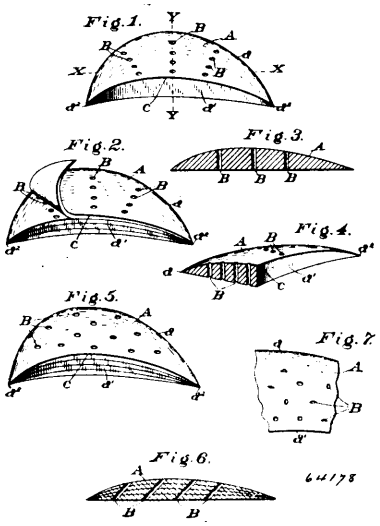
Claim.—1st. A legging, having a spring embedded therein, and a stud formed with a rivet, the rivet being passed through the legging and through the spring near one end thereof, and the rivet serving to hold the spring firmly with respect to the material forming the legging. 2nd. A legging, having a spring therein, the spring being

embedded in the material forming the legging, and a rivet passed through the spring and legging and serving to bind the spring firmly



with the material forming the legging. 3rd. A legging, having a spring embedded in the material thereof, a stud having a score therein, a rivet attached to the stud and passed through the spring and through the legging to bind the spring firmly with the legging, the stud serving to pass through an eye in the legging to join the contiguous edges of the legging, and a foot strap adapted to engage in the score of the stud.

No. 64,178. Shoulder Pad. (*Coussinet pour épaules.*)



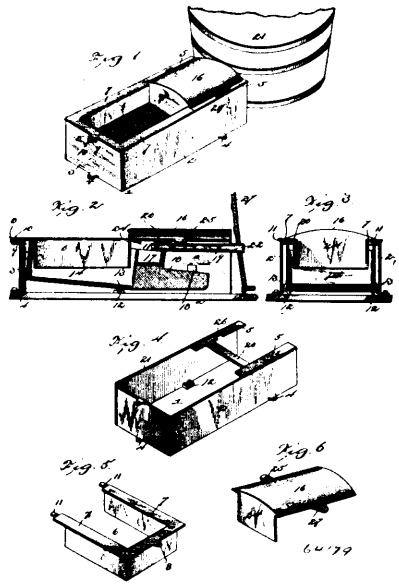
Gustav Goldman, Baltimore, Maryland, U.S.A., 5th October, 1899; 6 years. (Filed 20th March, 1899.)

Claim.—A garment shoulder pad, made of soft homogeneous yielding material, having under and outer arched margins, the body of the material being perforated with a series of open ended tubes extending continuously from its upper to its lower surface, substantially as described.

No. 64,179. Stock Waterer. (*Appareil à abreuver le bétail.*)

Allen Grenn, Scranton, Iowa, U.S.A., 5th October, 1899; 6 years. (Filed 24th March, 1899.)

Claim.—1st. A stock waterer, comprising a supply pipe, a tilting trough or cup provided at its back with a weight adapted to counterbalance partially the cup or trough and its contents, and to swing the former upward when the contents are consumed, and a cut-off connected with the supply pipe and operated by the movement of the trough or cup, substantially as described. 2nd. A stock waterer, comprising a tilting trough fulcrumed in rear of the centre and provided at its back with a jaw, a flexible supply pipe arranged to be engaged by the jaw to cut off the flow of water, and a weight arranged at the back of the trough and adapted to counterbalance the same and its contents partially, and to swing the trough upward to effect an opening of the cut off, substantially as described. 3rd. A stock waterer, comprising the inner and outer casings having ver-



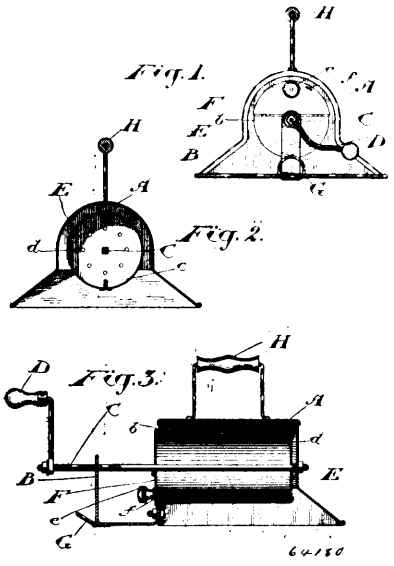
tical sides spaced apart, tilting trough having its sides operating in the intervening spaces between the casings, and a cut off operated by the tilting trough, and adapted to control the supply of water, substantially as described. 4th. A stock waterer, comprising an outer casing, an inner casing detachably secured to the outer casing and provided at its top with flanges resting upon the upper edges of the same, a tilting trough mounted within the outer casing and operating in the space between the same and the inner casing, a cut off arranged at the back of the trough, and a shield or cover consisting of a top portion and a depending front portion, said shield or cover being arranged to protect the cut off, substantially as described. 5th A stock waterer, comprising an outer casing, provided at its back with inwardly extending flanges, an outer casing located in front of the said flanges, and provided at its top with horizontal flanges detachably screwed to the outer casing, a transverse bar connecting the rear portions of the sides of the outer casing and forming a jaw, a tilting trough operating in the space between the casings, and provided at its back with a jaw arranged to compress a supply pipe between it and the transverse bar, and the shield or cover mounted on the rear flanges of the outer frame, and having a depending front portion, substantially as described. 6th. A stock waterer, comprising an outer casing provided at its back with flanges, one of the flanges being notched, an inner casing arranged within the outer casing and provided at its top with horizontal flanges having tongues interlocked with the flanges of the outer casing, a shield or cover provided at one side with a hook or tongue interlocked with the notched flange of the outer casing, the other side of the shield or cover being detachably secured to the other flange of the outer casing, a tilting drinking trough arranged in the space between the casings, and a cut off operated by the trough, substantially as described. 7th. A stock waterer, comprising a tilting drinking trough provided at its back with a rearward extension, and having a counterbalancing weight arranged adjacent to the same, the upper edge of the extension forming a jaw, and a flexible supply pipe arranged to be compressed by the said jaw, substantially as and for the purpose described.

No. 64,180. Coffee Roaster. (*Rôtissoire à café.*)

Nicholas Schwalm, Mildmay, Ontario, Canada, 5th October, 1899; 6 years. (Filed 13th February, 1899.)

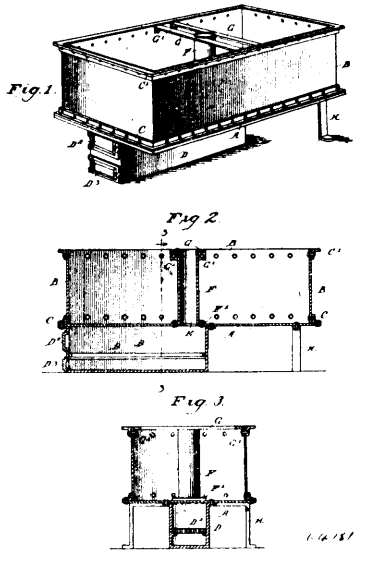
Claim.—1st. In a coffee roaster, an outer casing having an opening in one end, in combination with a spindle passing through the said opening, journalled at one end in the casing, and an outer end in a bracket extending outwardly from the casing, a cylinder supported by the said spindle within the casing but having one end extending out through the opening therein, and a door in the end of the cylinder, substantially as and for the purpose specified. 2nd. In a coffee roaster, an outer casing having an opening in one end, in combination with a spindle passing through the said opening, journalled at one end in the casing and at the outer end in a bracket extending outwardly from the casing, a bail or handle secured to the top of the casing, a cylinder supported by the said spindle within the casing but having one end extending out through the opening therein, and a door in the end of the cylinder, substantially as and for the purpose specified. 3rd. In a coffee roarter, an outer casing having an opening in one end, in combination with a spindle passing through the said opening, journalled at one end in the casing, and at the outer end in a bracket extending outwardly from the casing,

a cylinder supported by the said spindle within the casing but having one end extending out through the opening therein, and a door in



the end of the cylinder provided with a knob and spring catch, substantially as and for the purpose specified. 4th. In a coffee roaster, an outer casing having an opening in one end, and an opening with flared sides at the bottom, in combination with a spindle passing through the said opening, journalled at one end in the casing, and at the outer end in a bracket extending outwardly from the casing, a cylinder supported by the said spindle within the casing but having one end extending out through the opening therein, and a door in the end of the cylinder, substantially as and for the purpose specified. 5th. In a coffee roaster, an outer casing having an opening in one end, and an opening with flared sides at the bottom, in combination with a spindle passing through the said opening, journalled at one end of the casing, and at the outer end in a bracket extending outwardly from the casing, a perforated cylinder supported by the said spindle within the casing, and having one end extending out through the opening therein, and a door in the end of the cylinder, substantially as and for the purpose specified.

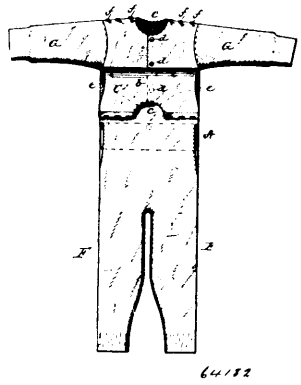
No. 64,181. Tank and Heater. (*Réservoir et chauffeur.*)



Jurgen C. Thomsen, Clinton, Iowa, U.S.A., 5th October, 1899; 6 years. (Filed 18th January, 1899.)

Claim.—1st. In a stock tank, the combination with the bottom and sides, said bottom having a circular opening, of the pipe or tube secured to the said bottom and surrounding the opening, substantially as shown and described. 2nd. In a stock tank, the combination with the bottom and sides, said bottom having a central opening produced therein, of the pipe or tube attached to the bottom of the point described, and the furnace secured also to the bottom beneath the said opening, substantially as shown and described. 3rd. In a stock tank, comprising a flat metal plate bottom, sheet metal sides, an angle iron flange uniting the bottom and sides, and an angle iron flange attached to the top of the tank, substantially as shown and described. 4th. In a stock tank, comprising a circular opening therein, and a pipe secured to said bottom, said pipe being a height the same as the said tank, and the cross bars arranged upon opposite sides of the said pipe and secured to the sides of the tank, substantially as and for the purpose described.

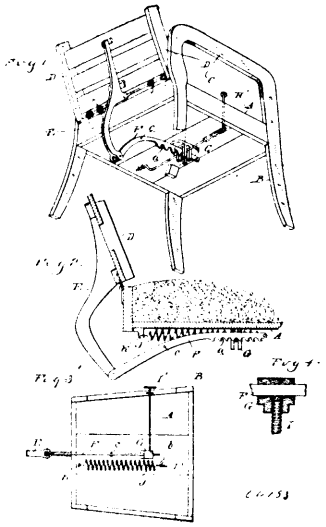
No. 64,182. Undergarment. (*Vêtement de dessous.*)



Samuel Unger and Moses Leininger, both of Pottsville, Pennsylvania, U.S.A., 5th October, 1899; 6 years. (Filed 6th April, 1899.)

Claim.—1st. An undergarment having a vest extending across the front from sleeve to sleeve and connected therewith, free from the garment below the armholes and divided from the neck opening downward, and a flap covering the vest and provided with free edges extending substantially from the lower end of the armhole upward and detachably secured across the front of the garment. 2nd. An undergarment comprising the leg, body and sleeve portion and connected therewith, being free from the garment below the armholes and divided from the neck opening downward, and an outer flap covering the vest and having its edges free from the sleeves from the lower end of the armholes upward, and means for detachably securing the same to the garment at the upper end of the flap. 3rd. An undergarment comprising the leg, body and sleeve portion and having a vest extending across the front from sleeve to sleeve and connected therewith and extending downward nearly to the waist line of the garment but free therefrom below the armholes and divided from the neck opening downward, and an outer flap covering the vest and having its edges free from the lowest portion of the armhole upward, and means for detachably securing the same to the garment at the upper margin of the flap, substantially as described.

No. 64,183. Chair. (*Fauteuil.*)

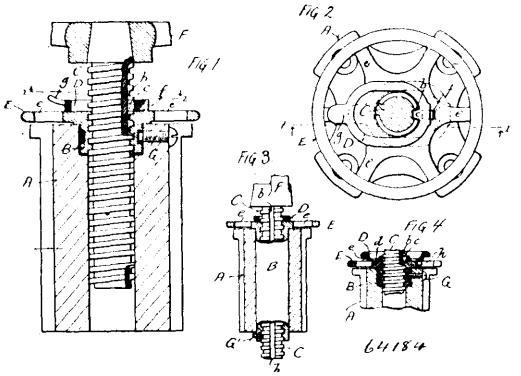


Jerrold F, Walton, Detroit, Michigan, U.S.A., 5th October, 1899; 6 years. (Filed 24th March, 1899.)

Claim.—1st. In an adjustable chair, the combination with a seat, a hinged back and a spring for raising said back, of an arm project

ing downwardly and rearwardly from said back, a rod pivotally connected to said arm and extending beneath the seat, and a lock for holding said rod in different positions of adjustment having an operating handle in reach of the occupant of the chair while seated therein. 2nd. In an adjustable chair, the combination with the seat, the hinged back and a spring for raising said back, of an arm secured to said back and projecting downwardly and rearwardly therefrom, a slotted bearing secured beneath the seat, a rod pivotally secured at one end to said arm, and slidingly secured in said bearing, a lock for said rod in said bearing and an operating handle therefor in a position to be in reach of the occupant of the chair. 3rd. In an adjustnble chair, the combination with the seat and hinged back, of an arm projecting downwardly and rearwardly from said back, a slotted bearing beneath said seat, the rod F pivotally secured at one end to said arm and slidingly engaging said bearing a spring for raising the back secured to the free end of said rod, and drawing rearwardly thereon, and a rod for locking said rod F in the bearing extending to the side of the seat. 4th. In an adjustable chair, the combination with the seat and hinged back, of the arm E projecting downwardly and rearwardly from the back, the double slotted bearing G, the rod F having a series of notches therein pivoted at one end to said arm and slidingly engaging one of the slots of said bearing, the spring locking rod engaging the other slot of the bearing and adapted to engage with the notches in said rod F, on the operating shank for said locking rod, and a spring secured to the free end of said notched rod and adapted to raise said back.

No. 64,184. Chair. *(Fauteuil.)*



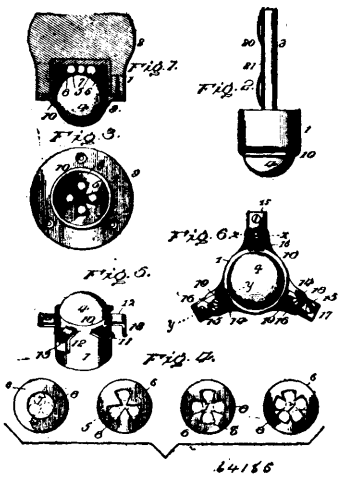
Harry Wilbur Bolens, Port Washington, Wisconsin, U.S.A., 5th October, 1899; 6 years. (Filed 6th March, 1899.)

Claim.—1st. A chair base casting, a nut in bearing contact with the casting, a longitudinally grooved screw spindle engaging the nut, a slip collar above the nut thread having a spline engaging the spindle groove, and suitable means whereby the slip collar is normally held to rotate with said nut. 2nd. A chair base casting, a rotative nut having bearing contact with the casting inside the same, a longitudinally grooved screw spindle engaging the nut, a slip collar above the nut thread having a spline engaging the spindle groove, and suitable means whereby the slip collar is normally held to rotate with said nut. 3rd. A chair base casting, a nut in bearing contact with the casting, suitable means for preventing lift of the nut from said casting, a longitudinally grooved screw spindle engaging said nut, a slip collar above the nut thread having a spline engaging the spindle groove, and suitable means whereby the slip collar is normally held to rotate with the aforesaid nut.

No. 64,185. Ball Bearing Caster. *(Roulette à boule.)*

John Guinan, New York City, New York, U.S.A., 5th October, 1899; 6 years. (Filed 6th March, 1899.)

Claim.—1st. In a furniture caster, a ball cup or socket having its inner end closed and having a caster ball applied to its outer or lower end, and balls interposed between the caster ball and the inner end of the ball cup or socket, in combination with a plate removably fitted within the ball cup and having a central opening for receiving the antifriction balls, substantially as set forth. 2nd. In a caster, a ball or cup socket having its inner end closed and having a caster ball applied to its outer or lower end, and a series of balls interposed between the inner end of the cup and the caster ball, in combination with a plate removably fitted within the cup and having a central opening, and a series of notches leading from the central opening to receive the individual balls and hold them separated, substantially as described. 3rd. In a caster, the combination with a ball cup or socket having a caster ball, of a plate having a central opening and a series of notches leading from said opening, said notches being of wedge form and having their inner ends contracted, substantially as and for the purpose set forth. 4th. In a caster, a ball cup or socket having an off standing support at its lower end to obtain a bearing against the lower end of the furniture leg, and having a pendent rim projecting below the plane of said off standing support and adapted to be contracted or inturned to retain the caster ball in position, substantially as set forth. 5th. In a caster, a ball cup or socket having a series of off standing arms in



the same plane and adapted to obtain a bearing against the lower end of a furniture leg, substantially as set forth. 6th. In a caster, a ball cup or socket having a series of off standing adjustable arms, substantially as specified. 7th. In a caster, a ball cup or socket having bracket lugs, in combination with plates adjustably connected to said bracket lugs, and means for securing the plates to the bracket lugs, in an adjusted position, substantially as described. 8th. In a caster, the combination with the ball cup or socket having bracket lugs recesses in their outer ends, of slotted plates slidably fitted in the recesses of the bracket lugs, and means for securing the plates in an adjusted position, substantially as set forth.

No. 64,186. Shoe Tip. *(Garniture de bout de chaussure.)*

Albert St. Martin and Louis F. Mallette, both of Montreal, Quebec, Canada, 5th October, 1899; 6 years. (Filed 17th April, 1899.)

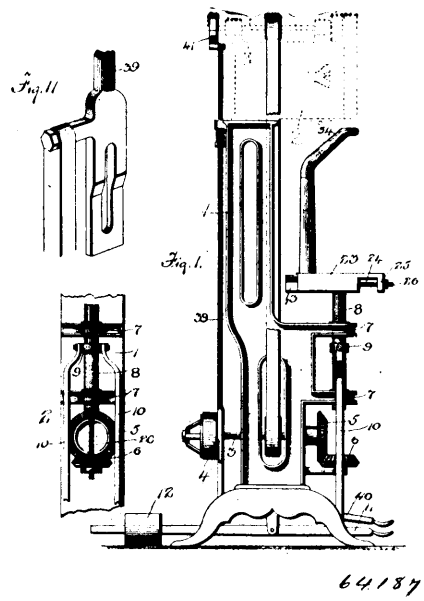
Claim.—1st. A tip for shoes, constructed of two independent portions, suitably secured together, substantially as described. 2nd. A tip for shoes, constructed of two independent portions, suitably secured together, each portion being of different material, substantially as described. 3rd. A tip for shoes, constructed of two independent portions, suitably secured together, the meeting edges of said portions forming an ornamental design, substantially as described. 4th. A tip for shoes, constructed of two independent portions suitably secured together, eaeh portion being of different material, the meeting edges of said portions forming an ornamental design, substantially as described.

No. 64,187. Pegging Machine. *(Machine à cheviller.)*

Francis Tousignant and Pierre Larange, both of St. Hyacinthe, Quebec, Canada, 5th October, 1899; 6 years. (Filed 26th April, 1899.)

Claim.—1st. The combination with a pegging machine, of a shoe horn adjustably mounted thereon. 2nd. The combination with a pegging machine, and means for holding said shoe horn in its adjusted position. 3rd. The combination with a pegging machine, of a shoe horn adjustably mounted thereon, means for adjusting the position of said shoe horn on said pegging machine, and means for securing said horn in its adjusted position. 4th. The combination with a support, of a shoe horn mounted to have a horizontal adjustment on said support. 5th. The combination with a support, hav-

ing a slide, of a shoe horn mounted on said support, said shoe horn having a horizontal movement in said slide, and means for adjusting

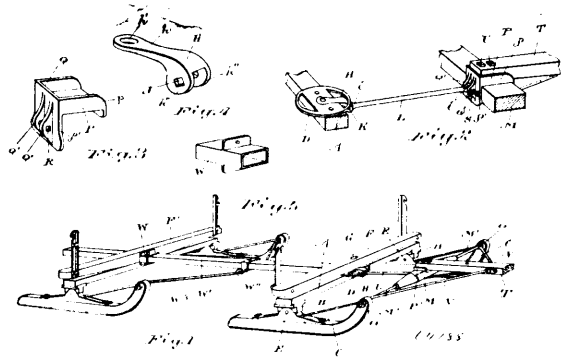


the position of said shoe horn on said slide. 6th. The combination with a support, having slides formed thereon, a shoe horn, mounted to have a horizontal movement on said support and in said slides, means for adjusting the position of said horn on said support, and means for holding said horn in its adjusted position on said support. 7th. The combination with a support, having a vertical and rotary movement, of a shoe horn mounted adjustably thereon, said adjustment being in a horizontal direction, said horn being subject to the movement of said support. 8th. A trimming attachment for pegging machines, comprising a trimmer, and means for imparting an oscilatory movement to said trimmer. 9th. A trimming attachment for pegging machines, comprising a support, a trimmer removably connected to said support, and means for imparting an oscilatory movement to said support. 10th. A trimmer for pegging machines, comprising a disc having its top and bottom faces formed in a parallel horizontal plane, a central opening formed in said disc, a trimming end formed adjacent to the top plane of said disc, and radially extending lugs formed on the periphery of said disc. 11th. A trimmer for pegging machines, comprising a disc having its top and bottom faces formed on a parallel horizontal plane, a central opening formed therein, and a trimming edge formed adjacent to the top plane of said disc, said edge extending into said opening. 12th. A trimmer for pegging machines, comprising a disc having its top and bottom faces formed in a parallel horizontal plane, a central opening formed within said disc, a trimming edge formed adjacent to the top plane of said discs, said edge extending inwardly into said opening, and radially extending lugs formed on the periphery of said discs, the lower faces of said lugs being on the same plane as the bottom plane of said discs. 13th. A trimming attachment for pegging machines, comprising a support, having its top face on a horizontal plane, radially extending recesses formed within said support adjacent to the top plane thereof, a trimmer, having a series of radially extending lugs coinciding with said recesses, said lugs being adapted to fit said recesses, and meaus for imparting movement to said support.

No. 64,188. Sleigh. (*Traineau.*)

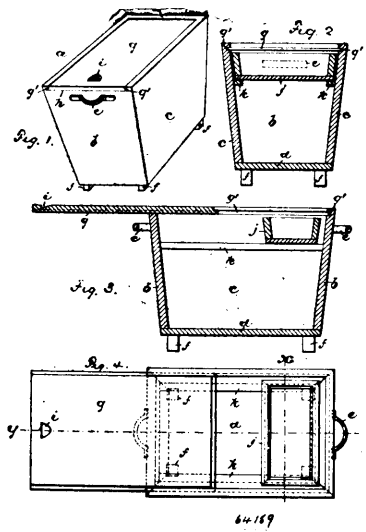
James H. Jackson, Keady, Ontario, Canada, 5th October, 1899; 6 years. (Filed 7th March, 1899.)

Claim.—1st. A bob-sleigh embracing in its construction the front bobs, a rocker journalled in the nose of the runners, a coupling bracket connected to the middle of the rocker, consisting of a horizontal arm and a vertical arm, the vertical arm provided with two rearwardly projecting lugs, a draw-jack held in position by the king bolt of the front bobs, consisting of a tongue and two lugs depending from the front end of the tongue, a draw-rod, one end of which is pivotally held between the lugs of the draw-jack and the other end of which is pivotally connected to the lugs of the coupling bracket, substantially as specified. 2nd. A bob-sleigh embracing in its construction the front bobs, a rocker journalled in the nose of the runners, a coupling bracket connected to the middle of the rocker, consisting of a horizontal arm and a vertical arm, the vertical arm provided with two rearwardly projecting lugs, a draw-jack held in position by the king bolt of the front bobs, consisting of a tongue and two lugs depending from the front end of the tongue, a draw-rod, one end of which is pivotally held between the lugs of the draw-jack and the other end of which is pivotally connected to the lugs of the coupling bracket, a flange extending upwardly from the opposite sides and of the horizontal arm of the coupling bracket, a



tongue, the end and sides of which are contained between the flanges, and bolts passing through the tongue, coupling bracket and rocker, substantially as specified.

No. 64,189. Laundry Basket. (*Panier de launderie.*)



Mary B. Connell, Roselle, New Jersey, U.S.A., 5th October, 1899; 6 years. (Filed 1st September, 1899.)

Claim.—1st. The herein described laundry basket, comprising an upwardly flaring body portion having on opposite sides interior projections forming slideways extending from end to end of the body portion, a removable tray extending across the basket and being seated at its opposite ends upon said slideways, said tray being of considerably less width than the length of the body portion and adapted to slide from end to end of the basket, and a detachable cover for the basket, the wall of the basket being interiorly grooved near the top for a portion of the distance around said basket and recessed or cut-away for the remaining portion, said cover sliding through said recess with its edges in said groove, substantially as set forth. 2nd. The herein described laundry basket, comprising an upwardly flaring body portion *a*, feet extending downwardly from the bottom of said body portion, opposite interior projections on the sides and extending from end to end of the body portion, a removable sliding tray arranged on the slideway formed by said projections, interior grooves formed at the upper edges of the walls for a portion of the distance around the top of the body, the remaining portion being recessed, and a removable cover sliding through said recess with its edge in said grooves, substantially as set forth.

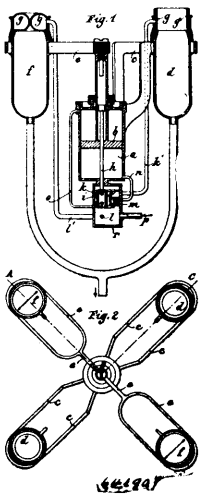
No. 64,190. Milking Apparatus.

(*Appareil à traire les vaches.*)

Clemens Freiherr von Bechtolsheim, Munich, Maria Theresiastrasse 27, Germany, 5th October, 1899; 6 years. (Filed 8th March, 1899.)

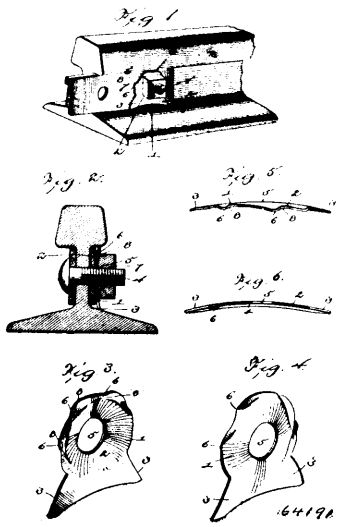
Claim.—1st. A milking apparatus, characterised by a cylinder operated pneumatically, hydraulically, or by vacuum and provided with an automatic reversing valve arrangement and located between the teats being suspended thereon by milking devices which are also operated pneumatically or hydraulically and are moved up and down so as to exert at periodical intervals a pull on the teats and a pressure on the udder with the object of enabling the milking

machine to be worked with a constant pressure in the operating pipe and of requiring no further support for the apparatus than that



afforded by the milking devices themselves, substantially as described. 2nd. In a milking apparatus such as hereinbefore described, the arrangement of two cups diametrically opposite one another and attached to a piston, and two others attached to a cylinder so that the respective pairs mutually alter their positions as regards height in such a way that the for the time being descending pair squeezing the teats, milk the same out, and exert a pull thereon, whilst the rising pair of cups are opened to allow the teats to enter therein and exert a pressure against the udder, substantially as described. 3rd. In a milking apparatus such as described, the arrangement of valves for producing the alteration in the conditions of pressure in the cups, in such a way that on a change of movement all four cups simultaneously squeeze the teats in order to prevent at this moment the apparatus dropping off the cow, substantially as described.

No. 64,191. Nut Lock. (*Arrête-écrou.*)



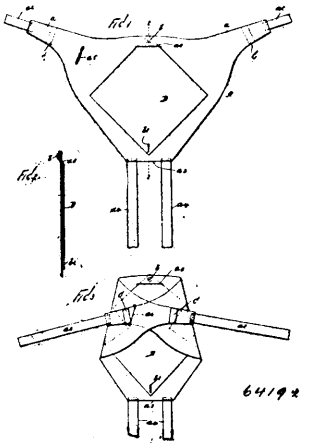
Thomas Washington Crozier, Roanoke, Virginia, U.S A., 5th October, 1899; 6 years. (Filed 8th March, 1899.)

Claim.—A nut lock make of a plate of resilient material, and comprising a concave convex body portion provided at its upper edge or periphery with a series of tapering resilient protuberances, formed by corrugating or depressing the inner or rear face of the plate, and providing long, gradual inclined faces, and having abrupt shoulders adapted to engage a nut, said shoulders being disposed at a slight inclination, whereby, when sufficient pressure is applied, a nut may be forced over them, substantially as described.

No. 64,192. Diapers. (*Caleçon.*)

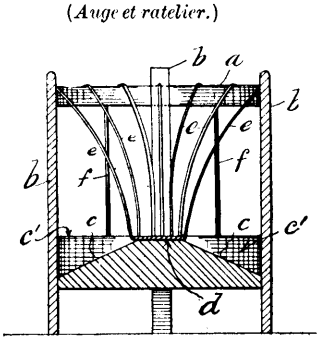
Alexandria Schiff, New York City, New York, U.S.A., 5th October, 1899; 6 years. (Filed 9th March, 1899.)

Claim.—1st. A triangular diaper, one side of which is larger than the other, strings or tapes secured to the corners of the diaper at the ends of the larger side, said diaper being also provided with a transverse slot adjacent to one of said corners, and centrally of said



side with a horizontal slot, substantially as shown and described. 2nd. A triangular diaper, one side of which is longer than the other, strings or tapes secured to the corners of the diaper at the ends of the longer side, said diaper being also provided with a transverse slot adjacent to one of said corners, and centrally of said side with a horizontal slot, and a button or other fastening device secured to the back of the diaper adjacent to said horizontal slot, substantially as described. 3rd. A diaper which is triangular in form, and one side of which is larger than the others, strings or straps secured to the corners of the diaper at the ends of the longer side, said diaper being provided adjacent to one of said corners with a transverse slot or opening, the third corner being also provided with strings or straps, substantially as shown and described. 4th. A diaper which is triangular in form, and one side of which is longer than the others, strings or straps secured to the corners of the diaper at the ends of the longer side, said diaper being provided adjacent to one of said corners with a transverse slot or opening, the third corner being also provided with strings or straps, said corner being also provided with a supplemental part or shield connected with the inner side thereof, substantially as shown and described. 5th. A diaper which is triangular in form, and two corners of which are provided with strings or straps, said diaper being also provided adjacent to one of its corners with a transverse slot or opening, and at the third corner with two strings or straps, one side of the diaper being also provided with a slot or opening, and a supplemental part or shield connected with the inner side of the diaper, one corner of which is passed through said last named slot or opening, and buttoned to the diaper, and another corner of which is adapted to be connected with a waist band, substantially as shown and described.

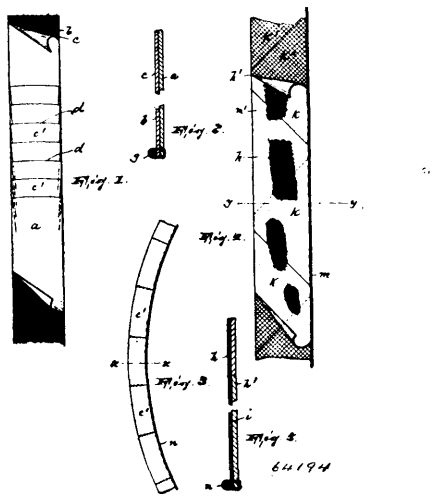
No. 64,193. Feeding Rack and Trough.
(*Auge et ratelier.*)



William Joseph Hobbs, Chipping Norton, Oxford, England, 5th October, 1899; 6 years. (Filed 13th March, 1899.)

Claim.—The new or improved combined feeding rack and trough for calves, sheep and other animals, consisting in a circular top rail and a number of vertical frame posts arranged around same, said top rail having depending from same a tapering hay rack formed of a number of curved bars whose lower ends are fixed to a central pillar projecting above the trough bottom, such trough bottom having a downward inclination toward the raised sides surrounding same, and a number of vertical bars dividing the spaces between the said vertical frame posts, all arranged and combined, substantially as described, and as illustrated by the drawings.

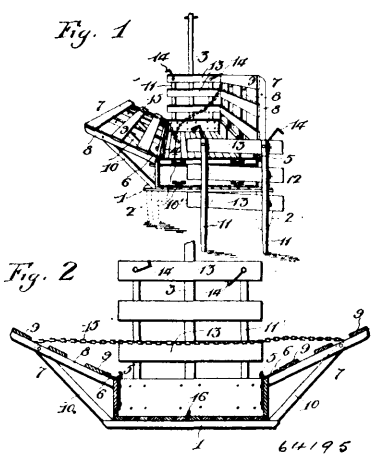
No. 64,194. Garment Facings. (*Revers de vêtement.*)



Alfred C. McLaughlin, Paterson, New Jersey, U.S.A., 5th October, 1899; 6 years. (Filed 17th March, 1899.)

Claim.—1st. As an article of manufacture, a skirt facing consisting of an elongated segment shaped piece of suitable material, substantially as described. 2nd. As an article of manufacture, a composite skirt facing consisting of an elongated segment shaped piece of suitable material, said piece comprising a series of strips secured together at their ends, substantially as described. 3rd. As an article of manufacture, a composite skirt facing consisting of an elongated segment shaped piece of suitable textile material, said piece comprising a series of strips secured together at their ends, and each strip consisting of two layers adhesively secured together, substantially as described. 4th. As a new article of manufacture, a skirt facing consisting of a bias-cut silk facing proper, a backing such as silicia, adhesively secured to said silk facing, and a binding on one of the edges of the skirt facing, substantially as described, 5th. As a new article of manufacture, a skirt facing comprising two layers of suitable material secured together by an adhesive, one of said layers comprising a series of bias cut pieces of silk, and the other of said layers being a reinforce therefor and comprising a series of bias cut pieces of stiff material reversely disposed to those of said first named layer, and a cord stitched along one edge of said facing, substantially as described.

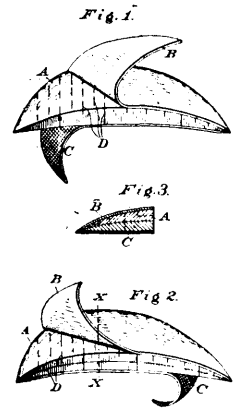
No. 64,195. Grain, Hay and Stock Racks.
(*Ratelier à foin, avoine etc.*)



Elias McKim, Cass City, Michigan, U.S.A., 5th October, 1899; 6 years. (Filed 18th March, 1899.)

Claim.—In a combined grain, hay and stock rack and wagon, the combination with the body thereof, provided on its sides with upright cleats having eyes in their upper ends and at its ends with angular metallic keepers, of side sections comprising vertical bars and horizontal slats, hooks secured to said side sections and adapted to engage said eyes, end sections comprising vertical bars and horizontal slats, said bars being adapted to enter said end keepers, hooks upon the end sections, a chain secured at its outer ends to the said sections for supporting the same one from the other, a hook secured to the wagon floor adapted to engage the links of said chain for the purpose of adjusting the positions of said side sections relative one to the other, and bars pivotally connected to the vertical bars of the side sections, whereby the rear and middle portions of said sections are supported, as and for the purpose set forth.

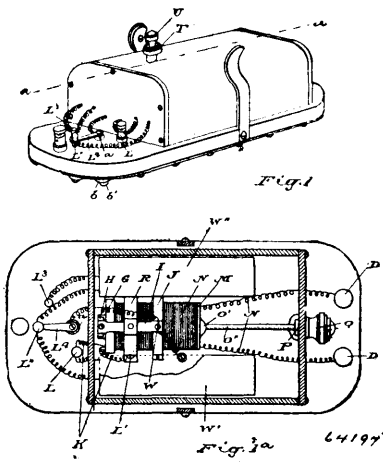
No. 64,196. Shoulder Pad. (*Coussinet pour épaules.*)



Gustav Goldman, Baltimore, Maryland, U.S.A., 5th October, 1899; 6 years. (Filed 20th March, 1899.)

Claim.—1st. A garment shoulder pad composed of soft yielding material provided with a series of short slits cut downwardly therein, extending in right lines in direction from inner arched to outer arched margins, substantially as described. 2nd. The within described new article of manufacture consisting of a garment shoulder pad, having an upper surface covering of wadding and an under surface covering of thin textile material, as and for the purpose intended, substantially as described.

No. 64,197. Electro Medical Apparatus.
(*Appareil électro médical.*)

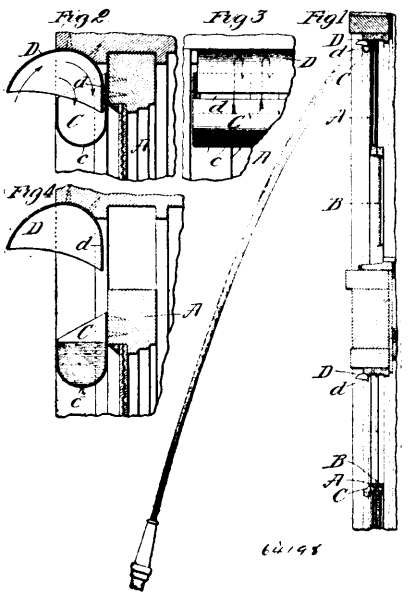


William P. Sutton, Toronto, Ontario, Canada, 5th October, 1899; 6 years. (Filed 2nd November, 1898.)

Claim.—1st. An electro-medical apparatus embracing in its construction an insulated base, an electrode connected to the base consisting of a plate fitted with a series of open sockets, and conducting antifriction balls or rollers contained in the sockets and projecting slightly beyond the plate, substantially as specified. 2nd. An electro-medical apparatus embracing in its construction an electrode, composed of a plate fitted with a series of sockets, conducting antifriction balls or rollers contained in the sockets, and a contact plate fitted to the electrode plate to hold the balls or rollers in position, substantially as specified. 3rd. An electo-medical apparatus embracing in its construction an electrode composed of a plate fitted with a plurality of sockets, an upturned flange surrounding the plate, antifriction balls or rollers contained in the sockets to form the contact surface of the electrode, and a contact plate held in position by the upturned flange to hold the balls or rollers in their sockets, substantially as specified. 4th. An electro-medical apparatus embracing in its construction an insulated base, two electrodes secured to the base, each composed of a plate fitted with a series of sockets, and conducting antifriction balls or rollers contained in the sockets, substantially as specified. 5th. An electro-medical apparatus embracing in its con-

struction an insulated base, two electrodes secured to the base, each composed of a plate fitted with a series of sockets, conducting antifriction balls or rollers contained in the sockets, and contact plates interposed between the balls or rollers and insulated base, and a terminal for each contact plate, substantially as specified. 6th. An electro-medical apparatus embracing in its construction an insulated base, two electrodes connected to the base, each electrode composed of a plate fitted with a series of sockets, conducting antifriction balls or rollers contained in the sockets, and an intensity coil supported on the opposite side of the base, the terminals of which are in circuit with the electrodes, substantially as specified. 7th. An electro-medical apparatus embracing in its construction an insulated base, two electrodes connected to the base, each electrode composed of a plate fitted with a series of sockets, conducting antifriction balls or rollers contained in the sockets, a contact plate fitted to each electrode plate to hold the balls or rollers in position, terminals for the contact plate, an intensity coil supported on the opposite side of the base the terminals of which are in circuit with the terminals of the contact plates, substantially as specified. 8th. An electro-medical apparatus embracing in its construction an insulated base, two electrodes secured to one side of the base, each electrode composed of a plate provided with a plurality of sockets, conducting antifriction balls or rollers contained in the sockets, an upturned flange for each electrode plate, a contact plate for each electrode interposed between the balls or rollers and the base, held in position by the upturned flanges, a terminal for each contact plate, a magnet secured to the opposite side of the base consisting of a soft iron core, an anvil connected to one end of the soft iron core, a primary coil wound on the soft iron core, a removable insulated core inclosing the primary coil, a secondary coil wound on the insulated core, the terminals of the secondary coil in circuit with the terminals of the secondary coil in circuit with the terminals of the contact plates, a bridge embracing the magnet, an armature spring connected to the magnet frame, an armature carried by the spring opposed to the anvil, a contact screw passing through the bridge opposed to the armature spring, a lock nut to regulate the adjustment of the contact screw, a binding post connected to the base in circuit with one of the terminals of the primary coil, the other terminal of the primary coil in circuit with a binding post connected to the bridge, a binding post connected to the armature spring in circuit with the ground or one of the poles of the battery, an adjusting screw to adjust the secondary coil on the primary coil, and a thumb nut on the adjusting screw, substantially as specified.

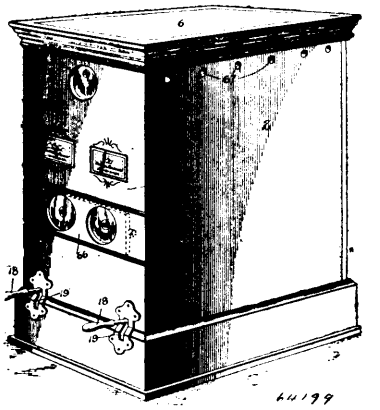
No. 64,198. Window Opener. (*Ouvre fênetre.*)



Edward Walsh, St. Louis, Missouri, U.S.A., 5th October, 1899; 6 years. (Filed 20th February, 1899.)

Claim.—1st. In a window opener, the combination with a fixed hood, of a pocket arranged on the window sash, said hood and pocket being so arranged relative to each other, that a stream of water directed against said hood will be delivered into the pocket, its force opening the window, substantially as described. 2nd. In a window opener, the combination with an inverted hood fixedly mounted on the building, of a pocket partially or wholly beneath said hood, said pocket being mounted on the window sash, substantially as described. 3rd. The combination with a fixed hood, of a pocket mounted on the window sash partially or wholly beneath said hood, said pocket being provided with drip openings in its bottom, substantially as described. 4th. The combination with a window sash, of a pocket C arranged thereon, and a fixed hood D having an inner vertical wall *d*, substantially as described. 5th. The combination with a window sash, of a pocket secured thereon, said pocket being formed with drip openings in its bottom, a hood projecting some distance outwardly beyond the pocket to prevent the entrance of falling water into the pocket, said hood also acting as a guide to direct a stream of water downwardly into said pocket with force, from a point below, substantially as described.

No. 64,199. Voting Machine. (*Machine à voter.*)

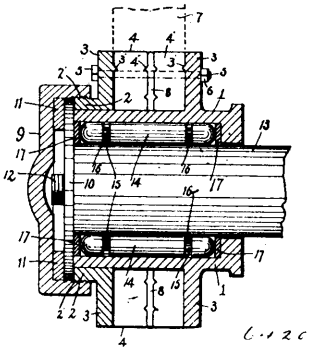


Ernest Geoffrion and Charles Edward Belanger, both of Montre Quebec, Canada, 5th October, 1899; 6 years. (Filed 25th Fe l ruary, 1899.)

Claim—1st. A voting machine, comprising a casing, vote register ing mechanism located within said casing, voting handles extend ing outwardly through said casing, said handles having a pivotal movement within said casing, said handles also being removably connected to the registering mechanism, and means for automatically closing said casing when said handles have been removed, substantially as described. 2nd. A voting machine, comprising a casing, vote registering mechanism located within said casing, removable handles connected to said registering mechanism, said handles extending outward through the casing, mechanism within said casing adapted to automatically close the opening through which said handles extend into said casing, and a receptacle located within said casing, and normally locked, for receiving said handles after their removal, substantially as described. 3rd. A voting machine, comprising a casing, individual vote registering mechanism located therein, voting handles pivotally mounted within said casing, each individual registering mechanism having an independent handle, a total register mounted within said casing, actuating mechanism operatively connected to each of said voting handles for moving said total register forward one number, when either of said handles is operated to register the individual registering mechanism, means for automatically locking all of the voting handles when either of them have been actuated to record the vote, and means operatively connected to said handles and operated at an independent point, for releasing all of said handles simultaneously. 4th. A voting machine, comprising a casing, individual registering mechanism located therein, independent voting handles for each of said mechanism, each mechanism and its voting handle having an independent movement, a total register adapted to have a forward movement, means for normally preventing backward movement of said register, a spring actuated pawl located contiguous to said register and adapted to impart a step by step forward movement thereto, and connections between each of said handles and said pawl for imparting movement to said pawl when said handles are depressed, the movement of one of said handles operating said pawl without disturbing the normal position of the remaining connections. 5th. A voting machine, comprising individual registering mechanism, voting handles operatively connected therewith to impart a step by step movement thereto, each mechanism having an independent handle, a total register normally prevented from having a backward movement, a spring actuated pawl for moving said total register forward step by step, a universal bar adapted to impart movement to said pawl, and independent operating arms, connected to said handles, located in juxtaposition to said bar, said bar extending into the path of movement of said arms, whereby a movement of any of said handles will cause said bar to move to operate said pawl. 6th. A total register for voting machines, comprising an actuating disc having its periphery provided with radially extending pins, an endless hand, having openings adapted to receive said pins, located on said disc, an endless band, having its edge provided with consecutive numbers, secured on said first mentioned band, and means for imparting a step by step movement to said disc. 7th. The combination with a voting machine, having voting handles removably secured therein, of means, located within the casing of said machine, for automatically closing the openings through which said handles pass, when said handles are removed. 8th. The combination with a voting machine, having voting handles, of a locking device located

in the path of movement of each of said handles, and independent mechanism, operated by the movement of any one of said handles, for preventing the movement of the remaining handles, until the moved handle has been released from said locking device. 9th. The combination with a voting machine, having voting handles, of a locking device located in the path of movement of each of said handles, independent mechanism located in the path of movement of each handle, for preventing a voting movement of the remaining handles when one of said handles has been operated to record a vote, and means for releasing said locking device and said mechanism simultaneously.

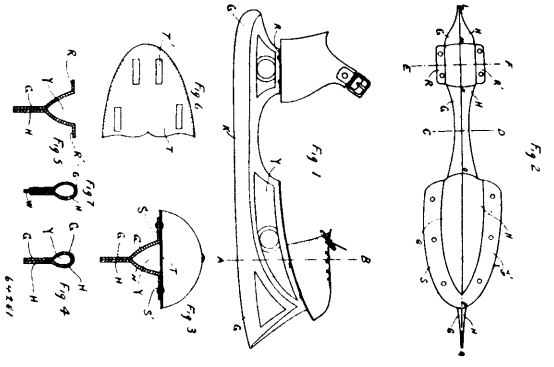
No. 64,200. Hub and Bearing. (*Moyeu et coussinet.*)



Charles W. Robinson, Saginaw, Michigan, U.S.A., 5th October, 1899; 6 years. (Filed 25th August, 1898.)

Claim.—1st. In a hub, the combination with the two parts of the hub, one fitting into the other, each part having the annular collars 3, of the bevelled radial flanges 4 on each collar, extending inwardly and opposite to each other, and extending from the sleeve on the axle radially to the top of the collars 3, whereby a complete walled socket will be formed for the stokes, the rib 3^1, on the inside of each collar, bolt holes through each flange in line with the hole in the opposite flange, a bolt passing through each set of opposite flanges, having a nut on its end, whereby the opposite flanges may be drawn together, the filling 8, of soft material between each set of opposite flanges, the transverse corrugations 4^{11}, on the adjoining edges of the flanges for engaging the filling, the filling permitting the parts of the walled socket formed as described to be clamped around the spoke to a greater or less degree, and to take up any wear or shrinkage of the spoke, as and for the purpose set forth. 2nd. A hub made in two parts, one fitted upon the sleeve of the other, a complete walled and independent ribbed socket for the spokes formed by inwardly extending radial bevelled flanges on the parts of the hub, a segmental rib on each part between the flanges, means for holding the parts of the sockets in position, comprising bolts passing through the flanges, with a nut, whereby by turning upon the nut, the spokes may be clamped in their sockets, means for holding the parts of the hub together, consisting of a cap adapted to fit over and screw upon the outer threaded end of the hub, a nut upon the end of the axle within the cap, a ring within the cap and bearing against the nut, whereby the parts of the hub will be held together, and the whole kept in its proper position on the axle, substantially as and for the purpose set forth.

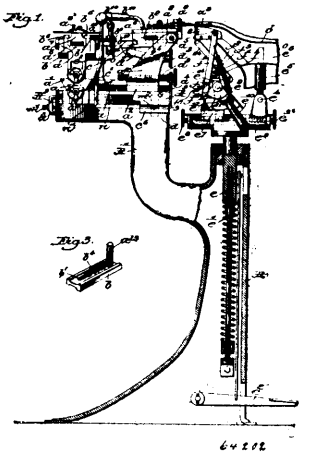
No. 64,201. Skate. (*Patin.*)



Albert Penhallow Jones and Frederic Eldon Dixon, both of Toronto, Ontario, Canada, 6th October, 1899; 6 years. (Filed 16th March, 1899.)

Claim.—A skate formed of two pieces of thin flat steel, each piece comprising a lower or blade part, and an upper or body portion spread out so that when the lower or blade portions are joined together by brazing, soldering, welding or rivetting, the upper or body portions will form half of a hollow body with a flange or flanges for attachment to a shoe, substantially as and for the purpose specified. 2nd. A skate formed of two pieces of thin, flat steel, each piece comprising a lower or blade part, and an upper or body portion spread out so that when the lower or blade portions are joined together by brazing, soldering, welding or rivetting, the upper or body portions will form half of a hollow body, with a flange or flanges for attachment to a shoe, in combination with a plate of thin steel inserted between the blade portions, substantially as and for the purpose specified.

No. 64,202. Lasting Machine. (*Machine à enformer.*)



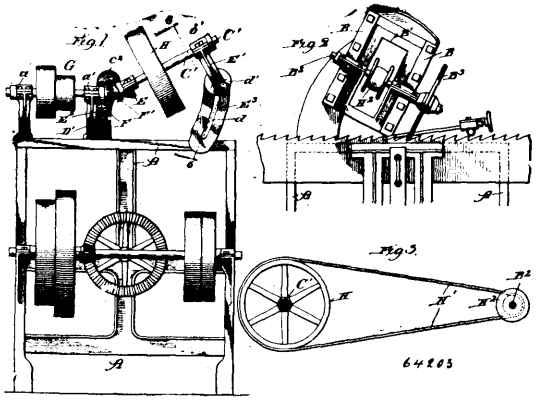
James Almon Hill, Rochester, New York, U.S.A., 6th October, 1899; 6 years. (Filed 14th March, 1899.)

Claim.—1st. In a lasting machine, the following instrumentalities, viz:—a rigid arm or support A^1, an oscillating angular head A^3 pivotally mounted thereon and provided with a plurality of carriages, slides supported in said carriages and provided one with toe-lasting and the other with heel-lasting plates, said slides each having an attached rack, two levers each located at the right hand side of said slides, means intermediate said levers and said racks to move said slides and actuate said lasting plates, a stop connected with said rigid arm and provided with a notch or projection, a locking device mounted upon the carriage containing the slide and lasting plates for lasting the heel of a boot or shoe, said locking device meeting said stop and engaging its notch or projection to lock the head and retain the heel-lasting plates in operative position with relation to the shoe to be lasted, substantially as described. 2nd. In a lasting machine, the following instrumentalities, viz:—a rigid arm or support A^1, a head pivotally mounted thereon and provided with a plurality of carriages, slides supported in said carriages and provided one with toe-lasting and the other with heel-lasting plates, said slides each having an attached rack, two levers each located at the right hand side of said slides, means intermediate said levers and said racks to move said slides and actuate said lasting plates, a locking device mounted upon the carriage containing the slide and lasting plates for lasting the heel of a boot or shoe, a stop c^6 connected with said arm and provided with a notch or projection to be engaged by said locking device, said locking device engaging said notch or projection and locking the head in place when the head is turned to bring the heel-lasting plates in operative position with relation to the shoe to be lasted, and an adjustable stop screw carried by said head to contact with one end of said stop c^6 when the locking device engages the notch or projection therein, substantially as described. 3rd. In a lasting machine, the following instrumentalities, viz:—a rigid arm or support A^1, a head pivotally mounted thereon and provided with a plurality of carriages movable therein, one substantially at right angles to the other, slides supported in said carriages and provided one with toe-lasting plates, said slides each having an attached rack, two levers, each located at the right hand side of said slides, means intermediate said levers and said racks to move said slides and actuate said lasting plates, a spring controlled locking device mounted upon the sliding carriage containing the slide and lasting plates for lasting the heel of a boot or shoe, a stop connected with said rigid arm and provided with a notch or projection to be engaged by said locking device, said locking device engaging said notch or projection to lock said head in place only when the head is turned to bring the heel-lasting plates in operative position with relation to the shoe to be lasted, substantially as described. 4th. In a lasting machine, the arm A^1, having an attached bevelled stop c^6 provided with a notch, the pivoted head mounted thereon and having a sliding carriage a^1 to support a slide having heel-lasting devices, combined with a locking lever c pivoted on said carriage and bevelled at its lower end to co-operate with the bevel of said stop, and a spring connected with

said locking device to hold it yieldingly in operative position, substantially as described. 5th. In a lasting machine, a heel to receive and hold a last provided with an upper the toe of which is to be lasted, a toe-wiper and bars or rests f^{14} to support the same in an adjustable manner, said bars or rests having a suitable loop, as f^2, projecting from its inner or right hand side, said loop containing a yielding buffer, combined with a suitable pin, as f^1, adjustable as to its position, the said pin co-operating with said buffer to enable the toe-wiper to yield before its pressure on the toe of the upper in its movement in wiping the upper up and about the toe of the last is sufficient to tear or mar the upper, substantially as described. 6th. In a lasting machine, an oscillating head, carriages therein having respectively toe and heel-lasting devices, a standard having an attached grooved stop, means to adjust the position of said carriages and lasting devices on said head for shoes of different lengths, combined with a locking device carried by one of said carriages as described, said locking device co-operating with a groove in said stop in all the adjustments of said carriage, substantially as described.

No. 64,203. Saw Sharpening Machine.

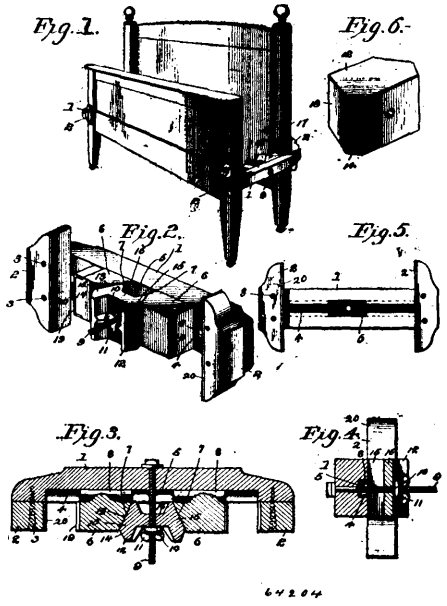
(*Machine à affuter les scies.*)



Lars Larsen Ehstrup and Henry P. Schofield, both of Chicago, Illinois, U.S.A., 6th October, 1899; 6 years. (Filed 27th April, 1899.)

Claim.—1st. In a saw sharpening machine of the class described, the combination with the inclined grinding wheel gate and its arbor, of a two-part driving shaft, one part of which may be set at various angles to the other, an adjustable support for the inclined portion of the shaft, means for transmitting motion from the horizontal to the inclined portion of the shaft, and means for transmitting motion from the inclined portion of the shaft to the grinding wheel arbour, substantially as and for the purpose set forth. 2nd. In a saw sharpening machine of the class described, the combination with the inclined grinding wheel gate and its arbour, of a two-part driving shaft, one part of which is of adjustable inclination, an adjustable bearing for the inclined portion of the shaft, gears in mesh at the adjacent ends of the two-part shaft, and means for transmitting motion from the inclined shaft-part to said arbour, substantially as and for the purpose set forth. 3rd. In a saw sharpening machine of the class described, the combination with the inclined grinding wheel gate and its arbour, of a two-part driving shaft, one part of which is of adjustable inclination, gears in mesh at the adjacent ends of the two-part shaft, an arm provided with a bearing adjacent to the gear on the inclined shaft port and mounted to swing on a horizontal axis, and means for transmitting motion from the inclined shaft-part to said arbour, substantially as and for the purpose set forth. 4th. In a saw sharpening machine of the class described, the combination with the inclined grinding wheel gate and its arbour, of a two part driving shaft, one part of which is of adjustable inclination, gears in mesh at the adjacent ends of the two-part shaft, an arm provided with a bearing adjacent to the gear on the inclined shaft-part and mounted to swing on a horizontal axis, an adjustable bearing for the outer end of the inclined shaft-part, and means for transmitting motion from said inclined shaft-part to said arbour, substantially as and for the purpose set forth. 5th. In a machine of the character described, the combination with an inclined driven pulley, of a two-part driving shaft, one portion of which is inclined, gears in mesh at the adjacent ends of the two shaft parts, a curved arm provided with a bearing adjacent to the gear on the inner end of the inclined shaft-part and mounted to swing on a horizontal axis lying substantially at the intersection of a horizontal plane tangential to the upper surface of the gear on the horizontal shaft-part and a vertical plane corresponding to the central plane of engagement with the gears, means for fixing the inclined shaft-part in a given position, a pulley on the inclined shaft-part, and a belt connection between said pulleys, substantially as and for the purpose set forth. 6th. In a saw sharpening machine of the class described, the combination with the inclined grinding wheel gate and its arbour, of a two-part driving shaft, one part of which is of adjustable inclination, gears in mesh at the adjacent ends of the two-part shaft, an arm provided with a bearing adjacent to the gear on the inclined shaft-part and mounted to swing on a horizontal axis, a standard connected with the machine frame provided with a slot and a plane vertical rear face, an arm provided with a bearing and a head contacting with said vertical face, a stud connecting said parts, and means for transmitting motion from the inclined shaft-part to said arbour, substantially as and for the purpose set forth. 7th. In a saw sharpening machine of the class described, the combination with the inclined grinding wheel gate and its arbour, of a two-part driving shaft, one part of which is of variable inclination, fixed bearings for the horizontal shaft-part, gears at the adjacent ends of the shaft-parts, a fixed standard provided with a perforated vertical head, a swinging arm provided with a vertical head secured to the first-named head and provided at its free end with a shaft bearing, an adjustable bearing for the outer end of the inclined shaft-part, and means for transmitting motion from said inclined shaft-part to said arbour, substantially as and for the purpose set forth.

No. 64,204. Clamp. (*Agrafe.*)

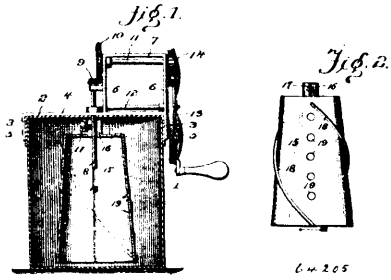


William S. Ramseaur and Francis H. Walfe, both of Monroe, North Carolina, U.S.A., 6th October 1899; 6 years. (Filed 10th March, 1899.)

Claim.—1st. A clamp, comprising a base or body, stops provided at opposite ends of the body, clamping members having a positive engagement with and slidably mounted upon the body between the stop shoulders, and means carried by the body and adapted to force the clamping members apart and toward the respective stop shoulders, whereby each clamp is adapted to co-operate with its respective shoulders, substantially as and for the purpose set forth. 2nd. A clamp, comprising a base or body, stops provided at opposite ends of the body, clamping members having a positive engagement with and slidably mounted upon the body between the stop shoulders, a wedge arranged between the clamp members and adapted to work toward and away from the body, and means carried by the body for moving the wedge toward the body, to operate the clamping members toward the respective stop shoulders, substantially as shown and described. 3rd. A clamp, comprising a base or body, stops provided at opposite ends of the body, clamping members having a positive engagement with and slidably mounted upon the body, a bolt carried by the body and extending outward therefrom intermediate the clamping members, a wedge slidably mounted upon the bolt and adapted to engage the inner opposing ends of the clamping members, and means carried by the bolt for drawing the wedge toward the body, whereby the clamping members may be forced away from each other and toward the respective stop shoulders, the bolt and wedge also forming a stop to prevent accidental loss or displacement of the clamping members, substantially as shown and described. 4th. A clamp, comprising a base or body having a longitudinal groove formed therein, and stop shoulders at opposite ends of the body extending transversely of the groove, a pair of clamping members having a sliding engagement with a groove, whereby the members are positively connected to the body, and means carried by the body intermediate the clamping members and extending outward transversely through the groove, whereby the clamping members may be operated, substantially as shown and described. 5th. A clamp, comprising a base or body, stop shoulders provided at opposite ends thereof, a longitudinal groove of dovetailed shape formed in the body between the shoulders thereof, a portion of the

length of the groove being widened or enlarged, a pair of clamping members, each member having a dovetailed tongue adapted to be entered into the groove through its widened portion and slidably mount the member upon the body, and means for forcing the members away from each other to co-operate with the respective shoulders of the body, substantially as and for the purpose set forth. 6th. A clamp, comprising a base or body, stop shoulders provided at opposite ends thereof, clamping members slidably mounted upon the body and between the shoulders thereof, a wedge having its opposite ends adapted to engage the respective clamping members, and provided with a double bevel, and means for forcing the wedge between the members to operate the latter, the wedge being adapted to be reversed to bring either bevelled surface into operation, substantially as and for the purpose set forth. 7th. A clamp, comprising a base or body, stop shoulders provided at opposite ends of the body, clamping members slidably mounted upon the body between the stop shoulders thereof, a wedge having its opposite ends adapted to engage the respective clamping members and provided with a double bevel of different lengths, and means for forcing the wedge between the clamping members to operate the latter, the wedge being adapted to be reversed to bring either bevelled face into operation, substantially as and for the purpose set forth. 8th. A clamp, comprising a body having a longitudinal groove formed therein, a portion of the groove being enlarged, and stop shoulders at opposite ends of the body, clamping members, each member having a tongue adapted to be entered into the groove through its enlarged portion and slidably mount the member upon the body, and means for operating the members, substantially as shown and described. 9th. A clamp, comprising a body, having a longitudinal groove formed therein, a portion of the groove intermediate of its ends being enlarged, and stop shoulders at opposite ends of the groove, clamping members, each member having a tongue adapted to be entered into the groove through its enlarged portion and slidably mount the member upon the body, a bolt carried by the body and extending outward therefrom through the enlarged portion of the groove, and means carried by the bolt for operating the clamping members, the bolt also providing a stop to prevent accidental loss or displacement through the enlarged portion of the groove, substantially as shown and described. 10th. In a clamp, the combination of a base or body having a longitudinal groove formed therein, a portion of the groove intermediate its ends being enlarged, and stop shoulders at opposite ends of the groove, clamping members, each member having a tongue adapted to be entered into the groove through its enlarged portion and slidably mount the member upon the body, a threaded bolt carried by the body and extending outward therefrom through the enlarged portion of the groove, a wedge having its opposite ends adapted to engage the respective clamping members, and provided with a double bevel slidably mounted upon the bolt and adapted to be reversed to bring the different bevelled faces into operation, and a nut provided upon the bolt whereby the wedge may be operated, substantially as shown and described.

No. 64,205. Churn. (*Baratte.*)



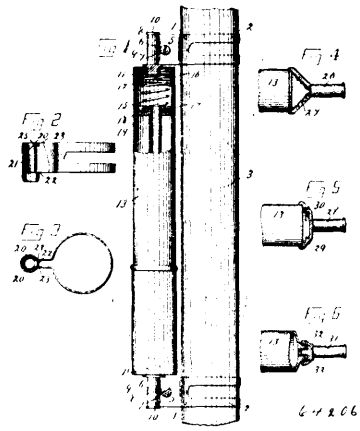
Chas D. Cowgill, assignee of Lydia A. Vernon, both of Oskaloosa, Iowa, U.S.A., 6th October, 1899; 6 years. (Filed 13th March, 1899.)

Claim.—A rotary cross sectionally round churn-dasher closed at its upper end and open at its lower end, and enlarged downwardly or toward said open end, the side wall of the dasher being provided with alternately disposed exterior spiral ribs and vertical series of openings, the extremities of said ribs being located at the opposite ends of alternate series of openings, substantially as specified

No. 64,206. Bicycle. (*Bicycle.*)

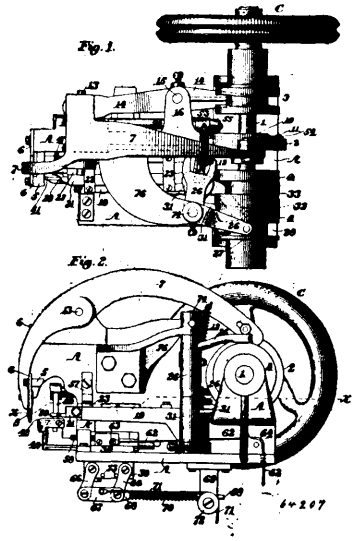
William Hanlon, Innishannon, Cork, Ireland, 6th October, 1899; 6 years. (Filed 23rd December, 1898.)

Claim.—1st. An attachment for bicycles, embodying a pair of clips removable attached to one of the tubes thereof, studs carried by said clips and adapted for engagement with the heads of the air pump, and means for holding said pump firmly in position, substantially as shown and described. 2nd. An attachment for bicycles, embodying a pair of clips attached to one of the tubes of the bicycle, studs carried by said clips having projecting heads adapted for engagement with corresponding recesses in the heads of an air pump, and a coiled spring adapted to hold said pump firmly in position between said clips, substantially as shown and described. 3rd



An attachment for bicycles, embodying a pair of clips adapted for engagement with one of the tubes of the bicycle frame, tubular studs provided with a longitudinal slot adapted for engagement with said clips and means for holding an air pump securely in engagement with said studs, substantially as shown and described. 4th. An attachment for bicycles, embodying a pair of clips adapted for engagement with one of the tubes of the frame, studs carried by said clips, said studs having enlarged heads adapted for engagement with corresponding recesses in the heads of an air pump, an open spiral spring having an enlarged close coiled base portion adapted for engagement with the inner side of the cylinder head of the pump, the opposite end of the spring being adapted for contact with the piston of the pump, as and for the purpose set forth.

No. 64,207. Sole Rough-Rounding and Channelling Machine. (*Machine à arrondir et canneler les semelles.*)



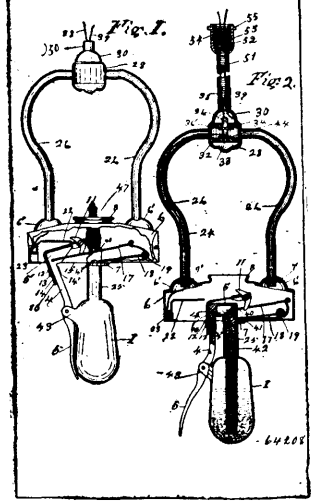
The Bay International Shoe Machinery Company, Portland, Maine, assignee of Joseph Eli Bertrand, Boston, Massachusetts, U.S.A., 6th October, 1899; 6 years. (Filed 9th March, 1899.)

Claim.—1st. In a rough-rounding machine, the combination of a yielding nose piece and a gauge plate carried thereby, a stationary guide plate co-operating with said nose piece to clamp the sole edge, a reciprocating and laterally movable feed point, and a feed plate constructed and arranged to move towards and from said feed point and laterally in union therewith. 2nd. In a rough-rounding and channelling machine, the combination of a stationary guide plate, a yielding nose piece and a gauge plate co-operating therewith to clamp the work, an endwise reciprocating and laterally movable feed point, an endwise reciprocating and laterally movable trimming cutter, a feed plate constructed and arranged to move toward and from said feed point and cutter and laterally therewith, a fixed cutter carried by said nose piece, and arranged to cut a shallow incision in the sole at right angles to the tread surface thereof as the work is fed past it, an oscillating disc-like cutter

also carried by said nose piece and arranged to cut an incision from said shallow incision towards the centre of the sole, parallel or nearly so to the tread surface thereof, means for imparting to said disc-like cutter a series of rapid oscillations during the time that the work is being fed, and means for imparting intermittent reciprocations and lateral movements to said feed point, said trimming cutter and the feed plate. 3rd. The combination of the pivoted grooved arm 19, the bars 21 and 22 fitted to and movable endwise in the groove in said arm, the cutter 2, the elbow levers 26 and 31, the cam 4, the paths 28 and 33, the lever 14 connected to said arm 19, the cam 3, the lever 7, the feed plate 8, the cam 2 for vibrating said lever, and the swivelling block 18 connecting said lever 7 to an arm of the lever 14, all constructed, arranged and operating, substantially as described. 4th. In a machine for channelling and roughrounding the soles of boots and shoes while on the last, the combination of a vibrating and laterally movable feed plate arranged to engage the welt, a normally fixed but adjustable U-shaped guide plate arranged to bear against and support the welt upon both sides of and below said feed plate and against the upper to guide the shoe, a reciprocating and laterally movable feed point co-operating with said feed plate to feed the work, and a reciprocating and laterally movable trimming cutter co-operating with said feed plate to trim a section of the sole after each feeding movement is completed. 5th. In a channel cutting machine, the combination of a work feeding mechanism, a stationary cutter arranged to cut a shallow slit at right angles to the tread surface of the sole as the work is fed past it, and a circular disc-like cutter constructed and arranged to oscillate about its axis in a plane parallel or nearly so to the tread surface of the sole and cut an incision from said shallow slit toward the centre of the sole as it is fed toward said cutter. 6th. In a sole rough rounding and channelling machine, the combination of the eccentrics 65 65, mounted in bearings in the ears 38 38, the block 39 supported upon said eccentrics and having an inverted T-shaped groove formed in its upper side, the nose piece 40 fitted to and movable endwise in said groove, a gauge plate carried by said nose piece, the spring 59 for pressing said nose piece toward the front, the fixed U-shaped guide plate 6, means for partially rotating said eccentrics to raise and lower said nose piece, and means for retracting said nose piece against the tension of said spring 48 to enable the work to be placed in position. 7th. In a sole channelling machine, the combination of the yielding nose piece 40, the gauge plate 41, the stationary cutter 42, and the oscillating cutter 44 carried by said nose piece, the toothed segment 46 fast on the shank of said cutter 44, the rack 47 engaging said segment, the endwise movable oscillating shaft 50, the lever 49 mounted on said shaft and engaging said rack, the arm 53 connected to said shaft so as to oscillate therewith while said shaft is freely movable endwise therein, the truck 55 carried by said arm 53, and the cam 54, all arranged to operate, as set forth.

No. 64,208. Electric Cigar Lighter.

(*Allumoir electrique pour cigares.*)

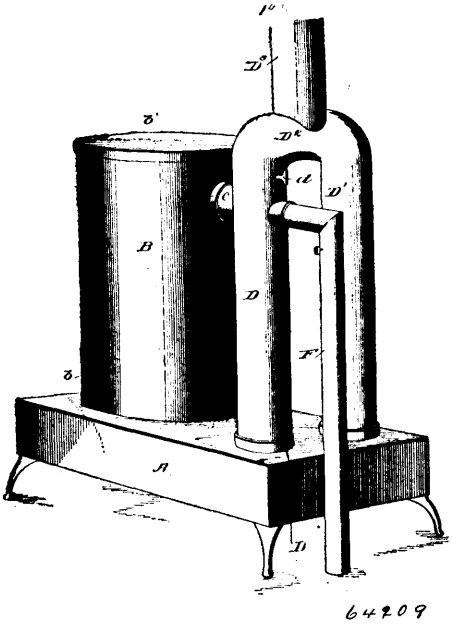


William Frederick Kessler, Auburn, Indiana, U.S.A., 6th October, 1899; 6 years. (Filed 24th April, 1899.)

Claim.—1st. An electric cigar lighter, consisting of a horizontally arranged containing case or shell body pivotally mounted in or from a proper support, and provided with a suitable opening in its upper face for the purpose specified, a pendant wick tube and oil reservoir fixed in said shell, a hand lever pivotally fulcrumed on said reservoir carrying an extinguishing cap upon its inner end in co-operative relation with the burner of said wick tube, and provided with a pivoted sparking device adapted to throw the ignition spark within said shell, and means for normally securing said lever in position. 2nd. In an electric cigar lighter, a pivoted horizontally arranged shell or casing having a blaze opening in the upper face thereof, and provided with a fixed wick tube and oil supply, and means for throwing the ignition spark within the said shell. 3rd. In an electric cigar lighter, a pivoted horizontal shell or casing having a vertical blaze opening, a fixed wick tube, a hand lever pivoted on said tube and carrying an extinguishing cap and a sparkling device adapted to be actuated by said hand lever, and adapted to throw the ignition spark within the said shell. 4th. The combination in an electric cigar lighter of a vertical supporting frame, a horizontal shell or casing 6 pivoted in or suspended from the lower portion of said frame, a pendant wick tube fixed in or to said casing, a hand lever fulcrumed on said tube with its inner and upper end provided with an extinguishing cap, an insulated sparking device pivoted on said lever and adapted to throw the ignition spark within the containing shell by contacting the adjacent end of the wick tube, and means for automatically securing the said lever and said sparking device in their normal position after each operation. 5th. An electric cigar lighter, comprising a horizontal shell having a vertical flame opening, and a fixed wick tube projecting into the same, the said shell being pivotally mounted in a proper support, means for throwing the ignition spark within the said shell by a positive movement of an operating hand lever, and a hand lever pivoted on said tube or in close proximity thereto, and provided with an extinguishing cap. 6th. In an electric cigar lighter, means for detaching the same from its support, consisting of a hollow fixed or integral casting on said frame, having on its lower portion an insulated horizontal plate, and having the periphery of its open top internally screw threaded, a metallic plate mounted in the upper portion of said casting by a screw threaded connection as shown, having a central opening for the purpose specified and having the inner end of the return wire secured thereto, a vertical insulated metallic post suspended in said opening, adapted to register and form an electrical connection with the post in said insulated plate, and having the leading-in wire connected thereto, and a detachable cap adapted to close the top of said casting by a screw threaded connection. 7th. In an electric cigar lighter, a hollow internally screw threaded anchor cap having an annular milled flange upon its perimeter, the said cap being adapted to form a screw threaded connection, with the free end of a proper supporting arm, and also to so enclose the upper end of the flexible section of the lighter as to firmly secure it against longitudinal strain, and to relieve said section of the weight of the lighter, in combination with an annular externally screw threaded nut 52 arranged in said cap as shown, the wires 38 and 39 arranged as described, a knot 53 in said insulated conductor wires 38 and 39, and a flexible arm 51. 8th. The combination of an internally screw threaded anchor cap 54, adapted to enclose the upper end of the flexible section of a cigar lighter, as shown, an annular externally screw threaded connection adjacent to the upper end of said section, a flexible arm 51 arranged as described, and means for securing said cap firmly in position on the upper end of the flexible arm.

No. 64,209. Straw Burning Stove.

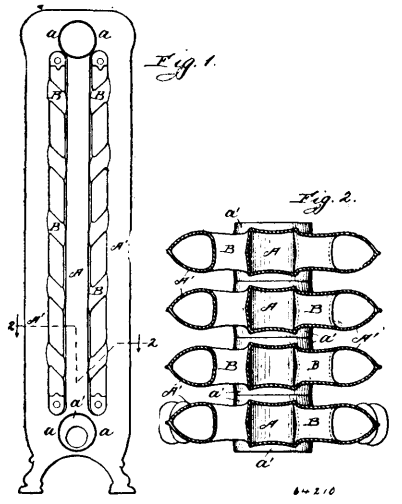
(*Poêle pour bruler la paille.*)



Duncan Campbell and Benjamin Trumpour, both of Thornhill, Manitoba, Canada, 6th October, 1899; 6 years. (Filed 4th April, 1899.)

Claim.—1st. A straw burning stove, comprising a stove or fire chamber, a drum for receiving the straw, pipes leading from the fire chamber to the atmosphere, and a flue connecting the drum with said pipes, substantially as described. 2nd. A straw burning stove, comprising a stove or fire chamber, a drum mounted thereon and communicating therewith, pipes leading from the fire chamber and the atmosphere, a flue connecting the drum with one of said pipes and an inlet pipe leading from the said pipe to the atmosphere, substantially as described. 3rd. A straw burning stove, comprising a stove or pipe chamber, a drum mounted thereon and communicating therewith, vertical pipes communicating with the fire chamber, a transverse pipe connecting the upper ends of the said pipes, a pipe leading from said transverse pipe to the atmosphere, a flue connecting the drum with one of said vertical pipes and an inlet pipe leading from said vertical pipe to the atmosphere, substantially as described. 4th. A straw burning stove, comprising a stove or fire chamber, a drum mounted thereon and communicating therewith, vertical pipes communicating with the fire chamber, a transverse pipe connecting the upper ends of said pipes, a pipe leading from said transverse pipe to the atmosphere, a flue connecting the drum with one of said vertical pipes, an inlet pipe leading from said vertical pipe to the atmosphere, a damper arranged in said vertical pipe above the said flue, and a partition secured in the rear of the fire chamber between the openings of the said vertical pipes, substantially as described. 5th. A straw burning stove, comprising a stove or fire chamber, a partition arranged in the rear of said chamber, a drum mounted on the front of said chamber and communicating therewith, vertical pipes leading from the fire chamber to the atmosphere and arranged one on each side of said partition, a flue connecting the drum with one of said vertical pipes, an inlet pipe leading from the said pipe to the atmosphere and a damper arranged in said vertical pipe above the said flue, substantially as described.

No. 64,210. Radiator. (*Calorifère.*



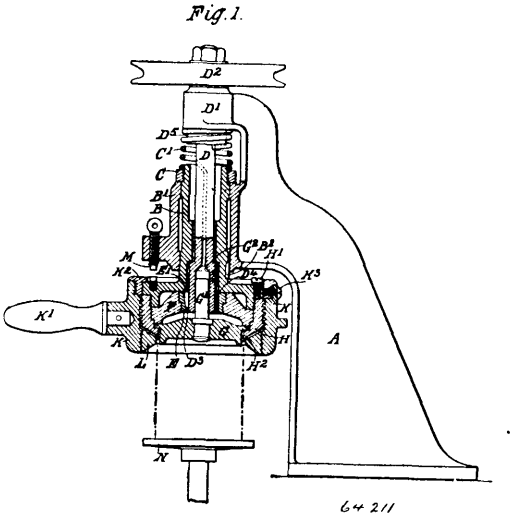
Timothy Holland, Chicago, Illinois, U.S.A., 6th October, 1899; 6 years. (Filed 28th March, 1899.)

Claim.—In a radiator, the loops or parts comprised of vertical tubular members A, A^1, connected at the top and bottom by hollow parts *a*, *a*, and, at intermediate intervals, by connecting members B, B, substantially as and for the purpose hereinbefore set forth.

No. 64,211. Machine for Closing Circular Seams of Sheet Metal Cans. (*Moyen de fermer les coutures circulaires des boîtes de fer blanc en feuilles.*)

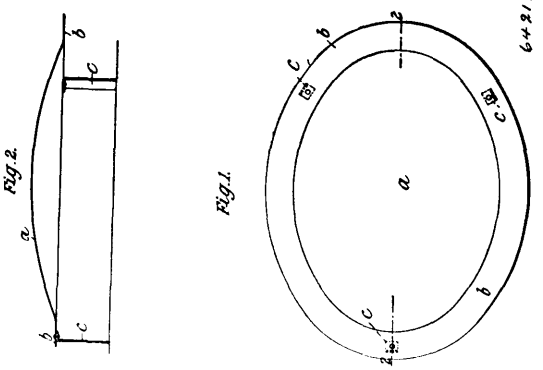
Conrad Field Mendham, South Norwood, London, England, 6th October, 1899; 6 years. (Filed 11th January, 1899.)

Claim.—1st. The combination of a die ring and a roller or disc within the same, between which the seam to be operated upon is inserted, one of these parts being capable of a limited lateral movement relatively to the other, means for rotating one of said parts and means for moving the rotary part laterally to cause it to assume a position eccentric to the other part and thus squeeze said seam by exerting a rolling force on the inner surface thereof, substantially as described. 2nd. The combination of a die ring, a roller within said die ring, means for rotating said roller and means for moving said roller laterally, while it is rotating, so as to bring it into a position eccentric to said die ring, substantially as described. 3rd. The combination of a die ring and a roller within the same, between which the seam to be operated upon is inserted, and means to move said die ring longitudinally relatively to said roller to release said seam, substantially as described. 4th. The combination of a die ring, a sleeve to which said die ring is attached, a rotary spindle extending through said sleeve and having a taper feather and a socket at its lower end, a roller with said die ring fixed on a short spindle extending into the socket in said spindle, a ring held in the



lower end of said sleeve and a rotary bush in said ring having a taper keyway to receive the taper feather on said spindle, said sleeve and its adjuncts being movable longitudinally upon said spindle, and said spindle being capable of lateral movement in said bush, substantially as described. 5th. The combination of a die ring, and a roller or disc within the same, between which the seam to be operated upon is inserted, one of these parts being capable of a limited lateral movement relatively to the other, and said roller or disc having a circumferential projection or rib to form an external bead below the joint, means for rotating one of said parts and means for moving the rotary part laterally to cause it to assume a position eccentric to the other part and thus squeeze or squeeze and expand said seam, substantially as described. 6th. The combination of a die ring, a roller within the same between which and said die ring the seam to be operated is inserted, a shell supporting said roller and an adjustable ring screwed upon said shell and carrying said die ring, whereby said die ring can be moved longitudinally relatively to said roller and shell to release said seam, substantially as described. 7th. The combination of a rotating disc, a ring surrounding the same and capable of rotation therewith and of lateral movement relatively thereto, and a roller adapted to be held against the periphery of said ring, substantially as described.

No. 64,212. Pastry Baking Device.
(*Appareil à cuire rotatoire.*)

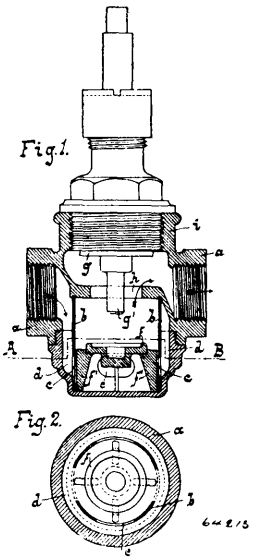


Margaret Browne, 29 Park Street, Workop, Nottingham, England, 6th October, 1899; 6 years. (Filed 24th April, 1899.)

Claim.—1st. An appliance for use in baking pastry for fruit or other tarts or pies consisting of a shape or mould formed from sheet metal dished or blocked up as to the central portion thereof with the surrounding edge level and corresponding in shape and size to the edge of the pie dish in conjunction with which same is to be used, and two or more legs or other suitable supports on the underside of said shape or mould so as to support the latter above the shelf or grating of the cooking chamber, substantially in the manner and for the purposes hereinbefore set forth. 2nd. An appliance for use in baking

pastry for fruit or other tarts or pies constructed, combined and arranged to act, substantially in the manner and for the purposes hereinbefore set forth.

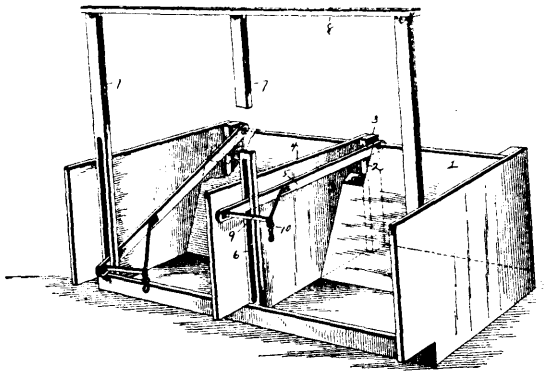
No. 64,213. Valve. (*Soupape.*)



Sten Ericsons Verkstads Aktiebolag, Stockholm, Sweden, 6th October, 1899; 6 years. (Filed 24th July, 1899.

Claim.—1st. The combination with a valve cock having a secondary valve adapted to close the valve opening when the main valve is fully open, of a secondary casing enclosing the secondary valve and provided beneath the latter with openings through which the fluid passes, substantially as and for the purpose set forth. 2nd. In valve cocks having a secondary valve which will be moved from its seat every time the main valve is closed, the combination with the said valves of a stem between the valves of such length as to prevent the secondary valve from reaching its seat, unless the main valve is partly unscrewed or removed, substantially as and for the purpose set forth.

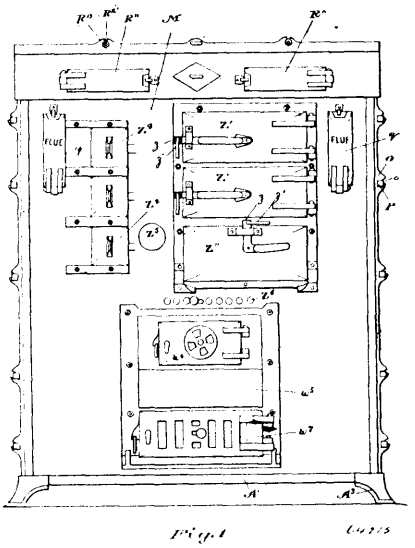
No. 64,214. Cow Hitching Device.
(*Appareil à attacher les vaches.*)



Willard H. Knapp, Cortland, and Jesse O. Sprague, Syracuse, New York, U.S.A., 6th October, 1899; 6 years. (Filed 27th February, 1899.)

Claim.—1st. A device for hitching animals consisting of an arm pivoted at its rear end to a stationary point at the rear end of the manger, an upright located at the front of the manger having an elongated opening, said upright being suitably secured, the forward end of said arm passing through the opening of said upright, an extension located on said arm and extending toward the centre of the manger and a means for connecting the halter of the animal with said extension. 2nd. A device for hitching animals, consisting of an arm pivoted at its rear end to a stationary point, an upright having an elongated opening, said upright being suitably secured, the end of said arm passing through said opening, an angle extension secured to the forward end of the pivoted arm, the ends of said extension being located on opposite sides of the upright, a means for connecting the halter of the animal with said extension. 3rd. A device for hitching animals, consisting of a manger, the rear side of the manger having a recess cut in the upper portion thereof, a swinging arm passing through said recess and pivoted at its rear end to a stationary point, a suitable guide for the forward end of said arm and a means for connecting the halter on the animal with the forward end of the arm. 4th. A device for hitching animals consisting of a manger, an upright located at the back of said manger, a side partition secured at its end to said upright, an upright located at the forward part of the manger, the last said upright having an elongated opening, the forward end of the pivoted arm passing through said opening, the forward portion of the side partition being attached to the last said upright, a means for connecting the halter of the animal with the free end of the swinging arm.

No. 64,215. Oven. (*Fourneau.*)

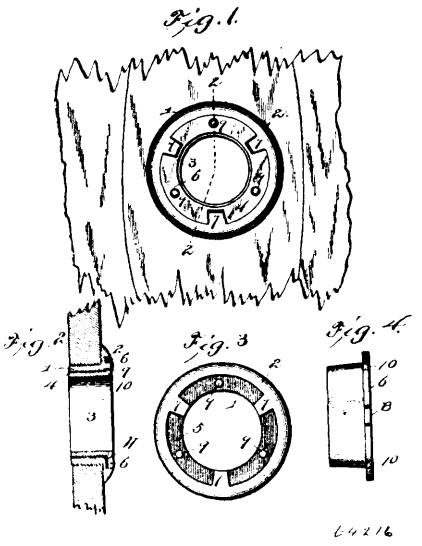


Frank J. S. Roberts, Toronto, Ontario, Canada, 6th October, 1899; 6 years. (Filed 7th June, 1899.)

Claim.—1st A portable oven embracing in its construction an oven top lined with heat non-conducting material, and provided at its under side with a corresponding smoke chamber having its middle portion fitted with a central opening forming a means of communication between the interior of the oven and the smoke chamber, a damper to normally close the opening fitted with a rod extending through the oven front, and an aperture for the smoke chamber to communicate with the smoke pipe, substantially as specified. 2nd. A portable oven embracing in its construction a chamber having a casing lined with heat non-conducting material, a furnace within the chamber, flue boxes attached to the inner face of the chamber, one arranged at or near the top and the other at the lower part of the oven, a smoke flue connecting the flue boxes, a smoke pipe connecting the furnace with the lower flue box, a smoke chamber at the under side of the top communicating with the upper flue box, and an aperture through the top to communicate with the smoke pipe to the chimney, substantially as specified. 3rd. A portable oven embracing in its construction a chamber having a casing lined with heat non-conducting material, a furnace within the chamber, flue boxes attached to the inner face of the chamber, one arranged at or near the top and the other at the lower part of the oven, a smoke flue connecting the flue boxes, a smoke pipe connecting the furnace with the lower flue box, a smoke chamber at the under side of the top communicating with the upper flue box, an aperture through the top to communicate with the smoke pipe to the chimney, and an opening through the oven front into the upper flue box, substantially as specified. 4th. A portable oven embracing in its construction a chamber having a casing lined with heat non-conducting material, a furnace within the chamber, flue boxes attached to the inner faces of the sides of the chamber at the lower part of the oven, an adjustable Y pipe connecting the furnace with the flue boxes, flue boxes attached to the inner faces of the sides of the chamber at or near the front of the top of the oven, smoke flues connecting each lower flue box with its respective upper flue box, openings through the oven front into each of the upper flue boxes, a smoke chamber at the under side of the oven top communicating with each of the upper flue boxes, and an aperture from the smoke chamber to communicate with the smoke pipe to the chimney, substantially as specified. A portable oven embracing in its construction a chamber having a casing lined with heat non-conducting material, a furnace within the chamber, flue boxes attached to the inner faces of the sides of the chamber at the lower part of the oven

an adjustable Y pipe connecting the furnace with the flue boxes, flue boxes attached to the inner faces of the sides of the chamber at or near the front of the top of the oven, smoke flues connecting each lower flue box with its respective upper flue box, openings through the oven front into each of the upper flue boxes, a smoke chamber at the under side of the oven top communicating with each of the upper flue boxes, an aperture from the smoke chamber to communicate with the smoke pipe to the chimney, a central opening through the smoke chamber communicating with the oven, and a damper to normally close the opening fitted with an operating rod extending through the oven, substantially as specified. 6th. A portable oven embracing in its construction a chamber having a casing lined with heat non-conducting material, a furnace within the chamber, flue boxes attached to the inner faces of the sides of the chamber at the lower part of the oven, an adjustable Y pipe connecting the furnace with the flue boxes, flue boxes attached to the inner faces of the sides of the chamber at or near the front of the top of the oven, smoke flues connecting each lower flue box with its respective upper flue box, openings through the oven front into each of the upper flue boxes, a smoke chamber at the under side of the oven top communicating with each of the upper flue boxes, an aperture from the smoke chamber to communicate with the smoke pipe to the chimney, a central opening through the smoke chamber communicating with the oven, a damper to normally close the opening fitted with an operating rod extending through the oven front, an opening into each of the lower flue boxes through the side casing of the chamber, a stopper to close each of the openings having a flame plate projecting into into its respective flue box, substantially as specified. 7th. A portable oven embracing in its construction an upper end, a lower flue box attached to the inner face of one of the sides of the chamber, a detachable smoke flue connecting the flue boxes, an opening through the side into the lower flue box, a stopper to close the opening having a flame plate projecting into the flue box, and an opening communicating with the upper flue box and the smoke passage to the chimney, substantially as specified. 8th. A portable oven embracing in its construction an upper and a lower flue box attached to the inner face of one of the sides of the oven, a smoke flue connecting the flue boxes, the lower flue box fitted to receive the smoke pipe from the furnace, and the upper flue box fitted to communicate with the smoke passage to the chimney, substantially as specified. 9th. A portable oven embracing in its construction an upper and a lower flue box attached to the inner face of one of the sides of the oven, a smoke flue connecting the flue boxes, the lower flue box fitted to receive the smoke pipe from the furnace, and the upper flue box fitted to communicate with the smoke passage to the chimney, and an opening through the front of the upper flue box, substantially as specified. 10th. A portable oven embracing in its construction a chamber having a casing lined with heat non-conducting material, rigid standards supported upon the base and attached to the back of the chamber, lugs carried by the standards, lugs attached to the oven front opposed to the lugs of the standards, cross bars supported upon the lugs to sustain the shelves and the shield for the furnace, and so arranged as to form an air space between the sides of the shelves and shield and the walls of the chamber, substantially as specified. 11th. A portable oven embracing in its construction a chamber having a cast metal front and sheet metal sides and back, lined with heat non-conducting material, a series of oven shelves within the chamber, an opening through the front for each shelf fitted with a hinged door normally held closed, and a sight opening through the front for each shelf covered with translucent material and closed by a sliding cover, substantially as specified. 12th. A portable oven embracing in its construction a chamber having its front, back and sides each consisting of an independent section, the back and sides being lined with heat non-conducting material, and arranged to overlap each other to provide a continuous non-conductor, lugs projecting outwardly from each side of the front fitted with transverse slots, and having a flange to overlap the front edges of the sides, the back provided with angle irons one flange of which is bolted to its respective edge of the back, and the other flange of which overlaps the back edge of the sides to securely hold the sides in their proper relative position to the back, lugs projecting outwardly from the side flanges of the angle irons and fitted with bolt holes opposed to the transverse slots in the lugs of the front, bolts passing through the bolt holes and slots to unite the back and front, and hold the parts rigidly together, a base lined with a non-conducting material to support the lower ends of the front, sides and back, having an upturned flange to embrace the same and hold the lower ends rigidly in position, and a top contained within the front, sides and back, having a flange to overlap the flanged tops of the sides, and inturned flanges at the top of the oven front and back to overlap the front and back respectively of the oven top, substantially as specified. 13th. A portable oven embracing in its construction a chamber, a furnace in the lower part of the chamber, a shield suspended above the top of the furnace, a passage at each side of the shield, a shelf above the shield consisting of supporting bars held at the front and back, a bottom supported by the cross bars and a shield projecting upwardly from each side edge of the bottom to protect the contents of the shelf from the upward current of heated air at the side of the chamber, and an opening between the top of the shields and the underside of the next successive shelf, substantially as specified.

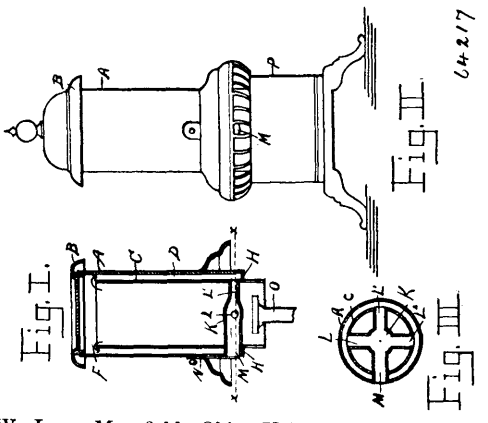
No. 64,216. Bung Packing. (*Garniture de bondon.*)



William John Ritter, Davenport, Iowa, U.S.A., 6th October, 1899; 6 years. (Filed 10th June, 1899.)

Claim.—1st. A bung bush, comprising inner and outer concentric annular walls provided at their outer ends with interlocked faces for preventing relative rotation of the walls, and a packing ring of heat non-conducting material interposed between said walls, substantially as specified. 2nd. A bung bush, comprising an outer member provided with an outwardly extending flange and cut away in its face to form a seat, an inner member fitted concentrically in the outer member and provided with a flange fitted in said seat, means for securing the flange of the inner member in the seat in the flange of the outer member, and a heat non-conducting packing ring interposed between the inner and outer members and provided with a flanged outer end between the flange of the inner member and the floor of the seat in the flange of the outer member, substantially as specified. 3rd. A bung bush, consisting of an exterior member provided at its outer end with a flange having an annular seat, an interior member arranged concentrically in the exterior member and provided at its outer end with a flange fitted in said seat and provided with notches, fixed lugs on the exterior member engaged with said notches in the flange of the interior member, and a heat non-conducting packing ring interposed between the exterior and interior members, substantially as specified. 4th. A bung bush, comprising interior and exterior concentric members provided at their outer ends with outwardly extending flanges, the interior member having its flange fitted in a seat in the outer face of the flange of the exterior member and provided with notches for engaging fixed lugs on the flange of said exterior member, rivet studs projecting from the floor of the seat in the exterior member and engaged with openings in the flange of the interior member, and a heat non-conducting packing ring interposed between the exterior and interior members, substantially as specified.

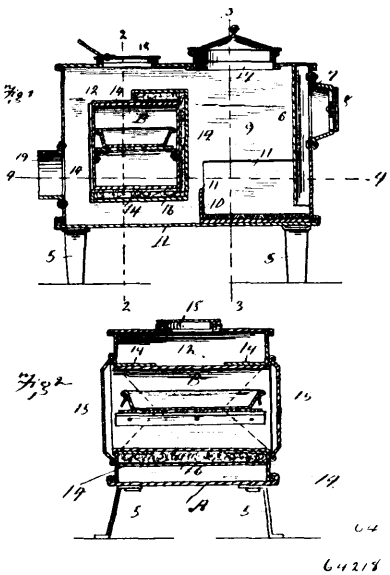
No. 64,217. Smoke Consumer. (*Foyer fumivore.*)



John W. Lape, Mansfield, Ohio, U.S.A., 6th October, 1899; 6 years. (Filed 16th June, 1899.)

Claim.—1st. In a device of the character described, a cylindrical casing, a hollow cylinder supported therein forming an upper and a surrounding space, a flange closing the bottom of the surrounding space, a consuming chamber in the lower part of the cylinder composed of a circular central portion with a number of radial pipes connecting it with the surrounding space and a discharge pipe of greater diameter than the first named pipes and connecting the central portion with the atmosphere and a burner beneath the consuming chamber, substantially as described. 2nd. In a device of the character described, a consuming chamber composed of a circular central portion, a number of radial pipes leading thereto adapted to admit the gases to be consumed, and a discharge pipe, of greater diameter than the first named pipes, connected to the central portion, in combination with a burner therebeneath, substantially as described.

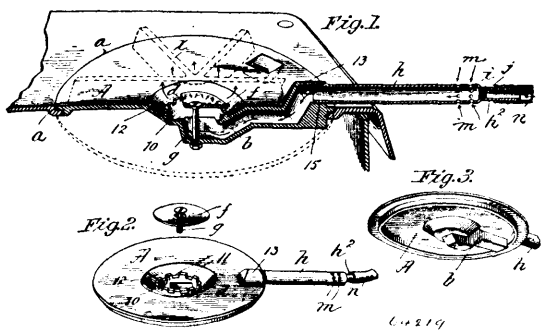
No. 64,218. Stove. (*Poêle.*)



Charles Henry Cosby, Richmond, Virginia, U.S.A., 6th October, 1899; 6 years. (Filed 22nd June, 1899.)

Claim.—1st. In a stove, a stove casing, a fire box located in the forward portion of the casing, an oven supported in rear of the fire box, the sides of the casing being cut and bent to form flanges adapted to support the oven on all sides, substantially as described. 2nd. In a stove, a stove casing, a fire box located in the forward portion of the casing, a square oven supported in rear of the fire box and flanges formed integral with the casing and bent inward to support the oven, said flanges being formed by cutting the casing on the diagonals of a square portion of the stove casing equal in size to the oven. 3rd. In a stove, a stove casing, a fire box located in the forward portion of the casing, an oven supported in rear of the fire box, the sides of the casing being cut and bent to form flanges adapted to support the oven on all sides, and a heat shield between the oven and fire box and entirely supported by the oven, substantially as described.

No. 64,219. Stove Cover and Gas Burner.
(*Couvercle de poêle et brûleur de gaz.*)



Amenzo Griffith, Springfield, Massachusetts, U.S.A., 6th October, 1899; 6 years. (Filed 13th April, 1899.)

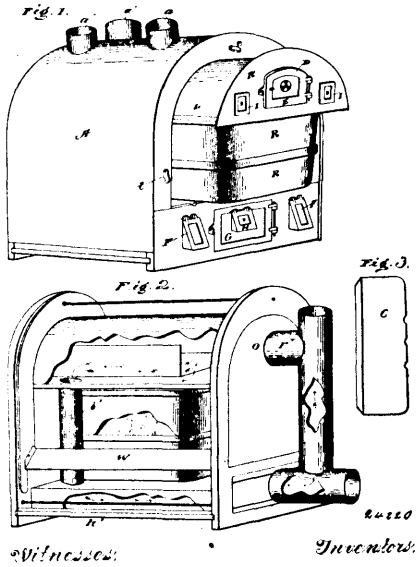
Claim.—1st. An imperforate stove hole cover constructed with a depression in its upper surface, said depression containing a burner chamber having openings leading to the top of the cover, and a conduit formed as a part of the cover leading into said burner chamber, substantially as described. 2nd. A combined stove cover and burner constructed with a central depression chamber, completely separated from the underside of the cover having a top wall and outwardly opening passages and with an annular upwardly opening depression surrounding the depression chamber and having a passage for supplying gas leading into said chamber, substantially as described. 3rd. A combined stove cover and burner constructed with a central depression chamber 10, entirely closed at its bottom, having a top wall, and a series of outwardly opening passages, and with an annular trough or groove in the top of the cover surrounding the depression chamber, and into which said passages lead, the outer wall of which is outwardly and upwardly flaring, and a passage for conveying gas into said chamber, substantially as described. 4th. A combined stove cover and burner, constructed with a chamber within its margin, which is entirely closed at its bottom, provided with a series of burner openings leading outwardly therefrom, and with a protuberance at a marginal portion of the cover having an opening leading thereinto, which is continued in a passage leading inwardly below the cover to communication into the bottom of said chamber, and a gas supplying pipe connecting with said marginal opening, substantially as described. 5th. The combined stove cover and burner shown and described, the same consisting of the central depression chamber 10, entirely closed at its bottom, but having at its top a series of sidewise burner openings, and with the surrounding annular trough depression in the top of the cover, the outer wall of which is outwardly and upwardly flaring, and to which said sidewise openings lead, provided with marginal protuberance 13, having the threaded opening which is continued within the passage surrounding the wall to communication with the said chamber, all integrally cast, the burner top plate *f*, the pipe section *h*, screwing into the opening in said marginal protuberance, having the outer contracted portion provided therein with the plug *i*, having the minute opening *j* therethrough, and said pipe section having one or more air entering openings *m* in advance of said plug, for the purposes set forth. 6th. A combined stove cover and burner constructed with a burner chamber below the cover top which is completely enclosed at its under side, and having a top wall, with an annular upwardly opening depression surrounding said burner top and having outwardly opening passages leading through the top portion of the burner to said depression, a passage for supplying gas into said chamber, and a frame or spider *x* provided for the top of the cover burner, substantially as described. 7th. As a new article of manufacture, an imperforate stove cover having a depression containing a burner chamber, having openings leading to the top of said stove cover, and a conduit formed as an integral part of the said cover, for conveying combustible gas from the outside of the cover into the burner chamber, combined with a pipe connected to said conduct, and which is perforated at its outer end, and to which the flexible tube for conducting the gas is attached, substantially as specified. 8th. As a new article of manufacture, an imperforate stove hole cover having a depression in its top, and in which the burner chamber or recess is located, and a gas conduit leading from the margin of said cover to the chamber, and which is formed as an integral part of the cover, and which conduit has a contracted passage and air opening or openings in advance thereof, the chamber having burner openings leading outwardly therefrom to the top of the cover, substantially as set forth. 9th. An imperforate stove hole cover having a depression in its top, and in which the burner chamber is located, the top wall or cover of which chamber is placed upon the same plane as the top of the stove hole cover, said burner having a series of openings leading from said chamber to the top of the cover, and a conduit connected with said burner chamber for conveying combustible gas thereto, and which conduit forms a part of the cover, substantially as set forth. 10th. An imperforate stove hole cover provided with a depression in its top, and in which depression the burner chamber is located, and which top is placed upon the same plane as that of the stove cover, and forms a separate part thereof, the burner chamber having openings leading to the top of the cover, and a conduit for conveying combustible gas into said burner chamber, said conduit forming a part of the cover, combined with a pipe connected to the conduit, and through which the gas is introduced, and which pipe forms a handle for the cover, substantially as set forth.

No. 64,220. Hot Air Furnace. (*Fournaise à air chaud.*)

James T. Brien and Theodore R. Brien, both of Hoosick Falls, New York, U.S.A., 6th October, 1899; 6 years. (Filed 17th July, 1899.)

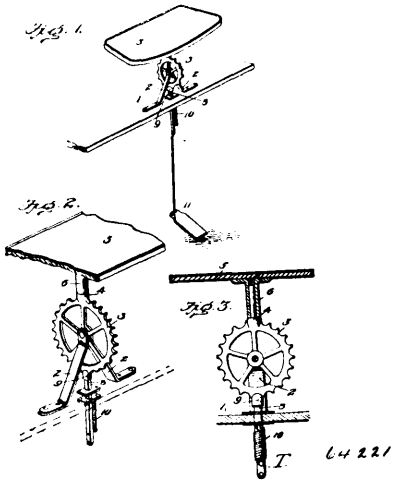
Claim.—1st. In a hot air furnace, the combination with a base and lower horizontal flues extending from front to rear on opposite sides of the ash pit in the base, and casing mounted upon the base and provided with a front aperture, a fire pot, and vertical flues connecting at the lower end with the base flues, of an upper flue box located within the casing and removable through the front aperture therein and having flues extending from front to rear and provided with bottom apertures communicating respectively with the fire pot and the upper ends of the upper ends of the several vertical flues, substantially as described. 2nd. In a hot air furnace, the combination with a fire pot, a base provided with horizontal flues, vertical flue pipes communicating at their lower ends with the base flues,

and inclosing casing having a front aperture, a smoke pipe at the rear of the casing having an upper branch, and a lower branch com-



municating with the base flues, and a damper in the upper branch of the smoke pipe, of an upper flue box removably inserted in the front aperture in the casing and provided with flue partitions, an aperture in the rear end and apertures in the bottom communicating respectively with the upper branch of the smoke pipe, and the fire pot and the upper ends of the vertical flue pipes, when the flue box is inserted within the casing, substantially as described.

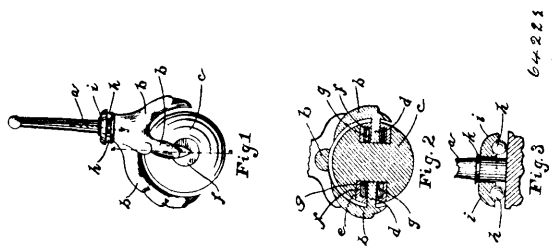
No. 64,221. Upholsterers' Forms. (*Forme pour tapissiers.*)



Thomas Swan, Flint, Michigan, U.S.A., 6th October, 1899; 6 years. (Filed 3rd July, 1899.)

Claim.—1st. An upholsterer's former, capable of rotary movement and tilting adjustment, substantially as and for the purpose set forth. 2nd. An upholsterer's former, comprising a toothed wheel, a plunger to engage the toothed wheel, and a former board having a rotary connection with said wheel, substantially as and for the purpose set forth. 3rd. In an upholsterer's former, the combination with the toothed wheel having an upwardly projecting stud, a former, board having a downwardly projecting sleeve to fit over the stud and turn thereon, and a spring actuated plunger to engage said wheel and lock it in adjustment, and means for retracting said plunger to free it from the wheel, substantially as and for the purpose set forth.

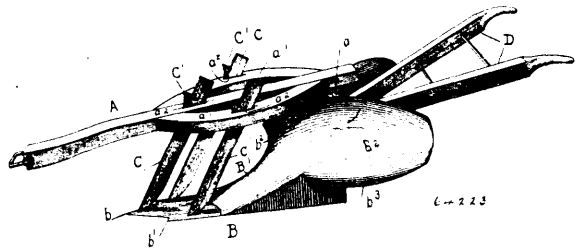
No. 64,222. Ball Caster. (*Roulette à boule.*)



Henry Duncan Adell, Columbus, Ohio, U.S.A., 6th October, 1899; 6 years. (Filed 10th July, 1899.)

Claim.—The improved furniture caster herein described, comprising the ball shaped roller of glass, having oppositely disposed sockets extending inwardly from the periphery for a distance less than one half the diameter of the roller, with the portion of the roller between said sockets imperforate, boxings in said sockets and secured against displacement, short rollers in said boxings, and the caster shank provided with fingers embracing opposite sides of the roller and having trunnions rigid therewith and extending into the sockets and surrounded by said rollers, all substantially as and for the purpose specified.

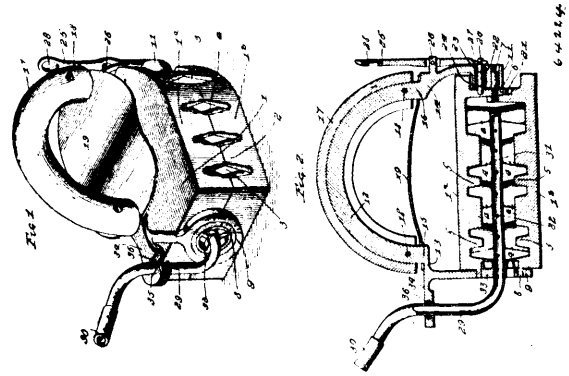
No. 64,223. Ditching Plough. (*Charrue à fossoyer.*)



Damase Prince. St. Gregoire, Quebec, Canada, 6th October, 1899; 6 years. (Filed 11th February, 1899.)

Claim.—1st. A drain ditching plough, comprising a suitable beam and handles, a plough point constructed with a flat, horizontally arranged plate having cutting points, coulter knives secured in said beam and arranged one adjacent to each cutting point, a plough share, ditching blades integral with said plough share and extending rearwardly on each side thereof and having a cutting edge upon their lower portions, substantially as described. 2nd. A drain ditching plough, comprising a suitable beam and handles, a bracket secured to each side of said beam having suitable slots formed therein, a plough point constructed with a flat, horizontally arranged plate having a central cutting point and auxiliary cutting points arranged one on each side of said central cutting point, coulter knives adjustably mounted in the slotted beam and brackets, the cutting edge of said knives being adjacent to the said cutting points, a plough share, ditching blades integral with said plough share and extending rearwardly on each side thereof and having a cutting edge upon their lower portions, substantially as described.

No. 64,224. Sad Irons. (*Fer à repasser.*)

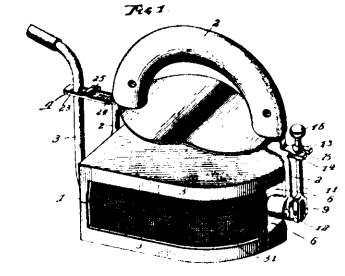


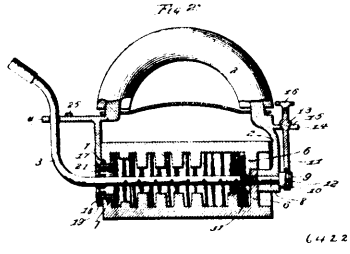
Thomes E. Edwards, Philadelphia, Pennsylvania, U.S.A., 6th October, 1899; 6 years. (Filed 13th July, 1899.)

Claim.—1st. In a self heating sad iron, the combination of a suitable burner and a body portion provided with a number of series of lugs or projections extending within the iron in symme-

trical arrangement staggered with reference one to the other, and dividing the interior of the iron into a cellular structure with deflected air passages, substantially as and for the purposes set forth. 2nd. In a self-heating sad iron, the combination of a suitable burner, a body portion formed with an outer series of lugs leaving between them spaces for the admission of air, and an inner series of lugs located in staggered relation to the outer series to bring them opposite the air spaces of the latter, substantially as and for the purposes set forth. 3rd. In a self-heating sad iron, the combination of a suitable burner and a body portion provided with an outer series of lugs arranged with air spaces between them, an inner series of lugs located in staggered relation to the outer series to bring them opposite to the air spaces thereof, and a central series of lugs terminated in planes to leave a central space for the burner of the iron, substantially as herein explained. 4th. In a self-heating reversible sad iron, the combination of a body portion formed of two parts, and means for spacing them apart, and provided with semi-circular bosses 8 and a handle suitably trunnioned to one end of the iron and having at its opposite end a circular collar embracing the semi-circular lugs, thereby securing the parts of the iron together and trunnioning the handle to the iron at that end, substantially as explained. 5th. In a self-heating and reversible sad iron, the combination of a suitable handle, a body portion to which the handle is trunnioned, and a detent for controlling the movement of the body portion on its trunnions, consisting of a plunger mounted in the handle and entering openings in the body portion of the iron, a spring surrounding said plunger and tending to force it into the iron, and a lever pivoted upon the handle and engaging the plunger, substantially as herein explained. 6th. In combination with a said iron, a handle having at its ends suitable means for attachment to the iron and having its intermediate portion formed of an integral bowed core and a curved wooden grip slotted on its innery periphery to adapt it to fit over the core, substantially as herein explained. 7th. In a sad iron, the combination of a suitable body portion, a handle comprising the curved metallic core, and suitable attaching ends integral with said core and forming shoulders adjacent to the ends of the core, and a wooden grip slotted to fit over the core and having its ends resting upon the shoulders, substantially as herein explained. 8th. In a self-heating sad iron, the combination of a suitable body portion, a handle connected thereto, a burner projecting within the said body portion, the handle being provided with a bracket 34 recessed to receive the burner, and with a spring clip within the slot, and the handle being provided with a recessed extension to receive the burner tube, and with a spring clip for holding the latter in place, and the burner being provided with an upwardly extending tube entering the recess, substantially in the manner, and for the purpose set forth. 9th. In combination with a self-heating sad iron, a burner for liquid fuel, consisting of a suitable tube, a reservoir connected to one end of said tube, and a burner connected to the opposite end of said tube, comprising a suitable frame, a wire gauze mounted upon said frame, and a non-combustible absorbent material enclosed in said wire gauze, substantially as herein explained.

No. 64,225. Sad Iron. (*Fer à repasser.*)

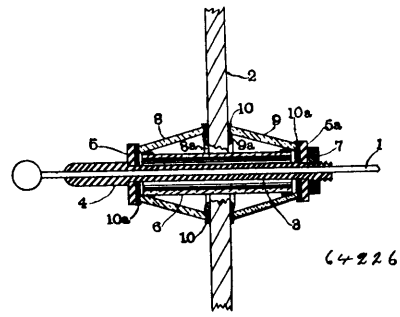




Thomas E. Edwards, Philadelphia, Pennsylvania, U.S.A., 6th October, 1899; 6 years. (Filed 13th July, 1899.)

Claim.—1st. In a self-heating sad iron, the combination of the sections of the body portion provided with overlapping ears, the flanged thimble inserted in said ears and protruding beyond the same to form a trunnion, and the handle having a ring fitting upon the protuding end of said thimble, substantially as herein explained. 2nd. In a reversible sad iron, the combination of the sections of the body portion having overlapped ears and means passing through said ears to hold the sections of the iron together, said ears being halved together, and one of them being provided with a seat in which the other rests, for the purpose of securing the sections of the iron against lateral displacement, substantially as herein explained. 3rd. In a self-heating sad iron, the combination of the sections of the body portion having overlapping ears, the thimble passing through said ears and provided with a flange engaging on one side thereof, and the handle provided with a ring fitting upon a protruding end of the thimble and having a set screw which impinges the thimble to hold the parts in position, substantially as herein explained. 4th. In a reversible sad iron, the combination of the body portion provided with a trunnion screw, a reversing lever having slot and pin connection with said screw, and means for holding the reversing lever against movement, substantially as herein explained. 5th. In a reversible sad iron, the combination of the body portion provided with a trunnion screw, a suitable handle in which said body portion is trunnioned, a reversing lever having slot and pin connection with the trunnion screw, and a hanger on the handle with which the reversing lever engages by the movement permitted by its slot and connection, substantially as herein explained. 6th. In a reversible sad iron, the combination of the trunnioned body portion, a suitable handle, a reversing lever movable in the plane of the trunnion screw, but fixed against movement transversely thereto, and the slotted hanger in which said reversing lever engages, substantially as herein explained. 7th. In a reversible sad iron, the combination of the body portion provided with a suitable trunnion, a handle in which said body portion is trunnioned, a reversing lever movable relatively to the trunnion in the plane of said trunnion, but not transversely thereto, and provided with an enlargement, and a hanger for said reversing lever provided with a reduced slot through which the reversing lever may be removed from the hanger by withdrawing the enlargement from the socket, substantially as herein explained. 8th. In combination with a self-heating sad iron, a burner tube removably mounted in said iron, and a slotted bracket in which said burner tube fits, provided with a latch projecting across the opening of the slot, mounted upon a suitable pivot and having the cross-bar which rests upon the bracket to limit the movement of the latch, substantially as herein explained. 9th. A self-heating sad iron comprising a suitable handle and a body portion fromed by two similarly constructed hollow sections provided on their interior with series of rounded projections dividing the interior of the iron into a number of circuitious air passages, substantially in the manner and for the purposes set forth. 10th. In a self-heating sad iron, the combination of a suitable handle and the body portion comprising two sections suitably spaced apart and provided with the oppositely extending projections which divide the interior into a number of circuitious air passages, and with a wire cloth closure for the sides of the sad iron surrounding said projections, substantially as and for the purposes set forth.

No. 64,226. Insulation of Electric Wires.
(*Isoloir de fils électriques.*)

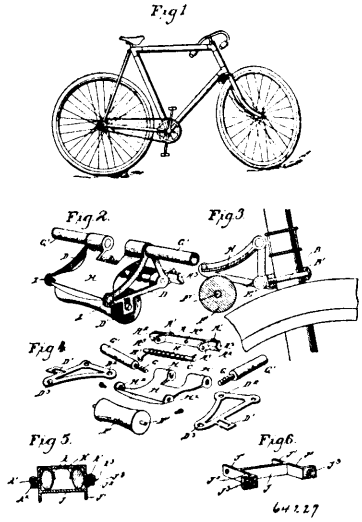


Joseph Arthur Poche, New Orleans, Louisiana, U.S.A., 6th October, 1899; 6 years. (Filed 13th July, 1899.)

Claim.—1st. An insulation for conductors carrying currents of high potential, consisting of a surrounding insulating sleeve and two inclosing glass cones, retained by a collar at one end and a nut at the other, substantially as described. 2nd. An insulation for high potential circuits, composed of a surrounding tube, or tubes, two truncated glass cones inclosing the same, a collar and nut to press and hold said cones together, and rubber gaskets secured at the bases of said cones, substantially as described. 3rd. An insulation for high potential circuits, consisting of an insulating tube surrounding the wire and passing through a wall or partition, a collar at one end and a nut at the other, and two truncated glass cones placed one each side of the wall, and provided with elastic gaskets in their bases, pressed against the wall by a nut to form an air or water tight connection, substantially as described. 4th. The combination with a partition having an aperture, of a conductor passing centrally through said aperture, insulating enclosures surrounding said conductor and bearing against said partition in an air and water tight and

electrically insulated condition, and provided with openings for the passage of said conductor, said openings being plugged up around the conductor in an air and water tight and electrically insulated condition, and located on opposite sides of said partition, said enclosures extending to predetermined distances on both sides of the wall. 5th. The combination with a wall or partition 2, or any similar structure, having an aperture, of an insulating air and water tight tube passing centrally through the aperture, an electric conductor passing through said tube, and an air and water tight insulating inclosing air chamber for the tube and conductor. 6th. The combination with a partition having an aperture, of a conductor passing centrally through said aperture, an enclosure of insulating material holding the conductor out of contact with the partition in an air and water tight and electrically insulated condition, and surrounding said conductor on both sides of the partition for a predetermined distance, and out of contact therewith, so as to form an air envelope around the conductor throughout the whole length of the enclosure, and provided with openings at the ends for the passage of said conductor, which are plugged up around the conductor in an air and water tight and electrically insulated condition.

No. 64,227. Bicycle Brake. (*Frein de bicycle.*)



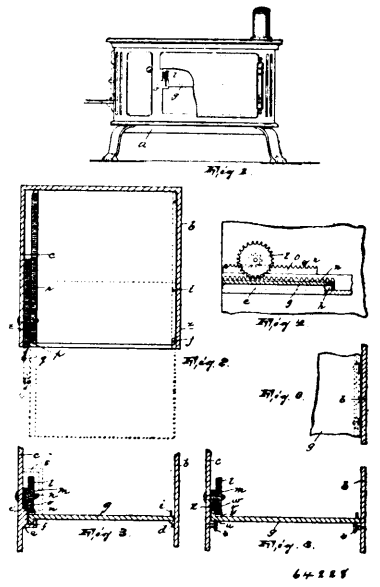
Arthur Page and Frank McCormack, both of Hornellsville, New York, U.S.A., 7th October, 1899; 6 years. (Filed 10th May, 1899.)

Claim.—1st. In a bicycle brake, the combination with the vibrating frame attached to the front fork of a bicycle, the movable or brake-roller and the coasters attached to the said vibrating frame at a point above the pivotal journal of said frame, substantially as described. 2nd. In a bicycle brake, the combination with the vibrating frame carrying the movable brake-roller and the coasters attached to the said vibrating frame at a point above the pivotal journal of said frame and secured to the front fork of a bicycle by means of a plate or bar, carrying rearwardly extending bearing ears, the ends of said bar being bent to embrace the rear portion of the front forks, a similar plate arranged upon the front of the forks, the respective ends of each plate having ribs or corrugations on their registering perforations or bolt holes, bolts passing through said perforations and locking the members to the fork by means of suitable nuts, substantially as described.

No. 64,228. Oven Shelf. (*Tablette de fourneau.*)

Joseph Hoosepian and Thomas Aslonian, both of Paterson, New Jersey, U.S.A., 7th October, 1899; 6 years. (Filed 25th February, 1899.)

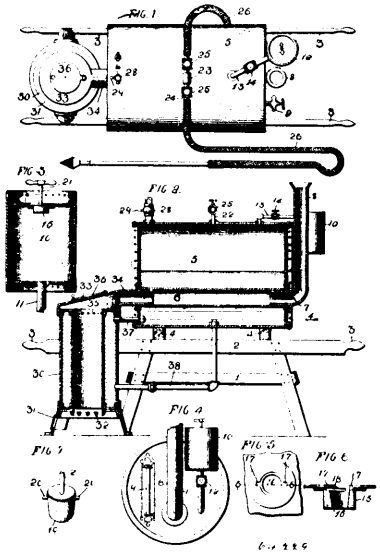
Claim.—1st. The combination, with a suitable support, of a shelf adapted to be reciprocated thereon and provided with a rack, a pair of rigidly connected pinions concentrically journalled in said support, one of said pinions being larger than the other and engaging said rack and a suitably supported reciprocating rack bar engaging the teeth of the other of said pinions, substantially as described. 2nd. In a stove, the combination, of an oven half thereof adapted to be reciprocated end provided with a rack, a pair of rigidly connected pinions concentrically journalled in the oven wall, the one being larger than the other and engaging said rack, guides projecting from the walls and sustaining said shelf, and a rack bar suitably supported above one of said guides and engaging the smaller pinion, substantially as described. 3rd. In a stove, the combination of an oven shelf therefor adapted to be reciprocated and provided with a rack upon its upper face and along one of its side edges, a pair of rigidly connected pinions concentrically journalled in the oven wall



above said shelf, the one being larger than the other and engaging said rack, guides projecting from the oven walls and sustaining said shelf, and a rack bar suitably supported above one of said guides and engaging the other pinion, the smaller pinion and the rack bar being disposed between the larger pinion and the adjacent oven wall, substantially as described.

No. 64,229. Feed Cooker.

(*Appareil à cuire la nourriture des animaux.*)

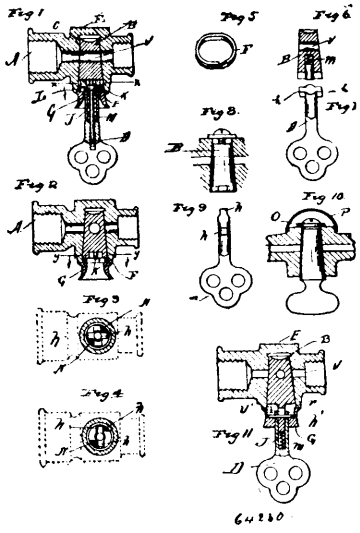


The Rippley Hardware Company, assignee of Frank Rippley, all of Grafton, Illinois, U.S.A., 7th October, 1899; 6 years. (Filed 11th March, 1899.)

Claim.—1st. In a feed cooker, a suitable frame work, a tank located on said frame work, a tube passing longitudinally through the lower end of said tank, a water heating drum arranged adjacent the tank, a fire box for said drum, and suitable connections whereby the fire or smoke from said water heating drum is delivered to the tube passing through the first mentioned tank, substantially as specified. 2nd. In a feed cooker, a suitable frame work, a tank carried upon said frame work, a water heating drum arranged adjacent said tank, there being a fire box at the lower end of said heating drum, a tubular connection from the upper end of the heating drum to end of the tube passing through the first mentioned tank, and tubular connections from the tank to the heating drum, substantially as specified. 3rd. In a feed cooker, a suitable frame

work, a tank carried upon said frame work, a water heating drum arranged adjacent said tank, there being a fire box at the lower end of said heating drum, a tubular connection from the upper end of the heating drum to one end of the tube passing through the first mentioned tank, tubular connections from the tank to the heating drum, a filler tank, tubular connections between said filler tank and the first mentioned tank, and cut-off valves located in said tubular connections, substantially as specified. 4th. In a feed cooker, a suitable tank, means for heating the water within said tank, a filler tank arranged at one end of said first mentioned tank, tubular connections between the top and bottom of said filler tank and the interior of the first mentioned tank, a circular block located in the top of the filler tank, through which block is formed an aperture, and a plug normally seated in said aperture, substantially as specified. 5th. A feed cooker, comprising a suitable frame work, a tank carried by said frame work, a tube passing longitudinally through the bottom of said tank, a vertically arranged double walled heating drum located adjacent one end of said tank, a removable cap located upon the upper end of said drum, a tubular extension from said cap that enters the tube in the bottom of the first mentioned tank, a fire box arranged beneath said drum, tubular connections from the top and bottom of said drum to the interior of the tank, a safety valve located upon said tank, a steam outlet connection located upon the tank, a filler tank arranged adjacent one end of the first mentioned tank, a removable plug located in the top of said filler tank, tubular connections from said filler tank to the interior of the first mentioned tank, and cut-off valves located in said tubular connections, substantially as specified.

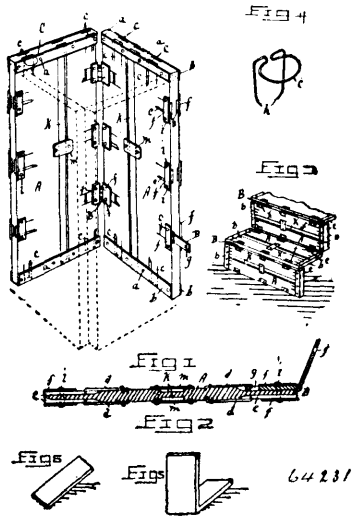
No. 64,230. Cock for Gas and Liquids.
(*Robinet à gaz et liquides.*)



David Joseph McOsker, Owen Francis Garvey and George Edward Palmer, all of Providence, Rhode Island, U.S.A., 7th October, 1899; 6 years. (Filed 15th March, 1899.)

Claims.—1st. The combination with a valve casing and valve provided with a central opening and diametrically opposite recesses in one end, of a key guide seated within the bottom of the casing and provided with a central opening and radial recesses, a hollow key provided with external lugs and a spring-actuated pin within the key designed to eject the key from the valve in a given position of the latter, substantially as described. 2nd. The combination with a valve casing and valve provided with a central recess in one end and radial recesses extending from the central recess, of a key guide within the bottom of the casing provided with a central opening and radial recess, a spring between the key guide and valve, a hollow key provided with external lugs and a longitudinally movable pin within the key and having an enlargement, and a spring surrounding the pin and designed to urge it into operative relation with the valve whereby both springs serve to urge the valve upon its seat when the key is inserted, substantially as described. 3rd. The combination with a valve casing and valve provided with recesses in one end, of a key guide provided with a central opening, radial recesses and with limiting lugs (upon its upper face,) and a key provided with lugs designed to engage the recesses in the valve and to abut against the lugs upon the key guide to limit the rotation of the valve, substantially as described.

No. 64,231. Goods Displaying Form.
(*Appareil de montre.*)



Frank J. Peddie, Detroit, Michigan, U.S.A., 7th October, 1899; 6 years. (Filed 17th March, 1899.)

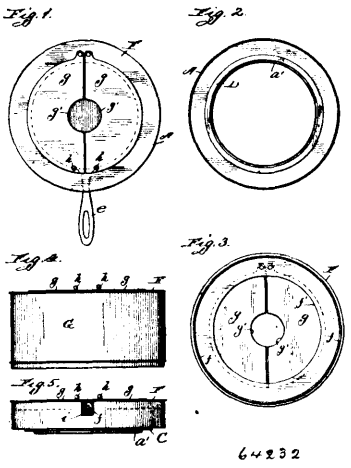
Claim.—1st. A form for displaying goods, comprising a plurality of members, each member being provided with a plurality of independent retaining sockets in its opposed faces, rigid connecting strips, adapted to engage with one end the retaining sockets of one display member and the opposite end engage the retaining sockets of another member. 2nd. A form for displaying goods, a board having grooves cut partly away at its side, metal strips secured to the board and projecting over said grooves, forming retaining sockets in said board and means for rigidly or jointedly attaching said board to other boards of similar construction. 3rd. A form for displaying goods, comprising a plurality of members, each member being provided with a plurality of corresponding independent retaining sockets in its opposed faces, hinges carried by a portion of said members the leaves of which are adapted to enter the corresponding sockets in other of said members to maintain said members jointedly united. 4th. A form for displaying goods, comprising a plurality of members, each member having concavities in its edges, confining plates crossing said concavities, spring catches entering said concavities, and a series of hinges, the leaves of which are adapted to enter the concavities in said members and to be engaged by said springs, whereby said members are jointedly united. 5th. A form for displaying goods, comprising a plurality of rectangular members having a series of sockets in their opposed faces, retaining strips crossing said sockets, a plurality of hinges, the leaves on one side of which being adapted to be confined in the sockets of one of said members by said retaining strips, the projecting leaves of said hinges being adapted to enter corresponding sockets in the other of said members and be confined therein by a retaining strip, whereby said members are jointedly united. 6th. A form for displaying goods, comprising a plurality of members, each member being provided with a plurality of independent retaining sockets in its opposed faces, hinges having leaves adapted to enter the sockets in said members, and means for automatically locking the leaves of said hinges in said sockets when inserted therein.

No. 64,232. Cooking Utensil. (*Ustensile de cuisine.*)

John P. Halm, assignee of Henry J. Halm, both of Peree, Illinois, U.S.A., 7th October, 1899; 6 years. (Filed 23rd March, 1899.)

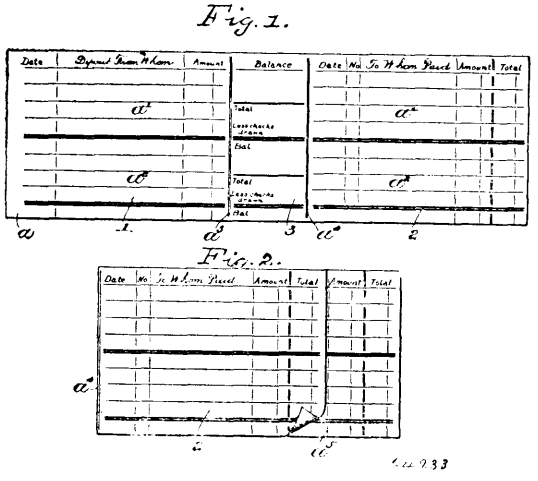
Claim.—1st. The combination with a stove, of a wall surrounding the eye or opening therein, means to support the cooking implement at a slight distance above the edge of the opening in the stove, and a cover located on the top of the wall, substantially as described. 2nd. The combination with a body or wall, having an inwardly extending floor provided with a central opening, a ring located on the upper surface of said floor at a slight distance therefrom, a cover on the top of the body or wall, said cover having a central opening, and doors pivotally secured thereto to increase and diminish the size of the opening in the cover, substantially as described. 3rd. The combination with the wall or body, A, having the floor *a*, provided with the down turned flange a^1, around its opening, the ring C, secured to the lower surface of the floor, the ring D, located at a slight distance above the floor, the washers d^1, interposed between

the floor and the ring D, the rivets *d*, passing through the ring C, floor, washers and ring D, a cover F, located on the top of the wall



or body and having a central opening, and the doors *g*, pivotally secured on the cover and having central openings, substantially as described.

No. 64,233. Check Book Balance Slip.
(*Feuille volante de carnet de chèques.*)



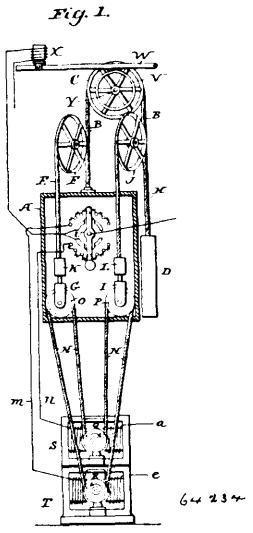
Thomas P. Smith, Swampscott, Massachusetts, U.S.A., 7th October, 1899; 6 years. (Filed 31st August, 1899.)

Claim.—A slip or leaf for use in check books, comprising on its opposite sides three divisions, the end divisions containing respectively columns and spaces for the bank deposits and for checks drawn, the space for the checks drawn being of the same size as that for the deposits, and one being printed on the back of the other, the checks drawn division being capable of folding back on the leaf at the line of separation between it and the said intermediate division, the latter having a width causing the free end of the said checks drawn divisions when folded back to bring the figure columns of the corresponding division on the reverse side of the slip, substantially as described.

No. 64,234. Elevator Gearing. (*Engrenage pour élévateurs.*)

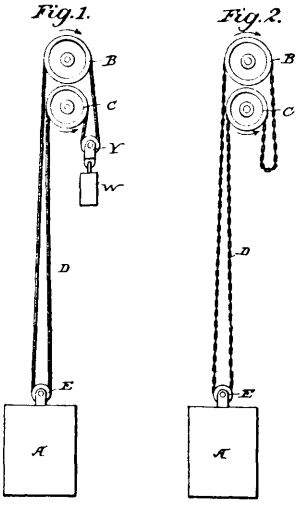
The Otis Elevator Company, East Orange, New Jersey, U.S.A., assignee of Ethelbert M. Fraser, Yonkers, New York, U.S.A., 7th October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. In an elevator, the combination of the cage and counterweight and two electric motors, the armature shafts of which are adapted to run in opposite directions at the same or at different relative speeds, a pulley on the armature shaft of each motor, a third pulley and connections between said third pulley and the cage, a forth pulley and connections between said forth pulley and the counter weight, and an endless rope passing around all of said pulleys, substantially as described. 2nd. In an elevator, a cage or platform and the counter weight, in combination with movable pulleys, ropes



connected to said cage or platform, and to said counter weight, spring connections between said ropes and said movable pulleys, electric motors having their armature shafts rotating in opposite directions, and an endless rope passing around said movable pulleys and around pulleys on said armature shafts, substantially as described.

No. 64,235. Elevator. (*Elevateur.*)



The Otis Elevator Company, East Orange, New Jersey, U.S.A., assignee of Ethelbert M. Fraser, Yonkers, New York, U.S.A., 7th October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. An elevator having a car, cage, or platform and containing two driving pulleys which are capable of being driven at the same and also at different relative rates of circumferential speed, and an endless cable that passes around both of said driving pulleys and which is connected with said car, cage, or platform so as to control its section, all of said parts being so arranged and combined that the said driving pulleys and said endless cable will each run continuously in one direction and the said car, cage, or platform will remain stationary when the said driving pulleys are running at the same relative rates of circumferential speed, but will move either upward or downward when the relative rates of circumferential speed of said driving pulleys are changed so that one of them will run either faster or slower than the other, all substantially as herein set forth and described. 2nd. The combination in an elevator of two driving pulleys which are capable of being driven at the same

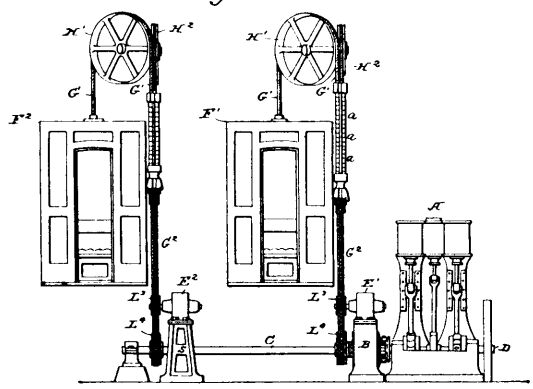
and also at different relative rates of circumferential speed, a load that is to be raised or lowered, an endless cable provided with bights or loops that is connected with the load and controls its actions, two travelling pulleys the first of which pulleys is carried in one of said loops or bights of the endless cable and the second of which is carried in another of the loops or bights of the endless cable, a cable that is connected at one of its ends with the first of said travelling pulleys and after passing around a friction pulley is connected at its other end with the second of said travelling pulleys, the said friction pulley, and a tension apparatus, all of said parts being so arranged and combined that the driving pulleys and endless cable will each run continuously in one direction and the load will remain stationary when the driving pulleys are running at the same relative rates of circumferential speed but will move either upward or downward when the relative rates of circumferential speed of the driving pulleys are changed so that one of them will run either faster or slower than the other, all substantially as herein set forth and described. 3rd. In an elevator the combination of a car, cage, or platform, two driving pulleys that are capable of being driven at the same and also at different relative rates of circumferential speed, a counterweight, two stationary friction pulleys, a cable or set of cables passing over one of said stationary friction pulleys and connecting the counterweight with the car, cage, or platform, in such a manner that when the counterweight descends it will draw the car, cage, or platform upward, and when the counterweight ascends it will alow the car, cage, or platform to descend by its own gravity, another cable or set of cables passing over the other of said stationary friction pulleys and being connected at one end to the said counterweight and at the other end to a travelling friction pulley, two travelling friction pulleys, one of which is the one that is connected to one end of said last-mentioned cable or set of cables and the other of which is attached to the bottom of said counterweight, and one or more endless cables that pass around both of the said driving pulleys and also around both of the said travelling friction pulleys, all combined and arranged substantially as herein set forth and described and so that the driving pulleys and endless cable or cables will each run continuously in one direction, and the car, cage, or platform will remain stationary when the driving pulley are running at the same relative rates of circumferential speed but will move either upward or downward when the relative rates of circumferential speed of the driving pulleys are changed so that one of them will run either faster or slower than the other. 4th. In an elevator the combination of a car, cage, or platform, two driving pulleys that are capable of being driven at the same and also at different relative rates of circumferential speed, a counterweight, a tightening device, two stationary friction pulleys, a cable or set of cables passing over of one of said stationary friction pulleys and connecting the counterweight with the car, cage, or platform in such a manner that when the counterweight descends it will draw the car, cage, or platform upward and when the counterweight ascends it will allow the car, cage, or platform to descend by its own gravity, another cable or set of cables passing over the other of said stationary friction pulleys and being connected at one end to the said counterweight and at the other end to a travelling friction pulley, two travelling friction pulleys, one of which is the one that is connected to the end of said last-mentioned cable or set of cables and the other of which is attached to the bottom of said counterweight, and one or more endless cables that pass around both of said driving pulleys and also around both of said travelling friction pulleys, all combined and arranged substantially as herein set forth and described and so that the driving pulleys and endless cable or cables will each run continuously in one direction and the car, cage, or platform will remain stationary when the driving pulleys are running at the same relative rates of circumferential speed but will move either upward or downward when the relative rates of circumferential speed of the driving pulleys are changed so that one of them will run either faster or slower than the other. 5th. The combination, with independently operated pulleys, of an endless cable thereon, a cage connected to and operated by said endless cable, and means for driving said pulleys at the same or relatively different rates of circumferential speed.

No. 64,236. Elevator. (*Elevateur.*)

The Otis Elevator Co., East Orange, New Jersey, U.S.A., assignee of Ethelbert M. F. Fraser, Yonkers, New York, U.S.A., 7th October, 1899; 6 year. (Filed 5th September, 1899.)

Claim.—1st. In an elevator, a cage counterweight, suspending ropes for the cage, and counterweight, and adjusting frame M, the latter moving coincidently and opposite to the counterweight, and both sliding on ways at the side of the cage, in the manner substantially as described. In an elevator, a vertically moving cage, a counterweight, a suspending rope connecting the said cage and counterweight, an intermediate pulley sustaining the same, a sliding tension frame moving vertically in ways, a rope connecting the said tension frame with the counterweight, an intermediate pulley carrying the said rope, movable pulleys attached to the said counterweight, and the said tension frame respectively, a prime motor shaft and fixed pulley adapted to run at uniform speed, an electric motor shaft and fixed pulley adapted to run at variable speed, and an endless driving rope passing around said movable pulleys and the fixed pulleys on the respective motor shafts, whereby the variable speed imparted to the electric motor shaft and pulley imparts a differential motion to the said endless driving rope in a portion of its travel, thereby causing a relative movement in opposite directions between the said

Fig. 1.



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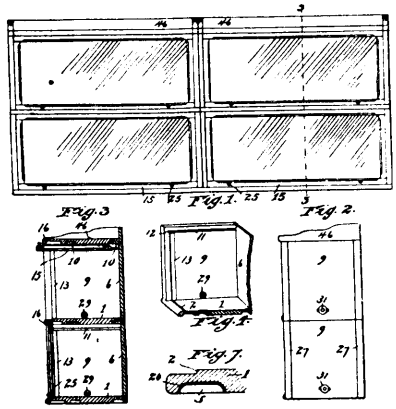
counterweight and the said tension frame, substantially as specified. 3rd. In an elevator, a vertically moving cage, a counterweight balanced against the same, a vertically moving tension frame, sustaining pulleys H^1 H^2, pulleys L^1, L^2 attached to the said counterweight and tension frame respectively, an endless driving rope passing around the said pulleys L^1 L^2, prime motor pulley L^4, and variable motor pulley L^3, the said motor pulleys also engaging the said driving rope, whereby a differential motion is imparted thereto, and opposite movements to the said movable pulleys L^1 L^2, substantially as specified. 4th. In a system of elevators, a prime motor shaft and pulleys, adapted to run at uniform speed, a series of vertical movable cages and counterweights sustained on suitabie pulleys, vertically movable tension frames connected to said movable counterweights by suspension ropes passing over intermediate pulleys, movable pulleys attached to said tension frames and counterweights respectively, separate motor shafts and pulleys for each cage adapted to run at variable speeds, and endless driving ropes passing around said movable pulleys and the respective pulleys on the prime motor shaft and the variable motor shafts, whereby differential rates of speed are imparted at will to the several driving ropes, substantially as specified.

No. 64,237. Book Case. (*Bibliothèque.*)



64237

The Rockwell & Rupel Company, assignee of Elliott Dwight Robbins and Curtis McPike, all of Chicago, Illinois, U.S.A., 7th October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. A book or other case, composed of superposed sections or units, each having a unitary bottom provided with longitudinal grooves or recesses, and a top consisting of corresponding longitudinal strips or slats to fit said recesses, substantially as described. 2nd. A book or other case, composed of a plurality of superposed sections or units, each provided with a unitary bottom having longitudinal recesses or grooves, end pieces which extend flush with the under surfaces of the bottom, and a top composed of longitudinal strips or slats to fit said grooves and abut against the end pieces, substantially as described. 3rd. A book or other case, composed of a plurality of superposed sections or units, the back of each section being rebated or shouldered at its lower inner edge and provided with a corresponding rib or projection at its upper inner edge, substantially as described. 4th. A book or other case, composed of a plurality of superposed sections or units,

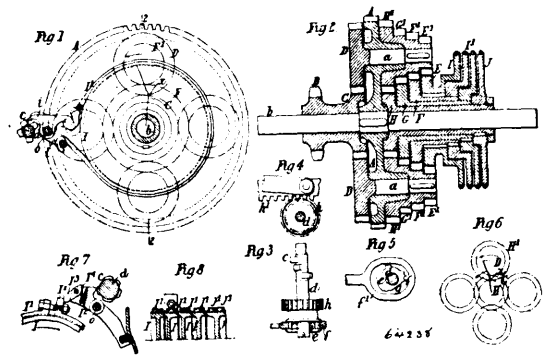
each provided with a sliding pivoted door, the bottom of each section being grooved or recessed near its front end to receive the projecting upper end of the door, and provided with a cushion of felt, or the like, against which said door bears when closed, substantially as described, 5th. A section or unit for book and other cases, the end pieces whereof have flush inner faces grooved near their upper edges, and having vertical strips extending downward from the grooves near the front ends thereof, in combination with a door having projections to fit said grooves, substantially as described. 6th. A section or unit for book or other cases, the end pieces whereof are grooved from the rear to a point near the front, below their upper edges, in combination with a door having adjustable pintles, which may be projected to engage said grooves, and means for supporting the front or lower portion of the door, substantially as described. 7th. A section or unit for book or other cases, the ends whereof are grooved from the rear to a point near the front, below their upper edges, and provided with vertical strips extending downward from said groove near the front thereof, in combination with a door having adjustable pintles, which may be projected to engage said grooves, substantially as described. 8th. In a section or unit for book or other cases, the combination with the grooved end pieces, of a door having recesses near its marginal edges, apertured and slotted plates for said recesses, a pintle mounted in each recess and extending through the aperture thereof and having an operating arm extending through the slot thereof, and a tension spring bearing on each pintle to hold the same in position when adjusted, substantially as described. 9th. In a sectional book or other case, the combination, with the meeting ends of two sections or units, provided externally with vertical strips at both front and rear, of connecting devices located intermediate said strips for holding the sections together end to end, with the strips of one section abutting against those of the other, substantially as described. 10th. In a sectional book or other case, the combination, with the meeting ends of two sections or units having recesses extending from the interior to the exterior, and apertured plates for closing said recesses, of a connecting bolt or pin adapted to engage said plates and having its ends located in the recesses without projecting beyond the inner faces of the sections, substantially as described. 11th. In a sectional book or other case, the combination, with the meeting ends of two sections or units having opposite recesses extending from the interior to the exterior, and apertured plates closing the exterior of said recesses, one of said plates being provided with a bridge piece and with a clamping lever pivotally connected therewith, of a locking pin or bolt adapted to extend through said apertures and be engaged by said clamping lever, substantially as described. 12th. In a sectional book or other case, the combination, with the meeting ends of two sections or units, recessed as described and provided with apertured closing plates, of a bridge piece mounted on one of said plates within the recess, an apertured clamping lever pivotally connected to said bridge piece and provided with an operating stem or handle and a spring for holding said clamping lever in an oblique position, and a connecting bolt or pin having a body adapted to extend through said aperture and engage the clamping lever, and a head to bear against the inner face of the other plate, substantially as described. 13th. In a sectional book or other case, the combination with the meeting ends, of two sections or units having recesses closed by apertured plates, of a removable connecting bolt or pin provided with a head to engage the inner face of one of said plates, the other of said plates being provided with means for engaging the body of said bolt or pin, when inserted, substantially as described. 14th. A section or unit for book or other cases, provided with grooved end pieces, and a door having projections to engage said groove, in combination with vertical strips secured to the inner faces of the end pieces, and extending from said grooves to the bottom of the section or unit, said strips having their rear portions bevelled, substantially as described.

No. 64,238. Variable Speed Gear.

(*Engrenage de vitesse variable.*)

The Pretot Motor Syndicate, Botolph House, Eastcheap, London, England, assignee of Victor Etienne Pretot, 21 Boulevard Boissoniere, Paris, France, 7th October, 1899; 6 years. (Filed 15th September, 1898.)

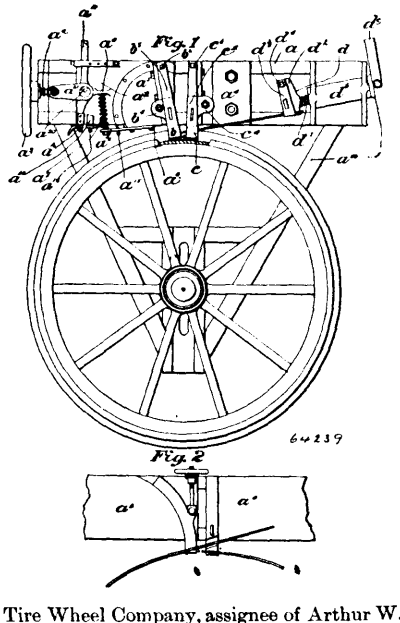
Claim.—1st. A variable speed gear comprising a disc or wheel carrying on one side a group or groups of unequal planet pinions, each group being rigidly connected to the same axis and revolving around and in gear with an equal number of concentrically disposed toothed wheels loosely mounted and revolving independently of one another on the axis of the disc, a pinion on the other side of the disc keyed to the axis of each group of planet pinions and revolving around and in gear with a pinion loosely mounted on the axis of the disc, and means substantially as described, whereby any of the said concentrically disposed toothed wheels can be held stationary for the purpose specified. 2nd. In speed gear, the combination of a driving wheel A, mounted upon a shaft *b*, and susceptible of receiving rotation from its centre or from its periphery, of a driven pinion C, arranged loosely upon the said shaft *b*, of a number of differential wheels E, F, G, arranged loosely upon the shaft *b*, and being of a larger diameter than that of the driven pinion C, of discs I, I, I, respectively connected to or integral with the said wheels E, F, G, and capable of being stopped by brake bands or collars I^1, I^1, I^1, of ne or several groups of differential satellite pinions E^1, F^1, G^1, gearing with the differential wheel, of one or several pinions D, con-



nected to or rigid with the groups of satellite pinions and gearing with the driven pinion C, the whole device arranged and operating in the manner described and for the purpose specified. 3rd. The combination with a speed gear as described, of a supplementary planetary gearing mechanism comprising a wheel H, of less diameter than the driven pinion C, and provided with a brake disc I, and of a pinion H^1, forming part of each group of satellite pinions and gearing with the said wheel H, the said combination serving on the one hand for obtaining the variations of speed, on the other hand for reversing the motion, substantially as described. 4th. In a speed and reversing gear for motor carriages for the purpose of stopping one or the other of the wheels E, F, G, H, in order to vary the speed or to reverse the motion, the rotary shaft *d*, provided with tappets or projections *c*, so arranged that by the angular movement of said shaft one or the other of the brake hands I^1, can be caused to grip its disc I, substantially as described. 5th. In a speed and reversing gear for motor carriages, the arrangement of the brake banks to completely surround the respective discs I, and their construction with a heel or projection I^x, to be acted upon by levers I^2, which are provided with spring catches or stops I^3, and which are brought into operation by tappets or projections *c*, on the rotary shaft *d*, substantially as described. 6th. In a speed or reversing gear for motor carriages, the combination with the tappets or projections *c*, on the rotary shaft *d*, of a star piece *e*, acting in conjunction with a tooth *f*, on a movable frame f^1, connected with the regulating part or mechanism of the motor, substantially as described and for the purpose set forth.

No. 64,239. Device for Equipping Vehicle Wheels.

(*Appareil pour compléter les roues de véhicules.*)



The Rubber Tire Wheel Company, assignee of Arthur W. Grant, all of Springfield, Ohio, U.S.A., 7th October, 1899; 6 years. (Filed 29th December, 1898.)

Claim.—1st. In a machine for tightening rubber tires on vehicle wheels by the aid of metallic bands, of band holders separable laterally and means for joining said bands between said band holders, substantially as specified. 2nd. In a machine for tightening rubber

tires on vehicle wheels, the arrangement of the bed plate having the separable movable band holders, one of which is swivelly or adjustably mounted to turn to different positions, the combination of a tightening device so arranged that the bands passing through one of said band holders may be brought into one position for tightening said bands and into different positions for uniting the ends thereof, substantially as specified. 3rd. In a machine for tightening rubber tires on vehicle wheels, the arrangement of the separable band holders in connection with a tightening device, and electrical conductors extending to the different band holders for the purpose of electrically welding the bands between the band holders, substantially as specified. 4th. In a machine for tightening rubber tires on vehicle wheels, the combination with a movable head and a rubber tired wheel, of flexible gripping devices extending between the wheel channel and the rubber and the movable head, and means for forcibly moving said head to close the space between the ends of the rubber, substantially as specified. 5th. In a machine for tightening rubber tires on vehicle wheels, the holding jaws having the spacing tongue, said jaws being adapted to extend into the channel of the wheel rim and one of said jaws being movable to different positions, substantially as specified. 6th. The combination in a machine for tightening rubber tires on vehicle wheels, of band holding jaws having reduced ends to extend into the wheel channel, one of said jaws having auxiliary openings adjacent to the main openings, and a tightening device for tightening the bands which pass through said auxiliary openings, substantially as specified. 7th. In a machine for tightening rubber tires on vehicle wheels, a band holding jaw, a tightening device adjacent thereto, said tightening device being adapted to tighten the bands before they are united and to serve also for closing the space in the rubber after the bands are united, substantially as specified.

No. 64,240. Hot Air Furnace. (*Fournaise à air chaud.*)

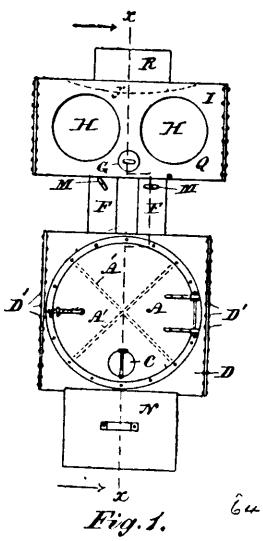


Fig. 1.

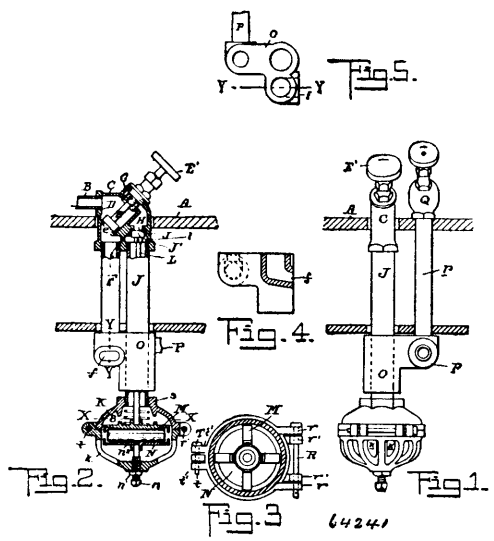
Richard Hewitt and Archibald McDougall, both of Pilot Mound, Manitoba, Canada, 7th October, 1899; 6 years. (Filed 17th March, 1899.)

Claim.—1st. A sheet iron hot air furnace, having double walls and top and an intervening filling of asbestos paper, the fire chamber having a lining of cast metal plates O, a collar E, at the top near the rear end and a collar F, at the top near the front end and provided with a damper M, the ends of the furnace connected to the side walls and top by lapped joints and rivets D^1, and a circular door in the front provided with a hinged damper C, and reinforced by cross bars A^1, as set forth. 2nd. A sheet iron hot air furnace having double walls and an interposed filling of asbestos paper and a superposed smoke drum provided with a smoke pipe near the ends to telescope with like pipes or collars E, F, of the furnace, hot air tubes H, extending through the ends said tubes of double thickness and having an intervening filling of asbestos paper, a concave convex plate J, above said tubes to protect the top from direct heat, a capped tube in the front to clean out soot and ashes, an outlet smoke pipe at the top near the front end, and the ends of the drum connected to the sides and top by lapped joints or seams and rivets, as set forth.

No. 64,241. Car Heating System.
(*Système de chauffer les chars.*)

The Consolidated Car Heating Company, assignee of James F. McElroy, all of Albany, New York, U.S.A., 7th October, 1899; 6 years. (Filed 22nd March, 1899.)

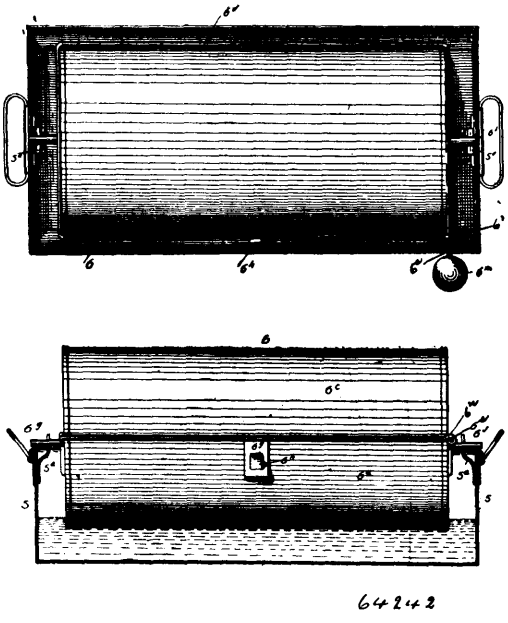
Claim.—1st. In a car-heating system, a trap, composed of two chambers, communicating with each other through a perforated fitting and also communicating with the discharge connection of said car heating system, a blow-out pipe communicating with one of said



chambers, a valve adapted to close the opening between said blow-out pipe and the chamber with which it communicates, the other of said chambers communicating with a fitting carrying a thermostatic cell, a spider-plate arranged in contact with the diaphragm of said thermostatic cell, a valve-stem connected with said spider-plate, a valve on said valve-stem arranged to close the communication between one of said chambers and the fitting carrying the thermostatic cell or to open the same, depending upon the action of said diaphragm, and a hot metallic connection between the blow-out pipe and the fitting carrying the thermostatic cell and the receptacle containing the hot steam of the car-heating system, substantially as described. 2nd. In a car-heating system, a trap consisting of a casing provided with two chambers, communicating with each other through a perforated fitting and also communicating with the discharge connection of said car-heating system, a blow-out pipe communicating with one of said chambers, a valve adapted to close the opening between said blow-out pipe and the chamber with which it communicates, a tube connecting the other of said chambers with a fitting containing a thermostatic cell, a valve adapted to close the opening between said tube and said chamber, a valve-stem connecting said valve with a spider-plate, said spider-plate arranged to rest upon the diaphragm of said thermostatic cell, guides placed in said tube arranged to direct said valve to its seat, a fitting carrying said thermostatic cell composed of two parts hinged together, an adjustable plate in said fitting adapted to hold said thermostatic cell in position, a hot metallic connection between said blow-out pipe and said tube connected with a pipe communicating with the train-pipe, all substantially as described. 3rd. In a thermostatic trap, a receptacle for holding a diaphragm, consisting of two members hinged together, with a means for locking the same in position, spiders for holding the diaphragm in position, said diaphragm constructed of spring metal, a means for adjusting said spiders in connection with said diaphragm, said receptacle provided with openings therethrough allowing for the circulation of air, a valve-stem operated by said diaphragm, so arranged that the receptacle may be opened and the spiders, diaphragm and valve-stem removed or placed in position, substantially as described. 4th. In a trap, a casing containing a sediment basin, a valve for blowing out dirt from the sediment-basin, a perforated fitting placed in the overflow of said sediment-basin, and so arranged that said fitting can be removed for cleaning by taking out the bonnet of the valve and without disconnecting the trap, combined with an overflow basin and a valve at the discharge end of the overflow basin controlled by a thermostatic cell, substantially as described. 5th. A trap composed of a casing provided with a port connected to a heating system, an overflow basin located in the line of flow from the heating system to the overflow-basin, a perforated fitting between said sediment basin and said overflow-basin, a blow-out pipe controlled by a valve communicating with the sediment basin, the overflow-basin provided with a valve controlled by a thermostatic cell, substantially as described. 6th. In a car-heating system, a trap communicating with the discharge end of said system, said trap composed of a casing provided with a sediment basin placed in the floor of the car, a blow-out pipe connected to the bottom of said sediment basin, a partition separating the sediment basin from an overflow basin, the upper part of said partition perforated, said overflow provided at its bottom with a valve controlled by a thermostatic cell, substantially as described. 7th. In a car-heating system, a steam supply pipe, a trap connected with the discharge

end of said heating system, said trap consisting of a casing provided with a sediment basin having a blow-out pipe controlled by a valve, an overflow basin provided with a valve controlled by a thermostatic cell, a discharge pipe communicating with the valve in said overflow basin, a fitting provided with a steam port communicating with the steam supply pipe, said fitting also having a portion which surrounds or forms part of said discharge pipe, substantially as described. 8th. In a car-heating system, a steam supply pipe, system of circulating pipes within the car, a thermostatic trap connected to the discharge end of said circulating system, said trap in hot metallic connection with the steam supply pipe in such a manner that the casing of said trap shall be maintained at a temperature above the freezing point of the circulating fluid but below the temperature at which the thermostatic trap operates, substantially as described.

No. 64,242. Roasting Pan. (*Poêle à rôtir.*)



64242

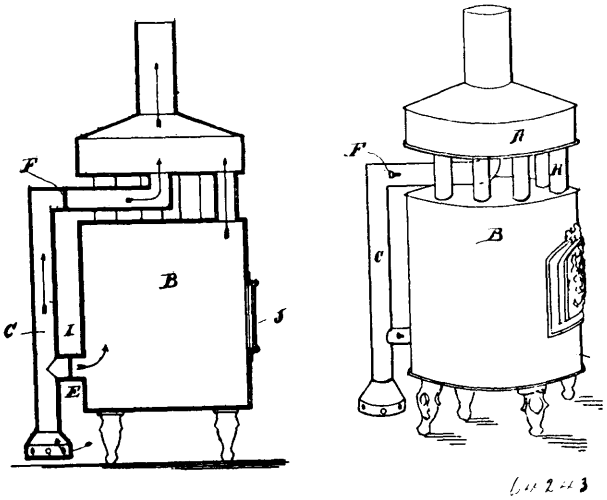
Samuel Wesley Akins and Carl Albert Freeman, both of Denver, Colorado, U.S.A., 7th October, 1899; 6 years. (Filed 5th June, 1899.)

Claim.—1st. In a self-basting roasting pan, the combination of an open outer pan and the cylindrical pan trunnioned thereon, and consisting of two semi-cylindrical parts whose adjacent edges are hinged together and adapted to be fastened together on the opposite side thereof, the edges of said parts being provided with strengthening wires, one of which is extended to project over the edge of the open pan, forming an arm provided with a weight to facilitate turning and limit the movement to a half rotation in either direction, the intersecting wire of the same part being suitably fastened to the said extended wire, the inner surface of the cylindrical pan being smooth, the outer pan being adapted to hold water. 2nd. In a self-basting roasting pan, the combination of an open outer pan and a cylindrical pan trunnioned thereon, and consisting of two semi-cylindrical parts, one part being movable to expose the contents of the pan, an arm attached to the other part of the cylindrical pan and projecting over the edge of the outer pan upon which the arm is adapted to rest, and a weight attached to the outer extremity of said arm and projecting beyond the outer pan whereby it is accessible for the purpose of manipulating the cylindrical pan, the said weight holding the cylindrical pan in such a position that the plane separating the two semi-cylindrical parts shall occupy a horizontal position when the movable pan is at rest.

No. 64,243. Stove. (*Poêle.*)

Henry H. Herrendeen, Edmund C. Morris, Wilson D. Osburn, and DeWitt C. Morrill, all of Big Rapids, Michigan, U.S.A., 7th October, 1899; 6 years. (Filed 1st May, 1899.)

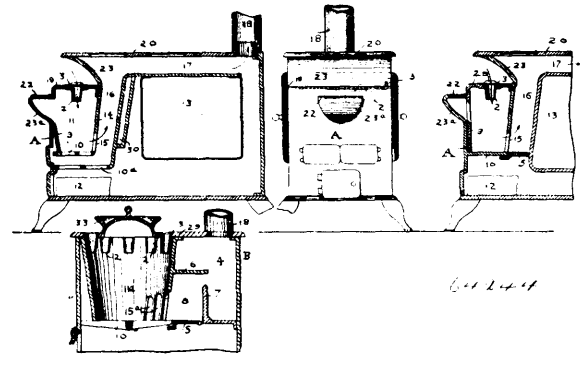
Claim.—1st. In a stove, the combination of the body, a drum, a ventilating pipe having an opening or openings near the floor adapted to convey the air from a point near the floor directly to the drum, substantially as described. 2nd. The combination of the drum, the stove, flues opening from the drum to the stove, a ventilating pipe opening near the floor at the bottom, and opening at the top into the drum, and a draught pipe connecting the ventilating pipe to the stove body, substantially as described. 3rd. In combination with a drum, a stove body, flues connecting the stove and drum, a ventilating pipe having its lower end near the floor, its upper end opening into the drum, a draught pipe connecting the ventilating pipe to the stove, a draught damper in said draught pipe adapted to close



64243

or open, and a ventilating pipe at a point above the draught pipe and below the drum, substantially as described.

No. 64,244. Stove and Furnace. (*Poêle et fourneau.*)



64244

Wiliam DeLancy Walbridge, assignee of Frederick Girtanner, both of New York City, New York, U.S.A., 7th October, 1899; 6 years. (Filed 17th June, 1899.)

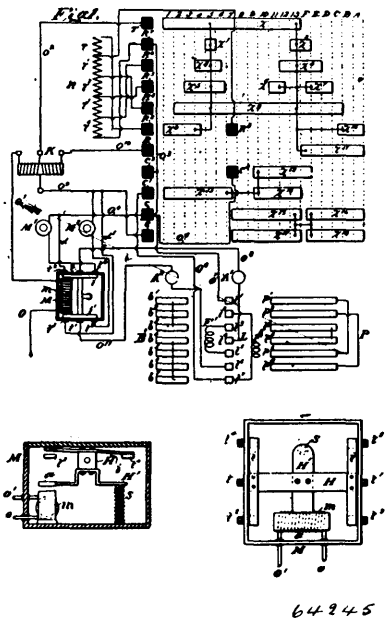
Claim.—1st. In a down draft stove or furnace, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, a fuel support at the bottom of the fire pot or magazine, and a plurality of air tubes extending downwardly from the top plate of the fire pot from a plane above the level of the fuel and adapted to direct jets of air toward the fuel for its combustion, all constructed for the purpose of conducting the air and the products of combustion downwardly through the fuel and through the lateral opening in the fire pot or magazine under the influence of the draft, substantially as described. 2nd. In a down draft stove or furnace, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, a fuel support at the bottom of the fire pot or magazine, and a plurality of air tubes arranged contiguous to the wall of the fire pot or magazine and extending downwardly from the top of the fire pot or magazine to direct jets of air into the fuel in close proximity to the walls of the said fire pot or magazine for the combustion of said fuel, all constructed for the purpose of conducting the air and the products of combustion downwardly through the lateral opening in the fire pot or magazine under the influence of the draft and to prevent the formation of clinkers on the walls of the fire pot or magazine, substantially as described. In a down draft stove or furnace, the combination of a removable fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, a fuel support at the bottom of the fire pot or magazine, and a plurality of air tubes extending downwardly from the top plate of the fire pot from a plane above the level of the fuel and adapted to direct jets of air toward the fuel for its combustion, all constructed for the purpose of conducting the air and the products of combustion downwardly through the fuel and through the lateral opening in the fire pot or magazine under the influence of draft, substantially as described. 4th. In a down draft stove or furnace, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, a fnel support at the bottom of the fire pot

or magazine, a plurality or air tubes extending downwardly from the top plate of the fire pot from a plane above the level of the fuel and adapted to direct jets of air toward the fuel for its combustion, and an uptake 16 contiguous to the walls of the fire pot or magazine, all constructed for the purpose of conducting the air and the products of combustion downwardly through the fuel and through the lateral opening in the firepot or magazine under the influence of the draft, substantially as described. 5th. In a down draft stove or furnace, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, a fuel support at the bottom of the fire pot or magazine, a plurality of air tubes extending downwardly from the top of the fire pot or magazine to direct jets of air into the fuel, and an ash pit normally closed off from the external air to prevent an upward draft, all constructed for the purpose of conducting the air and the products of combustion downwardly through the fuel and through the lateral opening in the fire pot or magazine under the influence of the draft, substantially as described. 6th. In a down draft stove or furnace, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicatng with a flue leading to the chimney, an imperforate fuel support adapted to close the bottom of the fire pot substantially against the admission of air, and a plurality of air tubes extending downwardly from the top of the fire pot and adapted to direct jets of air against and into the fuel for its combustion, all constructed for the purpose of conducting the air and the products of combustion exclusively downward through the fuel and through the lateral opening in the fire pot or magazine under the influence of the chimney draft, substantially as described. 7th. In a down draft stove or furnace, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, an imperforate fuel support adapted to close the bottom of the fire pot or magazine substantially against the admission of air a plurality of air tubes extending downwardly from the top of the fire pot or magazine and adapted to direct jets of air against and into the fuel for its combustion, all constructed for the purpose of conducting the air and the products of combustion exclusively downward through the fuel and through the lateral opening in the fire pot or magazine under the influence of the chimney draft, a draft chamber in communication with the upper ends of said air tubes, and a regulator controlling the supply of air to all said tubes simultaneously, substantially as described. 8th. In a down draft stove or furnace, the combination of a fire pot or magazine having lateral openings at or near its bottom communicating with flues leading upwardly to the chimney, an imperforate fuel support adapted to close the bottom of the fire pot or magazine substantially against the admission of air, a plurality of air tubes extending downwardly from the top of the fire pot or magazine and adapted to direct jets of air against and into the fuel for its combustion, all constructed for the purpose of conducting the air and the products of combustion downward through the fuel and through the lateral openings in the fire pot or magazine under the influence of the draft, and means for discharging the ash or refuse from the flues leading to the chimney, substantially as described. 9th. In a down draft stove or furnace, a fire pot or magazine having lateral openings at or near its bottom communicating with horizontal flues leading to the chimney, an imperforate base or plate closing the bottom of the fire pot or magazine, a plurality of downwardly extending air tubes alternating in a horizontal plane with the lateral openings at the bottom of the fire pot or magazine, and heating flues arranged contiguous to the fire pot or magazine and to the draft flues for the purpose of heating air or other media for distributing heat, substantially as described.

No. 64,245. Electric Brake. (*Frein électrique.*)

The Westinghouse Electric and Manufacturing Company, assignee of Harry P. Davis, all of Pittsburg, Pennsylvania, U.S.A., 7th October, 1899; 6 years. (Filed 29th June, 1899.)

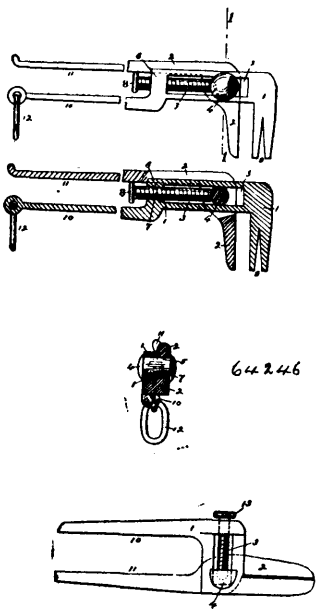
Claim.—1st. In an electric braking apparatus, a plurality of electric motors arranged in parallel in a local circuit to be driven as generators, in combination with a plurality of brake magnets, one in each branch of such circuit. 2nd. In an electric braking apparatus, a plurality of electric motors arranged in parallel in a local circuit to be driven as generators, in combination with a plurality of brake magnets one in each branch of such circuit and means for automatically cutting both of said magnets out when the motors are connected with the main generator. 3rd. Means for propelling and regulating the speed of vehicles, comprising a plurality of electric motors, means for connecting the same either in series or in parallel and for varying the resistance of their circuit or circuits, means for connecting the motors in parallel in a local circuit to be driven as generators by the momentum of the vehicle when the power current is shut off, and a brake magnet located in each branch of said local circuit. 4th. In an electrically propelled vehicle, the combination with a plurality of motors driven as generators by the momentum of the vehicle when the power current is shut off, of means for establishing a local circuit which includes said motors in parallel and a variable resistance, a brake magnet in each branch of such local circuit and means for progressively cutting out or short circuiting the resistance. 5th. In an electrically propelled vehicle, the combination with a plurality of motors which are driven as generators by the momentum of the vehicle when the power current is shut off, of means for establishing a local circuit having parallel branches through said motors, equalizing connections for said motors, a brake magnet in



64245

each branch and means for varying the resistance of the circuit. 6th. The combination with a vehicle, a plurality of electric motors for propelling the same and means for controlling their power and speed, of a plurality of brake magnets normally out of circuit, and means for establishing a local circuit containing a variable resistance and having a plurality of branches each of which contains one of the motors and one of the brake magnets.

No. 64,246. Tongs. (*Tenailles*)

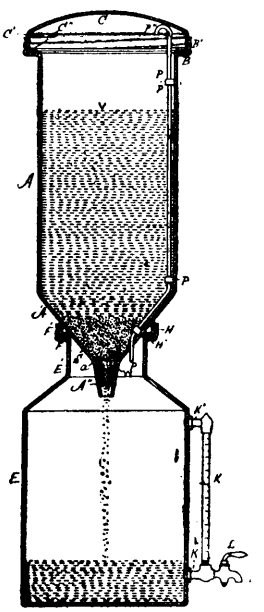


64246

Vernon Graham Higgins, Waddington, California, U.S.A., 9th October, 1899; 6 years. (Filed 4th April, 1899.)

Claim.—A pair of tongs comprising a jaw having a slot extending longitudinally, a screw seated in the rear wall of said slot and entering the slot, a gripping surface upon the jaw extending at an angle to the portion provided with the slot, a second jaw lying across the slot of the first jaw and having a gripping surface substantially parallel with the gripping surface of the first jaw, a pivot pin upon the second jaw passing through the slot of the first jaw, the before mentioned screw being adapted to engage said pivot pin, and handles extending from both jaws upon opposite sides of and substantially parallel with the screw, substantially as described.

No. 64,247. Percolator. *(Filtre.)*



64247

Joseph Alvin Eugean Bernard, Central Falls, Rhode Island, U.S.A. 9th October, 1899; 6 years. (Filed 5th April, 1899.)

Claim.—1st. In a percolator, the vessel A, provided with an air tight cover at its upper end and a discharge opening at its lower end, a perforated septum supported within said vessel, the receiving vessel E, open at its upper end, an annular step rigid with the upper end of the receiving vessel E, and annular shoulder or flange rigidly secured to the lower portion of the vessel A, an air tight packing between said step and flange, and the tube P, within the vessel A, the upper end of said tube opening into said vessel A, at its upper portion, and the lower end thereof extending through the lower portion of the vessel A, into the vessel E, substantially as described. 2nd. The hereinbefore described improved percolator, comprising the percolating vessel A, formed at its upper end into the annular step B, and screw threaded annular flange B^1, the cover C C^1, adapted to be screwed into said flange and provided with the inwardly extending flange C^{11}, whereby an air tight connection with said vessel may be provided, the annular shoulder consisting of the threaded portion H, and the horizontal portion H^1, secured to the lower portion of said percolating vessel, the receiving vessel E formed at its upper end with the annular step F, and flange F^1, the latter being formed with a screw thread whereby an air tight cone nection between the vessels A and E may be provided, a perforated septum supported by and within the vessel A, and the tube or pipe P, opening at its upper end in the upper portion of the percolating vessel and at its lower end in the upper portion of the receiver, the lower portion of the percolating vessel being funnel shaped and having an open discharge end and being thereby adapted to rest upon the upper open end of the receiving vessel and to extend down thereinto, substantially as set forth.

No. 64,248. Car Brake. *(Frien de chars.)*

Sylvester Stitts, Ironton, Ohio, U.S.A., 9th October, 1899; 6 years. (Filed 17th April, 1899.)

Claim.—The combination with the axle having the usual wheels, of a shaft 16 journalled loosely at one end and in a sliding bearing 18 at the other, and geared to the axle at one end and carrying a friction wheel at the other, a third shaft or drum 23 journalled in fixed bearings and carrying a friction wheel at the other, a third shaft or drum 23 journalled in the fixed bearings and carrying a friction wheel adapted to engage the first mentioned shaft, a chain 35 secured to the drum shaft, a rod 36 connected to and forming a continuation of the chain, a lever 38 pivoted to the car intermediate of its ends and connected at one end to rod 36, a rod 41 pivotally connected at one of its ends to the opposite end of lever 38, a lever 43, pivoted to the car at one end 44 carrying a brake shoe at the other end and pivotally connected at 42, intermediate of its ends with the other end of rod 41, a rod 34 leading from the hand brake applying mechanism, a lever 31 pivoted to the car and pivotally connected with rod 34, a lever 28 pivoted to the car and pivotally

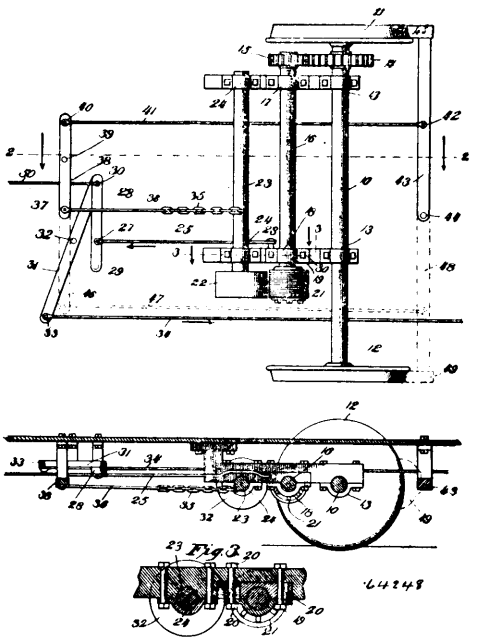
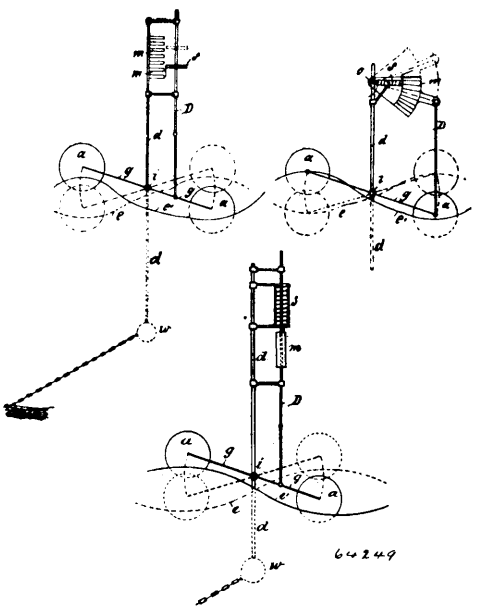


Fig. 3

64248

connected to lever 31, and a rod connecting the lever 28 with the sliding bearing 18, substantially as described.

No. 64,249. Wave Motor Electric Current Generator.
(Moteur à vagues pour génération de courant électrique s.)



64249

Max Gehre, Rath, near Dusseldorf, Germany, 9th October, 1899; 6 years. (Filed 13th April, 1899.)

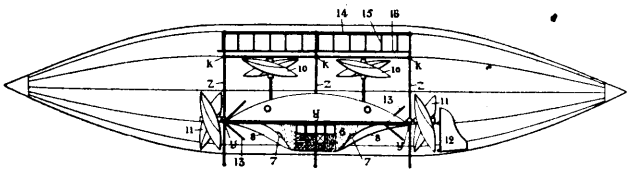
Claim.—A wave motor electric current generator, comprising two parallel rods, one rod sliding in guide arms projecting from the other rod, one rod carrying a magnet with alternating poles and the other rod an induction coil, both rods pivotally connected to a rocking lever having projecting ends, a float at each end of said lever, a ballast weight at the end of the rod having the guide arms, said end terminating below the lever, substantially as set forth.

No. 64,250. Aviator, or Flying Machine.
(Machine volante.)

Louis Etienne Roze, Colombes, Villa Reine Henriette, No. 8, Seine Department, France, 9th October, 1899; 6 years. (Filed 1st June, 1899.)

Claim.—1st. An aviator, comprising in combination, two balloons a frame connecting the two balloons together, a card carried by the

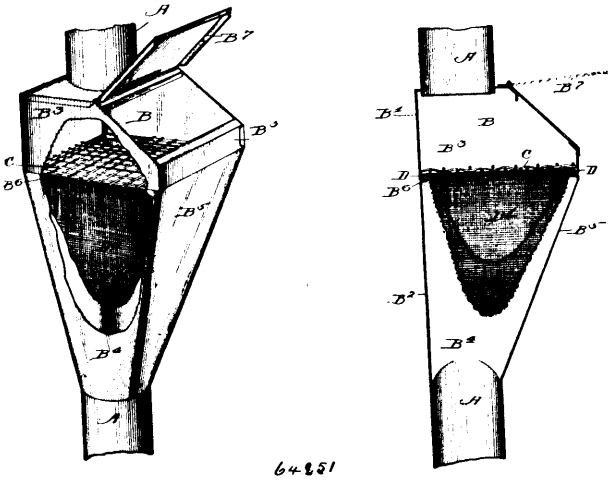
said frame above the lower part of the balloon, upward propulsion screws having a vertical axis and two forward propulsion screws



64250

having a horizontal axis, a steering helm or rudder having a vertical axis, and four helms or rudders to keep the aviator on a level and having a horizontal axis, substantially as described. 2nd. An aviator, comprising in combination, two balloons, each of which if divided into separate compartments, having each a rigid envelope and a movable diaphragm secured horizontally in each of said compartments, which can be brought against either the lower hals of the balloons or the upper half of the same, a frame connecting the said balloon with the car carried by the said frame, substantially as described. 3rd. An aviator, comprising in combination, two balloons, each of which is divided into separate compartments, having each a rigid envelope and diaphragm secured horizontally in each of said compartments, counterbalanced by weights and movable in the said envelope, a frame connecting the said balloons together, and a car carried by the said frame at a higher level than the lower part of the balloon, substantially as described. 5th. An aviator, comprising in combination, two balloons, having each a rigid envelope or casing, and a supple diaphragm, the envelope and diaphragm being joined together by means of aluminum strips faced with rubber and bolted together, a frame connecting the said balloons together, and a car carried by the said frame, substantially as described. 5th. An aviator, comprising in combination, two balloons, having each a rigid envelope divided into compartments by fixed vertical partitions and movable diaphragms, the compartment located above the said diaphragm receiving the gas and those located below communicating with the atmosphere, a frame connecting the said balloons together, and a car carried by the said frame, substantially as described and for the purpose specified.

No. 64,251. Filter for Water Pipes.
(*Filtre pour tuyaux à eau.*)

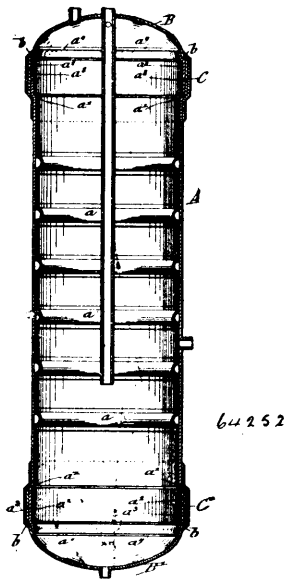


64251

Alfred Martin, Rockford, Illinois, U.S.A., 9th October, 1899; 6 years. (Filed 29th June, 1899.)

Claim.—1st. In a water filter for conductor pipes, in combination, a filter chamber having an inlet and an outlet, said chamber being formed with a two-piece side, the adjacent edges of the side being turned inward to form a supporting ledge within the filter chamber, a filter fabric in the chamber, and a supporting frame for the fabric, substantially as and for the purpose specified. 2nd. In a water filter for conductor pipes, in combination, a filter chamber having an inlet and an outlet, an opening in said chamber, a closure for said opening, said chamber being formed with a two-piece side, the adjacent edges of which side are turned inward to form a supporting ledge within the filter chamber, a filter fabric in the chamber, a supporting frame for the fabric, and a screen, substantially as and for the purpose specified.

No. 64,252. Range Boiler. (*Fourneau.*)

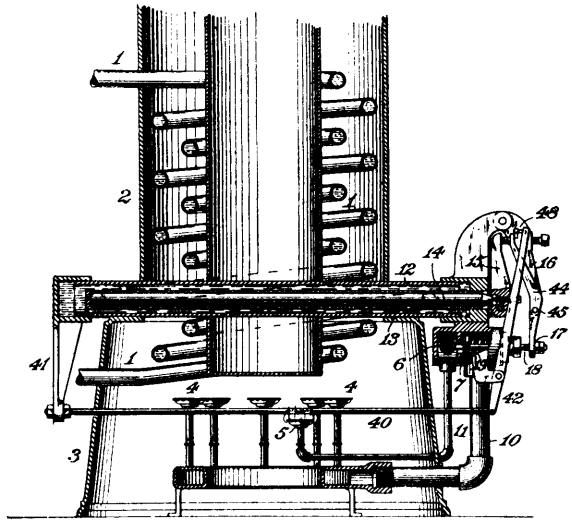


64252

Valentin Wilhelmi, Paterson, New Jersey, U.S.A., 9th October, 1899; 6 years. (Filed 4th March, 1899.)

Claim.—1st. A range boiler, consisting of a body having a flattened ring portion offset therefrom and of greater diameter than the diameter of said body, the said ring portion being provided with an offset and terminating in a cylindrical rim of substantially the diameter of the body of the boiler and inclined and curved to conform to the shape of the head, a head having an offset rim forming a shouldered flange of greater diameter than the body thereof, the shouldered flange of the head overlapping said flattened ring portion, and an exterior band extending over the said ring portion and the overlapping portion of the head, the upper and lower edges of said band fitting over the shoulders on said ring portion and flange so as to form a three-ply joint, substantially as set forth. 2nd. In a range boiler, the body portion thereof, annular ribs brazed to the inside of the body, said body portion being provided at top and bottom with cylindrical flattened ring portion larger in diameter than the body portion in combination with heads, each head being provided with a rim portion of greater diameter than the ring portion of the body and adapted to overlap the said ring portion of said ring portions of the head and body, substantially as and for the purposes specified.

No. 64,253. Water Heater. (*Chauffeur d'eau.*)



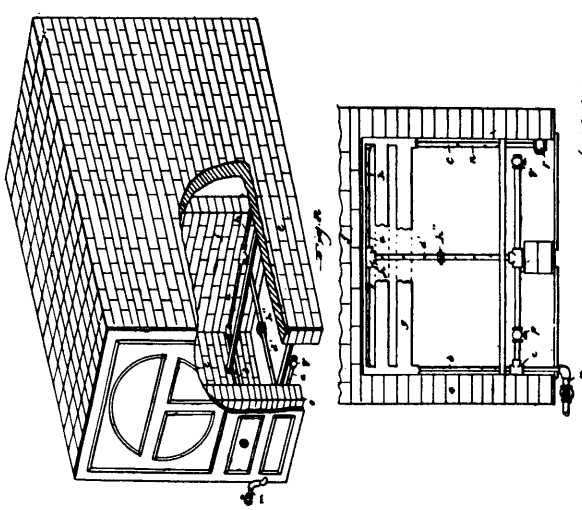
64253

Edwin Rund, Pittsburg, Pennsylvania, U.S.A., 9th October, 1899; 6 years. (Filed 1st March, 1899.)

Claim.—1st. In a water heater, the combination of a water heating coil, a heater for heating the same, and a thermostat controlling

means in the circuit of the coil between the inlet and the outlet of that portion of the coil which is subjected to the action of the heater, substantially as set forth. 2nd. The combination, in a coil water heater, of a burner, and a thermal regulating device for controlling the burner, which is located in a section of the coil exposed to the direct action of the heat supplied to the burner, substantially as set forth. 3rd. The combination, in a water heater, of a heating coil enclosed in a casing, a burner for supply ng heat to the coil, and a thermal regulating device for controlling the burner, and which is located in a portion of the coil exposed to the direct action of the ignited gases, or flame from the burner, substantially as set forth. 4th. In a water heater, the combination of a burner, a water receptacle arranged in the combustion chamber of said burner, a thermostat for operating the valve controlling the flow of gas to said burner and arranged in a chamber forming a part of the outlet from the water receptacle and so located as to be directly subjected to the heat from the burner. 5th. The combination, substantially as set forth, of a gas burner, a valve controlling the supply of gas thereto, a spring bearing on said valve with a constant tendency to effect its closure, a thermostat normally subjected to the heat of a gas burner, connections from said thermostat to said valve, acting in opposite direction to said spring, and a tripping device actuated by said thermostat for releasing said connections. 6th. The combination, substantially as set forth, of a main gas burner, an independent or pilot burner, a valve controlling the supply of gas to the main burner, a thermostat normally subjected to the heat of the pilot burner and unaffected by the main burner, and mechanism, connected with and actuated by said thermostat, for effecting the automatic closure of the valve upon the extinguishment of the flame at the pilot burner. 7th. The combination, substantially as set forth, of a main gas burner, an independent or pilot burner, a valve controlling the supply of gas to the main burner, a thermostat normally subjected to the heat of the pilot burner and unaffected by the main burner, a closing spring bearing on the valve with a constant tendency to effect its closure, connections from the thermostat to the valve, acting in opposite direction to the closing spring, and a tripping device by which said connections are automatically released, and the spring caused to close the valve, in and by the contraction of the thermostat resultant upon the extinguishment of the flame at the pilot burner. 8th. The combination, substantially as set forth, of a main gas burner, an independent or pilot burner, a main supply valve controlling the supply of gas to the main burner, a thermostat normally subjected to the heat of the pilot burner and unaffected by the main burner, an independent cut-off valve controlling the supply of gas to the main and pilot burners, and mechanism, connected with and actuated by said thermostat for effecting the automatic closure of the independent cut-off valve upon the extinguishment of the flame at the pilot burner. 9th. The combination, substantially as set forth, of a main gas burner, an independent or pilot burner, a valve controlling the supply of gas to the main burner, a thermostat normally subjected to the heat of the main burner, said thermostat being connected with and regulating the movement of said valve, a supplemental thermostat subjected to the heat of the pilot burner and unaffected by the main burner, and mechanism, connected with and actuated by said supplemental thermostat for effecting the automatic closure of the valve upon the extinguishment of the flame at the pilot burner.

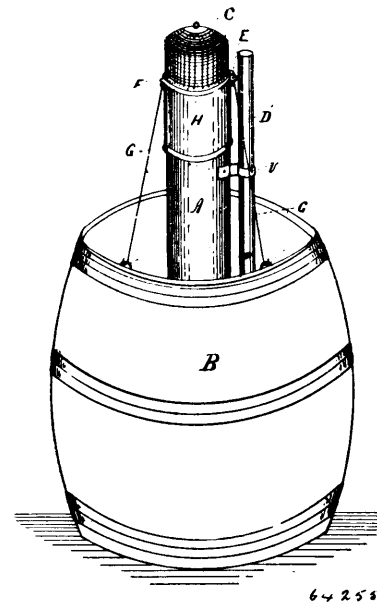
No. 64,254. Furnace. (*Fourneau.*)



John A. Snyder and George H. Heitzman, both of Pittsburg, Pennsylvania, U.S.A., 9th October, 1899; 6 years. (Filed 1st February, 1899.)

Claim.—1st. In a device of the character described, the combination with a furnace, of the perforated pipes connected together and arranged within the furnace underneath the grate bars, a steam supply for said perforated pipes, and blow off cocks arranged in the open end thereof for draining the pipes when desired, substantially as herein shown and described. 2nd. In combination with a furnace, the pipes *a*, *b*, *c* and *d* connected together, and the three latter of which are provided throughout their length with perforations, and the former of which is perforated only at certain positions, a steam supply pipe for feeding said perforated pipes *a* and *c* being provided on their free ends with blow-off cocks so that the pipes may be drained simultaneously, substantially as herein described. 3rd. In combination with a furnace, the perforated pipes arranged within the same beneath the grate bars, the pipe which is in juxtaposition with the bridge wall of the furnace having its perforations so arranged as to come directly between the grate bars, a steam supply, a valve for controlling the supply of steam admitted to the pipe in juxtaposition to the front of the furnace, and blow-off cocks for draining said pipes, substantially as herein shown and described. 4th. In combination with a furnace, the perforated pipes arranged within the same and secured to the walls thereof underneath the grate bars, a steam supply for said perforated pipes, a pipe at the front of the furnace and a pipe at the rear of the furnace having their perforations so arranged as to come directly between the grate bars, substantially as herein described. 5th. In combination with a furnace, the pipes *a*, *b*, *c* and *d*, connected together, and substantially of rectangular form within the furnace below the grate bars, a pipe d^1 connected to the pipes *a* and *d*, a blow-off pipe connected to the ends of the pipes *a* and *c*, said pipes *b* and *c* and *d* being provided with perforations at predetermined distances apart so the same will be opposite the openings in the grate, the said pipe d^1 being provided with perforations at predetermined distances apart so the same will be directly beneath the bars of the grate, a steam supply pipe suitably secured to said pipes *a* and *b*, said pipe *a* being provided with perforations at the central point, and valves for regulating the supply of steam, substantially as herein shown and described.

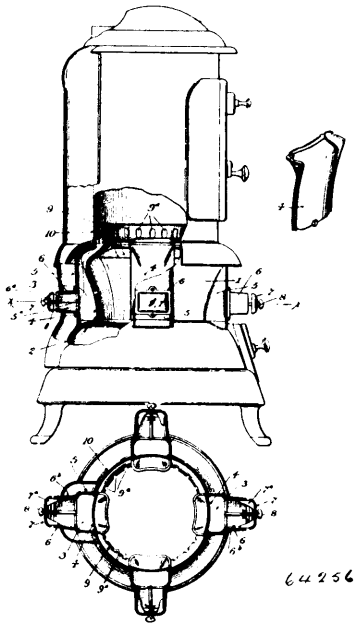
No. 64,255. Water Heating Apparatus.
(*Appareil à chauffer l'eau.*)



Albert Smith Markham, York, Ontario, Canada, 9th October, 1899; 6 years. (Filed 17th May, 1899.)

Claim.—1st In a water heating apparatus of the class described, the combination with the vertical fire chamber A, air pipe D, and stay rods GG, of the grate K, having supports MM, and projecting studs N, removably fitted within said fire chamber, all being constructed and arranged, substantially as and for the purposes specified. 2nd. In a water heating apparatus of the class described, the combination with the fire chamber A, air pipe D, and grate K, of the damper I, the spark arrester C, and the cap piece H, all being constructed and arranged, substantially as and for the purposes specified. 3rd. In a water heating apparatus, of the class described, the combination of the fire chamber A, air pipe D, grate K, with supports MM, and projections N, stay rods GG, damper I, spark arrester C, and cap piece H, with the barrel B, or its equivalent, all being constructed and arranged to operate, substantially as and for the purposes specified.

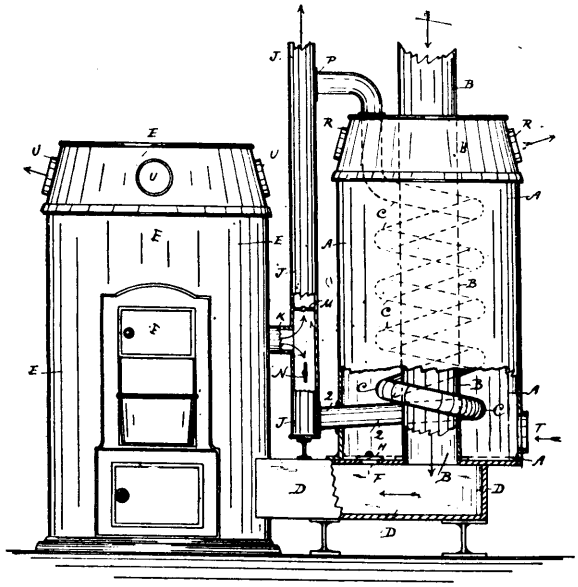
No. 64,256. Heating Stove. (*Poêle de chauffage.*)



James Barzillai Howard, Columbus, Ohio, U.S.A., 9th October, 1899; 6 years. (Filed 2nd June, 1899.)

Claim.—1st. In a stove, a fire pot 1, bulging outwardly at its upper part and having a contracted top, a hollow ring 9, located at the top of the fire pot and having openings 9^a, and a flue or flues 3, for heating air communicating with the hollow ring and bent inwardly, and being narrow or contracted at its upper end, the wall of the fire pot forming one side of said flue, substantially as shown and for the purpose described. 2nd. In a stove, a fire pot 1, bulging outwardly at its upper part, and having a contracted top, a hollow ring 9, located at the top of the fire pot and having opening 9^a, a flue or flues 3, for heating air communicating with the hollow ring, and bent inwardly and being narrow or contracted at its upper end, the wall of the fire pot forming one side of said flue, and inlet or duct 6, at the lower part of the flue 3, having bar 6^a, and groove 6^b, the valve or door 7, having splines or feathers to enter grooves 6^b, and a thumb screw 8, swivelled in said door, and threaded in the bar 6^a, substantially as and for the purpose shown and described.

No. 64,257. Hot Air Furnace. (*Fournaise à air chaud.*)



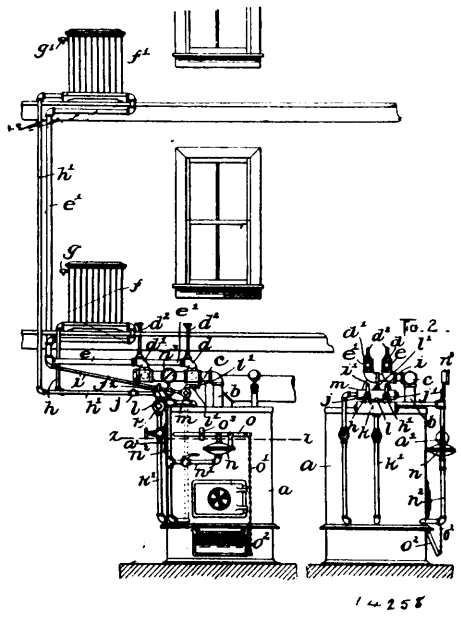
64257

Isaac L. Maude, Toronto, Ontario, Canada, 9th October, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—1st. An atmospheric chamber having a lower cold air duct, and located on the horizontal cold air duct of a hot air furnace, and connected thereto by means of a cold air duct running vertically through said chamber and to the cold air duct of the furnace, and a spiral pipe around said vertical cold air duct, in said chamber, the lower end of said spiral pipe extending and connecting with the lower part of the smoke pipe of the furnace, and the upper end of the spiral pipe extended through the upper part of said chamber, as described. 2nd. An atmospheric chamber provided with a vertical and centrally located cold air duct, the lower end of which connects to the cold air duct of a hot air furnace, a smoke pipe connected to the lower extension of the smoke pipe of the furnace, and extending in spiral form around said vertical air duct in said air chamber, to heat the same, and out at the top, and suitable smoke regulating dampers in said furnace smoke pipe, for the purposes set forth. 3rd. An atmospheric chamber located on the horizontal cold air duct of a hot air furnace, a cold air duct running vertically through said chamber and connecting to said air duct of the furnace an air opening, with regulating cut off, between said air chamber and the said horizontal cold air duct of the furnace, and a smoke pipe suitably connected to the smoke pipe of the furnace and extending in spiral form around said vertical cold air duct in said chamber, and out at the upper part thereof, as described. 4th. An atmospheric chamber heated on the horizontal cold air duct of a furnace, a cold air duct extending vertically through said chamber, and connecting to said furnace air duct, an opening into said chamber from said horizontal air duct, an air regulating cut off to said opening, and a smoke pipe extending in spiral form upward and around said vertical cold air duct and out, the lower end of said spiral pipe extending through the air chamber and connected to the lower part of the smoke pipe, provided with suitable smoke regulating dampers, for the purposes set forth.

No. 64,258. Vapour Heating System.

(*Système de chauffage à vapeur.*)



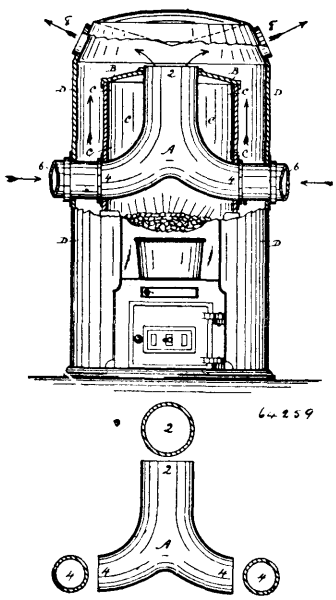
64258

Plummer Joel Henderson, Rochester, New York, U.S.A., 9th October, 1899; 6 years. (Filed 6th March, 1899.)

Claim.—1st. A heating apparatus, comprising a vapour generator, a damper regulator below the water line in the generator and controlled by the expansion of water in the generator, and a circulating system connected with the generator and including a radiator, a supply pipe, a return pipe, and an automatic air vent in the return pipe, whereby the pressure in said system is substantially atmospheric, and said apparatus may be made efficient by the generation of a low pressure steam or vapour. 2nd. A heating apparatus, comprising a vapour generator, a damper regulator below the water line in the generator and controlled by the expansion of water in the generator, and a circulating system connected with the generator and including a radiator, a supply pipe, a return pipe, an automatic air vent in the return pipe to keep the pressure in the system substantially atmospheric, and a separate return pipe for the drip or drainage from the supply pipe. 3rd. A heating apparatus, comprising a vapour generator, a damper regulator below the water line in the generator and controlled by the expansion of water in the generator, and a circulating system connected with the generator and including a radiator, a supply pipe, a return pipe, an automatic air vent in the return pipe to keep the pressure in the system substantially atmospheric, a separate return pipe for the drip or drainage from the supply pipe, and an automatic air vent in the drainage pipe. 4th. A heating apparatus comprising a vapour generator, a damper regulator below the water line in the generator and control-

led by the expansion of water in the generator, and a circulating system connected with the generator and including a radiator, a supply pipe connecting the dome of the generator with the radiator, two headers located above the water line and connected independently with the generator and each having an automatic air vent, two separate return pipes, one connecting one of the headers with the supply pipe, and the other with the radiator, whereby one header receives the drip or drainage from the supply pipe and the latter is kept free from water of condensation for the passage of low tension steam or vapour, while the other header receives the water of condensation from the radiator. 5th. A heating apparatus, comprising a generator having a suitable dome, a damper regulator controlled by the expansion of water located below the water line of the generator, a plurality of radiators, a supply pipe connecting each radiator with the dome, a plurality of return pipes leading from said radiators, a header above the water line, into which said return pipes lead, said header communicating with the generator, a pipe for conducting the drip or drainage from each of the supply pipes, a second header above the water line, into which the drainage pipes lead, said second header also communicating with the generator, and an automatic air vent in the said second header.

No. 64,259. Hot Air Furnace. (*Fournaise à air chaud.*)



John Booker, Hamilton, Ontario, Canada, 9th October, 1899 years. (Filed 30th March, 1899.)

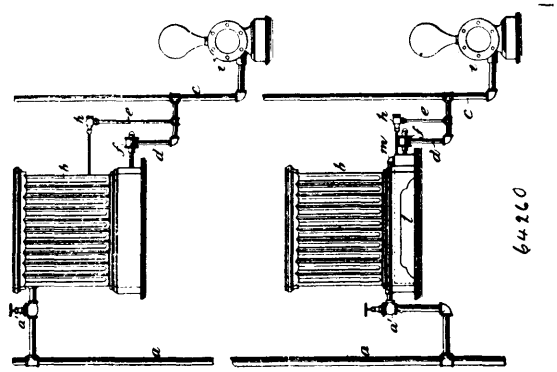
Claim.—1st. In a hot air furnace, a generator capable of receiving cold air, having it heated, and distributed to the upper part of the dome top air chamber, substantially as described. 2nd. In a hot air furnace, a generator of double elbowed form, located immediately above the fire pot, and capable of receiving air from the exterior, heating and distributing the same to the upper part of the dome top air chamber of the furnace for the purposes set forth. 3rd. A generator of suitable shape and material arranged immediately above the fire pot of a hot air furnace, said generator having elbows, or branches, to receive cold air and a central part extending vertically through the fire dome to give and distribute hot air to the upper part of the dome top air chamber of the furnace, substantially as set forth.

No. 64,260. Steam Heating System.

(*Appareil de chauffage à vapeur.*)

Andrew Greenlear Paul, Boston, Massachusetts, U.S.A., 9th October 1899; 6 years. (Filed 11th April, 1899.)

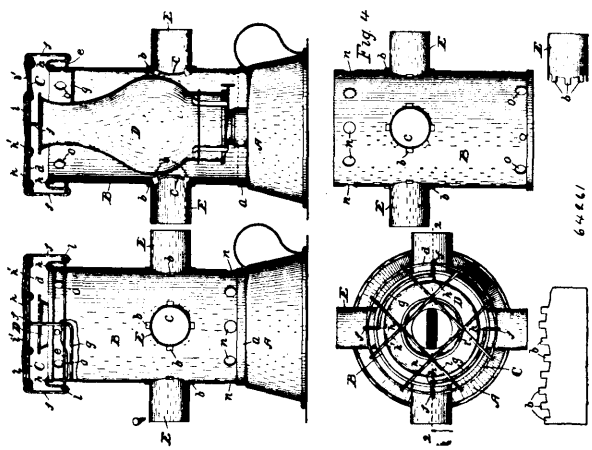
Claim.—1st. The combination with a heating system, comprising a radiator or heater, and a supply pipe, of a discharge pipe having a branch or passage connected with that part of the system where the water of condensation collects, and an automatic steam trap in said branch, and a second branch or passage connected with the system on the supply side of the steam trap above the point where the water of condensation ordinarily collects, and an exhausting device connected with the discharge pipe whereby the water of condensation is intermittently discharged through the first branch and the air is discharged through the second branch, substantially as set forth. 2nd. The combination with a heating system, comprising a radiator or heater and a supply pipe, of a discharge pipe having a branch or passage connected with that part of the system where the water of condensation collects, and an automatic steam trap in said branch, and a second branch or passage connected with the system on the supply side of the steam trap above the point where the water of condensation ordinarily collects, and an automatic air valve in



said branch, and an exhausting device connected with the discharge pipe, whereby the water of condensation is intermittently discharged through the second branch, substantially as set forth. 3rd. The combination with a heating system, comprising a radiator or heater and a supply pipe, of a discharge pipe having a branch connected with the lower part of the radiator or heater, an automatic steam trap consisting of a valve device in said branch, and a second branch connected with the radiator or heater above the point where the water of condensation ordinarily collects, a trap consisting of a valve device in the discharge pipe, a relief pipe connected with the discharge pipe, and an exhauster with which the relief pipe is connected, substantially as set forth. 4th. The combination with a heating system, comprising a radiator or heater and a supply pipe, of a discharge pipe having a branch connected with the lower part of the radiator or heater, an automatic steam trap consisting of a valve device in said branch, and a second branch connected with the system on the supply side of the steam trap above the point where the water of condensation ordinarily collects, an automatic air valve in said branch, a trap consisting of a valve device in the discharge pipe, a relief pipe connected with the discharge pipe and an exhauster with which the relief pipe is connected, substantially as set forth. 5th. The combination with a heating system, comprising a radiator or heater and a supply pipe, of a discharge pipe having a branch connected with the lower part of the radiator or heater, an automatic steam trap consisting of a valve device in said branch, and a second branch connected with the system on the supply side of the steam trap above the point where the water of condensation ordinarily collects, an automatic air valve in said branch, a trap consisting of a valve device in the discharge pipe, a relief pipe connected with the discharge pipe and provided with a restricted passage, and an exhauster with which the relief pipe is connected, substantially as set forth.

No. 64,261. Egg Tester and Cooker.

(*Appareil à éprouver et cuire les œufs.*)

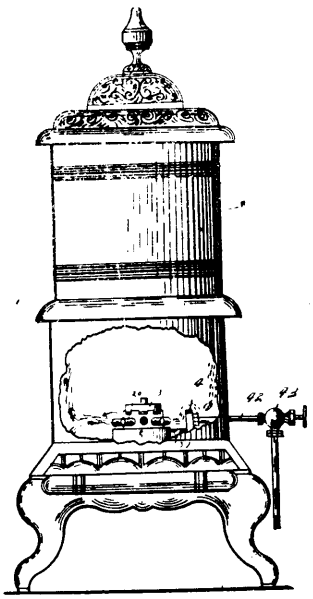


Willard Upton, Rochester, New York, U.S.A., 9th October, 1899; 6 years. (Filed 26th April, 1899.)

Claim.—1st. The combination, in an egg tester and cooker, of a lamp, a cylinder held by the lamp, having side openings and lateral projecting tubes, and an open frame on the cylinder above the lamp, all substantially as set forth. 2nd. In an egg testing and cooking device, the combination of a lamp formed with an upwardly projecting band, a cylinder on the lamp engaged by the band, having side openings and an open wire frame at the top of the cylinder, having parts projecting downward from the upper end of

the cylinder both within and without the latter, substantially as specified. 3rd. The combination of a lamp, a cylinder and an open frame, the latter having two similar and parallel rings connected by standards engaging the cylinder, one ring being below and the other above the ends of the cylinder, the standards projecting downward within the cylinder and connected therein, substantially as shown and described.

No. 64,262. Hydrocarbon Oil Vaporizer and Burner.
(*Foyer à hydro-carbures.*)



64262

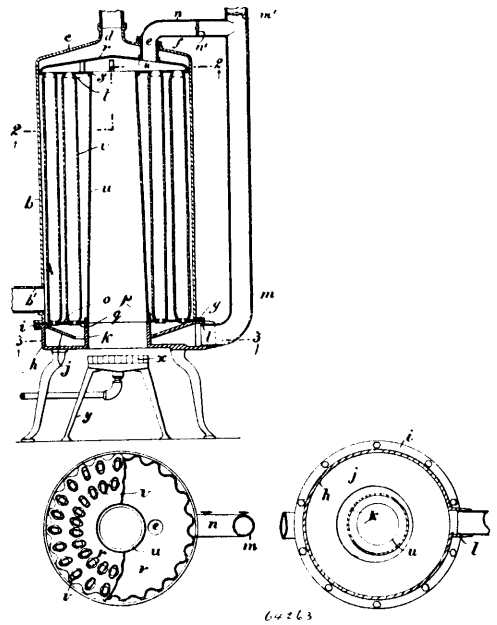
Eugene Ora Daniels, Tiffin, Ohio. U.S.A., 9th October, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—1st. In an apparatus for vaporizing and burning hydrocarbon oils, the combination with a burner, comprising a mixing chamber provided with a vapor inlet, a perforated cap located within the chamber and detachably arranged over said inlet, a series of radial burner tubes communicating with the chamber, said tubes having vertical air spaces formed between them constituting air inlets to the mixing chamber, and a deflecting cap arranged over the burner. 2nd. In an apparatus for vaporizing and burning hydro carbon oils, the combination with a drippings receptacle adapted to receive an oil absorbent and provided with a central opening, and a vapor pipe leading into said opening, of a burner mounted upon and supported by the receptacle, said burner being provided with a series of horizontally arranged radial burner tubes, and having a vapor inlet with which one end of the vapor pipe communicates, and a substantially disc shaped retort having passages therein, communicating with the other end of said vapor pipe, said retort being arranged at one side of the burner and receptacle, with one of its flat faces in proximity to, and in direct alignment with one of the horizontal burner tubes. 3rd. In an apparatus for vaporizing and burning hydrocarbon oils, the combination with the drippings receptacle provided with a central opening, and an outer and inner annular flange, said flanges forming a trough for non-combustible absorbent material, a vapor pipe arranged across the central opening and extending through the flanges, a plug at one end of the pipe, a tubular stem extending from the pipe at or near its center, a retort communicating with the other end of said pipe, and a burner proper arranged upon the receptacle, said burner being provided with a central opening within which the tubular stem extends. 4th. In an apparatus for vaporizing and burning hydro carbon oils, the combination with the drippings receptacle having a central opening therein, and an outer and inner annular flange, said flanges forming a trough for a non-combustible absorbent, a vapor pipe arranged across the central opening and extending through the flanges, a plug in one end of said pipe, a retort communicating with the other end thereof, a burner proper arranged upon the inner flange of the receptacle, and a pipe connection between said burner and the vapor pipe, substantially as described.

No. 64,263. Heater. (*Chauffeur.*)

Thomas Patton Shaw, Montreal, Quebec, Canada, 9th October, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—1st. In a heater, the combination with the casing thereof and a pipe leading from the interior to the exterior of said casing, of a flexible connection between said pipe and the casing, for the purpose set forth. 2nd. In a heater, having tubular passages through the interior thereof, of means for abruptly diminishing the exit ends of said tubular passages, for the purpose set forth. 3rd. In a heater, having tubular passages through the interior thereof, of



64263

nipples for abruptly diminishing the exit ends of said tubular passages, substantially as and for the purpose set forth. 4th. A heater, consisting of a casing having flow and return connections, a diaphragm cutting off the lower portion of said casing, said lower portion being of annular dish form, a hollow head located within said casing near the top thereof, a tubular connection extending from the opening in said lower portion to an opening in the bottom of said hollow head, a series of pipes connecting openings in said diaphragm to corresponding openings in the bottom of said head, a series of nipples located in the exit ends of said pipes, a pipe connected to the edge of an opening in the upper side of said head and extending through an opening in the top of the casing to the chimney connection, and a stuffing box carried by said opening in the casing, substantially as described and for the purpose set forth. 5th. A heater, consisting of a casing having flow and return connections, a diaphragm cutting off the lower portion of said casing, said lower portion being of annular dish form, a hollow head located within said casing near the top thereof, a tubular connection extending from the opening in said lower portion to a central opening in the bottom of said hollow head, a series of pipes elliptical in cross section and connecting a series of openings in said diaphragm to corresponding openings in the bottom of said head, said elliptical pipes being arranged tangentially of said central tubular section, a series of nipples located in the exit ends of said pipes, a pipe connected to the edge of an opening in the upper side of said head and extending through an opening in the top of the casing to the chimney connection, substantially as described and for the purpose set forth. 6th. A heater, consisting of a casing having flow and return connections, a heat generator, a chimney connection, means communicating with said heat generator for confining the heat within and distributing it through at the interior of said casing, a tubular conductor extending from the interior of said heat distributor through the casing to the chimney connection, and a yielding connection between said tubular conductor and casing, substantially as and for the purpose set forth. 7th. A heater, consisting of a casing having flow and return connections, a diaphragm cutting off the lower portion of said casing, said lower portion being of annular dish form, a hollow head located within said casing near the top thereof, a tubular connection extending from the opening in said lower portion to an opening in the bottom of said hollow head, a series of pipes connecting openings in said diaphragm to corresponding openings in the bottom of said head, a pipe connected to the edge of an opening in the upper side of said head and extending through an opening in the top of the casing to the chimney connection, and a stuffing box carried by said opening in the casing, substantially as described and for the purpose set forth. 8th. A heater, consisting of a casing having flow and return connections, a diaphragm cutting off the lower portion of said casing, said lower portion being of annular dish form, a hollow head located within said casing near the top thereof, a tubular connection extending from the opening in said lower portion to a central opening in the bottom of said hollow head, a series of pipes elliptical in cross section and connecting a series of openings in the bottom of said head, said elliptical pipes being arranged tangentially of said central tubular section, a pipe connected to the edge of an opening in the upper side of said head and extending through an opening in the top of the casing to the chimney connection,

substantially as described and for the purpose set forth. 9th. A heater, consisting of a casing having flow and return connections, a diaphragm cutting off the lower portion of said casing, said lower portion being of annular dish form, a hollow head located within said casing near the top thereof, a tubular connection extending from the opening in said lower portion to a central opening in the bottom of said hollow head, a series of pipes elliptical in cross section and connecting a series of openings in said diaphragm to corresponding openings in the bottom of said head, said elliptical pipes being arranged tangentially of said central tubular section, a pipe connected to the edge of an opening in the upper side of said head and extending through an opening in the top of the casing to the chimney connection, and a stuffing box carried by said opening in the casing, substantially as described and for the purpose set forth. 10th. A heater, consisting of a casing having flow and return connections, a diaphragm cutting off the lower portion of said casing, said lower portion being of annular dish form, a diaphragm of truncation conical form connection at its edge to the top of said bottom portion, a pipe leading from the said lower portion to the chimney connection, a hollow head located within said casing near the top thereof, a tubular connection extending from the opening in said lower portion to a central opening in the bottom of said hollow head, a series of pipes elliptical in cross section and connecting a series of openings in said diaphragm to corresponding openings in the bottom of said head, said elliptical pipes being arranged tangentially of said central tubular section, a branch pipe connected to the edge of an opening in the upper side of said head and extending through an opening in the top of the casing to the said first mentioned pipe, and a stuffing box carried by said opening in the casing, substantially as described and for the purpose set forth. 11th. In a heater, the combination with the casing thereof and a pipe leading from the interior to the exterior of said casing, of a stuffing box encircling said pipe and carried by the casing, substantially as and for the purpose set forth. 12th. A heater, consisting of a casing having flow and return connections, a diaphragm cutting off the lower portion of said casing, said lower portion being of annular dish form, a pipe leading from the said portion to the chimney connection, a hollow head located within said casing near the top thereof, a tubular connection extending from the opening in said lower portion to a central opening in the bottom of said hollow head, a series of pipes elliptical in cross section and connecting a series of openings in said diaphragm to corresponding openings in the bottom of said head, said elliptical pipes being arranged tangentially of said central tubular section, a branch pipe connected to the edge of an opening in the upper side of said head and extending through an opening in the top of the casing to the said first mentioned pipe, a diaphragm of truncation conical form connected at its edge to the top of said bottom portion, the opening through said diaphragm being eccentrically encircling said central tube, and a stuffing box carried by said opening in the casing, substantially as described and for the purpose set forth.

No. 64,264. Cheese Manufacture.

(*Fabrication de fromage.*)

William Furmage Palmer, Wandsworth, Surrey, England, 9th October, 1899; 6 years. (Filed 27th January, 1899.)

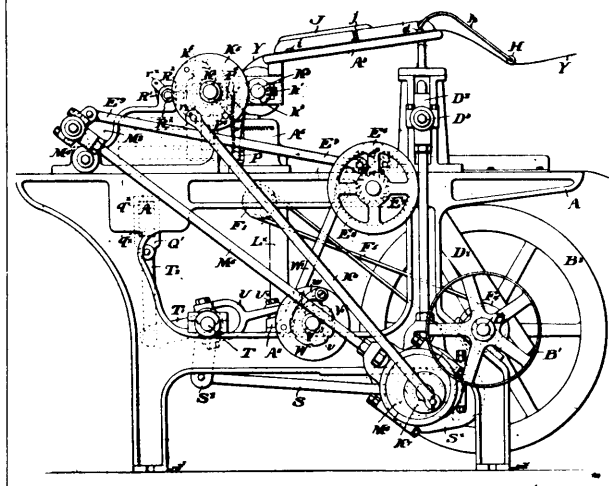
Claim.—1st. In the process of cheese manufacture the addition to and thorough incorporation with the curds before the final pressing or moulding of same, of essential oil of celery seed, substantially as set forth. 2nd. Cheese containing essential oil of celery seed, in intimate admixture, substantially as set forth.

No. 64,265. Manufacture of Cell Cases.

(*Confection d'aréoles.*)

George William Swift, jr., Bordenstown, New Jersey, U.S.A., 9th October, 1899; 6 years. (Filed 11th February, 1899.)

Claim.—1st. In a cell case machine, the combination with feeding mechanism for a paper web, of perforating mechanism having means to produce a transverse series of unaligned or divergent slots in said web, the corresponding slots of each series being longitudinally disposed in said web, mechanism to divide said web longitudinally in strips, mechanism to twist said strips at right angles to the plane of said web, and mechanism to converge said strips with said perforations in straight transverse alignment, substantially as set forth. 2nd. In a cell case machine, the combination with feeding mechanism for the longitudinal and transverse strips of the cell case fabric, of mechanism to notch said strips, mechanism comprising a stationary matrix to flex the edges of said notches, and mechanism co-operative with said stationary matrix to interengage the flexed strips, substantially as set forth. 3rd. In a cell case machine, the combination with feeding mechanism for cell case fabric of shearing mechanism comprising two relatively movable blades, knife edged notches in said blades, to receive the cell walls, mechanism to shift said blades to embrace said walls, and mechanism to effect the shearing operation of said blades, substantially as set forth. 4th. In a cell case machine, the combination with feeding mechanism for the cell case fabric, of shears for said fabric adapted to be intermittently operated in a predetermined sequence with respect to the intermittent operation of said feeding mechanism, by the following instrumentalities, a rock shaft, an arm fixed upon said rock shaft and linked to said shears, a second arm loosely journalled upon said rock shaft, mechanism to oscillate said loosely journalled arm, clutch members upon



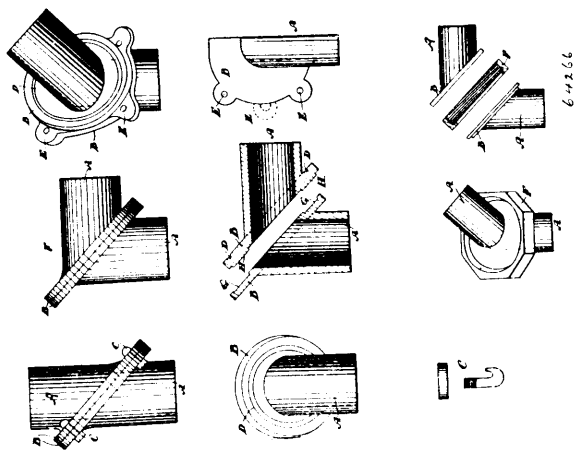
64265

the respective opposed faces of said fixed and loose arms, and a cam to effect the interengagement of said clutch members, and the consequent operation of said shears, at predetermined intervals, substantially as set forth. 5th. In a cell case machine, the combination with feeding mechanism for the cell case fabric, of a pair of shear blades, yokes for the opposite extremities of said blades, means to reciprocate said blades in said yokes, to shear said fabric, substantially as set forth. 6th. In a cell case machine, the combination with feeding mechanism for the cell case fabric, of a pair of shear blades, yokes for the opposite extremities of said blades, slideways for said yokes, mechanism to reciprocate said yokes in said slide ways, and mechanism to relatively shift said two blades to shear said fabric, substantially as set forth. 7th. In a cell case machine, the combination with feeding mechanism for the cell case fabric, of a pair of shear blades, yokes for the opposite extremities of said blades, slideways for said yokes, mechanism to reciprocate said yokes in said slide ways, and a fixed cam to relatively shift said two blades to shear said fabric, substantially as set forth. 8th. In a cell case machine, the combination with feeding mechanism for the cell case, of a pair of shear blades, having registered knife edged notches, yokes for the opposite extremities of said blades, slideways for said yokes, roller bearings in said yokes for said blades, mechanism to reciprocate said yokes, and mechanism to reciprocate said blades in said yokes upon said roller bearings, to open and close said notches, substantially as set forth. 9th. In a cell case machine, the combination with mechanism to assemble the longitudinal and transverse strips of the cell case fabric, of a plate to support said fabric, a reciprocatory plunger provided with a plate head opposed to said supporting plate, and mechanism to effect the intermittent impingment of said plunger upon said fabric, substantially as set forth. 10th. In a cell case machine, the combination with mechanism to assemble the longitudinal and transverse strips of the cell case fabric, of a plate to support said fabric, a reciprocatory intermittently impinging plunger opposed to said supporting plate, and shearing mechanism to sever said fabric during said impinging action, substantially as set forth. 11th. In a cell case machine, the combination of the following instrumentalities to remove the curl normally existing in the paper web, a suspended roller adapted to gravitate against the convex face of said web, a plane face guideway for said web, a presser block mounted in said guideway to bear upon said web, and feeding mechanism to shift said web beneath said suspended roller and said presser block, substantially as set forth. 12th. In a cell case machine, the combination with mechanism to perforate and form the transverse strips of the cell case fabric, of mechanism to form the longitudinal strips with a succession of similar regular series of perforations or notches therein, the intervals between said successive series being less than the regular intervals between the respective perforations in each series, mechanism to insert the transverse strips in succession in the perforations or notches of the longitudinal strips, and shearing mechanism to sever the cell case fabric thus formed, intermediate of said diminished intervals, substantially as set forth. 13th. In a cell case machine, paper web feeding mechanism for intermittent operation, comprising opposed feeding rollers to grip the said web, a train of driving mechanism for said rollers comprising a ratchet wheel with equal spaced teeth, a reciprocatory pawl for engagement with said ratchet teeth, and an eccentric to intermittently lift said pawl from said ratchet teeth, and thus effect a diminished interval in the feeding operation, substantially as set forth. 14th. In a cell case machine, the combination with a fixed punching die provided with a shear blade, of a moving punching die provided with a shear blade, and overlapping fingers upon the extremities of said blades to insure their proper alignment, substantially as set forth. 15th. In a cell case machine, the combination with mechanism to assem-

ble the longitudinal and transverse strips of a cell case fabric, of a supporting table for said fabric, a plunger provided with a plate head, and mechanism to intermittently and positively thrust said plunger against the transverse strips of said fabric, substantially as set forth. 16th. In a cell case machine, the combination with an intermittent feeding mechanism for the cell case fabric, of slideways for an impinging plunger, a reciprocatory plunger mounted in said slideways, and a plate head upon said plunger, adapted to successively impinge upon the transverse strips of said fabric, substantially as set forth. 17th. In a cell case machine, the combination with a series of separate paper web feed rollers, each provided with a circular shearing plate, of a terminal roller for said series provided with two circular shearing plates, and a similar reversed series of said rollers opposed to the first series and provided with a similar terminal roller, substantially as set forth. 18th. In a cell case machine, the combination in a train of gearing normally operative of opposed paper feed rollers, of a ratchet wheel, a driving pawl for said ratchet wheel, and a spring detent for said pawl whereby the latter may be maintained in idle position at the will of the operator, substantially as set forth. 19th. In a cell case machine, the combination with feeding mechanism for the cell case strips, of mechanism to notch or perforate said strips, a fixed conduit for said strips, and an oscillatory former adapted to bend the edges of the notches in said strips against the wall of said fixed conduit, substantially as set forth. 20th. In a cell case machine, the combination with a female punching die, of a waste chamber beling said die, and a conveyor mounted in said waste chamber to deliver the waste clippings from said die, exterior to said chamber, substantially as set forth. 21st. In a cell case machine, the combination with mechanism to feed separate paper webs, of mechanism to perforate said webs, mechanism to interengage the perforated portions of the respective webs whilst said portions are in integral relation with said webs, and mechanism to sever said perforated portions from the respective webs, subsequent to their interengagement, substantially as set forth. 22nd. In a cell case machine, the combination with mechanism to feed separate paper webs, of mechanism to perforate said webs, mechanism to flex the edges of the perforations in the respective webs, mechanism to interengage the flexed portions of the respective webs before said portions are severed from the respective webs, and mechanism to sever said perforated portions from the respective webs subsequent to their inter-engagement, substantially as set forth. 23rd. In a cell case machine, the combination with mechanism to feed two paper webs, of mechanism to perforate said webs, mechanism to divide one of said webs into longitudinal strips, mechanism to transversely engage the integral forward edge of the second web with the perforations in the longitudinal strips of the first web, and mechanism to subsequently sever from the body of said second web the portion thereof thus engaged with the strips of the first web, substantially as set forth. 24th. In a cell case machine, the combination with mechanism to feed two paper webs, of mechanism to perforate said webs with successive series of perforations, mechanism to divide one of said webs into longitudinal strips, mechanism to successively present the successive series of perforations in the strips of said first web for engagement with the integral forward edge of the second web, and mechanism to successively sever from the body of said second web the forward edge portions successively engaged with the first web, subsequently to the respective engagement thereof, substantially as set forth. 25th. In a cell case machine, the combination with mechanism to feed a notched paper strip, of a matrix through which said strip is fed, whereby the edges of its respective notches are flexed, said flexing operation being effected by opposed relatively fixed members of said matrix, substantially as set forth.

No. 64,266. Elbow Coupling for Pipes.

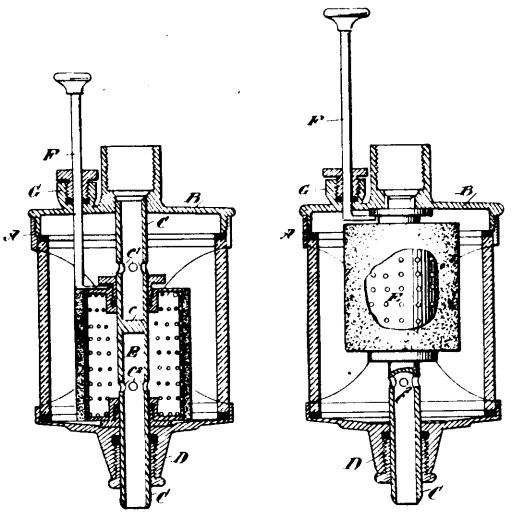
(*Joint de coude pour tuyaux.*)



Arthur Ernest Osler, Toronto, Ontario, Canada, assignee of Homer Vincent Williams, El Oro, Mexico, 10th October, 1899; 6 years. (Filed 15th July, 1899.)

Claim.—1st. An adjustable elbow coupling or joint for pipes, comprising the body portions having suitable flanges extending outwardly therefrom and having the plane thereof at an angle of forty-five degrees to the axis of the pipe whereby any angle between ninety and one hundred and eighty degrees may be formed, as and for the purpose specified.

No. 64,267. Faucet Filter. (*Filtre.*)



64267

William Henry Vance, San Francisco, California, U.S.A., and Emily Ruby Houston, Victoria, British Columbia, Canada, 10th October, 1899; 6 years. (Filed 12th July, 1899.)

Claim.—1st. In a filter, an exterior casing, a pipe or passage extending through the casing having a diaphragm interposed in its length between the top and bottom of the casing, openings through the sides of the pipe, both above and below the diaphragm, a hollow filter chamber, the ends of which fit slidably and closely upon the tube, and means for sliding the chamber so that the openings in the tube may be exposed above or within the chamber, and the openings below correspondingly exposed within or below the chamber. 2nd. In a filter, an exterior casing, a tube extending through the chamber adapted to receive the supply at the upper end and discharge it exterior to the casing at the lower end, a diaphragm formed in the length of the tube within the casing, openings from the tube into the casing above and below the diaphragm, a foraminous filter chamber having closed ends slidable and forming a tight joint upon the central tube, and a connection whereby the chamber may be moved so as to expose the openings in the tube to admit water exterior to the chamber and the openings below the tube to convey the water away from the interior of the chamber, or by reversing the position of the chamber, to admit water to the interior of the chamber through the upper openings and discharge it through the lower openings exterior to the chamber. 3rd. In a filter of the character described, an exterior casing having a hollow tube extending through it with inlet opening at the top and discharge opening at the bottom, a diaphragm closing the tube at a point intermediate between the ends of the casing, passages opening from the tube into the casing both above and below the diaphragm, a slidable hollow filter chamber fitting water tight about the tube, and a sliding rod passing through the stuffing box in the outer casing and connecting with the filter chamber, whereby the latter may be moved upon the tube to enclose the inlet passages and expose the outlet passages below, or to expose the inlet passages above and inclose the outlet passages.

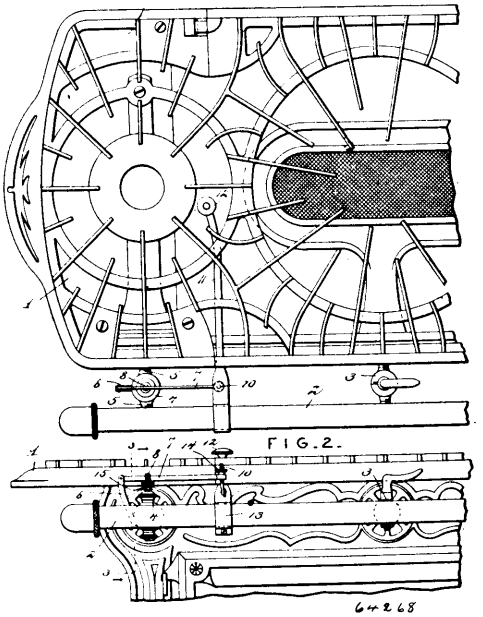
No. 64,268. Cut-Off for Gas Stoves.

(*Détente pour poêles à gaz.*)

Clifford Barganium and Oliver D. Batchelor both of Newport News, Virginia, U.S.A., 10th October, 1899; 6 years. (Filed 27th May, 1899.)

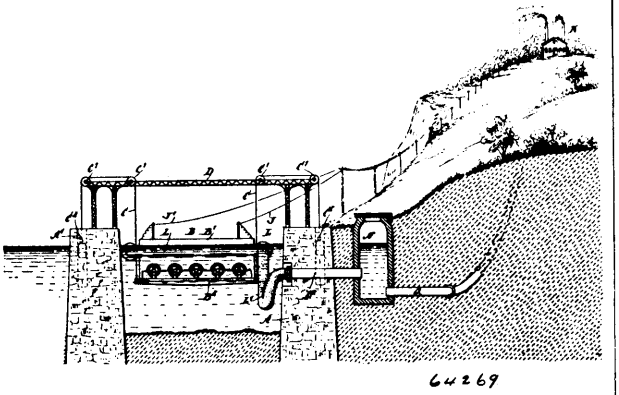
Claim.—1st. As an article of manufacture, an automatic cut-off attachment for gas stoves, comprising a valve casing having oppositely disposed nipples, and a bracket, a valve, a valve operating arm, a spring arm carrying a knob or plate, and a socket for grasping the gas supply pipe of a stove, and means for coupling the spring arm and the valve operating arm, substantially as described. 2nd. As an article of manufacture, an automatic cut-off attachment for gas stoves, comprising a valve seat having oppositely disposed nipples for convenient connection between the

gas supply pipe and the burner passage of a stove, and having a bracket projecting upwardly, a valve, a valve operating arm, a



spring arm carrying at one extremity a knob, and having at the other extremity a clamping socket for embracing the supply pipe of a stove, and means for adjustably coupling the spring arm and the valve operating arm. 3rd. In automatic cut-offs for gas stoves, the combination of a valve, means for automatically opening and closing said valve, consisting of a spring arm carrying an upwardly projecting knob at one end, a valve operating arm, and a link connecting the spring and the valve operating arms, substantially as described. 4th. In automatic cut offs for gas stoves, the combination of a valve and means for automatically partially opening and partially closing said valve, consisting of a spring arm carrying an upwardly projecting knob or plate, a valve operating arm, a link for coupling the spring arm and the valve operating arm, and means for adjusting the levers with relation to each other, substantially as described.

No. 64,269. Filter. (*Filtre.*)

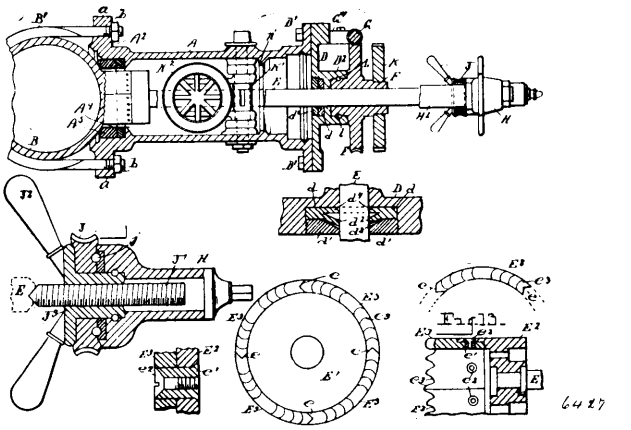


Charles Valentin Ferdinand Ludwig and Gustav Cramer, both of St. Louis, Missouri, U.S.A., 10th October, 1899; 6 years. (Filed 26th April, 1899.)

Claim.—1st. A filter, having a filtering wall constructed with arches, and revoluble brushes in contact with the arch surfaces. 2nd. A filter, having a filtering wall constructed with arches, revoluble brushes in contact with the arch surfaces, and propellers operatively connected with the brushes and arranged to be actuated by the current. 3rd. A filtering apparatus, provided with a filter held in the source of water supply and provided in its lower portion with inlets for the water, a filter bed in said filter above the inlets, a collecting reservoir in said filter above the bed, so that the water from the source of supply is forced up through the filter bed into the reservoir by the pressure of the water from the source of supply, the filter bed comprising a stone, brick, tile or like porous material bottom, and a loose filtering material on said bottom, substantially as shown and described. 4th. A filter arranged for immersion in running water, and provided with revoluble cleaning brushes, and propellers operatively connected with the brushes and arranged to be actuated by the current. 5th. A filtering apparatus, provided with a filter arranged for immersion in the source of water supply, and a bottom made of a solid but porous material and formed with arches, and revoluble brushes in contact with the arch surfaces, to keep the same clean and free from sediment, substantially as shown and described. 6th. A filtering apparatus, provided with a filter arranged for immersion in the source of water supply, and having a bottom made of solid but porous material and formed with arches, revoluble brushes in contact with the arch surfaces, to keep the same clean and free from sediment, and propeller wheels on the shafts of the said brushes for rotating the same by the current of water, substantially as shown and described.

No. 64,270. Pipe Tapping and Connecting Device.

(*Appareil à tarauder et joindre les tuyaux.*)

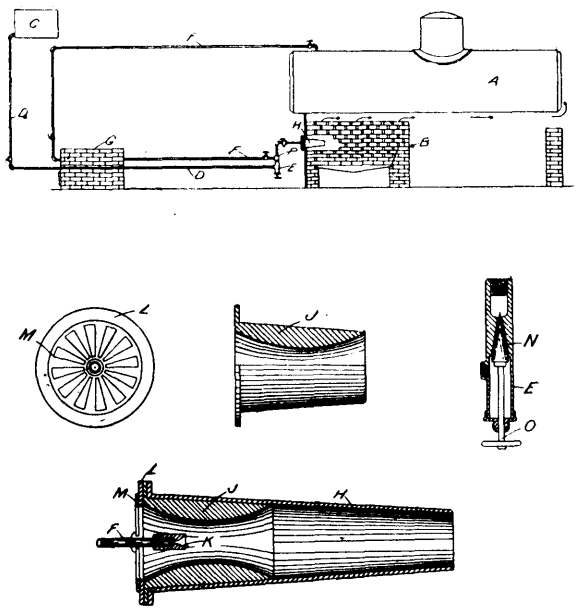


Solon G. Howe and David Inglis, both of Detroit, Michigan, U.S.A., 10th October, 1899; 6 years. (Filed 13th March, 1899.)

Claim.—1st. The combination of a sleeve provided with a gate, cutting mechanism, a worm to drive the cutting mechanism, a non-rotatable feed screw, a feed nut, a feeding gear upon said nut, a worm to drive said cutting mechanism and said feeding gear, and interchangeable gears intermediate said worm and feeding gear, substantially as described. 2nd. The combination of a pipe, a sleeve provided with a gate, means to secure the combined sleeve and gate upon the pipe, compressible packing to act as a cushion between the sleeve and the pipe and to take the water pressure and the lead packing outside the compressible packing, substantially as described. 3rd. The combination of a sleeve provided with a gate, means to secure the sleeve upon a pipe, cutting mechanism and the interchangeable feeding mechanism, having a feed screw, a gear to drive the screw, and a worm to mesh with said gear, said worm movable into and out of mesh with said gear, substantially as described. 4th. The combination of a sleeve provided with a gate, means to secure the sleeve upon a pipe, cutting mechanism and the interchangeable feeding mechanism, having a feed screw, a gear to drive the feed screw, an oscillatory worm to mesh with said gear, and a movable bearing carrying said worm, substantially as described. 5th. The interchangeable feeding mechanism herein set forth, having in combination a pressure bar, a feed screw, gear to drive the feed screw, an oscillatory worm to mesh with said gear, and a movable bearing provided with a locking pin having a movable engagement with said pressure bar, substantially as described. 6th. The feeding mechanism herein set forth, having in combination a pressure bar, a feed screw, a feed nut thereupon constructed with an annular grove, a gear upon the feed nut, and a locking pin passed through the pressure bar into said annular groove, substantially as described. 7th. The combination of a mandrel provided with a cutter head, mechanism to drive the mandrel, a head plate constructed with a collar, a gear provided with a hub constructed with an annular groove engaged upon said mandrel, and projecting within the collar of the head plate, and a locking pin passed through said collar and projecting into said groove, substantially as described. 8th. The combination of a mandrel provided with a cutter head, a gear mounted thereupon, the bar H^1, a gear upon said bar meshing with the gear upon the mandrel, a hub carrying the gear upon said bar constructed with an annular groove, a locking collar engaging said hub and a locking pin passed through said collar engaging said groove, substantially as described. 9th. The combination of a sleeve, a head plate, cutting mechanism, a driving device to actuate the cutting mechanism, a pressure bar, a feed screw, feeding mechanism to drive said screw, and bars connecting the pressure bar with said head plate, said pressure bar having a removable engagement upon said bars, substantially as described. 10th. The combination of a sleeve provided with a gate, a head plate, cutting mechanism, a driving device to actuate the cutting mechanism, a pressure bar, a feed screw, feeding mechanism to drive said feed screw, bars connecting the pressure bar with said head plate, said pressure bar provided with hooks to

engage the cutting bars, and a nut upon each of said cutting bars to hold the pressure bar in place, substantially as described. 11th. The combination of a sleeve provided with a gate, cutting mechanism, a worm to drive the cutting mechanism, a feed screw, a feed nut thereupon, a feeding gear upon said nut, and an additional worm meshing with said feeding gear, said latter worm driven by the first mentioned worm, substantially as described. 12th. The combination of a sleeve provided with a gate, cutting mechanism, a driving device to drive said cutting mechanism, a feed screw, a feed nut thereupon, a feeding gear upon said nut, and a worm meshing with said feeding gear, said worm driven by said driving device, substantially as described. 13th. The combination of a sleeve provided with a gate, cutting mechanism, a driving device to drive said cutting mechanism, a feed screw, a feed nut thereupon, a feeding gear upon said nut, a worm meshing with said feeding gear, end gear to drive said worm driven by said driving device, substantially as described. 14th. The combination of a sleeve provided with a gate, cutting mechanism provided with a rotatable reciprocating mandrel, a driving gear upon the mandrel, a worm to drive said gear, a non-rotatable reciprocating feed screw to advance the mandrel, and adjustable gear driven by said worm to advance the feed screw, the mandrel and feed screw located end to end, substantially as described. 15th. The combination of a sleeve provided with a gate, cutting mechanism, a driving device to drive the cutting mechanism, a feed screw, a gear to drive said feed screw, and a worm actuated by said driving device to actuate said gear, said worm movable into and out of mesh with said gear, substantially as described. 16th. The combination of a sleeve provided with a gate, cutting mechanism, a driving device to actuate the cutting mechanism, and automatic feeding mechanism provided with a non-rotatable feed screw and with interchangeable and adjustable gears, substantially as described. 17th. The combination of a sleeve provided with a gate, cutting mechanism provided with a rotatable reciprocatory mandrel, a head plate carrying the cutting mechanism, a worm upon the head plate to drive the cutting mechanism, feeding mechanism provided with a non-rotatable reciprocatory feed screw to advance the mandrel, means driven by said worm to automatically advance the feed screw, and means for actuating the feeding mechanism by hand, and means for automatically actuating the feeding mechanism arranged to be thrown into and out of operation, the mandrel, and feed screw located end to end, substantially as described. 18th. The combination of a reciprocatory mandrel, a support through which the mandre reciprocates, a bifurcated flexible packing ring located about the mandrel, and a nut spaced from the mandrel to hold the packing ring in place and forming a chamber between the nut and the packing ring, substantially as described. 19th. In a pipe tapping and connecting device, the combination of a sleeve provided with a gate, engageable on the pipe, a supporting plate, and means to secure the supporting plate and sleeve upon the pipe, said plate and sleeve arranged to permit the insertion of caulking tools between the plate and sleeve, substantially as described. 20th. In a pipe tapping and connecting device, the combination of a sleeve provided with a gate, engageable thereupon, a supporting plate, and a packing between the sleeve and the adjacent edges of the plate, substantially as set forth. 21st. In combination, a mandrel, provided with a cutter head, driving gear mounted thereupon, a worm to mesh with said gear, automatic feeding mechanism provided with a gear K-1, and a gear mounted upon the mandrel and meshing with the gear K-1, substantially as described. 22nd. The combination of a feed screw, a feeding gear to actuate said screw, an oscillatory bearing provided with a locking pin, a gear carried by said bearing, a worm carried by said bearing, and a driving device to actuate said gear, substantially as described. 23rd. The combination of a heel plate, a mandrel, a driving device to actuate the mandrel, a pressure bar, connecting bars uniting the pressure bar to the head plate, a feed screw, a feed gear to actuate the screw, a bearing provided with a hook to engage upon one of the connecting bars, and with a locking pin to engage the pressure bar, a gear carried by said bearing, and a worm carried by said bearing to mesh with the feeding gear, the gear carried by said bearing actuated by said driving device, substantially as described. 24th. A sleeve, provided with a gate and with a valve seat projecting inwardly on the underside of the sleeve, and with an inwardly projecting flange to form a packing seat located intermediate of the valve seat and the end of said sleeve, said sleeve provided with an outwardly enlarged pocket intermediate said flange and inwardly projecting valve seat, substantially as described. 25th. The combination with a pipe tapping and connecting device, a cutter head constructed with a body, and cutter segments united to the body, said body formed with a flange projecting around and outside the adjacent ends of said segments to hold the segments from springing away from the cutter head, substantially as described. 26th. In combination with a pipe tapping and connecting device, a cutter head constructed with a body, and cutter segments united thereto, said segments locked together at their adjacent edges, and said head formed with a flange projecting over and about the adjacent ends of said segments, substantially as described. 27th. In combination with a pipe tapping and connecting device, a cutter head formed with a body and with cutter segments united thereto, said segments provided with teeth having their cutting edge of oval form and said body formed with a flange projecting over and about the adjacent ends of the segments, substantially as described.

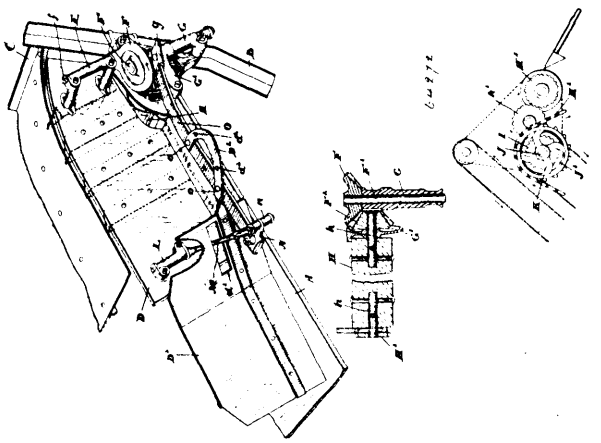
No. 64,271. Apparatus for Volatilizing and Burning Oils for Heating Purposes. (*Appareil pour volatiser et brûler l'huile à chauffer.*)



William McPhee, assignee of Harry Luckenbach, both of Seattle, Washington, U.S.A., 10th October, 1899; 6 years. (Filed 7th July, 1899.)

Claim.—1st. In an apparatus of the class mentioned, the combination with a steam generator, of an incombustible heat accumulator or distributor, a nozzle adjacent thereto and adapted to deliver the commingled vaporized oil and gases upon the said accumulator, communicative connection between the said steam generator and said nozzle, cocks in said connection, a superheater intermediate on said steam connection, a reservoir or other source of oil supply, communicative connection between the oil supply and the said steam connection, and a regulating valve in said oil connection, substantially as set forth. 2nd. In an apparatus of the class mentioned, the combination with a steam generator, of an incombustible heat accumulator or distributor, a nozzle adjacent thereto and adapted to deliver the commingled vaporized oil and gases upon the said accumulator, communicative connection between the said steam generator and said nozzle, cocks in said connection, a reservoir or other source of oil supply, communicative connection between the oil supply and the said steam connection, and a regulating valve in said oil connection, substantially as set forth. 3rd. In an apparatus of the class mentioned, the combination with a steam generator, of a heat accumulator made of an incombustible material, a tuyere having a bushing therein with a small neck and two bell mounted ends, a nozzle having a small orifice and an expanding bell shaped mouth projecting within said bushing, a register and rotatable damper on said tuyere, communicative connection between said steam generator and said nozzle, suitable cocks in said connection, a reservoir or other source of oil supply, communicative connection between said oil supply and said steam connection, and a regulator valve in the last mentioned connection, substantially as set forth. 4th. In an apparatus of the class mentioned, the combination with a steam generator, of a heat accumulator made of an incombustible material, a tuyere having a bushing therein with a small neck and two bell mounted ends, a nozzle having a small orifice and an expanding bell shaped mouth projecting within said bushing, a register, a rotatable damper on said tuyere, communicative connection between said steam generator and said nozzle, suitable cocks in said connection, a reservoir or other source of oil supply, communicative connection between said oil supply and said steam connection, and a conical regulator valve in the last mentioned connection, substantially as set forth. 5th. A regulating oil supply valve for a volatilized oil burning device comprising a conical valve terminating in a point, seat for said valve, and means for adjustably raising and lowering said valve, substantially as set forth. 6th. In a nozzle for the delivery of volatilized oils and other gases to a furnace, the combination of a tuyere H, a bushing J having a neck midway of its length and enlarged ends, a smaller nozzle K, formed with a small orifice and an expanding bell shaped mouth, within the said bushing J, a register L and rotatable damper N, substantially as set forth and described.

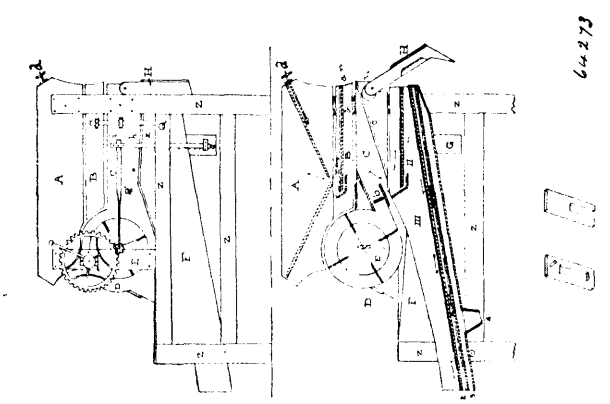
No. 64,272. Butter for Harvester Binders.
(Abouteur pour lieuses de moisssonneuses.)



The Massey-Harris Company, (Limited) assignee of Lyman Melvin Jones, William F. Johnston, and William John Clokey, all of Toronto, Ontario, Canada, 10th October, 1899; 6 years. (Filed 22nd July, 1899.)

Claim.—1st. The combination with the seventh roller of the butter, the crank drive connected to the upper end of the butter and deriving movement from the seventh roller and means for limiting the movement of the lower end of the butter as and for the purpose specified. 2nd. In combination the seventh roller and suitable bearing therefor at the front of the machine and a bevelled pinion secured on the end of the spindle thereof, a socket bearing forming part of the bearing at the front end of the seventh roller, a spindled journalled in same, a bevel pinion meshing with a bevel pinion on the end of the spindle of the seventh roller, a crank pin on the latter bevel pinion, the butter, the socket bracket on the butter and means for supporting the lower end of the butter so as to give it a limited movement, as and for the purpose specified. 3rd. The combination with the seventh roller, of the butter, a crank drive connected to the upper end of the butter and deriving movement from the seventh roller, the socket on the lower end of the butter, the bar supported on the frame and carrying a socket, the arm socketed at one end in the socket on the butter and the other end in the socket, on the bar as and for the purpose specified. 4th. The combination with the seventh roller, of the butter, a crank drive connected to the upper end of the butter and deriving movement from the seventh roller, the socket on the roller end of the butter, the bar supported on the frame and carrying a socket, the arm socketed at one end in the socket on the butter and the other end in the socket on the bar, the extension butter provided with a strap having a bent end suitably connected to the bar supporting the same and a slot through which such arm extends, as and for the purpose specified. 5th. The combination with the butter located to the front of the machine, and suitably driven from the seventh roller, of the extension butter, the bar supported on the bearing of the seventh roller, the strap fastened to the extension butter and having the free end secured to the bar, as and for the purpose specified.

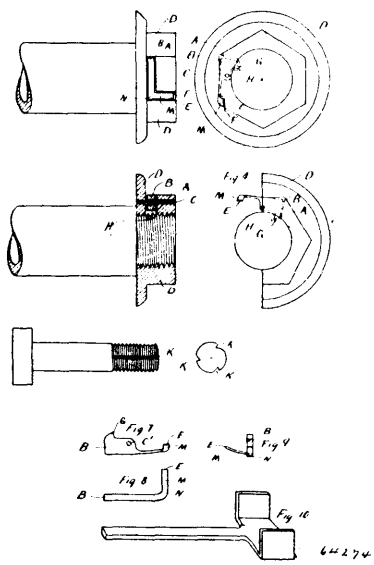
No. 64,273, Grain Separator. *(Séparateur à grain.)*



Thomas J. Hatfield, Dublin, Indiana, and Percy H. Mugford, and William H. Daniels, both of Detroit, Michigan, U.S.A., 10th October, 1899; 6 years. (Filed 22nd March, 1899.)

Claim.—1st. In a grain separator, the combination with the upper and lower screen shoes connected by an oscillating rod pivoted to the fan drum, its upper end being secured to the upper shoe by a clip and the lower end slotted to engage a pin projecting from a plate which is secured to the lower shoe, the said plate being provided with a slot whereby the same may be adjusted vertically, of a vertical rod pivoted to the main frame of the separator and having its lower end connected to a pitman, and means for co-operating the same, substantially as described.

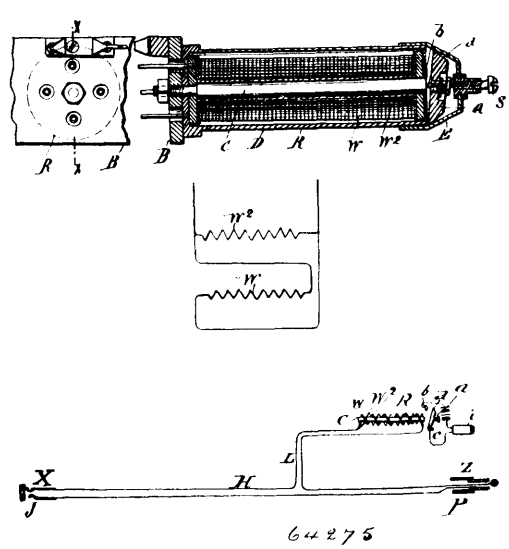
No. 64,274. Lock Nut. *(Arrête-écrou.)*



John Burkell and Robert A. Elliott, both of Roseneath, Ontario, Canada, 10th October, 1899; 6 years. (Filed 23rd February, 1899.)

Claim.—1st. The combination with an axle having a threaded portion thereon and having a small notch H in the said threaded portion, of a nut engaging the threaded portion, and a spring catch which is adapted to engage or disengage in the notch H so as to lock or unlock the nut, substantially as described. 2nd. The combination with a bolt having a threaded portion thereon and having three grooves K, K, K, cut on said threaded portion, of a nut engaging the threaded portion, and a spring catch which is adapted to engage in any of the said grooves so as to lock the nut and secure it in any place where it may be adjusted, substantially as described.

No. 64,275. Electro Magnet. *(Electro-aimant.)*

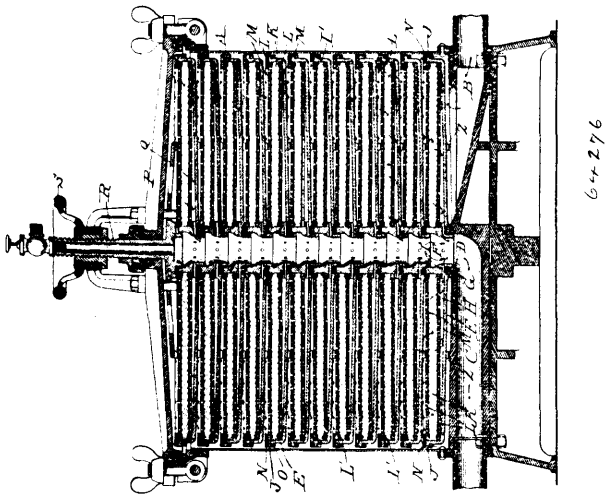


The Bell Telephone Company of Canada, Limited, Montreal, Quebec, Canada, assignee of John Stone Stone, Boston, Massachusetts, U.S.A., 10th October, 1899; 6 years. (Filed 29th August, 1899.)

Claim.—An electro-magnet or electro-magnetic coil having two windings of different time constants, connected in parallel, in oppo-

sition to each other, and substantially without magnetic leakage between them, as set forth. 2nd. The combination in an electro-magnetic coil and with the iron core thereof, of two exciting helices having substantially the same number of turns, but of unequal resistance, wound in parallel, and connected magnetically inductively in opposition upon the said iron core, and substantially without magnetic leakage between them, as set forth.

No. 64,276. Filter. (*Filtre.*)



64276

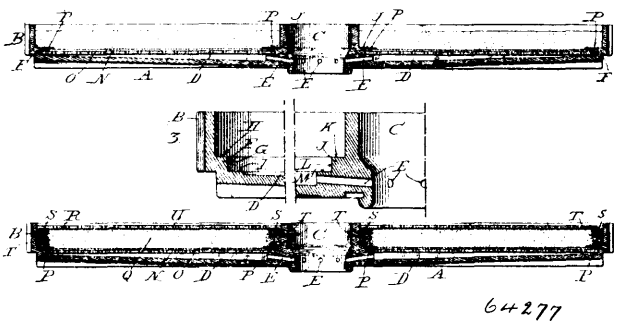
The Independent Filter Company, Chicago, Illinois, assignee of Jacob Fred Theurer, Milwaukee, Wisconsin, U.S.A., 10th October, 1899; 6 years. (Filed 20th July, 1899.)

Claim.—1st. A filtering medium comprising a pan having a hollow central boss or hub, openings extending from the interior of the pan through the hub, a body of compressed pulp having a wire net upon each side, and foraminous discs bearing against the wire net. 2nd. A pan for receiving a filtering body, having its bottom inclining toward its centre, a central hollow boss or hub, ribs formed upon the bottom and extending radially from the periphery to the boss, and openings extending through the boss. 3rd. A pan for receiving a filtering body having its bottom inclining toward its centre, a central hollow boss provided with openings extending therethrough, and lugs extending downwardly from the bottom of the pan, substantially as and for the purpose described. 4th. A filter comprising a series of pans superposed one upon another, a filtering medium of compressed pulp contained in each pan, and lugs extending from the bottom of the pans and bearing against the upper face of the filtering medium, substantially as and for the purpose described. 5th. A pan for receiving a filtering body having its bottom inclining toward its centre, a central hollow boss provided with openings communicating with the interior of the pan, ribs formed upon the upper face of the pan, and a gasket G, secured around the boss. 6th. In a filter, the combination of a frame or casing, an inlet, a central discharge opening, a series of filltering bodies of a diameter less than that of the casing whereby a space is formed between the casing and bodies, said bodies being superimposed upon each other and upon the discharge opening, and each provided with a hollow central boss or hub, and means for closing the uppermost boss and for forcing the bosses down upon each other and upon the central discharge opening. 7th. In a filter, the combination of a frame or casing, an inlet, a central discharge opening, a series of filtering bodies of a diameter less than that of the casing superimposed upon each other, and upon the discharge opening, and each provided with a central hollow boss, a plate Q, having a collar designed to fit within the upper most boss, a stem R, extending from the plate Q, up through the cover, and means for raising and lowering the stem. 8th. In combination with an annular frame or holder, a filtering body mounted therein, and a ring as N designed to fit down over the edge of said frame and to be connected thereto, substantially as described. 9th. In combination with an annular frame or holder, a filtering body mounted therein, and a ring as N, notched upon its upper face, designed to fit down over the edge of said frame and to be connected thereto, substantially as described.

No. 64,277. Filter. (*Filtre.*)

The Independent Filter Company, Chicago, Illinois, U.S.A., assignee of Jacob Fred Theurer, Milwaukee, Wisconsin, U.S.A., 10th October, 1899; 6 years. (Filed 20th July, 1899.)

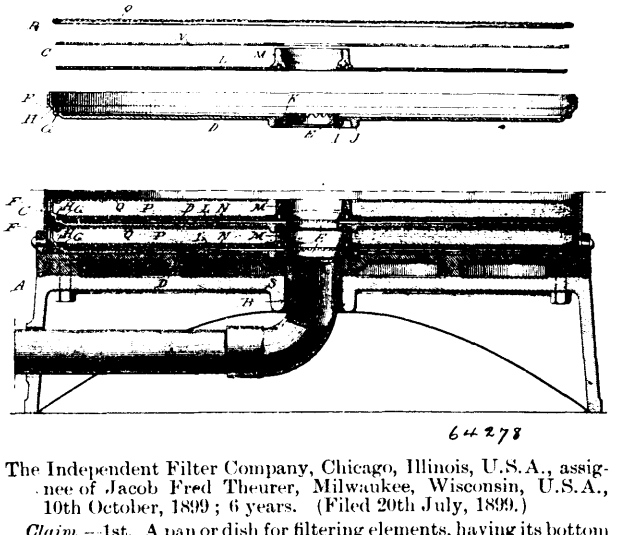
Claim.—1st. A filtering element comprising a frame or support, a mass of compressed pulp held therein, and rims or rings forced into said previously compressed pulp near its edges, substantially as described, whereby a second compression is exerted upon that portion of the pulp beneath the rims or rings. 2nd. A filtering element comprising a frame or support, a mass of compressed pulp held therein, and a body forced down into said previously compressed



64277

pulp near its edge, whereby said compressed pulp is further condensed and forced against its support. 3rd. The method of forming filtering elements which consists in placing a mass of pulp within a support, compressing the same over its entire surface, and finally condensing the compressed pulp around its edges where it contacts with the support. 4th. The method of forming filtering elements which consists in placing a mass of pulp within a support, compressing the same over its entire surface, and finally forcing a body into the mass near its edge, whereby the edge is condensed and forced outward against the support, substantially as described. 5th. In combination with a pan having an upstanding edge and a central boss, a mass of pulp compressed therein, and rims forced down into said mass near the boss and rim, whereby the mass is condensed at such points, substantially as described. 6th. In combination with a pan having an upstanding edge and a central boss, shoulders extending in from said rim and boss, a perforate support resting within the pan below said shoulders, a mass of pulp compresed upon said support and having its edges extending over and upon said shoulders, and rims embedded in the upper face of the mass over the shoulders. 7th. In combination with a pan having an upstanding edge and a central boss, shoulders extending in from said boss and rim, a perforate disc mounted within the pan below the shoulders, a mass of pulp compressed upon said disc and extending over the shoulders, and an upper disc, having depending rings or rims at its edges forced down upon the upper face of the mass. 8th. In combination with a pan having an upstanding rim and a central boss, the bottom of the pan inclining downwardly from the rim to the boss, shoulders projecting in from said rim and boss, perforate disc N, and wire disc O, placed within the pan below the upper face of said shoulders, a mass of pulp compressed upon said discs, a wire disc having depending rims S, forced down upon said compressed mass, and a perforate disc placed upon said wire disc.

No. 64,278. Filter. (*Filtre.*)



64278

The Independent Filter Company, Chicago, Illinois, U.S.A., assignee of Jacob Fred Theurer, Milwaukee, Wisconsin, U.S.A., 10th October, 1899; 6 years. (Filed 20th July, 1899.)

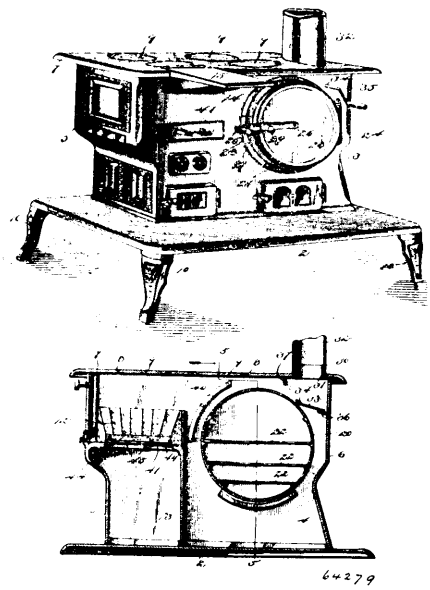
Claim.—1st. A pan or dish for filtering elements, having its bottom formed with a series of corrugations radiating from its center. 2nd. A pan or dish for filtering elements, having a central opening and a series of corrugations radiating from said opening toward the edge of the pan. 3rd. A pan or holder for filtering elements, having a central opening and a series of corrugations radiating from said central opening toward the edge, said corrugations widening as they approach the edge, substantially as described. 4th. A pan for filtering elements, provided with a central opening, a flange I, extending down from the pan around the opening, and a ring or rib J, also

extending down from the pan concentric with the flange I, substantially as described. 5th. A pan or holder for filtering elements, provided with a central discharge opening, a flange I, extending down from the pan about said opening, a ring J, also extending down from said pan and concentric with the flange I, and a packing ring K, seated in a recess formed around the base of the flange I, substantially as and for the purpose described. 6th. A pan or holder for filtering elements, provided with a corrugated bottom and a central discharge opening, an upstanding rim at the outer edge of said pan, and an offset or shoulder G, formed around the rim, substantially as and for the purpose described. 7th. A pan or holder for filtering elements, having a corrugated bottom and a central discharge outlet, an upstanding rim formed at its outer edge, and offsets or shoulders G, H, formed upon the rim, substantially as and for the purpose described. 8th. A pan for filtering elements, having a corrugated bottom and a central discharge opening, a perforate plate resting upon the corrugations, and an upwardly extending hub secured to said plate in line with the discharge opening of the pan. 9th. A filtering element, comprising in combination a pan provided with a corrugated bottom and a central discharge outlet, a perforate plate resting upon the corrugation, an upwardly extending hub secured to said plate in line with the discharge opening of the pan, a mass of compressed pulp resting on said plate and contacting at its edges against the edge of the pan and the upstanding hub, and means for maintaining said pulp in its proper position in said pan. 10th. In a filter, the combination of a suitable base provided with a central discharge opening, an annual groove or channel formed around said opening and provided with a yielding packing material, a pan resting upon the base, said pan being provided with a downwardly projecting flange I, to enter the discharge opening, a ring J, to act in conjunction with the packing material mounted in the groove or channel, a perforate plate mounted in the pan, an upstanding hub carried by said plate, a mass of filtering material mounted upon said plate within the pan, and a second pan having a flange I, and a ring J, adapted to fit over the upper end of the hub of the lower pan, substantially as and for the purpose described. 11th. In a filter, the combination of a suitable base, a discharge opening formed therein, a groove or channel extending around said opening, a yielding packing material mounted in said channel, and a pan for carrying the filter material resting upon said base, said pan being provided with a downwardly projecting flange I, and an annular ring J, substantially as and for the purpose described. 12th. In a filter, the combination of a suitable pan or support carrying a layer of compressed pulp, and a second pan above the first pan, and second pan being provided with a rim or ring on its lower face adapted to bear against the pulp within the lower pan and condense the same, substantially as and for the purpose described. 13th. In a filter, the combination of a suitable pan or support, an upstanding hub for said pan, a layer of compressed pulp carried by the pan and abutting against the side of the hub, and a second pan mounted above the lower pan, said second pan being prouided with a depending flange I, adapted to enter the upper end of the hub within the lower pan, and also provided with a rib or ring J, adapted to act upon the pulp in the lower pan adjacent to the hub, and to further condense the same as the parts are pressed to place, substantially as described. 14th. A filtering element, comprising in combination a pan provided with a corrugated bottom and a central discharge opening, a perforate plate L, resting upon said corrugations, an upstanding hub M, carried by said plate, a disc N, formed of wire netting resting upon said perforate plate, a layer of compressed pulp mounted upon the disc within the pan, a screen Q, formed of relatively heavy woven wire mounted upon the upper face of the pulp, said screen having a central opening formed therein of a diameter larger than the external diameter of the hub, a flange I, extending down from the pan around the central discharge opening, and a ring J, also extending down from the pan at or near the flange I, and concentric therewith, substantially as described.

No. 64,279. Stove. (*Poêle.*)

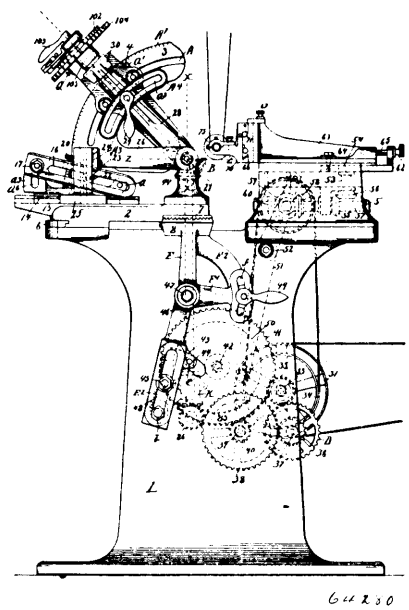
Hiram Q. Hood and Charles A. French, both of Carthage, Missouri, U.S.A., 10th October, 1899; 6 years, (Filed 14th March, 1899.)

Claim.—1st. A stove having an oven, a fire-box, and a shield adjacent to the fire-box and serving to modify the heat applied to the furnace at such place. 2nd. A stove having an oven, a fire-box, a shield adjacent to the fire-box and located between the same and the oven, and serving to modify the heat applied to the oven. 3rd. A stove having an oven and an exit opening, a fire-box, a shield adjacent to the fire-box and serving to modify the heat applied to the oven near the fire-box and separated from the oven, and a damper adjacent to the exit opening and shiftable to change the course of heated air. 4th. A stove having a cylindrical oven, ledges adjacent to its exit opening, a damper between the side plates of the stove shiftable into engagement alternately with the said ledges, a fire-box, and a segmental plate separate from the oven and located between said oven and the fire-box, and serving to modify the heat applied to the oven near the fire-box. 5th. A stove having perforate and imperforate interchangeable grates for coal and wood respectively. 6th. A stove having perforate and imperforate grates for coal and wood, respectively, slidable into the fire-box of the stove, substantially as described. 7th. A stove having an oven, a fire-box located at one side of the oven, and a shield located between the fire-box and the oven, and extending from a point adjacent to the top plate of the stove to a point below the upper edge of the fire-box and separated by a space or interval from said oven, substantially as described. 8th. A stove having a fire-box provided with a flange along the same, and one of the plates of said stove having an opening in line with the fire-box, a grate slidable through said opening and provided with flanges extending along its opposite sides and ends, which flanges are contiguous to the walls of the fire-pot, and a plate secured to one end of the grate and adapted to extend over said opening when the grate is in its normal position, substantially as described.



64279

No. 64,280. Machine for Forming Teeth of Bevel Gears.
(*Machine pour tailler les engrenages.*)



64280

The Leland and Faulconer Manufacturing Company, assignee of Herbert W. Cheney, all of Detroit, Michigan, U.S.A., 10th October, 1899; 6 years. (Filed 30th September, 1898.)

Claim.—1st. In a machine for generating the teeth of bevel gears means to carry a bevel gear, a rotatable grinding wheel, and means to reciprocate the grinding wheel in the operation of grinding the gear, said gear having an oscillatory movement about its cone centre, substantially as set forth. 2nd In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, means to reciprocate the grinding wheel in the operation of grinding the gear, means to give to the gear an oscillatory movement, and means to give to the gear a synchronous rolling movement about the cone centre of the gear, the axis of oscillation remaining on the same vertical plane, substantially as set forth. 3rd. In a machine for generating the

teeth of bevel gears, a rotatable grinding wheel, means to reciprocate the grinding wheel in the operation of grinding the gear, means to carry a gear to be cut, means to oscillate the gear about its cone centre, means to give to the gear a synchronous rolling movement, and means to give a step by step rotatable movement to the gear, substantially as set forth. 4th. In a machine for generating the teeth of bevel gears, means to give to the gear an oscillatory and rolling movement about the cone centre of the gear, a rotatable grinding wheel, means to reciprocate the grinding wheel in the operation of grinding the gear, and mechanism to govern the ratio of the oscillatory and rolling movements of the gear, substantially as set forth. 5th. In a machine for generating the teeth of bevel gears, means to give to the gear an oscillatory movement about the cone centre of the gear, means to give the gear a synchronous rolling movement, a rotatable grinding wheel, means to reciprocate the grinding wheel in the operation of grinding the gear, and means to regulate the angle of the pitch line of the gear, substantially as set forth. 6th. In machine for generating the teeth of bevel gears, means to give to the gear a rolling movement about the cone centre of the gear, the cone centre of the gear remaining the same, a rotatable grinding wheel, and means to reciprocate said grinding wheel in the operation of grinding the gear, substantially as set forth. 7th. In a machine for generating the teeth of bevel gears, an oscillatory table, means mounted thereupon to carry the gear, mechanism to impart a rolling movement to the gear about its cone centre, a rotatable grinding wheel, means to reciprocate the grinding wheel on cone lines of the gear in the operation of grinding the gear, substantially as described. 8th. In a machine for generating the teeth of bevel gears, an oscillatory table, means mounted thereupon to rotate the gear, means to adjust the angle of the cone line of the gear and to give to the gear a step by step movement, a rotatable grinding wheel, and means to reciprocate the wheel on cone lines of the gear in the operation of grinding the gear, substantially as described. 9th. In a machine for generating the teeth of bevel gears, an oscillatory table, means to carry the gear, mechanism carried by said table to index said gear, a rotatable grinding wheel, and means to reciprocate said wheel on cone lines of the gear in the operation of grinding the gear, substantially as described. 10th. In a machine for generating the teeth of bevel gears, an oscillatory table, means mounted thereupon to carry the gear, mechanism mounted on said table to give a rolling movement to the gear, and mechanism to govern the ratio between the rolling movement of the gear and the oscillatory movement of the table, substantially as described. 11th. In a machine for generating the teeth of bevel gears, means to oscillate the gear and to give a rolling movement to the gear, and a rotatable reciprocatory grinding wheel, substantially as described. 12th. In a machine for generating the teeth of bevel gears, means to carry a bevel gear, a rotatable grinding wheel, means to reciprocate said wheel toward and from said gear in the operation of grinding the gear, additional mechanism to feed said wheel to the work and to retract the wheel from the work, and mechanism to give to said gear a step by step movement when the grinding wheel is moved away therefrom, substantially as described. 13th. In a machine for generating the teeth of bevel gears, a table reciprocatory on a line passing through the cone centre of the gear, means to carry a gear mounted upon said table, a rotatable grinding wheel, and means to reciprocate said wheel on cone lines of the gear in the operation of grinding the gear, substantially as described. 14th. In a machine for generating the teeth of bevel gears, the combination of means to carry a bevel gear, a rotatable grinding wheel, and means to give to the wheel a series of reciprocatory movements in the operation of grinding the gear, substantially as described. 15th. In a machine for generating the teeth of bevel gears, the combination of means to carry a bevel gear, a rotatable grinding wheel, and means to give to the wheel a series of reciprocatory movements in the operation of grinding the gear, said wheel having an additional reciprocatory movement to clear the gear, substantially as described. 16th. In a machine for generating the teeth of bevel gears, the combination of means to carry a gear, and a rotatable grinding wheel, one of the lateral faces of said wheel made reciprocatory on a plane passing through the cone centre of the gear, substantially as described. 17th. In a machine for generating the teeth of bevel gears, means to carry a bevel gear, mechanism to roll said gear upon its axis, mechanism to oscillate said gear about its cone centre, and means to give to the grinding wheel a series of reciprocatory movements in the operation of grinding the gear, substantially as described. 18th. In a machine for generating the teeth of bevel gears, the combination of means to carry a bevel gear, a rotatable grinding wheel, and means to give to the wheel a series of reciprocatory movements in the operation of grinding the gear, mechanism to adjust said grinding wheel, and means to adjust the gear, the means to carry the bevel gear being adjustable for various sizes of bevel gears, substantially as described. 19th. In a machine for generating the teeth of bevel gears, means to carry a bevel gear, a rotatable grinding wheel, means to give a series of reciprocating movements to said wheel in the operation of grinding the gear, and mechanism to adjust said gear and said wheel to effect changes of feed in cutting speed, substantially as described. 20th. In a machine for generating the teeth of bevel gears, means to carry a bevel gear, a rotatable grinding wheel, means to give a series of reciprocatory movements to said wheel in the operation of grinding the gear, and mechanism to adjust said gear and to adjust said grinding wheel to generate different sizes and angles of bevel gears, substantially as described. 21st. In a machine for generating the teeth of bevel gears, an oscillatory table, means supported upon said table to carry the gear, means carried by said table to actuate the gear, a rotatable grinding wheel, and means to give to said wheel a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, substantially as described. 22nd. In a machine for generating the teeth of bevel gears, means to carry a gear, a rotatable grinding wheel, means to give to said wheel a series of reciprocatory movements in the operation of grinding the gear, and mechanism to automatically actuate said gear and said grinding wheel, whereby the gear being operated upon by said wheel may have one complete step by step revolution, substantially as described. 23rd. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, means to reciprocate the grinding wheel in the operation of grinding the gear, a spindle to carry a gear, a spindle bracket to carry said spindle, and a quadrant, said bracket adjustable on said quadrant, substantially as described. 24th. In a machine for generating the teeth of bevel gears, an oscillatory table, a quadrant having its centre in a plane passing through the cone centre of the gear, and means to carry the gear adjustably engaged with said quadrant, substantially as described. 25th. In a machine for generating the teeth of bevel gears, an oscillatory table, a quadrant having its centre on a plane passing through the cone centre of the gear, a spindle bracket, and a spindle carried by said bracket, said bracket adjustably secured to the quadrant at a desired angle to a plane passing through the cone centre of the gear, substantially as described. 26th. In a machine for generating the teeth of bevel gears, means to carry a gear, and a rotatable grinding wheel reciprocatory on a cone line of the gear, the means to carry the gear having a rolling movement and an oscillatory movement in operation on a line passing through the cone centre of the gear, substantially as described. 27th. In a machine for generating the teeth of bevel gears, a rotatable spindle to carry a gear, means to give to the spindle a rolling movement about the cone centre, and mechanism to horizontally oscillate said spindle on an axis passing through the cone centre of the gear, substantially as described. 28th. In a machine for generating the teeth of bevel gears, an oscillatory table, means carried thereby to carry a gear, indexing mechanism oscillatory with the table to index the gear, a rotatable grinding wheel, and means to give to said wheel a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, substantially as described. 29th. In a machine for generating the teeth of bevel gears, a quadrant, oscillatory means to carry a gear adjustable upon said quadrant, a rotatable grinding wheel, and means to give said wheel a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, substantially as described. 30th. In a machine for generating the teeth of bevel gears, means for carrying the gear to be cut, said means made vertically and longitudinally oscillatory on a line passing through the cone centre of the gear, a rotatable grinding wheel, and means to give to said wheel a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, substantially as described. 31st. In a machine for generating the teeth of bevel gears, the combination of a spindle bracket, a spindle carrying the gear carried by said bracket, and a rotatable grinding wheel, and means to give to said wheel a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, said bracket made adjustable to any desired angle to a horizontal plane passing through the cone centre of the gear, substantially as described. 32nd. In a machine for generating the teeth of bevel gears, the combination of a bracket, a spindle mounted therein to carry a gear, and means to raise and lower the end of said bracket opposite the gear to set the gear at a desired angle, substantially as described. 33rd. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, means to carry a gear, mechanism to reciprocate said grinding wheel in operation whereby one of its lateral surfaces will be reciprocated on a plane passing through the cone centre of the gear, substantially as described. 34th. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, means to give to said wheel a reciprocatory movement in operation, whereby one of its grinding surfaces will be reciprocated on a plane passing through the cone ceutre of the gear, said wheel having an additional reciprocatory movement to clear the grinding wheel from the gear, said grinding wheel made also vertically and laterally adjustable, substantially as set forth. 35th. In a machine for generating the teeth of bevel gears, an oscillatory table to carry the gears to be cut, and a rotatable grinding wheel having a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, said table centered at the intersection of planes, which also intersect the cone centre of the gear, substantially as described. 36th. In a machine for generating the teeth of bevel gear, a base, and an oscillatory table mounted upon said base, said table gibbed at its outer edge by a gib secured upon said base, substantially as described. 37th. In a machine for generating the teeth of bevel gears, an oscillatory table, a quadrant, and a spindle bracket adjustably engaged with said quadrant, said bracket also fulcrumed to a portion of said quadrant, substantially as described. 38th. In a machine for generating the teeth of bevel gears, an oscillatory table, a spindle to carry a gear mounted upon said table, and a segment to actuate said spindle, said segment provided with an arm fulcrumed on a line passing through the cone centre of the gear, substantially as described. 39th. In a machin

for generating the teeth of bevel gears, an oscillatory spindle bracket, a spindle in said bracket to carry a gear, an arm provided with a segment to drive said spindle, a rotatable grinding wheel, and means to give to said wheel a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, said arm made oscillatory on a line passing through the cone centre of the gear, substantially as described. 40th. In a machine for generating the teeth of bevel gears, a spindle to carry a gear, a gear upon said spindle, and a segment meshing with said gear to give a rolling movement to said spindle, said segment provided with an arm fulcrumed on a line passing through the cone centre of the gear, substantially as described. 41st. In a machine for generating the teeth of bevel gears, a device to carry a gear, means to give to the gear an oscillatory and a rolling movement about the cone centre of the gear, and a movable inclined slide to govern the ratio of the oscillatory and rolling movements of the gear, substantially as described. 42nd. In a machine for generating the teeth of bevel gears, a spindle having an oscillatory movement about the cone centre of the gear to carry a gear, and a rotatable grinding wheel having a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, an indexing wheel, and mechanism to actuate said wheel to give a step by step movement to said spindle, substantially as described. 43rd. In a machine for generating the teeth of bevel gears, a device to carry a gear, means to give to said gear an oscillatory and a rolling movement about the cone centre of the gear, and an oscillatory slide having an endwise movement to govern the ratio of the oscilatory and rolling movements of the gear, substantially as described. 44th. In a machine for generating the teeth of bevel gears, an oscillatory table, a shaft journalled therein, gears upon said shaft, a stationary toothed segment meshing with one of said gears, a rack meshing with the other of said gears, a slide 14 connected with said rack movable in a direction toward and from the centre of oscillation of the table, an inclined slatted slide 16 carried by the slide 14 and fulcrumed thereto, means to adjust and to hold the slide 16 at a desired angle to the slide 14, a block having a sliding engagement in the slide 16, a bracket having a stud swivelled in said block, and a toothed segment meshing with said rack-slide, said segment provided with a fulcrumed arm having its axis on a line passing through the cone centre of the gear, substantially as described. 45th. In a machine for generating the teeth of bevel gears, an oscillatory table, a spindle upon said table to carry a gear, a toothed segment to drive said spindle, said segment provided with an arm fulcrumed on a line passing through the cone centre of the gear, said arm being adjustable, and means to hold said arm in any given position of adjustment, substantially as described. 46th. In a machine for generating the teeth of bevel gears, an oscillatory table, an oscillatory spindle bracket mounted on said table, a spindle carried thereby to carry a gear, indexing mechanism engaged with said spindle, a shaft 97 to actuate said indexing mechanism provided with a gear 96, a rotatable gear 84, and an intermediate gear meshing with the gears 94 and 96, said intermediate gear having its centre on a line passing through the pivoted point of the spindle bracket, substantially as described. 47th. In a machine for generating the teeth of bevel gears, an oscillatory table, a spindle to carry a gear, a rotatable grinding wheel, and means to give to said wheel a series of reciprocatory movements on a cone line of the gear in the operation of grinding the gear, indexing mechanism carried by said spindle and an index shaft to actuate said indexing mechanism, and means to actuate said shaft, substantially as set forth. 48th. In a machine for generating the teeth of bevel gears, an oscillatory spindle bracket mounted on said table, a spindle carried thereby to carry a gear, indexing mechanism engaged with said spindle, a shaft 97 to actuate said indexing mechanism provided with a gear 96, a rotatable gear 94, and an intermediate gear having its centre on a line passing through the pivoting point of the spindle bracket, the shaft of the spindle 94 having its bearing in said table, driving mechanism to actuate the last named shaft, and an intermediate universal joint, substantially as described. 49th. In a machine for generating the teeth of bevel gears, a spindle to carry a gear, a cam actuated index plunger arm upon said spindle, an index wheel upon said spindle, a spring actuated index plunger carried by said arm and engaging the index wheel, an index shaft 97, an index pawl arm 109 provided with a pawl to engage said ratchet wheel, means to actuate said arm, and a shield to keep the pawl from engaging the ratchet wheel at rest, substantially as described. 50th. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, a reciprocatory ram to carry said wheel, a ram adjusting slide to carry said ram and with which said ram is adjustably engaged, and a sliding block to carry the ram adjusting slide, means to reciprocate the ram adjusting slide, substantially as described. 51st. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, a reciprocatory ram to carry said wheel, a ram adjusting slide to carry said ram and with which said ram is adjustably engaged, a sliding block to carry the ram adjusting slide, means to reciprocate the ram adjusting slide, and means to reciprocate said sliding block, substantially as described. 52nd. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, a reciprocatory ram to carry said wheel, said ram provided with a vertical sliding bearing at its inner end, a cross slide block vertically adjustable in said bearing, and a slide in said block provided with bearings for said grinding wheel, substantially as described. 53rd. In a machine for generating the teeth of bevel gears, an oscillatory table, means mounted thereupon to carry a gear to be cut, and mechanism to regulate the movement of said table, substantially as described. 54th. In a machine for generating the teeth of bevel gears, an oscillatory table, means mounted thereupon to carry a gear to be cut, an oscillatory arm 3, a feed lever 46 connected with said arm, and an arm F to actuate said table, said arm adjustably connected with said feed lever, substantially as described. 55th. In a machine for generating the teeth of bevel gears, a spindle to carry a gear to be cut, an index wheel, and a ratchet wheel to index said spindle, an index pawl arm, a ratchet carried by said arm, an index lever connected with said pawl arm, cams to actuate said index lever, and a shaft carrying said cam, substantially as described. 56th. In a machine for generating the teeth of bevel gears, a spindle to carry a gear to be cut, an index wheel, and a ratchet wheel to index said spindle, an index plunger arm upon said spindle provided with an index plunger to engage the index wheel, and a rotatable cam to actuate said plunger, substantially as described. 57th. In a machine for generating the teeth of bevel gears, an oscillatory table, a spindle to carry a gear to be cut mounted upon said table, a plunger arm carried with said spindle, and a cam to actuate said arm, said arm carried away from said cam as the table is oscillated, and returned by said table into position to be acted upon by said cam, substantially as described. 58th. In a machine for generating the teeth of bevel gears, a grinding wheel, a spindle carrying said wheel, devices for carrying the spindle, caps hinged to said devices, and means to engage said caps upon said devices, said caps being removable, substantially as described. 59th. In a machine for generating the teeth of bevel gears, a grinding wheel, a spindle to carry said wheel, a cross slide provided with spherical bearing boxes to carry the spindle, and caps hinged to said slide, whereby said bearing boxes with said spindle may be removed from said slide, substantially as described. 60th. In a machine for generating the teeth of bevel gears, the combination of means to carry a gear to be cut, and means to give to the grinding wheel a series of reciprocatory movements in the operation of grinding the gear, the cutting face of said wheel being at an angle to a plane normally at right angles to the axis of the wheel, said angle equal to the angle of obliquity of the gear to be generated, substantially as described. 61st. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, and an adjustable ram to carry said wheel, and means to give to the grinding wheel a series of reciprocatory movements in the operation of grinding the gear, substantially as described. 62nd. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, an adjustable ram having a series of reciprocatory movements to carry said grinding wheel and to reciprocate the wheel in the operation of grinding the gear, said ram having an additional reciprocatory movement to clear the grinding wheel from the gear, substantially as described. 63rd. In a machine for generating the teeth of bevel gears, a rotatable grinding wheel, a ram to carry said wheel having a series of reciprocatory movements, an eccentric to reciprocate the ram and give to the grinding wheel a series of reciprocatory movements in the operation of grinding the gear, and a rotatable shaft geared with said eccentric, the bearing for the eccentric being also reciprocatory, substantially as described. 64th. In a machine for generating the teeth of bevel gears, the combination of a rotatable grinding wheel, a ram, an eccentric to reciprocate the ram, a reciprocatory slide carrying the eccentric to give to the grinding wheel a series of reciprocatory movements in the operation of grinding the gear, a shaft geared with said eccentric, and means to reciprocate said slide, substantially as described. 65th. In a machine for generating the teeth of bevel gears, the combination of a spindle to carry a gear to be cut, an index wheel upon said spindle, a rotatable shaft to move the index wheel one step at every complete revolution of said shaft, and a rotatable grinding wheel having a series of reciprocatory movements on the cone line of the gear in the operation of grinding the gear, substantially as described. 66th. In a machine for generating the teeth of bevel gears, a spindle to carry a gear, an oscillatory spindle bracket carrying said spindle, an index wheel to actuate said spindle, and a rotatable shaft carried by said bracket to move the index wheel one step at each complete revolution of said shaft, substantially as described. 67th. In a machine for generating the teeth of bevel gears, the combination of a spindle bracket, a spindle mounted in said bracket to carry a gear to be generated, an index wheel upon said spindle, a rotatable shaft to actuate the index wheel, said shaft carried by said bracket, gear to actuate said shaft, and means to permit the adjustment of said shaft, substantially as described.

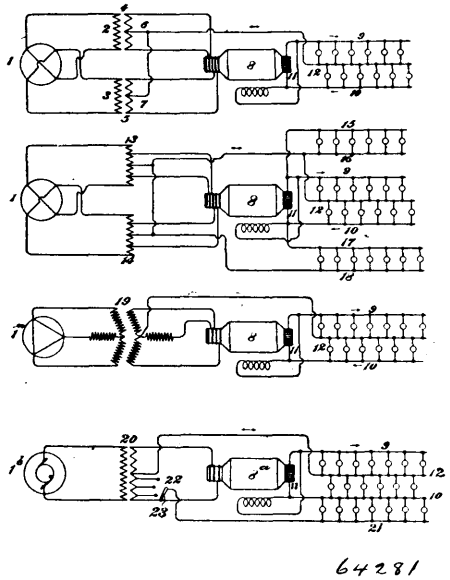
No. 64,281. Electrical Distribution.

(*Système de distribution électrique.*)

The Westinghouse Electric and Manufacturing Company, assignee of Benjamin G. Lamme, all of Pittsburg, Pennsylvania, U.S.A., 10th October, 1899; 6 years. (Filed 11th July, 1899.)

Claim.—1st. In a system of electrical distribution, the combination with a source of alternating current, transmitting conductors connected therewith, a stationary transformer, a rotary transformer connected to the stationary transformer, two distributing conductors connected to the direct current terminals of the rotary transformer, and a balancing conductor forming the third wire of a three-wire system and connected to an intermediate point of the

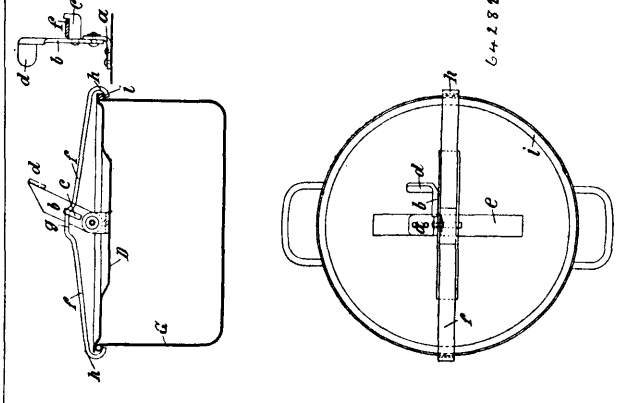
stationary transformer winding. 2nd. In a system of electrical distribution, the combination with a source of alternating currents of



64281

relatively displaced phases, of transformers connected thereto, a rotary transformer connected to the stationary transformers, two direct current conductors connected to the direct current terminals of the rotary transformer and balancing conductors, forming with the direct current conductors a multiple wire system, said balancing conductors being each connected to corresponding intermediate points in the windings of the stationary transformers. 3rd. In a system of electrical distribution, the combination with a source of alternating currents of relatively displaced phases, of transformers connected thereto, a rotary transformer connected to the stationary transformers, two direct current conductors connected to the direct current terminals of the rotary transformer, and a balancing conductor forming with the two direct current conductors a three-wire system, which conductor is connected to intermediate points of relatively equal potential in the stationary transformer windings. 4th. In a system of electrical distribution, the combination of a source of alternating currents, transmitting conductors therefor, stationary transformers, rotary transformers connected therewith, distributing circuits for direct current, consisting of two conductors between which exists the full potential of the direct current terminals of the rotary transformer, and balancing conductors connected to the stationary transformers and having a potential midway between that of the distributing conductors. 5th. In a system of electrical distribution, the combination with stationary transformers connected to a source of two-phase alternating currents, of secondary conductors connected to said transformers, those in each phase between which the greatest difference of potential exists, being led to a rotary transformer, while another connected to the middle points of the secondary windings of all the transformers serves as the balancing wire for a three-wire distributing system supplied with a direct current from the rotary transformer. 6th. In a system of electrical distribution, the combination with two groups of translating devices, connected in series across constant potential mains, of a third wire connecting the intermediate points of the several series, a rotary transformer connected to the constant potential direct current mains, a stationary transformer connected to a source of alternating current, and also to a rotary transformer, said stationary transformer having the middle point of its secondary winding connected to the third wire of the translating devices, as set forth. 7th. In a system of electrical distribution, the combination of two groups of parallel connected translating devices, said groups connected in series, two main distributing conductors connected to said groups, a rotary transformer having its direct current terminals connected to the two main distributing conductors, stationary alternating current transformers connected to the rotary transformer, a source of alternating currents of relatively displaced phases connected to said stationary transformers, and a connection from the middle points of the secondaries of said transformers to a third or balancing conductor connecting the intermediate points of said series of translating devices, as set forth. 8th. The method of distributing electrical energy, which consists in generating an alternating current, transmitting the same to a stationary transformer, causing the stationary transformer to actuate a rotary transformer, supplying a direct current derived from the alternating current supplied to the rotary transformer to the outside wires of a multiple wire distributing system, actuating therefrom groups of parallel connected devices in series, and compensating for unbalanced distribution of said devices by maintaining the intermediate terminals of the respective groups at the potentials of intermediate points of the stationary transformer windings, as set forth. 9th. The method of distributing electrical energy, which consists in generating an alternating current, transmitting the same, transforming the same by a stationary transformer, feeding a multiple wire distributing circuit with direct current by causing a further transformation of the alternating into a direct current, and establishing a sensibly constant potential between the pairs of conductors of the multiple wire circuit, irrespective of the distribution of translating devices, by establishing upon the intermediate wire of the distribution system, the potential of an intermediate point in the stationary transformer winding, as set forth. 10th. The method of supplying three-wire direct current systems of distribution with energy from alternating current transformers which consists in transforming the alternating currents into direct currents for the main direct current conductors, and effecting the transfer of energy necessitated by inequality in loads to and from the middle point of the secondary of the alternating current transformer. 11th. The method of supplying a three-wire direct current system of distribution with energy from an alternating current transformer, which consists in transforming the alternating current into direct current for the main direct current conductors and transferring energy to and from the middle point of the secondary of the alternating current transformer. 12th. A system of distribution comprising a source of alternating current, an alternating current transformer, a rotary transformer receiving energy from the secondary of said alternating current transformer, a direct current circuit supplied by said rotary transformer and comprising a neutral conductor connected to substantially the middle point of the alternating current transformer secondary, and an additional working conductor, connected to another point in said secondary. 13th. A system of distribution comprising a source of alternating currents, an alternating current transformer supplied thereby, a rotary transformer supplied from the secondary of said transformer, two working conductors extending from the commutator brushes of the rotary transformer, and a third working conductor extending from a point in the secondary of the alternating current transformer. 14th. A system of distribution comprising a source of alternating current, a rotary transformer, a direct current circuit supplied thereby and comprising a neutral or compensating conductor, and a stationary transformer interposed between the source of alternating and the rotary transformer, to the middle point of the winding of which said neutral or compensating conductor is connected. 15th. A system of distribution, comprising a source of alternating currents, a rotary transformer supplied from said source, a direct current circuit supplied by said rotary transformer and comprising a neutral or compensating conductor, and a transformer having a winding connected across the alternating current circuit, to the middle point of which the neutral or compensating conductor is connected. 16th. A system of electrical distribution comprising a source of alternating currents, a stationary transformer supplied thereby, a rotary transformer supplied from said stationary transformer and a direct current circuit, the conductors of which are respectively connected to one of the rotary transformer direct current terminals and the middle point of the secondary winding of the stationary transformer. 17th. A system of electrical distribution comprising a source of alternating currents, a rotary transformer, a stationary transformer interposed between said source and the alternating current end of the rotary transformer, and a plurality of direct current circuits, the conductors of each of which are respectively connected to the direct current terminals of the rotary transformer and to the middle point of the secondary winding of the stationary transformer.

No. 64,282. Device for Securing in Closed Position covers of Culinary Vessels. *(Appareil pour assujetir les Couvercles d'ustensils de cuisine.)*



64282

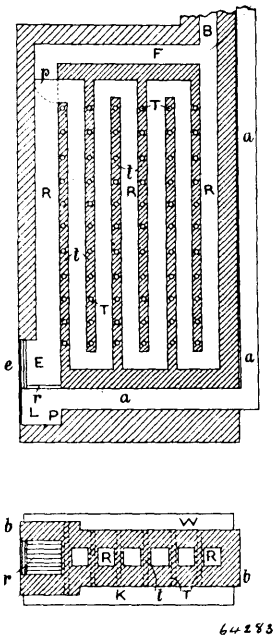
The Firm of Joh. Baumann's Wive, assigne of Johan Weidner, all of Amberg, Bavaria, Germany, 10th October, 1899; 6 years. (Filed 30th June, 1899.)

Claim.—1st. An appliance for securing the covers of culinary vessels in the closed position, consisting of a bar *f* with middle cranked portion and with hooked ends *h*, adapted to engage under

a projecting rim of the vessel, in combination with a cover to the upper side of which is pivoted a lever *b* with finger *c* and handle *d*, so that on turning the lever into the vertical position the finger *c* presses against the cranked portion of the bar *f* so as to forcibly hold the cover down on the vessel, while when the lever is brought into an inclined position the finger *c* in bearing against the inclined side of the cranked part of the bar, will exercise a less pressure on the cover, substantially as described. 2nd. The combination of a locking bar serving to engage its ends with the vessel, and a lever mounted on the vessel cover and having a part engaged with the locking bar to secure the same. 3rd. The combination of a locking bar serving to engage its ends with the vessel, a lever mounted on the vessel and a finger attached to the lever and engaging under the locking bar to raise the same and clamp it in place.

No. 64,283. Ventilator and Heater.

(*Ventilateur et chauffeur.*)

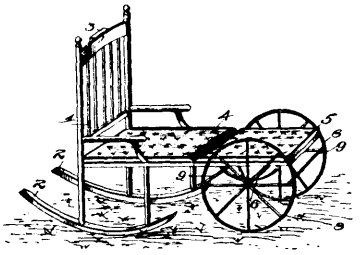


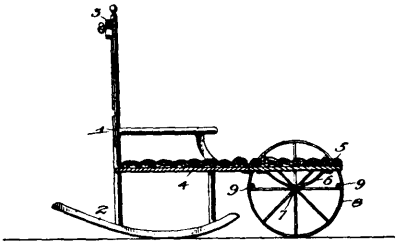
64283

Fredrik Waldemar Löunbeck, Ekenäs, Finland, Russia, assignee of Anders Gustaf Söderlund, Stockholm, Sweden, 10th October, 1899; 6 years. (Filed 6th March, 1899.)

Claim.—1st. In a heating and ventilating apparatus the combination of a chamber supplied with air from the outside, a warm air chamber and a winding flue built up between these two with tubes connecting the hot air chamber with the cold air chamber passing through the walls of the flue and embedded in clay work, substantially as described. 2nd. In a heating apparatus the combination of a fresh air chamber and a warm air chamber having a flue space between and separated from the flue space by walls, in combination with an enlarged series of independent pipes connecting the hot air chamber with the chamber through the masonry or tiling and protected from the direct action of the flue gases by a bed of clay work. 3rd. In combination with a heating apparatus formed of a hot air chamber and a cold air chamber separated by a flue space and connected by numerous tubes, a series of adjustable dampers separating the two chambers into numerous compartments, said partitions of one chamber being equi distant from the two nearest partitions of the other chamber whereby the fresh air circulating through the pipes is obliged to pass through a plurality of times before entering the hot air channels of the building. 4th. The combination of a firegrate, a closed ashpit below, a foul air chamber formed in one with it, a flue separating the same from the furnace, connecting pipes between the hot air, and the cold air chambers through the masonry or tiling but protected from the flue, a direct passage from the furnace to the chimney, and a damper arranged so as to out off either the direct passage or the circuitous flue from the chimney at will, whereby when the fire is first lighted a quick draught can be obtained by opening the damper direct to the chimney and then when the heat is up it can be closed, and the air pass through the heating flue. 5th. The combination of a heating device consisting of a fresh air chamber a warm air chamber a flue separating the same and tubes connecting the same heated by the flue of a pipe from outside entering the fresh air chamber a warm air conduit taking the air from the warm air chamber and delivering it into the rooms to be heated and ventilated, a foul air chamber opening into a space below the grate and foul air conduits taking the exhausted air from the rooms, and delivering it into this space whereby the house is both warmed and ventilated by the fire. 6th. The combination with the heating device having a closed ashpit such as described of a warm air conduit delivering the warm air from the heater to near the floor of the room to be heated a hollow ceiling in the room to be heated having perforations opening into the room, and a conduit taking the exhausted air from the hollow ceiling and delivering it to the closed ashpit of the heating apparatus, substantially as described. 7th. In combination with a heating device having a closed ashpit the combination in the room to be heated of a hollow floor a conduit connecting the warm air chamber of the heating apparatus with the hollow floor apertures connecting the spaces of the hollow floor with the air in the room, foul air exits at the top of the room, and a foul air conduit bringing the air from those exits to the closed ashpit, substantially as described. 8th. In a warming and ventilating device for buildings, the combination of a false ceiling, furring strips, joists, and noise proof course forming a vacant space above the ceiling, having orifices through the ceiling and furring strips above, and floor enclosing a second vacant space above the noise proof course having orifices opening into the rooms above, an air heating device, a conduit connecting the hot air exit of the air heating device with the said space above the ceiling with a space immediately below the floor, and a second conduit connecting the foul air chamber of the heating device with the space immediately above the ceiling, substantially as described.

No. 64,284. Lounging Chair. (*Fauteuil.*)



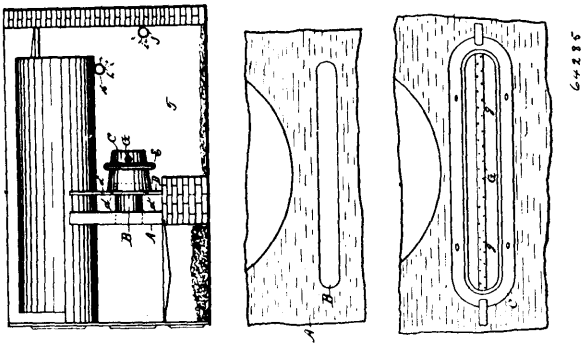


64284

George Kelly, Mineral Point, Wisconsin, U.S.A., 10th October, 1899; 6 years. (Filed 10th July, 1899.)

Claim.—1st. The combination with the rocking chair, of the leg section hinged thereto, the supporting axle, springs and wheels, and the transverse parallel limit rods connecting said wheels, substantially as specified. 2nd. The combination with the rocking chair, of the leg section hinged to the chair in the same plane with the seat section, wheels supporting the free end of said leg section, and a transverse brace rod connecting said wheels, as and for the purpose set forth.

No. 64,285. Furnace. (*Fournaise.*)



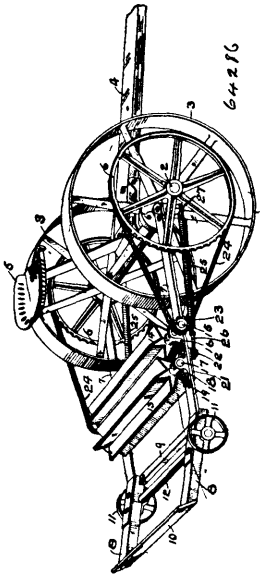
64285

George L. Fogler, Washington, District of Columbia, U.S.A., 10th October, 1899; 6 years. (Filed 10th July, 1899.)

Claim.—1st. In a furnace, a product flue extending from the fire box, a draft flue loosely containing a substantial rear portion of the

product flue, and means for feeding air to the current, as herein set forth. 2nd. In a furnace, a straight primary flue between the fire box and combustion chamber, and a converging draft flue, containing a substantial portion of the primary flue, and an air space between said flues, as specified. 3rd. In a furnace, having two bridge walls, a product flue projecting rearwardly from the first bridge wall through the second bridge wall, a draft flue loosely containing a substantial portion of the product flue, and extending from the second bridge wall into the combustion chamber, and air ducts leading through the second bridge wall into the space between the flues, as described. 4th. In a furnace flue, apertures through the flue wall to convey air from an air supply to the interior of the flue. 5th. In a furnace flue, a transverse air duct connected outwardly with an air supply, and having air vents within the flue, for the purpose specified. 6th. In a water heating or steam generating furnace, air duct at and beneath the rear end of the boiler, and a transverse air duct at the rear end of the combustion chamber, substantially as described. 7th. In a boiler furnace, the combination of a flue and a water back, the water back being interposed between said flue and the fire box, as described.

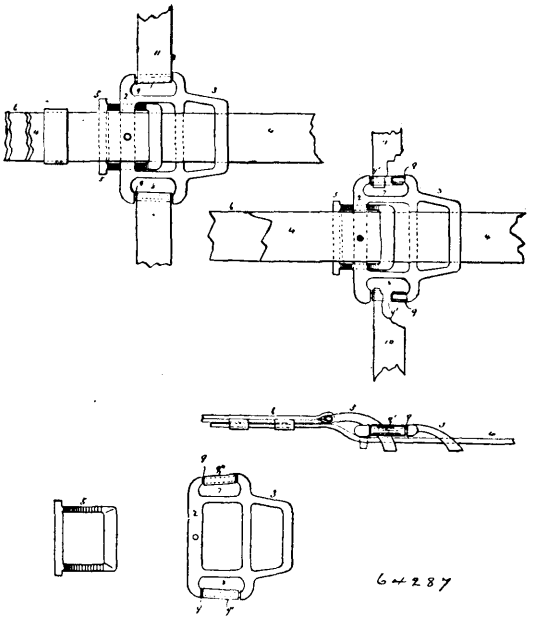
No. 64,286. Weed Puller. (*Sarcleur.*)



Richard Russell, Stephen, Minnesota, 10th October, 1899; 6 years. (Filed 14th July, 1899.)

Claim.—1st. The combination, in a weed pulling machine, with a wheeled frame, of revolving, co-acting reels or beaters mounted thereon in position to engage the stalks of weeds or stubble, means for revolving said reels or beaters and a cross bar supported beneath and in the rear of the forward reel, substantially as described. 2nd. The combination, in a weed pulling machine, with an axle and its wheels, of a frame supported thereon, a reel mounted upon said frame, means for driving said reel, a second reel also mounted upon said frame in the rear of said first named reel, and both of said reels being provided with co-acting wings or beaters, whereby when said first named reel is operated its wings will engage the wings of the second reel and operate it also, substantially as described. 3rd. The combination, in a weed pulling machine, with an axle and its wheels, of a frame mounted thereon, a reel mounted upon said frame, means for driving said reel, a second reel mounted in sliding bearings upon said frame in the rear of said first named reel, both of said reels having co-acting wings, whereby when one is revolved the other will be revolved also, and means for holding said second named reel toward said first named reel with a yielding pressure, substantially as described. 4th. In a weed puller, the combination, with a wheeled frame, of reels mounted thereon, one in the rear of the other, each reel having co-acting wings, whereby the revolution of one will drive the other, means for driving the forward reel, and means provided beneath the reels for directing the stalks of weeds or stubble into position to be engaged by said co-acting wings, substantially as described. 5th. The combination, with the axle and its wheels, of the bars 7 secured to the axle, means supporting the rear ends of said bars, forward and rear reels mounted upon said bars in fixed and movable bearings respectively, said reels having co-acting wings, means for holding the rear reel toward the other with a yielding pressure, and means for driving the forward reel, substantially as described.

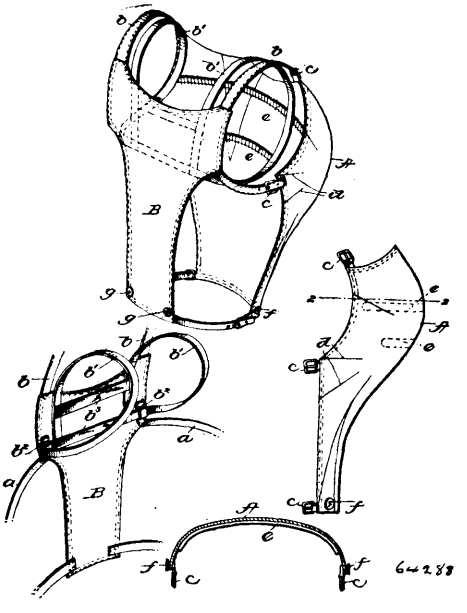
No. 64,287. Trace Buckle. (*Boucle de traits.*)



Charles F. Reynolds, Toledo, Ohio, U.S.A., 10th October, 1899; 6 years. (Filed 20th June, 1899.)

Claim.—1st. A trace buckle having upper and lower loops for attachment of the back and the belly-band, each loop having a bar extending at an angle to the axial line of the buckle, said bar being straight and of sufficient length to give a straight line bearing for the band, and a roller surrounding each of said bars. 2nd. A trace buckle having at one end a loop outside the plane of the buckle body, and provided at each side of the body with a loop having a cross bar extending at an angle to the axial line of the body, said bar being straight and of sufficient length to give a straight line bearing for the band attached thereto, and rollers surrounding said cross bar.

No. 64,288. Corset. (*Corset.*)

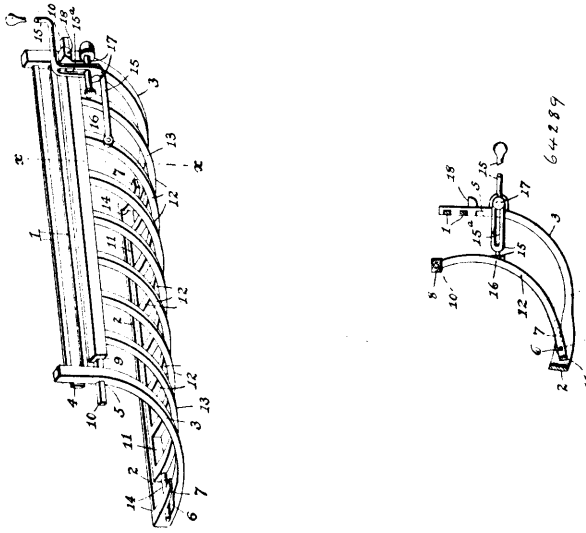


Lahvesia Paxton Caruthers Packwood, Maitland, Florida, U.S.A., 10th October, 1899; 6 years. (Filed 3rd July, 1899.)

Claim.—1st. A corset having stays of flexible material extending horizontally across a part of the corset. 2nd. A corset having a bosom section and a back section, straps joining the two sections to hold them in place, the back section having a widened upper portion to lie across the shoulders of a person, and the bosom section having a widened upper portion to lie across the bust of the person, the lower ends of the two sections being constructed to fit the waist and the bosom section having darts therein to give the section a con'

vex form serving to fit said section over the bust, and a strip of flexible material running transversely across the botom section at the widened upper portion thereof to retain the form of the same. 3rd. A corset having a bosom section with a widened convexed upper portion serving to lie across the bust of a person, and a strip of flexible material extended horizontally across said widened upper portion of the bosom section to retain the same in its convex form. 4th. A corset having a bosom section and a back section, the upper portions of the two sections being widened to lie respectively across the bosom and back of the person, side straps extending between the sections to hold them in place, shoulder straps extending above the sections to support the corset from the shoulders of the person, and a strip of flexible material secured to the widened upper portion of the bosom section, such material serving to hold said section in convex form so that it may lie uniformly over the bust of the person. 5th. A corset having a bosom section and a back section, straps joining the two sections to hold them in place, the back section having a widened upper portion to lie across the shoulders of the person, and the bosom section having a widened upper portion to lie across the bust of the person, the lower ends of the two sections being constructed to fit the waist, and the bosom section having darts therein to give the section a convex from serving to fit said section over the bust, a strip of flexible material running transversely across the bosom section at the widened upper portion thereof to retain the form of the same, and a brace consisting of straps connected to the back section and connected together by an elastic web or strap.

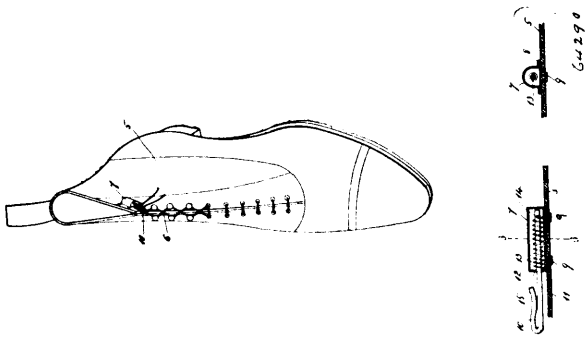
No. 64,289. Grate. (*Grille.*)



Fletcher H. Fielder, Greenwood, Mississippi, U.S.A., 10th October, 1899; 6 years. (Filed 6th July, 1899.)

Claim.—The combination, with the grate frame comprising transverse top bars, a transverse bottom bar, and fingers having upper slots and lower notches, and forming the only connection between the bottom and top bars, of the basket comprising a top bar having ends engaging said slots, a bottom bar, a series of fingers connecting the said two bars, a trunnion extending outwardly from the end fingers of the series through the said notches, and a lever pivoted to the basket and to the frame for sliding and turning the basket in the frame, as set forth.

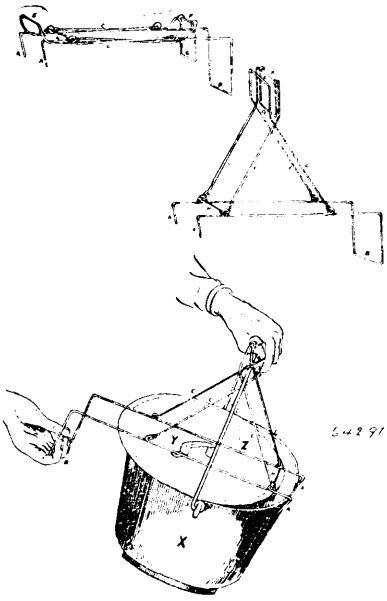
64,290. Shoe Lacing Device. (*Appareil à lacer les chaussures.*)



Eldridge Fry Spencer, Port Perry, Ontario, Canada, 10th October, 1899; 6 years. (Filed 1st April, 1899.)

Claim. 1st. A fastening device of the class described, comprising a tubular casing, a hook provided with a crank which passes loosely into one end of said casing, and a spring wound on said shank within said casing, one end of which is secured to the end of the shank, and the other end of which bears on the end of the casing through which said shank passes, substantially as shown and described. 2nd. A fastening device of the class described, comprising a tubular casing, a hook provided with a shank which passes loosely into one end of said casing, and a spring wound on said shank within said casing, one end of which is secured to the end of the shank, and the other of which bears on the end of the casing through which said shank passes, said casing being also provided with means for securing it to a shoe or other article, substantially as shown and described.

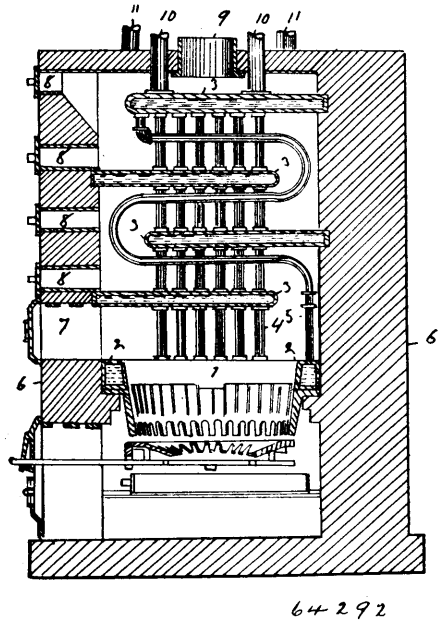
No. 64,291. Pot Lifter. (*Porte-pot.*)



William Herbert Beck, Carberry, Manitoba, Canada, 10th October, 1899; 6 years. (Filed 28th April, 1899.)

Claim.—A combination of wire claws, levers and spreader forming the article, substantially as set forth.

No. 64,292. Water Heater. (*Chauffeur d'eau.*)

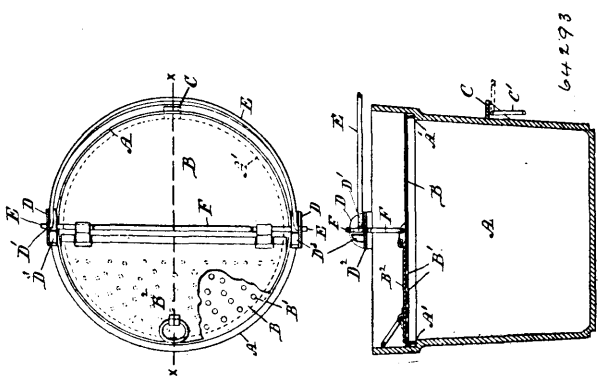


Anton W. Achard, Saginaw, Michigan, U.S.A., 18th October, 1899; 6 years. (Filed 3rd May, 1899.)

Claim.—1st. In a hot water heater, the system of heating the water, comprising the boiler, vertical pipes connected with the boiler and extending upward through the heating chamber, a series of hollow partitions extending into the heating chamber from

opposite sides thereof and partly across the same and connected to the vertical pipes extending from the boiler whereby the water will circulate through the boiler, pipes and partitions, and a series of coiled pipes connected to the boiler and extending upward zigzag through the heating chamber between and around the ends of the partitions and terminating in the upper hollow partition, and the pipes 10 extending from the upper partition, substantially as described. 2nd. In a hot water heater, the combination with the firepot, a heating chamber above the firepot having extending into it two or more hollow horizontal partitions, the partitions extending from opposite sides and nearly across the chamber, whereby the heat will be defected from one side of the chamber to the other through the flues between the partitions, a boiler surrounding the firepot, a series of vertical pipes extending upward from the boiler and connected to the hollow partitions whereby the water will circulate from the boiler through the pipes and partitions, and coiled pipes extending upward from the boiler around the inner ends of the partitions, back and forth through the heated chamber to the top thereof and connected to the upper partition, and the discharge pipes extending from the upper partition, and the return pipes, substantially as specified.

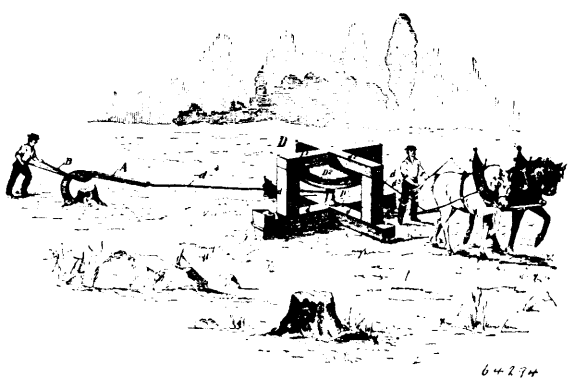
No. 64,293. Culinary Pot and Cover.
(*Ustensile de cuisine et couvercle.*)



Malcom McKinnon, Hepsworth, Ontario, Canada, 10th October, 1899; 6 years. (Filed 3rd May, 1899.)

Claim.—1st. The pot A, having a lug C, T-shaped in cross section and an inverted T-shaped handle C^1, hung to the lower portion of said lug, as and for the purpose set forth. 2nd. The pot cover B, having a perforated portion B^1, covered by a hinged flap B^2, and a handle F, fixed thereto diametrically, said handle having projecting ends bent to engage the ears of the pot to keep the cover in place, as set forth. 3rd. The ears D, having a hole D^1, to receive the bail E, and a flange D^2, parallel to the edge of the pot, to be engaged by the ends of the handle of the cover B, and to support the bail from contact with the pot, as set forth. 4th. The ears D, having a stop shoulder D^3, to be engaged by the pot bail while tipping the pot, as set forth.

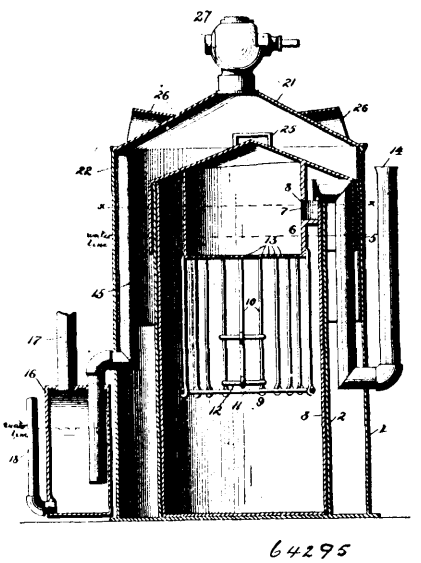
No. 64,294. Stump Extractor. (*Arrache-souche.*)



Hugh Alexander Fraser, Hamota, Manitoba, Canada, 10th October, 1899, 6 years. (Filed 1st March, 1899.)

Claim.—1st. A land scrubber and stump extractor, comprising a beam, having a downwardly curved hook portion terminating in bifurcated jaws; and guide handles secured to said hook portion, substantially as described. 2nd. A land scrubber and stump extractor, comprising a beam, having a downwardly curved hook portion terminating in bifurcated jaws, the lower faces of which are inclined, forming upwardly projecting points, and a bar having its inner end resting upon said base, the said curved hook-portion passing between the sides of said bar, and the outer end of said bar formed with suitable guiding handles, and securing bolts passed through the sides of said bar and arranged below and above said beam, substantially as described. 3rd. A land scrubber and stump extractor, comprising a frame, a shaft journalled in said frame, a winding drum fixed upon said shaft, a draft rope wound upon said drum and adapted to be connected at its outer end with a team of horses, a second rope wound around the said shaft and attached at its outer end to a suitable hook, substantially as described.

No. 64,295. Acetylene Gas Generator.
(*Générateur de gaz acétylène.*)

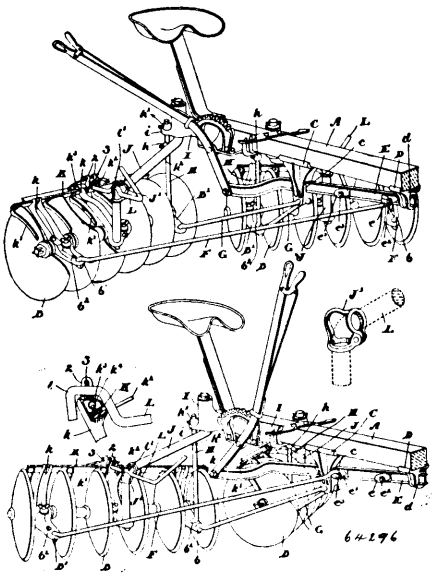


John Brownlie Hamilton, assignee of John Herbert Cliff and George Henry Cliff, all of Dundas, Ontario, Canada, 11th October, 1899, 6 years. (Filed 25th April, 1898.)

Claim.—1st. An acetylene gas generator, comprising a generating chamber normally closed, a carbide receptacle mounted therein, a water inlet communicating with said carbide receptacle, an outer chamber, an escape for the gas from said generating chamber to said outer chamber, automatically opened by the pressure of the gas, a pipe for passing the gas from said outer chamber to a receiving tank, substantially as described. 2nd. In an acetylene gas generator, the combination with an outer chamber, of a generating chamber mounted therein, said generating chamber being normally held out of operative contact with said outer chamber, a carbide receptacle located in said generating chamber, and a water inlet communicating with said receptacle, and an escape for the gas operated by the formation of said gas for making an operative contact with said outer chamber, substantially as described. 3rd. In an acetylene gas generator, the combination with an outer chamber, of a generating chamber secured therein, a cover for said generating chamber normally closing said generating chamber from contact with said outer chamber, a carbide receptacle connected to said cover, and a water inlet communicating with said receptacle, said cover being adapted to be lifted by the pressure of the gas and allow of an operative connection between said generating chamber and said outer chamber, substantially as described. 4th. A generating chamber for acetylene gas generator comprising a receptacle, a cover for said receptacle, adapted to be moved in and out of an operative position on said receptacle, a perforated reservoir secured to said cover within said receptacle, a carbide receptacle secured to said reservoir, and automatically operated water inlet for introducing liquid to said reservoir, substantially as described. 5th. In an acetylene gas generating apparatus, the combination with a generating chamber normally closed against the outlet of gas, and adapted to be opened by the pressure of the gas for passing the gas from said generating chamber, of an outer chamber surrounding said generating chamber, said outer chamber being adapted to receive the gas from said generating chamber, a water trap and a connection between said outer chamber and said water trap, whereby the gas will be passed from said outer chamber in a purified condition, substantially as described. 6th. An acetylene gas generator, comprising inner and outer casings, an ash receptacle located within said casings, a perforated reservoir within said ash receptacle, having a depending basket secured thereto, a cover for said receptacle secured to said reservoir, said cover being adapted to be lifted by the pressure of the gas for connecting the generator with suitable pipes to convey the gas to a suitable tank, a trap located in the path of such connections, and a water inlet communicating with said reservoir for feeding water or liquid to the reservoir, substantially as described. 7th. An acetylene gas generator, comprising

inner and outer casings; a cylindrical ash receptacle removably located within the inner casing, a reservoir within said ash receptacle, having a perforated bottom, an elongated slot and a segemental flange, a depending basket secured to said reservoir, said basket being composed of verticle and horizontal bars, a cover for said receptacle secured to the said reservoir and adapted to be lifted by the pressure of the gas for connecting the generator with suitable pipes to convey the gas to a tank, a trap located in the path of said connections, and a water inlet communicating with said reservoir for feeding water or other liquid to the reservoir, substantially as described.

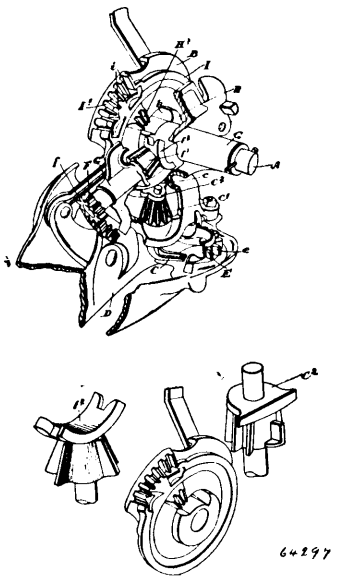
No. 64,296. Disc Harrow. (*Herse à disque.*)



The Massey-Harris Company Limited, assignee of William F. Johnston and William John Clokey, all of Toronto, Canada, 1th October, 1899; 6 years. (Filed 22nd July, 1899.)

Claim.—1st. The combination with the tongue and supporting brackets, of the longitudinal bar extending through the supporting brackets, the gangs pivotally swung on the bent arms, the tie rods connected to the rear brackets and to the inner journal of the gangs and the draught rods connected to eyes on the bar supported in the brackets and to the front journals of the gangs, and means for manipulating the bar longitudinally underneath the tongue, as and for the purpose specified. 2nd. The combination with the tongue and supporting brackets, of the longitudinal bar extending through the supporting brackets, the gangs pivotally swung on the bent arms, the tie rods connected to the rear brackets and to the inner journal of the gangs and the draught rods connected to eyes on the bar supported in the brackets, and to the front journals of the gangs, and the lever pivoted on a quadrantal frame secured to the tongue and designed to co-act with such frame, as and for the purpose specified. 3rd. The combination with the tongue, the gangs and bent arms pivotally connecting the gangs to the tongue, of the scraper bar provided with scrapers supported in suitable bearings forming part of the journal boxes of the gangs, the bent lever suitably supported on the apexes of the outer bonds of the arms and extending through a fork in the scraper bar and provided with a hooked rear end extending over the bar, as and for the purpose specified. 4th. The combination with the tongue, the gangs and bent arms pivotally connecting the gangs to the tongue, of the scraper bar provided with scrapers supported in suitable bearings forming part of the journal boxes of the gangs, the bent lever suitably supported on the apexes of the outer bends of the arms and extending through a fork in the scraper bar and provided with a hooked rear end extending over the bar, the spring box centrally supported on the scraper bar and provided with suitable springs, one at each side of the centre pin to hold the scrapers normally from the discs, the jaw extending upwardly therefrom, and having a split pin extending through both members above the rear end of the operating foot lever, as and for the purpose specified. 5th. The combination with the tongue, the gangs and bent arms pivotally connecting the gangs to the tongue, of the scraper bar provided with scrapers supported in suitable bearings forming part of the journal box of the gangs, the bent lever suitably connected at the rear of the scraper bar so as to support it, and provided with an intermediate bend, and the loop clip extending over the intermediate bend and suitably held on the apexes of the outer bend of the bent arms to which the gangs are connected, as and for the purpose specified. 6th. The combination with the tongue and the gangs suitably connected thereto, of the scraper bar provided with scrapers supported in suitable bearings forming part of the bearing box of the gangs, and an operating lever suitably supported and provided with a hooked rear end extending over the scraper bar and forming a support for the same, as and for the purpose specified.

No. 64,297. Grain Binder. (*Lieuse à grain.*)



The Massey Harris Company Limited, assignee of Lyman Melvin Jones and William F. Johnston and William John Clokey, all of Toronto, Ontario, Canada, 11th October, 1899; 6 years. (Filed 22nd July, 1899.)

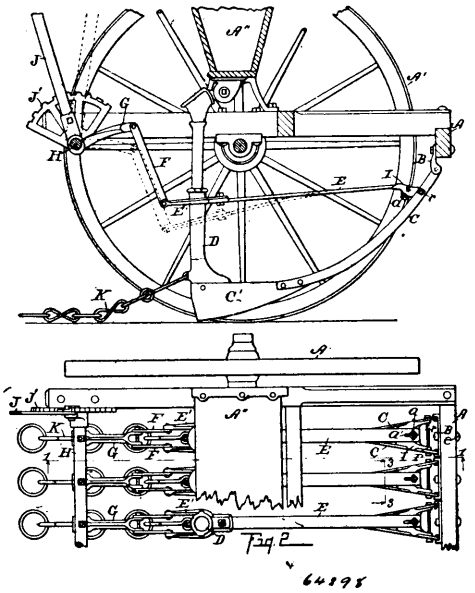
Claim.—1st. In a knotter mechanism for grain binders, the combination with the knotter actuating wheel provided with an inner circular face delay track around the hub having a suitable recess and a toothed segment radially opposite such recess, of a spindle journalled in suitable bearings and having a pinion at the outer end meshing with the gear on the outside of the cord holder ring and a pinion at the inner end having an arc shaped flat sided head at its inner end designed to co-operate with the inner face ring or track around the hub, as and for the purposes specified. 2nd. In a knotter mechanism for grain binders, the combination with the outer circular face delay track provided with recesses, a toothed segment radially opposite such recesses, of the bill-hook and spindle suitably journalled in the frame and a pinion on the inner end of the spindle having a flat sided head at its inner end designed to co-act with the outer delay face track or surface, and the segment peripherially outside the same, as and for the purpose specified. 3rd. In a knotter mechanism for grain binders, the combination with the knotter actuating wheel provided with an inner circular face delay track around the hub provided with a suitable recess, a toothed segment radially opposite such recess, and an outer circular face delay track provided with recesses, and a toothed segment opposite such recesses, of a spindle journalled in suitable bearings, a pinion at the outer end thereof meshing with the gear on the outside of the cord holder ring, and a pinion at the inner end of the spindle having an arc shaped flat sided head at its inner end designed to co-operate with the inner face ring or track around the hub and the thoothed segment, and the bill hook and spindle suitably journalled in the frame and a pinion having a flat sided head at its inner end designed to co-act with the outer delay face track or surface and the segment peripherially outside the same, as and for the purpose specified.

No. 64,298. Grain Drill. (*Semoir en ligne.*)

The Dowagiac Manufacturing Company, assignee of Will. F. Hoyt, all of Dowagiac, Michigan, U.S.A., 11th October, 1899; 6 years. (Filed 22nd July, 1899.)

Claim.—1st. In a grain drill, the combination of a hanger B, secured thereto extending downwardly and having oppositely pointing studs *n*, a shoe or hoe C^1, with double drag bars C, supported on said stubs *n*, and a bracket I, secured between the drag bars to hold the same in position, for the purpose specified. 2nd. In a grain drill, the combination of a shoe or runner C^1, upwardly projecting drag bars at the front thereof suitably pivoted and supported at their forward ends, a bracket I, projecting between the drag bars and having projecting lugs or shoulders to rest on the top of the same, retained in position by a suitable bolt or pin through the said drag bars and having a curved seat on its upper side, a spring E, conformed at its forward end to said curved seat and containing a

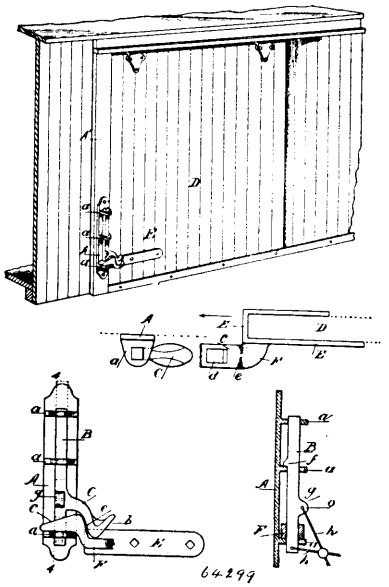
slot and a bolt passing through the bracket I, to adjust the spring, and suitable connections to the rear end of the spring for applying



64198

pressure thereto for the purpose specified. 3rd. In a grain drill, the combination of the drag bars suitably supported on pivots on their forward ends, a bracket secured to said drag bars and having a curved seat on its upper side and adapted to rest against the upper side of the drag bars, and a spring, the forward end of which is conformed to the said curved seat, and means of securing the spring adjustably on the curved seat to adjust the tension of the same, for the purpose specified. 4th. In a grain drill, the combination of a drag bar suitably pivoted at the front, a blade spring E, secured to said drag bar and projecting rearwardly therefrom, a fork E^1, secured to the rear end of said spring, the prongs of which extend each side of the corresponding boot of the drill, means of applying pressure to the rear ends of said fork and elevating the same to engage the flanged tops of the boot to control the drill, for the purpose specified.

No. 64,299. Car Door Lock. (*Serrure de porte de chars.*)

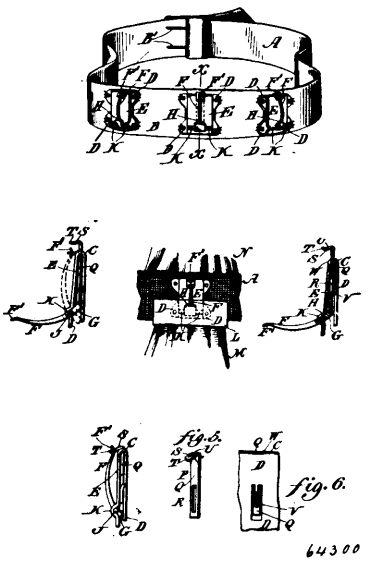


64299

Charles Patrick Waters and Louis Dennis Hawley, both of Detroit, Michigan, U.S.A., 11th October, 1899; 6 years. (Filed 18th July, 1899.)

Claim.—1st. In a lock for car doors, the combination of the plate adapted to be secured to the jamb of the door having lateral brackets, the latch bolt supported in said brackets to move vertically, the outwardly and downwardly curved arm projecting from said latch bolt, said arm at its outer end having an upwardly bevelled face, the bracket attached to the edge of the door having the outwardly and forwardly projecting latch, said latch having an inclined upper face and an aperture through its forward end, said latch also having a vertical shoulder or off-set at the termination of said incline adapted to be engaged by the depending portion of the arm extending from said bolt. 2nd. Square counter sunk holes preventing bolt being turned from the outside of the car. 3rd. The automatic elevation of the projection on the closing of the door of the arm and having at its outer end the upward bevelled face.

No 64,300. Garment Supporter. (*Support de vêtement.*)

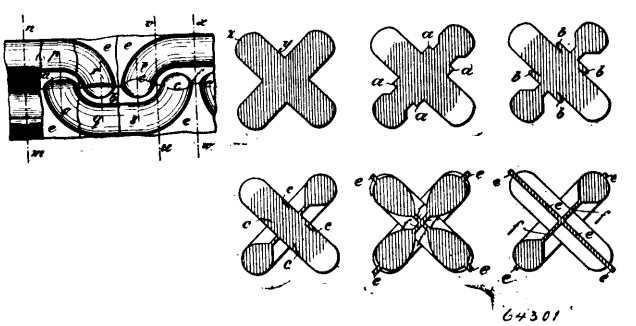


64300

Mary Eva Anck, assignee of John Matthew Anck, both of Philadelphia, Pennsylvania, U.S.A., 11th October, 1899; 6 years. (Filed 8th October, 1898.)

Claim.—1st. In a safety pin, a movable guard adapted to engage the end of the pin thereof and hold the same in locked position. 2nd. A supporting device consisting of an attaching plate having an elastic limb, and a pin journalled in said limb and provided with a heel adapted to be held in position between the said plate and limb, in combination with a guard movably supported upon said plate and having a member which is adapted to lock the extremity of said pin when the latter is in closed position. 3rd. In a safety pin, a supporting device, composed of a plate provided with an elastic limb integral with the upper end of said plate, and depending therefrom across the face thereof, the lower end of said limb having journal bearings thereon, and openings therein between the said bearings, and a pin with journals mounted in said bearings, and having a heel passed through said opening and in contact with said plate, said pin being adapted to bear backwardly against said limb, in combination with a guard adapted to lock the free end of said pin when the latter is in closed position. 4th. A plate having an elastic limb extending from one end thereof, a pin journalled in the free end of said limb, and provided with a heel adapted to pass through an opening in said limb and bear against said plate, and a slotted guard engaged by a tongue on said plate and provided with a slotted end adapted to receive the free end of the said pin. 5th. A plate having an elastic limb, a pin journalled in said limb and a guard guided on said plate, and projecting through the same, and having a slotted end to receive the free end of said pin.

No. 64,301. Manufacture o Weldless Link Chains.
(*Fabrication d'anneau de chaines sans soudures.*)

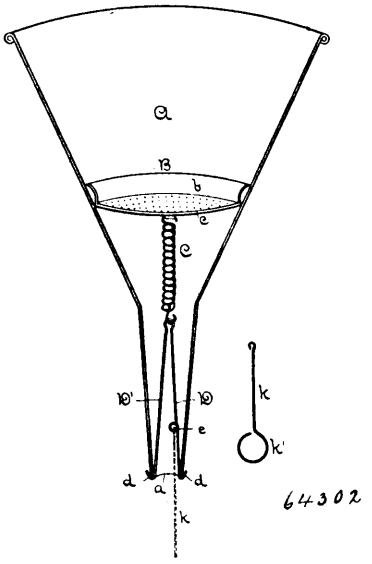


64301

Otto Klatte, Goethestrasse 36, Düsseldorf, Germany, 11th October, 1899; 6 years. (Filed 11th February, 1899.)

Claim.—1st. The process of manufacturing weldless link chains from cruciform bars, which process consists in forming a bar of cruciform section with curved or rectilinear parts connecting the links and with recessed outer edges, and in then rolling said bar so as to cause the displaced metal from one link to flow into the next link without any seam, substantially as described. 2nd. In the manufacture of weldless chain links from cruciform bars, the employment of cruciform bars of the cross section shown in figure 15, as and for the purpose described. 3rd. In the manufacture of weldless chain links from cruciform bars, the use of four co-operating rolls or pressing discs, having their operating portions rounded or flattened, as and for the purposes specified.

No. 64,302. Funnel. (*Entonnoir.*)



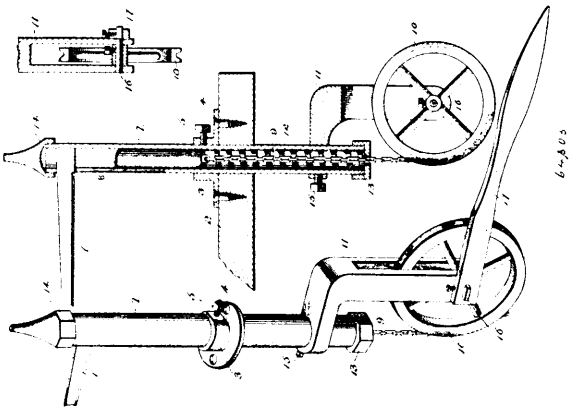
George Georgen, St. Louis, Missouri, U.S.A., 11th October, 1899; 6 years. (Filed 30th January, 1899.)

Claim.—1st. A strainer for funnels composed of a sieve portion adapted to fit within the converging sides of a funnel, a spring secured to and pendant from said sieve, and means for removably connecting said spring with the edge of the neck of a funnel, substantially as described. 2nd. A strainer for funnels composed of a sieve portion adapted to rest on the converging sides of a funnel and formed of a perforated plate, a coil spring secured to said sieve, and one or more wires secured to said spring and bent to grasp the lower edge of the neck of a funnel, substantially as set forth. 3rd. A strainer for funnels composed of a perforated plate adapted to rest on the converging sides of a funnel, a retractile spring secured to said plate and pendant therefrom, a wire secured to the lower end of said spring, and having formed therein an eye or loop, and a hook adapted to engage said eye or loop, for the purpose and in the manner set forth.

No. 64,303. Cheese Cutter. (*Coupe-fromage.*)

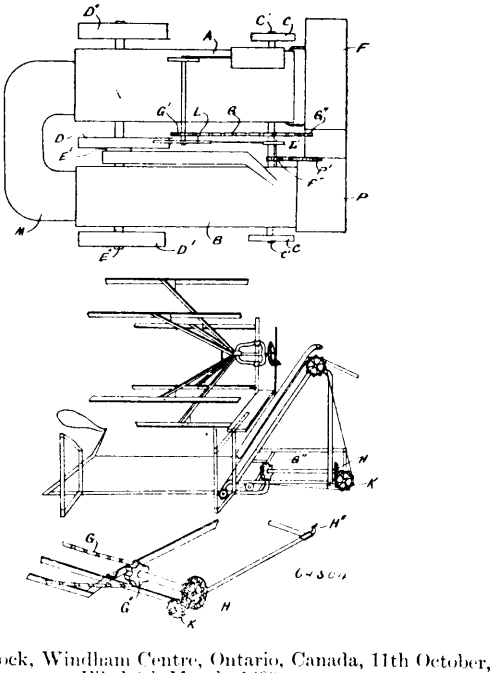
Burton Butler Nagley and Isaac Asbery, both of Marysville, Washington, U.S.A., 11th October, 1899; 6 years. (Filed 28th February, 1899.)

Claim.—1st. A cheese cutter comprising a standard or post designed to be mounted on a counter and to extend through the same, a knife guided on to the post or standard, a bracket located beneath the counter and carried by the lower portion of the post or standard, a wheel journaled in the bracket and connected with the knife, and means for operating the wheel, substantially as described. 2nd. A cheese cutter, comprising a standard or post, a knife guided thereon, a wheel having a flexible connection with the knife and adapted to force the same through the cheese, and a handle or lever connected with the wheel for rotating the same, substantially as described. 3rd. A cheese cutter, comprising a vertically reciprocating plunger provided with a knife, a spring for moving the plunger upward, a grooved wheel, a flexible connection connected with the plunger and the wheel and lying in the groove of the latter, and means for rotating the wheel, substantially as described. 4th. A cheese cutter, comprising a hollow standard, a reciprocating plunger arranged within the standard and provided with a knife extending from the same, a removable cap arranged at the lower end of the standard and having a perforation, a spring interposed between the cap and the plunger, a flexible connection attached to the plunger and extending through the perforation of the cap, and operating mechanism attached to the flexible connection, substantially as described. 5th. A cheese cutter, comprising a tubular standard having a slot, a reciprocating plunger arranged within the standard and having a knife extending through the said slot, removable caps



arranged at the ends of the standard, and operating mechanism for moving the plunger downward, and a spring interposed between the plunger and the lower cap, substantially as described. 6th. A cheese cutter, comprising a standard, a collar adjustably secured to the standard and designed to be fastened to a counter or other suitable support, a plunger arranged within the standard and provided with a knife, a bracket adjustably secured to the lower portion of the standard, a wheel journaled on the bracket, a cord or chain connected with the plunger and the wheel, and a handle for operating the wheel, substantially as described. 7th. A cheese cutter, comprising a hollow standard provided at its top and bottom with removable caps, a plunger arranged within the standard and provided with a knife, a coiled spring interposed between the plunger and the lower cap, an adjustable collar having a flange designed to be secured to a counter, a bracket having one arm adjustably secured to the lower portion of the standard and adapted to be rotated thereon to position it, said bracket having its other arm bifurcated, a shaft or spindle journaled on the bifurcated arm, a wheel having flexible connection with the plunger and mounted on the shaft or spindle in the bifurcation of the bracket, and a handle or lever secured to the shaft or spindle, substantially as described.

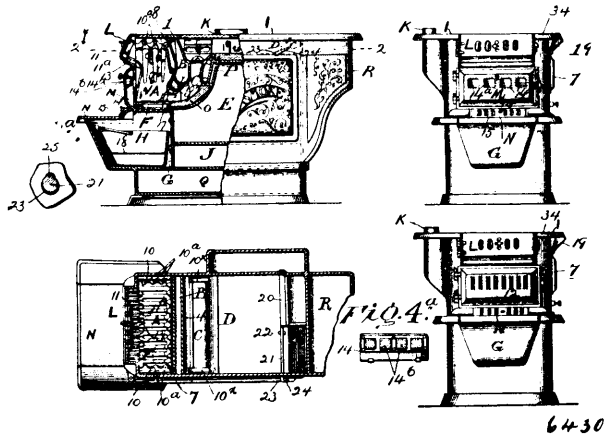
No. 64,304. Harvester and Thresher.
(*Moissonneuse et batteuse.*)



Frank Peacock, Windham Centre, Ontario, Canada, 11th October, 1899; 6 years. (Filed 4th March, 1899.)

Claim.—The combination, with a traction engine having means for supporting the harvester and means for driving the moving parts of the harvester and the thresher, of the thresher having a self-feeder and a straw blower, and a harvester, substantially as described.

No. 64,305. Stove and Range. (*Poêle.*)



Edwin Ruthven Cahoone, Newark, New Jersey, U.S.A., 11th October, 1899; 6 years. (Filed 15th July, 1899.) N.B. Patent No. 64,305 is a re-issue of Patent No. 50,915, dated 26th December, 1895.

Claim.—1st. In a down draft stove, the combination of a fire pot or magazine and a plurality of trunks or tubes, extending downwardly from the top of the fire pot from a plane above the level of the bed of fuel, and adapted to eject jets of air towards the bed of fuel for its combustion, all constructed for the purpose of conducting the air and the products of combustion downwardly through the fuel under the influence of the draft. 2nd. A stove having a fuel magazine, a partition extending downwardly a predetermined distance therein to divide said fuel magazine into a fire pot proper and a gas duct or flue, and one or more trunks or tubes adapted to admit air into the fire pot down upon the fuel. 3rd. In a stove, the combination with the fuel magazine, of a hollow partition extending a predetermined distance down into the fuel magazine to divide the same into a fire pot proper and a gas duct or flue, said hollow partition being provided with air inlets and outlets, and a plurality of trunks or tubes adapted to admit air into the fire-pot. 4th. In a stove, the combination with the fuel magazine, of an air-duct extending a predetermined distance down into the fuel magazine to divide the same into a fire pot proper and a gas-duct or flue, one or more air trunks or tubes, and an imperforate fuel support, whereby jets of air are directed upon the bed of fuel and drawn therethrough under the influence of the draft. 5th. A stove or range having a fuel magazine, and a transverse air duct and a partition separating said fuel magazine into the fire pot proper and a gas duct or flue, said air duct being suspended from a removable section of the top plate of the stove or range in front of the pot-holes, substantially as set forth. 6th. A stove or range having a fuel magazine and provided with a divided top plate, one section of which is arranged in front of the front pot holes, and a removable, transverse air duct and partition which is arranged under said front section and divides the fuel magazine into the fire pot proper and the gas-duct or flue, substantially as set forth. 7th. A stove or range having a fuel magazine, a back flue C, and a hollow partition separating said fuel magazine from said flue, said partition having upright ribs on its front face and the grooves between said ribs being deepest at their upper ends, and becoming gradually shallower toward their lower ends, substantially as set forth. 8th. A stove or range having a fuel magazine, a back flue C, and a hollow partition separating said fuel magazine from said flue, the partition having upright ribs on its front face and a recessed, apertured or perforated strip next below said ribs, substantially as set forth. 9th. A stove or range having a fuel magazine, a back flue C, and a partition separating the fuel magazine from the flue, said partition having upright ribs on its front face, the grooves between said ribs deepest at their upper ends and a recessed, apertured or perforated strip immediately below said ribs, substantially as set forth. 10th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating said fuel magazine from said flue, said partition consisting of two sections, joined along a longitudinally extending line of division and the front section having in it apertures for the passage of air therefrom to the magazine, substantially as set forth. 11th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating said fuel magazine from said flue, said partition having double, apertured, front walls with an air-space between said walls, substantially as set forth. 12th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating said fuel magazine from said flue, said partition having a hollow shoe on its convex lower edge, whereby an air chamber is formed between said shoe and the wall of the partition, and apertures in said wall to admit air to said air chamber, substantially as set forth. 13th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating said fuel magazine from said flue, said partition having a shoe on its convex lower edge, and air-chamber being formed between said shoe and the wall of the partition, apertures in said wall to admit air to said chamber, and ribs or projections on the convex face of said shoe, substantially as set forth. 14th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating said fuel magazine from said flue, said partition having a hollow shoe on its convex lower edge, whereby an air chamber is formed between said shoe and the wall of the partition, apertures in said wall to admit air to said chamber, transversely arranged ribs on the convex face of the shoe, and pertures or perforations in the shoe for the escape of air to the fire therethrough, substantially as set forth. 15th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating said magazine from said flue, this partition having an apertured inner front wall, and a removable front wall or shield provided with upright ribs on its front face and with an apertured or perforated strip at its lower part, as set forth. 16th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating the magazine from said flue, this partition having an apertured, inner wall, an outer front wall, also apertured at its lowest part, and an air space between said walls, substantially as set forth. 17th. A stove or range having a fuel magazine, a flue C, and a hollow partition separating said magazine from said flue, this partition having a removable wall or shield 8 on its inner front wall, provided with vertically arranged grooves which are deepest at their upper ends, and a recessed perforated bottom strip 8^b, an air chamber being formed between the inner front wall of said partition and the said shield, substantially as set forth. 18th. A stove or range having a fuel magazine, a flue extending upwards from the bottom of said magazine, said stove having in its side at the upper end of said flue an opening, provided with a door, to admit a holder for toasting, and a partition separating the upper portions of said fuel magazine and flue and extending downwards to form a contracted throat at the lower portions thereof whereby the coke or fuel in the magazine is restrained from entering said flue, and witheld at a distance from said opening, substantially as described. 19th. A stove or range having a flue C, a partition separating said flue from the magazine, a movable front to the magazine, said front having apertures and upright ribs, and a movable stove front exterior to said ribbed front, an air space being formed between said fronts, substantially as set forth. 20th. A stove or range having a fuel magazine, a flue C, a partition separating said flue from the magazine, a movable stove front M, a movable grating or inner front, and a window plate mounted removable in the front M, substantially as set forth. 21st. A stove or range having a fuel magazine, a flue C, a partition separating said flue from said magazine, a stove front, a window plate set therein, said plate having a mica window with apertures or perforations about it for the admission of air to the stove, and a box or cap at the inside of and having an apertured or perforated bottom opposite the window, substantially as described. 22nd. In a stove or range for burning soft coal, the combination with the convex, ribbed lining 13 below the charging door, of the stove front M, and the inner ribbed front or lining, the ribs on the latter registering with those of the former at their upper end and forcing continuations thereof when the parts are in place, as set forth. 23rd. In a stove or range for burning soft coal, the combination of the partition extending downwardly between the fuel magazine and the flue forming at the bottom a contracted throat between the two to oppose the passage of coke into said flue, and the firebed for said coke comprising a fixed grid having slots, and a sliding grid having also slots, said upper and lower slots being adapted to register, substantially as described. 24th. In a stove for burning soft coal, the combination with the partition or duct having ribs or projections at its lower edge, of the fuel supporting bed having a raised shoulder at its rear edge, whereby obstacles are formed to oppose the forcing back of the coke or fuel under said partition, substantially as set forth. 25th. A stove or range having an opening 35 in its top plate, provided with rabbetted margins to receive a slide for closing said opening, and having a slide 34, provided with a T-piece 36, adapted to take under the edges of the opening when the slide is in place, and retain it, substantially as set forth. 26th. A stove or range having a fuel magazine, a flue C, a partition separating said flue from said magazine and end plates or linings 10, and 10^x, in said magazine and flue, respectively, said plates 10^x, taking behind the back wall of said flue at their rear edges, substantially as set forth. 27th. A stove or range having a fuel magazine, a back flue C, and a hollow partition separating said flue from the magazine, said partition having a protecting shoe at its lower edge with an air space or chamber between the wall of the shoe and the wall of the partition, substantially as set forth. 28th. A stove or range having a transverse partition in the combustion chamber thereof and said partition having a protecting shoe on its lower edge provided with projecting ribs extending transversely of the partition, substantially as set forth. 29th. The fire box of a stove having at one or more of its sides, upright flues open at their front sides, which are adapted to be closed by the fuel in the fire box, and said flues being deepest at their upper ends, such extra depth being produced by the outward projection of the ribs separating said flues, substantially as set forth. 30th. In a stove or range, the combination with the stove front, of the window plate set therein, said plate having a mica window, with apertures or perforations about it for the admission of air in jets to the stove, and a box or cap at the inside of and on said plate and covering said window, said box having an aperture or perforated bottom opposite the window, substantially as described. 31st. A stove having in its mica window, a trunk on the inner face of the wall in which the window

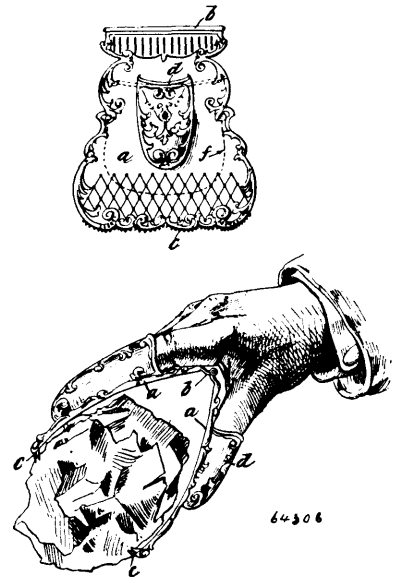
is placed, said trunk embracing said window and projecting into the interior of the stove, and an apertured or perforated plate covering the inner end of said trunk, substantially as described. 32nd. In a stove or range, having a fuel magazine and an upwardly extending flue, the combination with the partition extending downwardly between said magazine and flue, whereby the heated products of combustion are carried to the lower part of the fire box and the fuel therein rendered incandescent, of the grate in front of said incandescent fuel, the movable stove front, and the removable broiler casing located in front of said grate, substantially as described. 33rd. A stove or range having a fuel magazine and flue, and a transverse air duct and partition which separates the fuel magazine from the flue, said duct being suspended from a removable section of the top plate of the stove or range in front of the front pot holes, substantially as set forth. 34th. A stove or range having a fuel magazine and flue, and provided with a divided top plate, one section of which is arranged in front of the front pot holes, and a removable transverse air duct, and partition which is arranged under said front section and separates the fuel magazine from the flue, substantially as set forth. 35th. A stove or range having a fuel chamber therein provided with a transverse air duct, said duct having a pocket at its upper part, the top plate of the stove having air inlets, to admit air to said pocket, 36th. The combination with a stove or range having in it a fuel chamber, of a metal air duct extending transversely across said chamber, said duct being provided at its narrow lower part with a protecting shoe, and at its upper part with a pocket extending toward the front of the stove and adapted to receive air through apertures in the stove top. 37th. A stove or range for burning bituminous coal, having a fuel magazine, a transverse air duct and partition, and a gas flue back of said partition, the back wall of said flue being formed of a curved lining at its lower part, and a water back above said lining and resting thereon, as set forth. 38th. A stove or range for burning bituminous coal, having a fuel magazine, a transverse air duct and partition, a gas flue back of said duct, a charging door and an imperforate fire bed, and having a hinged front extending from the fire bed up nearly to the charging door and protected with a suitable lining, said front forming the front wall of the fuel chamber, substantially as set forth. 39th. A stove for burning bituminous coal having in its side at the top plate a downwardly inclined apertured extension, and a peep window of mica at the upper end of said extension, substantially as set forth. 40th. In a down shaft stove, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, a fuel support at the bottom of the fire pot or magazine, and a plurality of air tubes arranged contiguous to the wall of the fire pot or magazine, and extending downwardly from the top of the fire pot or magazine to direct jets of air into the fuel in close proximity to the walls of the said fire pot or magazine for the combustion of said fuel, all constructed for the purpose of conducting the air and the products of combustion downwardly through the fuel and through the lateral opening in the fire pot or magazine under the influence of the draft and to prevent the formation of clinkers on the walls of the fire pot or magazine, substantially as described. 41st. In a down draft stove, the combination of a fire pot or magazine having a lateral opening at or near its bottom communicating with a flue leading to the chimney, a fuel support at the bottom of the fire pot or magazine, a plurality of air tubes extending downwardly from the top of the fire pot or magazine to direct jets of air into the fuel, and an ash pit normally closed off from the external air to prevent an upward draft, all constructed for the purpose of conducting the air and the products of combustion downwardly through the fuel and through the lateral opening in the fire pot or magazine under the influence of the draft, substantially as described. 42nd. A stove or range for burning bituminous coal, having a transverse air duct and a gas flue back of said duct, and having also a peep window of mica in the side of the stove at the end of said flue, said window being situated at about the level of the top of the stove, substantially as set forth. 43rd. A stove or range having a fuel magazine, a gas flue, and a transverse, pendant, hollow partition between said magazine and gas flue, the back wall of said gas flue having the peculiar ogee form shown, that is, a concavity at its lower part and a substantially vertical middle portion, whereby the gases are deflected upward, and a backwardly flared upper part, all as set forth. 44th. A stove or range for burning bituminous coal, having a fuel magazine, and a transverse air duct and partition at the rear of the same, and having a removable front between the fire bed and the charging door, which front forms the front wall of the fuel magazine, and extends down to the fire bed, whereby the fire box may be opened for the removal of coke and unburned fuel.

No. 64,306. Hand Implements for Supplying Fuel to Fire Places and for Similar Purposes.

(*Ustensile pour foyers, etc.*)

Eugen Tüköry Von Algyest, Vienna, Austria, 11th October, 1899; 6 years. (Filed 20th April, 1899.)

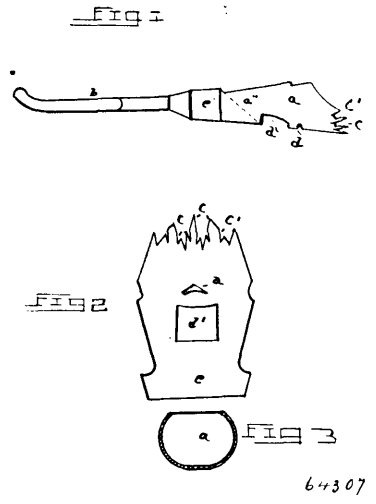
Claim.—A hand implement for picking up fuel for firing purposes, or other domestic articles when in a hot state, said device consisting of two hinged jaws provided on their inner sides with suitable gripping and retaining projections or teeth, while on their outer sides



they are furnished with pockets for the insertion of the thumb and fingers respectively, so as to enable the device to be carried in the hand.

No. 64,307. Green Corn Cutter.

(*Machine à couper le blé d'inde.*)



Henri Jean Baptiste Gravier, Ithaca, New York, U.S.A., 11th October, 1899; 6 years. (Filed 12th July, 1899.)

Claim.—As an improved article of manufacture, the herein described hand implement for detaching the kernels of green corn from the cob of the green ear of corn, consisting of the handle provided with the concave bowl attached thereto and provided with the forwardly projecting cutting teeth having serrations in their edges, the large aperture in the base of the concave bowl, the anterior smaller aperture in the base of the bowl in front of the larger aperture, the rear wall of the bowl being inclined and terminating at its lower edge immediately in the rear of the larger aperture of the implement, substantially as specified.

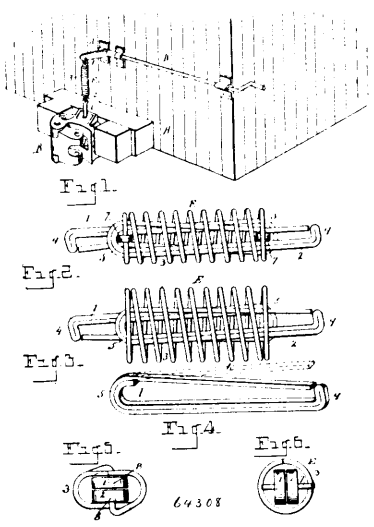
No. 64,308. Lock Lifter for Car Coupler.

(*Relève serrure pour attelages de chars.*)

Thomas Welch, Paw Paw, Michigan, U.S.A., 11th October, 1899; 6 years. (Filed 21st July, 1899.)

Claim.—1st. A lock lifter for car couplers, consisting of oppositely arranged safety hooks, and a compression spring engaged therewith, each of said safety hooks constructed with a hooked end, and

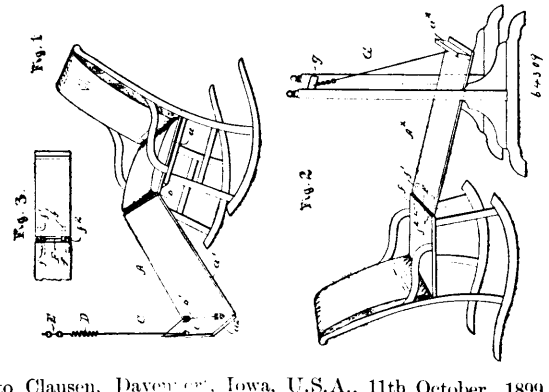
with a looped portion at opposite ends thereof, and with an adjustable arm, substantially as described. 2nd. A lock lifter for car



couplers, consisting of oppositely arranged safety hooks, and a compression spring engaged therewith, one of said safety hooks constructed of a metal band doubled back upon itself intermediate its ends to form a hook portion at one end thereof, a looped portion at the other end thereof, and a spring arm, substantially as described. 3rd. A lock lifter for car couplers, consisting of oppositely arranged safety hooks, and a compression spring engaged therewith, each of said safety hooks constructed with a hooked and a looped portion at opposite ends thereof, and with a spring arm, the opposite ends of the springs engagable with the looped portions of the safety hooks to secure the compression of the spring, substantially as described. 4th. A lock lifter for car couplers, consisting of oppositely arranged safety hooks, and a flat coiled compression spring engaged therewith, each of said safety hooks constructed with a looped portion and with a hooked portion at opposite ends thereof, and with a spring arm, the ends of said spring being turned inward to engage the loops of said safety hooks, substantially as described. 5th. A lock lifter for car couplers consisting of oppositely arranged safety hooks, and a compression spring engaged therewith, each of said safety hooks constructed of a metal band doubled back upon itself intermediate its ends to form a hook portion at one end thereof and a looped portion at the other end thereof, one extremity of said band projecting from the opposite end thereof to form a spring arm extending from the looped portion to the hooked portion of the safety hook, substantially as described.

No. 64,309. Rocking Chair Attachment.

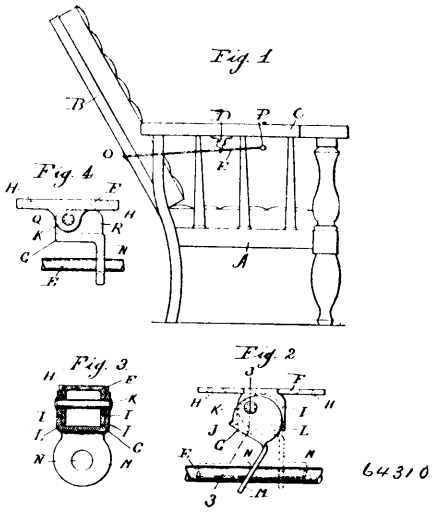
(*Attache de fauteuil à bascule.*)



Otto Clausen, Davenport, Iowa, U.S.A., 11th October, 1899; 6 years. (Filed 12th July, 1899.)

Claim.—1st. The combination with a rocking chair, of an extension board hinged at or adjacent to the front rail of the chair seat, and a flexible suspending support for the outer end of said board. 2nd. The combination with a rocking chair, of an extension board hinged at or adjacent to the front rail of the chair seat, a foot or heel rest attached to the outer end of said board, and a flexible suspending support secured to said outer end. 3rd. The combination with a rocking chair of an extension board hinged at or adjacent to the front rail of the chair seat, a foot rest hinged to the outer end of said board, and a flexible suspending support attached to the free edge of said rest. 4th. The combination with a rocking chair of an extension board hinged at or adjacent to the front rail of the chair seat, and an elastically yielding flexible support for the outer end of said board. 5th. The combination with a rocking chair of an extension board hinged at or adjacent to front rail of the chair seat, a flexible suspending support for the outer end of said board, and a portable stand for carrying said support. 6th. The combination with a rocking chair of an extension board hinged at or adjacent to the front rail of the chair seat, a foot rest hinged to the outer end of said board, and an elastically yielding flexible suspending support attached to the free edge of said foot rest. 7th. The combination with a rocking chair of an extension board made in three sections, the first of which conforms generally to the chair seat, the second hinged to the first adjacent to the front rail of said seat, and the third hinged to the outer end of the second to constitute a foot rest, and a flexible suspending support attached to the free edge of said third section.

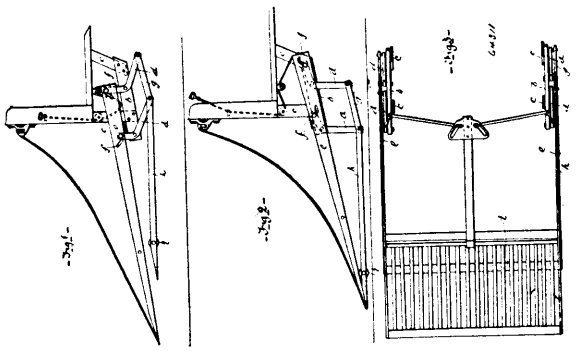
No. 64,310. Chair. (*Fauteuil.*)



William J. Seng, Chicago, Illinois, U.S.A., 11th October, 1899; 6 years. (Filed 22nd July, 1899.

Claim.—1st. In a reclining chair, the combination with the chair body and arms rigid therewith, of a pivoted back, a rod pivotally connected with said back, and clutch mechanism mounted on said arms and adapted to engage said rod to hold said back in the position to which it has been adjusted. 2nd. In a reclining chair, the combination with the chair body having arms rigid therewith, and clutch devices mounted on said arms, of a pivoted back, and rods pivotally connected with said back and having their free ends passing through said clutch devices and adapted to be engaged thereby to hold said back in the position to which it may be adjusted. 3rd. In a reclining chair, the combination with the chair body, arms thereon, and a clutch on each of said arms comprising a plate, a member pivotally secured thereto and provided with a downwardly extending flange, and a perforation in said flange, of a back pivotally mounted on said chair body and provided with arms pivotally connected therewith, said arms being adapted to pass through said perforation in said pivoted member of said clutch and to be engaged thereby, whereby said back is held in any position to which it has been adjusted. 4th. In a reclining chair, the combination with the chair body having arms, and clutch devices mounted thereon, said clutch devices consisting each of a plate adapted to be rigidly secured to said arm end provided with a downward extension, a member pivotally secured to said downward extension and adapted to engage a part of said plate to limit its pivotal motion in one direction, a downwardly extending flange on said pivoted member, and a perforation in said flange, of a back pivotally mounted on said chair body, and arms pivotally mounted on said back and adapted to pass through said perforation in said pivoted member of said clutch and to be engaged thereby when said arms are free to hold said back in any position to which it may be adjusted, and to release said arms when the latter are raised to turn said pivoted member to the limit of its movement to permit the position of said back to be changed.

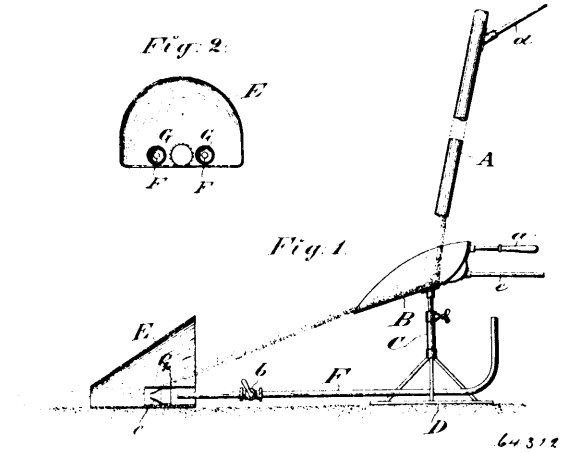
No. 64,311. Car Fender. *(Defense de chars.)*



Peter Charles Ogilvie, Montreal, Quebec, Canada, 11th October, 1899; 6 years. (Filed 25th July, 1899.)

Claim.—1st. A fender, consisting of a main part and an auxiliary part, the auxiliary part being normally located with its forward end in rear of the forward end of the main part, and means for causing said main part when an object is struck thereby, to move rearwardly and downwardly and the auxiliary part to simultaneously move forwardly and downwardly until said forward ends meet, substantially as described and for the purpose set forth. 2nd. A fender, consisting of a main part *c*, an auxiliary part *h*, and a pair of levers *d d*, at each side connecting said parts together, means for connecting said fender to the car, substantially as described and for the purpose set forth. A fender, consisting of a main part *c*, an auxiliary part *h*, and a pair of levers *d d*, at each side connecting said parts together, and means for connecting said fender to the car, and means for raising said fender after operation, substantially as described and for the purpose set forth. 4th. A fender, consisting of a carrier frame, a main part *c*, an auxiliary part *h*, a pair of levers *d d*, at each side connecting said parts together, a T-bar S, having slots *t*, and carried rigidly by said main part and extending rearwardly therefrom, a pair of bell crank levers fulcrumed to the carrier frame and connected at their main ends through said slots to said T-bar and bearing, at times, at their forward ends upon said levers *d*, substantially as described and for the purpose set forth. 5th. A fender consisting of a carrier frame, a main part *c*, an auxiliary part *h*, a pair of levers *d d*, at each side connecting said parts together, a T-bar S, having a slot *t*, and carried rigidly by said main part and extending rearwardly therefrom, a pair of bell crank levers fulcrumed to the carrier and connected at their main ends through said slots to said T-bar and bearing, at times, at their forward ends upon the levers *d*, and rope *r* for returning the parts to their normal position, substantially as described and for the purpose set forth.

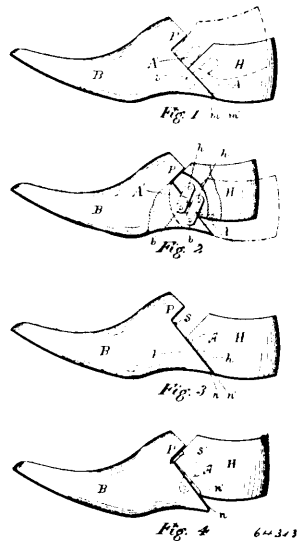
No. 64,312. Mechanical Trimmer. *(Arrimeur mécanique.)*



Alfred Fitzroy, Brooklyn, New York, U.S.A., 11th October, 1899; 6 years. (Filed 25th July, 1899.)

Claim.—1st. In a mechanical trimmer, a portable hood open at both ends, a chute, a deflector arranged to deliver grain or granular substances from the chute into the hood, and an air injector arranged to project a current of air upon the moving substance to force the same through the discharge orifice, combined substantially as and for the purposes set forth. 2nd. In a mechanical trimmer, the combination of the grain chute, movable deflector, the movable hood, and an air injector, the parts being constructed and arranged for operation, substantially as shown and described. 3rd. In a mechanical trimmer, the combination with the movable hood and air injector of the movable deflector, the latter being mounted upon an ajustable standard, substantially as shown and for the purpose set forth. 4th. In a mechanical trimmer, the combination with the deflector for location beneath the grain chute, of an air pipe connected with said deflector and arranged to deliver a current of air into or upon the substance as it strikes the deflector, substantially as shown and described .5th. The combination, as before set forth, of the grain chute, the deflector, the hood, the adjustable section of tubing, and the air injector, all arranged for operation, substantially as explained.

No. 64,313. Last Joint. *(Joint de machine à enformer.)*

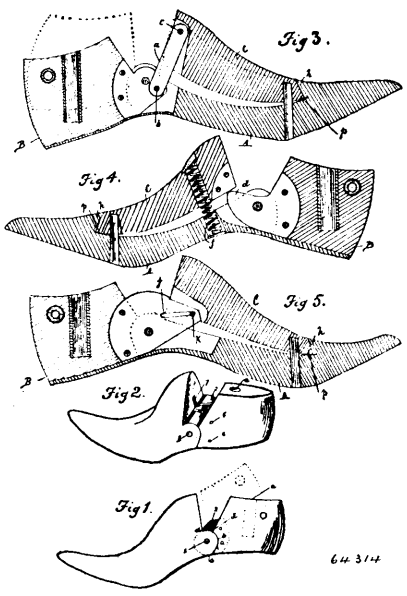


Amos G. Fitz, Auburn, Maine, U.S.A., 11th October, 1899; 6 years. (Filed 25th July, 1899.)

Claim.—1st. In a last, a joint surface on the fore part which has its upper edge nearer the toe than its lower edge, a heel part fitted thereto, a connecting bar pivoted to both the heel part and fore part and set at such an angle that the pivot in the heel part will be lower than that in the fore part when the heel part is in its lowest or normal position, substantially as set forth. 2nd. In a last, a surface upon the fore part which has its upper edge nearer the toe than its lower edge, a heel part fitted thereto, a connecting bar similarly pivoted at one end to the heel part and at the other end to the fore part, and a second connecting bar pivoted in the heel and fore parts, the pivots of one bar not lying in the same horizontal plane as those of the other, substantially as set forth. 3rd. In a last, the combination of a fore part, which has on its rear end a plane surface which makes an acute angle with the bottom, a heel part fitted to this plane surface, a connecting bar working in slots in the heel and fore parts, a pivot in the fore part about which the connecting bar turns, a second pivot in the heel part which is nearer the bottom of the last than the pivot in the fore part when the heel part is closed upon the fore part in its lengthened relation, substantially as set forth. 4th. In a last, the combination of a fore part which has at its rear end a joint surface which makes an acute angle with its bottom surface, a heel part fitted to this joint surface, a stop limiting the forward motion of the heel part when the last is in its working position, and a connecting bar so pivoted to the fore part and heel part that the pivot in the heel is nearer the bottom of the last than the pivot in the toe, substantially as set forth. 5th. In a last, the combination of a fore part and heel part, a connecting bar pivoted to both the fore part and heel part, and a stop attached to the fore part which, when the heel part is in its shortened relation, is engaged with said heel part and holds it from sliding backward when the shoe is pulled on and off, substantially as set forth. 6th. In a last, a joint surface upon the rear end of the fore part which makes an acute angle with the bottom, a shorter corresponding surface upon the front end of the heel part, a connecting bar pivoted to both the heel part and the fore part, and a second similar connecting bar pivoted to both the heel part and fore part above the first, substantially as set forth. 7th. In a last, a connecting bar pivoted to the fore part, a pivot in the other end of the connecting bar about which the heel part turns and a stop, as *n*, which arrests the forward motion of the bottom of the heel piece, when the connecting bar is in its lower position. 8th. A last divided transverely, sockets in the adjacent faces, a union pivotally mounted at each end in the heel and fore parts of the last respectively and means for compelling the adjacent faces of the last to continue in all positions, substantially as set forth. 9th. A last divided transversely and provided with recesses in the adjacent faces thereof and a plurality of connecting bars located in said recesses one above the other, the ends

of the links being pivotally mounted in the heel and fore parts respectively, substantially as set forth. 10th. A last divided transversely and provided with recesses in the adjacent faces, a union pivotally mounted in said recesses in the heel and fore parts respectively, the length of the union and the location of the pivots being such that the projection of the adjacent face of the heel part above and below the pivot compels the two faces to remain parallel or nearly so in all positions, whereby the parts of the last will always remain in proper position to readily receive the shoe, substantially as set forth.

No. 64,314. Last. *(Machine à enformer.)*



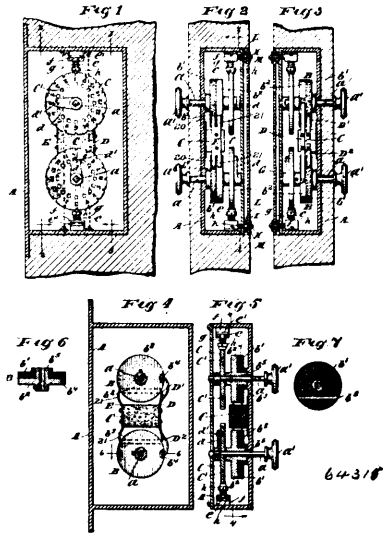
Charles F. Pym, Windsor, Ontario, Canada, 11th October, 1899; 6 years. (Filed 26th July, 1899.)

Claim.—1st. In a hinged last, the combination of one part provided with twin knuckles projecting therefrom, said knuckles being separated by a slot that extends to the rear of the knuckles, the second part provided with a recess adapted to receive said knuckles, said recess and knuckles being so constructed as to bind and hold the two parts of the last in their straight condition, and to move freely upon being partially bent, a plate knuckle secured to said second part and engaged in the slot between said twin knuckles, the pintle of said knuckle being located above the sole and farther removed therefrom than the knuckle radius, whereby there is formed a stop that holds the parts in place when the last is unbroken, substantially as described. 2nd. In a last, in combination with the foot part, a block held to the body part of the last at its front end, arranged to be expended from or contracted to the body of the last at its rear end, and an actuating device for producing the contraction and expansion, substantially as described. 3rd. In a last made with the toe part and a heel part hinged together, the block movably held in the cavity of the toe part, and means actuated by the movement of the heel part for producing movement of the block, substantially as described. 4th. In a last having a toe part and a heel part hinged together, in combination with the toe part, a block secured thereto by two vertical pins fast in the toe part and loose in the block, substantially as described. 5th. In combination with the toe part of the last provided with an overhanging abutment, a block arranged to engage with its point under the overhanging abutment, and two pins arranged to hold the block from escaping from the toe part of the last, substantially as described. 6th. In combination with the hinge last, a block movably held to the toe part of the last, and a link connection between the block and the heel part whereby the bending of the last actuates the block, substantially as described.

No. 64,315. Electric Lock. *(Serrure Electrique).*

Henry Guy Carleton, New York, U.S.A., 11th October, 1899; 6 years. (Filed 31st July, 1899.)

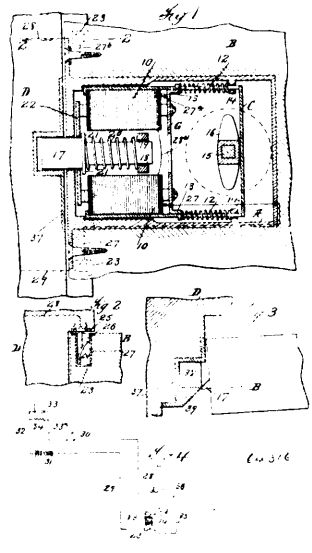
Claim.—1st. In a combination electric lock, the combination with a lock mechanism and a suitable circuit through which it is operated, of a combination mechanism for controlling the circuit including a disc carrying indicating devices, a suitable number co-operating with the indicating devices of the disc to indicate to the touch both the starting point of the combination mechanism and each successive position thereof, substantially as described. 2nd. In a combination electric lock the combination with a lock mechanism and with a suitable circuit through which it is operated, of a combination mechanism for controlling the circuit, the said combination mechanism including a nicked disc and a suitable co-operating device for indicating to the touch both the starting point of the combination mechanism and each successive position thereof,



substantially as described. 3rd. In a combination electric lock the combination with a lock mechanism and with a suitable circuit through which it is operated, of an alarm circuit, an alarm in said circuit, a combination mechanism for controlling said circuits including a nicked disc and a suitable device co-operating to indicate to the touch both the starting point of the combination mechanism and each successive position thereof, and a circuit closing device, all substantially as described. 4th. In a combination electric lock, the combination with a lock mechanism and with a suitable circuit through which it is operated, of a combination mechanism for controlling the circuit, said mechanism including a circuit controller, suitable contacts co-operating therewith, means for producing a movement of one of these devices with respect to the other, a nicked disc, and a suitable device co-operating with the disc to indicate to the touch both the starting point of the combination mechanism and each successive position thereof, substantially as described. 5th. In a combination electric lock, the combination with a lock mechanism and with a suitable circuit through which it is operated, of a combination mechanism for controlling the circuit, the said mechanism including a revoluble circuit controller and nicked disc, and a suitable device co-operating with the disc to indicate to the touch both the starting point of the combination mechanism and each successive position thereof, all substantially as described. 6th. In a combination electric lock, the combination with a lock mechanism and with a suitable circuit through which it is operated, of a combination mechanism for concontrolling the circuit, the said combination mechanism including a revoluble circuit controller and nicked disc, one of the nicks being deeper than the others to determine the starting point of the combination, and a suitably mounted detent engaging with the nicked disc to determine the position of the combination, all substantially as described. 7th. In a combination electric lock the combination with a lock mechanism and alarm mechanism, of suitable circuits through which these mechanism are operated, a combination mechanism for controlling the circuits, the said combination mechanism including a revoluble circuit controller and nicked disc, one of the nicks thereof being deeper than the others to determine the starting point of the combination, a suitably mounted detent for engaging the nicked disc, and a circuit closing device, all substantially as described. 8th. In a combination electric lock and in combination with the lock mechanism and the circuit for controlling it, a plurality of revoluble circuit controllers, a plurality of discs having nicked edges and a suitable device co-operatiug with each disc to indicate to the touch both the starting point of the mechanism and each successive position thereof, and means for giving the discs a movement corresponding to that of the controllers, all substantially as described. 9th. In a combination electric lock and in combination with the lock mechanism, a plurality of revoluble circuit controllers, a plurality of discs having nicked edges and a suitable device co-operating with each disc to indicate to the touch both the starting point of the combination mechanism and each successive position thereof, and means for giving the discs a movement corresponding to that of the controllers, an alarm mechanism, suitably arranged circuits including the belt drawing mechanism and the alarm mechanism, and a circuit closing device, all substantially as described. 10th. In a combination electric lock and in combination with the lock mechanism, a plurality of revoluble circuit controllers, a plurality

of discs having nicked edges, one of the nicks being made deeper than the others to indicate the starting point of the combination, means for giving the discs a movement corresponding to that of the controllers, means co-operating with the nicks to indicate to the operator the amount each controller has been moved and a circuit including the belt drawing machanism, all substantially as described. 11th. In a combination electric lock and in combination with the lock mechanism, a plurality of revoluble circuit controllers, a plurality of discs having nicked edges one of the nicks being deeper than the others to indicate the starting point of the combination, means for giving the discs a movement corresponding to that of the controllers, detents engaging the nicks, an alarm mechanism, suitably arranged circuits including the alarm mechanism and the locking mechanism, and a circuit closing device, all substantially as described. 12th. In a combination electric lock the combination with a movable magnet, connections between it and one of the operative parts of the lock, the connections being so constructed that when the magnet is energized the lock will be operated and when it is de-energised the magnet will move without operating the lock, devices for moving the magnet, a circuit in which the magnet is included and a combination mechanism for controlling the circuit, substantially as described. 13th. In a combination electric lock the combination with a movable magnet, connections between it and one of the operative parts of the lock, the connections being so constructed when the magnet is energized that the lock will be operated and when it is de-energized the magnet will move without operating the lock, devices for moving the magnet, a circuit including the magnet, an alarm mechanism, a suitable circuit therefor, a combination mechanism controlling the said circuits, and a circuit closing device, all substantially as described. 14th. In a combination electric lock, the combination with a movable bolt, of a movable magnet, the bolt and magnet being so constructed and arranged that when the magnet is energized the bolt will move therewith and when it is de-energized the magnet will move without operating the bolt, devices for moving the magnet, and a combination mechanism for making the circuit through the magnet, all substantially as described. 15th. In a combination electric lock, the combination with a movable bolt, of a movable magnet, the bolt and magnet being so constructed and arranged that when the magnet is energized the bolt will move with the magnet and when it is de-energized the magnet may move without operating the bolt, suitable devices for moving the magnet, an alarm mechanism, suitable circuits including the magnet and the alarm mechanism, a combination mechanism controlling said circuits, and a suitable circuit closing device, all substantially as described. 16th. In a circuit controlling mechanism for electric combination locks, the combination of a spindle, a nicked disc mounted on the spindle, a device co-operating with the disc to indicate to the touch the starting point of he combination and the amount of movement therein, and suitable circuit controlling discs, all substantially as described. 17th. In a circuit controlling mechanism for electric combination locks, he combination of a spindle, a nicked disc adjustably connected to said spindle, a device co-operating with the disc to indicate to the touch the starting point of the combination mechanism and each successive position thereof, and a suitable circuit controller also mounted on the spindle, all substantially as described. 18th. In a circuit controlling mechanism for electric combination locks, the combination of a spindle, an arm mounted on the spindle, a nicked disc also mounted on the spindle and provided with a device for indicating the starting point of the combination, a series of holes in the disc, a pin for adjustably connecting the arm and the disc through the medium of one of the holes referred to and a suitable circuit controller also mounted on the spindle, all substantially as described. 19th. A circuit controller, consisting of a conducting disc having a hub or boss thereon, and a part of its circumference cut away, an insulating disc mounted on said boss and having a portion which extends into the cut away portion of the conducting disc, all substantially as described. 20th. A circuit controlling mechanism for electric combination locks, consisting of a spindle, a nicked disc mounted on the spindle, one of the nicks being deeper than the others to indicate the starting point of the combination and the said disc being provided with a series of holes, one corresponding to each nick, an arm also mounted on the spindle and a pin by which the disc is adjustably connected to the arm through the medium of one of the holes referred to, and a circuit controller also mounted on the spindle, the said controller consisting of a disc of conducting material having part of its circumference cut away and a disc of insulating material, a portion of which lies in the cut away portion of the conducting disc, the said insulating disc having a connecting bar or wire therein, all substantially as described. 21st. In an electric combination lock, the combination with the lock mechanism, of a plurality of circuit controlling devices, each circuit controlling device consisting of a spindle carrying a nicked disc adjustably mounted thereon and having a suitable device for indicating the starting point of the combination, a device engaging with each disc to indicate the amount each disc has been turned, a circuit controller also carried on the spindle, contacts engaging the controllers, an alarm mechanism, suitable circuits including the alarm mechanism and the lock mechanism, and a suitable circuit closing device, all substantially as described. 22nd. In a protective device for combination locks, the combination with one of the plates of the casing of the lock, a protective plate, insulating material between the plates, a holding device for securing the plates together, the said holding devices passing through perforations in each and having a reduced portion, the said reduced portion lying in the perforation in one of the plates and the main portion being long enough to span the distance between the plates, insulating material between the holding devices and that plate which surrounds the reduced portion, the two plates being connected to a suitable source of electrical energy, and an alarm in said connections, substantially as described. 23rd. In a protective device for combination locks, the combination with one of the plates of the lock casing, of a protective plate, insulation between the plates, a screw holding the plates together, said screw having a tapped portion and a reduced portion, the tapped portion engaging one of the plates and being long enough to span the distance between the plates and a recessed portion lying in the perforation of the other plate when the screw is home, an insulating washer between the head of the screw and the plate, the plate and the casing being connected to a suitable source of electrical energy, and an alarm in said connections, all substantially as described.

No. 64,316. Electric Lock. (*Serrure électrique.*)



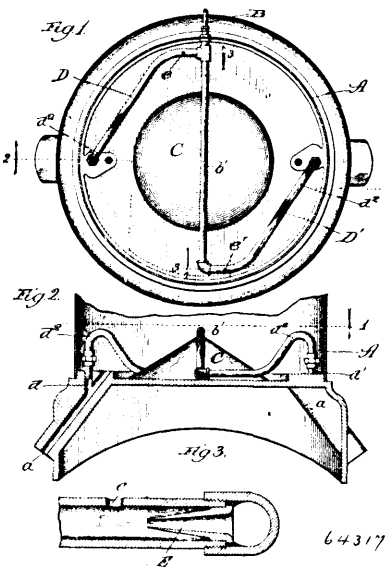
Henry Guy Carleton, New York City, New York, U.S.A., 11th October, 1899; 6 years. (Filed 31st July, 1899.)

Claim.—1st. In an electrically controlled lock the combination with a movable magnet of one of the engaging parts of the lock, such as the latch or keeper, the attractive force of the magnet being made effective upon the said engaging part whereby a movement of the magnet will cause a corresponding movement of the latch or keeper, substantially as described. 2nd. In an electrically controlled lock the combination with a movable magnet and its armature of one of the engaging parts of the lock, such as the latch or keeper, the parts being so constructed and arranged that when the magnet attracts the armature the magnet, armature and the engaging part will move together, substantially as described. 3rd. In an electrically controlled lock the combination with a movable magnet of engaging parts, such as latch and keeper, and an armature for moving one of the parts, the parts being so constructed and arranged that when the magnet attracts the armature the said armature and the part of the lock which it moves will move with the magnet, and at other times the magnet may move without disturbing the relation of the parts, substantially as described. 4th. In an electrically controlled lock the combination with one of the engaging parts of the lock, such as the latch or keeper, of a magnet and its armature, one of these devices being movable with respect to the other when the magnet is not attracting its armature, and the two being movable together when the magnet is attracting its armature, connections between one of these devices and the engaging part of the lock whereby when the magnet and armature move together the parts of the lock may be released from engagement, and when they do not move together the parts of the lock will remain in engagement, substantially as described. 5th. In an electrically controlled lock the combination with a movable magnet of one of the engaging parts, such as the latch or keeper, an armature embracing one of the engaging parts, said armature lying in close proximity to the poles of the magnet, a circuit for energizing the magnet, and means for moving the magnet, the parts being so arranged that when the magnet is attracting its armature a movement of the magnet will release the engaging parts, and when the magnet is not attracting its armature the engagement between

such parts will be undisturbed, substantially as described. 6th. In an electrically controlled lock the combination with one of the engaging parts, such as the latch or keeper, of a magnet and its armature, a moving frame in which one of these parts is mounted, connections between the said engaging part and the part mounted on the moving frame, and means for operating the moving frame, substantially as described. 7th. In an electrically controlled lock the combination with one of the engaging parts, such as the latch or keeper, of a magnet and its armature, a moving frame for operating one of these devices, connections between the other device and one of the engaging parts, and means for operating the moving frame, substantially as described. 8th. In an electrically controlled lock the combination with one of the engaging parts, such as the latch or keeper, of a magnet and its armature, connections between the armature and one of the engaging parts, a sliding frame in which the magnet is mounted, means for operating the sliding frame in one direction, and automatic means for returning the frame, substantially as described. 9th. In an electric lock the combination with a sliding spring-controlled latch of an armature mounted on the latch, a sliding frame, a magnet mounted on the sliding frame, a tumbler cam for operating the frame in one direction, and a spring for returning the frame, substantially as described. 10th. In an electric lock the combination with a moving frame, and means for operating it, of an electro-magnet mounted on the frame, a latch having its stem located between the poles of the magnet and sliding in suitable guides, a spring for controlling the bolt, an armature embracing the bolt and having its ends in proximity to the poles of the magnet, substantially as described. 11th. In an electric lock, the combination with a door, of a movable magnet, engaging parts, such as the latch and keeper, the attractive force of the magnet being made effective upon one of said engaging parts, and means for moving the magnet whereby the magnet is exercising its attractive force, the said part will move with the magnet and at other times the magnet may move without disturbing the relation of the parts, a circuit for energizing the magnet, a circuit closer for establishing a current through the magnet, and suitable means for breaking the circuit when the lock is operated, substantially as described. 12th. In an electrically controlled lock, the combination with a door, of a movable magnet, engaging parts, such as a latch and keeper, the attractive force of the magnet being made effective upon one of the engaging parts, and means for moving the magnet whereby when the magnet is exercising its attractive force the said part will move with the magnet and at other times the magnet may move without disturbing the relation of the parts, a circuit for energizing the magnet, and means operated by the opening of the door whereby the circuit is broken when the door is opened, substantially as described. 13th. In an electrically controlled lock, the combination with a door, of a movable magnet, engaging parts, such as the latch and keeper, the attractive force of the magnet being made effective upon one of the engaging parts, and means for moving the magnet whereby when the magnet is exercising its attractive force the said part will move with the magnet and at other times the magnet may move without disturbing the relation of the parts, a circuit for energizing the magnet, a circuit closer, means whereby the circuit may be broken, and an alarm in the said circuit, substantially as described. 14th. In an electrically controlled lock, the combination with a door, of a movable magnet, engaging parts, such as the latch and keeper, the attractive force of the magnet being made effective upon one of the engaging parts, and means for moving the magnet whereby when the magnet is exercising its attractive force, the part will move with it and at other times the magnet may move without disturbing the relation of the parts, a circuit for energizing the magnet, a circuit closer, means operated by the opening of the door whereby the circuit is broken, and an alarm in said circuit, substantially as described. 15th. In an electrically controlled lock, the combination with a movable magnet, of one of the engaging parts, such as the latch or keeper, the attractive force of the magnet being made effective upon the said engaging part, and means for moving the magnet whereby when the magnet is exercising its attractive force the said part will move with the magnet, and other times the magnet may move without disturbing the relation of the parts, a circuit for energizing the magnet, a circuit breaking device located in proximity to the lock, a circuit closing device located at a distance therefrom, an alarm located in proximity to the lock, and a second alarm located near the circuit closing device, both alarms being operated from the magnet circuit, substantially as described. 16th. In an electrically controlled lock, the combination with one of the engaging parts, such as the latch or keeper, of stationary magnet coils, pole pieces reciprocating through said coils, an armature connected with the engaging part, means for establishing a circuit in the magnet, and means for reciprocating the pole pieces, substantially as described. 17th. In an electrically controlled lock, the combination with one of the engaging parts of the lock, such as the latch or keeper, of stationary magnet coils, an armature connected to the engaging part, pole pieces reciprocating through the stationary magnet coils, a frame with which the pole pieces are connected, and means for reciprocating the frame, substantially as described. 18th. In an electrically controlled lock, the combination with one of the engaging parts, such as the latch or keeper, of an armature connected with said part, stationary magnet coils, a frame, pole pieces connected to said frame and reciprocating through the magnet coils, a timber cam for reciprocating said frame in one direction, and means for returning it, substantially as described. 19th. The combination with a lock casing, of one of the engaging parts of the lock, such as the latch or keeper, of guide rods extending through the casing, an armature connected to said engaging part and mounted on said guide rods, a frame also mounted on said guide rods, pole pieces connected to the frame, a tumbler cam for operating the frame in one direction, and means for returning it, substantially as described. 20th. In an electrically controlled lock, the combination with the controlling devices for the lock, the same including a suitable magnet, of an alarm located near the lock and connected in multiple with the magnet thereof, a circuit closing device located at a distance from the lock, an alarm located near the circuit closing device, and a resistance connected in multiple with the alarm, substantially as described. 21st. The combination with a door, of an electrically controlled lock, controlling devices for said lock including a suitable magnet, a circuit for the magnet of the lock, an alarm located near the lock and connected in multiple with the magnet, a circuit closing device located at a distance from the lock, an alarm located near the circuit closer, a resistance connected in multiple with the alarm, and means for breaking the circuit, substantially as described. 22nd. The combination with a door, of an electrically controlled lock, controlling devices for said lock including a suitable magnet, a circuit for the magnet of the lock, an alarm located near the lock and connected in multiple with the magnet, a circuit closing device located at a distance from the lock, an alarm located near the circuit closer, a resistance connected in multiple with the alarm, and circuit breaking devices operated by the movement of the door, substantially as described.

No. 64,317. Track Sanding Device.

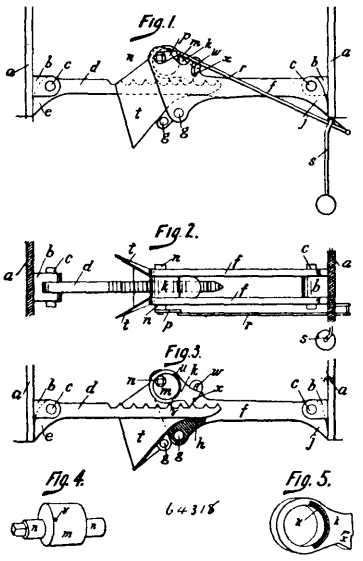
(*Appareil à sable les voies.*)



George Winfield Mudd, Moberly, Missouri, U.S.A., 11th October, 1899; 6 years. (Filed 20th July, 1899.)

Claim.—1st. In a track sanding apparatus, the combination of a sand box provided with two discharge ducts extending out therefrom and substantially opposite each other, a supply pipe connected with a source of compressed air and extending diametrically across the box at or near its bottom portion, a branch pipe extending from each end of the diamatrical supply pipe inside of the box and connecting such supply pipe with the discharge ducts, an upward return bend on the end of each branch pipe where they connect with the discharge ducts to provide bars to the discharge of sand, and a perforation in each branch pipe intermediate the supply pipe and the return band, substantially as described. 2nd. In a track sanding apparatus, the combination of a sand box provided with two discharge ducts extending out therefrom and substantially opposite each other, a supply pipe connected with a source of compressed air and extending across the box at or near its bottom portion, a branch pipe extending laterally from each end of the supply pipe, inside of the box, and connecting such supply pipe with the discharge ducts, an upward return bend on the end of each branch pipe where they connect with the discharge ducts to provide bars to the discharge of sand, a perforation in each branch pipe on the upper side thereof intermediate the supply pipe and the return bend, and an injector nozzle arranged in each branch pipe intermediate the supply pipe and the perforation, substantially as described.

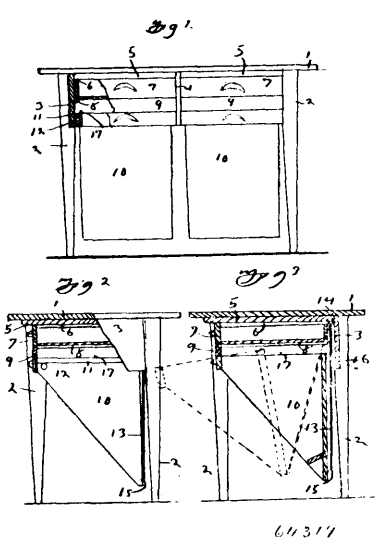
No. 64,318. Car Coupler. (*Attelage de chars.*)



Thomas Henry Patching, Strathfield, New South Wales, Australia, 11th October, 1899; 6 years. (Filed 20th July, 1899.)

Claim.—1st. In an automatic coupling for use on railway carriages and the like, a pawl revolving on and operated by an eccentric, substantially as herein described and as illustrated in the drawings. 2nd. In an automatic coupling for use on railway carriages and the like, the combination and arrangement of a toothed bar, hinged to a draw-bar, with a pawl revolving on and operated by an eccentric, substantially as herein described and as illustrated in the drawings. 3rd. In an automatic coupling for use on railway carriages and the like, the combination and arrangement of a toothed bar, such as *d*, with a pawl, such as *k*, revolving on an eccentric, such as *m*, supported by trunnions, such as *n n*, between the side bars of a female coupling, substantially as herein described and as illustrated in the drawings.

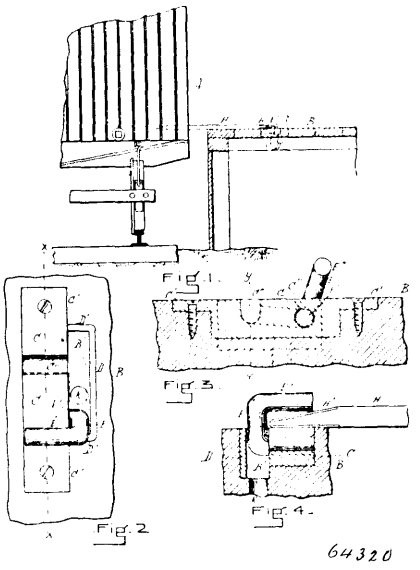
No. 64,319. Kitchen Cabinet Table. (*Cabinet de cuisine.*)



Jacob L. Huestis, Stockton, California, and Ferdinand Moershell, Des Moines, Iowa, U.S.A., 11th October, 1899; 6 years. (Filed 1st August, 1899.)

Claim.—1st. In a kitchen cabinet, the combination of a casing or frame having an opening, a bin arranged therein, connecting projections on the bin and side walls of the casing opening whereby the bin is supported in the casing and is free to slide inwardly and outwardly, and a swinging hammer pivotally connected to the casing or frame and the bin whereby the bin is adapted to both slide and swing, substantially as specified. 2nd. In a kitchen cabinet, the combination of a casing or frame having an opening for the reception of a bin and also having antifriction rollers on the side walls of the opening adjacent to the front of the casing or frame, the bin having projections, on its opposite sides at its upper end, bearing and adapted to move in and out on the antifriction rollers, and a hanger pivotally connected to the rear of the bin at the lower end thereof and also pivotally connected to the casing or frame above the bin whereby said bin is adapted to both slide and swing, substantially as specified.

No. 64,320. Devise for Engaging the Ends of Running Planks. (*Appareil pour assujetir les bouts de planches.*)



William Tellem Morgan, Somerville, and William Hugh Feeney Boston, both in Massachusetts, U.S.A., 11th October, 1899; 6 years. (Filed 28th July, 1899.)

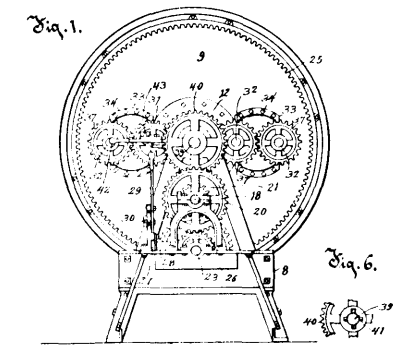
Claim.—1st. A device for engaging the ends of running planks, comprising a supporting and bearing structure secured to the floor, and the substantially U-shaped or staple shaped dog E, one member of which has its bearings in said structure whereby the open end of the U-shaped dog faces the running plank and, when the dog is swung up receives one end of the running plank under the other member of the dog, substantially as described. 2nd. A device for engaging the ends of running planks, comprising the block C provided with the horizontal bore C^1, and the substantially U-shaped dog E, one member of which lies within said bore and the other above the block, whereby said dog may be swung up into a vertical position to receive the end of the running plank under its uppermost member, substantially as set forth. 3rd. A device for engaging the ends of running planks, comprising the block C provided with the horizontal bore C^{111} and the horizontal groove C^{11} on its upper surface, and substantially U-shaped dog E, one member of which lies within said bore and the other above the block, whereby the uppermost member may lie within said groove or be swung up therefrom to receive the end of a running plank, substantially as described. 4th. The hereindescribed device for engaging the ends of running planks, comprising the block C provided with the bore C^{111} and horizontal groove C^{11} on its upper surface, the guard D enclosing a space next the rear surface of said block, and the substantially U-shaped dog E, the central portion of which lies within said space, one member E^1 of which lies within said bore and the other member E^{11} of which extends over the surface of the block, substantially as set forth.

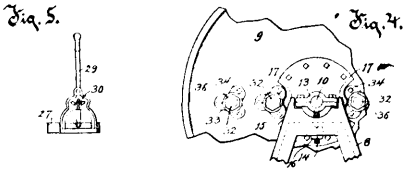
No. 64,321. Churn and Butter Worker.
(*Barratte et batte à beurre.*)

F. B. Fago, assignee of William E. Penn, all of Lake Mills, Wisconsin, U. S. A., 11th October, 1899; 6 years. (Filed 27th July, 1899.)

Claim.—1st. The combination with a horizontally disposed rotatable drum provided with fixed gudgeons projecting centrally from the heads thereof at both ends, of a frame provided with gudgeon box sockets having substantially flat vertical end walls, boxes in the sockets supporting said gudgeons and adjustable vertically and tiltable in the sockets towards and from the drum, the ends of the boxes abutting against the flat end walls of the sockets, and screws turning in the frame upwardly against and supporting said boxes tiltably thereon. 2nd. In a churn and butter worker, the combination, with a rotatable cylindrical drum provided with an internal annular rack fixed on the head of the drum, of a counter shaft provided with

a pinion meshing with said rack and with an integral large cog wheel and small cog wheel splined on the shaft, a driving shaft provided



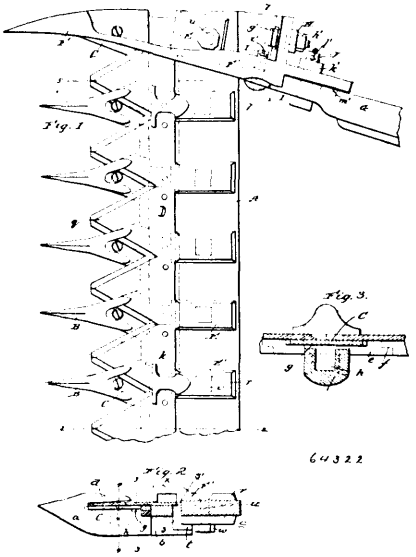


64321

with a small cog wheel and a large cog wheel fixed thereon at a distance apart, the wheels on the driving shaft being adapted respectively to mesh with the large and small integral cog wheels on the counter shaft severally, and means for shifting the integral wheel on the countershaft. 3rd. In a churn and butter worker, the combination with a rotatably cylindrical drum provided with an annular rack fixed on the head of the drum, of a countershaft provided with a pinion meshing with said rack and with an integral large cog wheel and small cog wheel splined on the shaft, a driving shaft provided with a small cog wheel and a large cog wheel fixed thereon at a distance apart the wheels, on the driving shaft being adapted respectively to mesh with the large and small integral cog wheels on the countershaft severally, a third cog wheel on the driving shaft, an arbor mounted in and concentric with a gudgeon on the drum and provided with a wheel meshing with roller wheels, a cog wheel loose on the arbor, and means for clutching this last mentioned cog wheel to its arbor.

No. 64,322. Harvester Cutting Apparatus.

(Appareil à faucher).

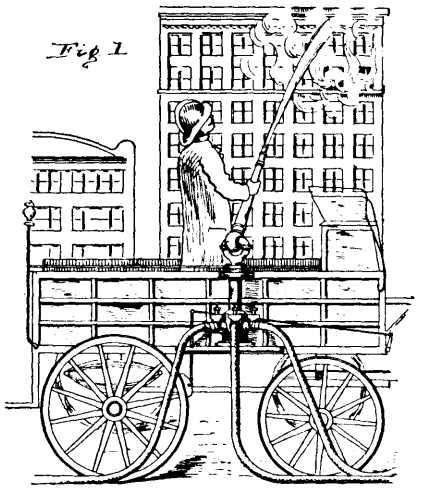


Gottlieb Mischler and Hans A. Kroeger, both of Des Moines, Iowa, U.S.A., 11th October, 1899; 6 years. (Filed 22nd July, 1899).

Claim.—1st. In a sickle guard, the combination with a body having an overhanging portion provided with an opening, and also having a depression and a slot disposed above and communicating with the depression, of a ledger plate arranged between the overhanging and main portions of the body and provided with an aperture, a threaded bolt passed through the aperture of the plate and the slot of the body, and a nut mounted on said bolt and arranged in the depression of the body, substantially as specified. 2nd. In a sickle guard, the combination with a body having an overhanging, bifurcated portion and also having a transverse groove in its upper side, a longitudinal, central depression communicating at one end with said groove, and a longitudinal slot disposed above and communicating with the depression and open at its rear end, of a ledger plate arranged between the overhanging and main portions of the body and provided with an aperture, a threaded bolt passed through the aperture of the plate and the slot of the body, and a nut mounted on said bolt and arranged in the depression of the body, substantially as specified. 3rd. In a cutting apparatus, the combination of a cutter bar, and sickle guards connected thereto and having lateral spurs the contiguous ends of which are shaped so as to break joints, substantially as specified. 4th. In a cutting apparatus, the combination of a cutter bar, and sickle guards connected thereto and having lateral spurs, the contiguous ends of which are rabbetted and lapped, substantially as specified. 5th. In a cutting apparatus, the combination of a cutter bar, a sickle guard having a portion disposed below the cutter bar, a clip comprising a body plate disposed upon the cutter bar, and arms depending from said body plate at opposite sides of the guard and terminating in rearwardly extending portions disposed below the portion of the guard below the cutter bar, and a connecting bolt extending through the clip, cutter bar and guard, substantially as specified. 6th. In a cutting apparatus, the combination of a cutter bar, a sickle guard having a portion disposed below the cutter bar, a clip comprising a body plate arranged upon the cutter bar, an arm extending forwardly and downwardly from said body plate and adapted to hold a sickle down to its work, and arms depending from side body plate at opposite sides of the guards and terminating in rearwardly extending portions disposed below the portion of the guard below the cutter bar, and a connecting bolt extending through the clip, cutter bar and guard, substantially as specified. 7th. In a cutting apparatus, the combination of a cutter bar, sickle guards having lateral spurs the contiguous ends of which are shaped so as to break joints, and also having portions disposed below the cutter bar, a sickle, clips comprising body plates arranged upon the cutter bar, and arms depending from said plates and terminating in rearwardly extending fingers arranged below the portions of the guards below the cutter bar, and connecting bolts extending through the clips, cutter bar and guards, substantially as specified. 8th. In a cutting apparatus, the combination of a cutter bar, sickle guards, a sickle, clips engaging the guards and having shoulders forming bearings for the sickle, and means detachably connecting the clips, cutter bar and guards, substantially as specified. 9th. In a cutting apparatus, the combination of a cutter bar, sickle guards having portions arranged below the cutter bar and also having lateral spurs, the contiguous ends of which are rabetted and lapped, a sickle, clips having portions arranged upon the cutter bar and also having shoulders and depending arms disposed at opposite sides of the guards, and means detachably connecting the clips, cutter bar and guards, substantially as specified. 10th. In a cutting apparatus, the combination of a cutter bar, a plurality of sickle guards connected thereto, a sickle and a shoe connected to the outer end of the cutter bar and having its point disposed inwardly, substantially as specified. 11th. In a cutting apparatus, the combination of a cutter bar, a plurality of sickle guards connected thereto, a sickle, a shoe connected to the outer end of the cutter bar and having its point disposed inwardly, and also having the rearwardly, upwardly and inwardly-oblique extending heel, and a grass board connected to said heel of the end shoe, substantially as specified. 12th. In a cutting apparatus, the combination of a cutter bar, a plurality of sickle guards connected thereto, a sickle, a shoe connected to the outer end of the cutter bar and having a socket at the underside of its forepart, and a runner having its forward end loosely arranged in said socket of the end shoe and also having an upwardly extending arm at its rear end adjustably connected to the end shoe, substantially as specified. 13th. In a cutting apparatus, the combination of a cutter bar, a plurality of sickle guards connected thereto and each having the under side of its forepart shaped after the manner of a sled runner, a shoe connected to the outer end of the cutter bar, and a runner loosely connected at its forward end to the shoe and having an upwardly extending arm at its rear end adjustably connected to the end shoe, substantially as specified. 14th. In a cutting apparatus, the combination of a cutter bar, sickle guards connected thereto, a sickle, a shoe connected to the outer end of the cutter bar and having a slot the side walls of which are beveled and serrated, a block removably arranged in said slot and having opposite beveled and serrated sides, a runner having its forward end arranged to loosely engage the shoe and also having an upwardly extending arm, and a connecting bolt extending through the arm of the runner and the block, substantially as specified. 15th. In a cutting apparatus, the combination of a cutter bar, sickle guards connected thereto, a sickle, a shoe connected to the outer end of the cutter bar, and having serrations at one side of its rear portion, a grass board having a plate provided with serrations arranged to engage those of the end shoe, a bolt pivotally connecting the plate of the grass board and the end shoe, and a bolt extending through a slot in one and an aperture in the other and equipped with a nut, substantially as specified. 16th. In a cutting apparatus,

the combination of a cutter bar, sickle guards connected thereto, a sickle, a shoe connected to the outer end of the cutter bar, a grass board adjustably connected to the end shoe and having a frame, and a counterpoise or pea adjustably fixed on said frame substantially as specified.

No. 64,323. Nozzle for Hose Pipes. (*Lance de boyaux.*)



64323

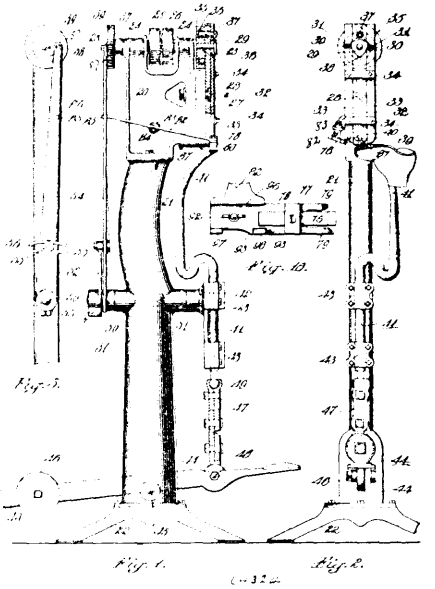
John T. Glazier and Peter F. Glazier, both of Indianapolis, and Alphonse King, Chicago, Illinois, U.S.A., 12th October, 1899; 6 years. (Filed 1st August, 1899.)

Claim.—1st. The combination, with a pipe in two rotarily adjustable sections, the lower of said sections having connection with a water-supply and the upper section being bifurcated and having outside separable bands at their ends, of a nozzle mounted between the bifurcated ends of the upper section of the pipe having rotative adjustment on said ends and internal communication therewith and having a wall or partition between the two supply-openings, threaded coupling ring on the threaded ends of the nozzle enveloping the flanged ends of the bifurcated pipe, and a compressible packing between each coupling ring and flange, all substantially as described and for the purposes specified. 2nd. In a stand pipe joint, an outside section of said pipe having an inside shoulder, an inner section of said pipe resting on said inside shoulder, an outside ring or flange secured to the end of the inner section of pipe, a ring above the flange secured to the end of the inner section of pipe, a ring above the flange having ball-bearings on said flange, a second ring above the flange separated therefrom by a compressible packing, the sides of both rings adjacent to the packing being beveled inwardly, a compressible packing, a third ring from the flange having ball-bearings on said second ring therefrom and means for holding the outer ring at a predetermined maximum distance from said shoulder, all substantially as described and for the purposes specified. 3rd. The combination, with a pipe in two rotary adjustable sections having double ball-bearings in the joint between the two sections and a compressible packing in said joint which expands by the pressure of the water in the pipe, the lower of said pipe-sections having connection with a water-supply and the upper section being bifurcated, of a nozzle mounted between the bifurcated ends of the upper section of the pipe and having internal communication therewith, all substantially as described and for the purposes specified.

No. 64324. Trimming Device for Pegging Machines.
(*Cherètre pour machines à cheviller*)

Isaïe Fréchette, Montreal, Quebec, Canada, 12th October, 1899; 6 years. (Filed 28th July, 1899.)

Claim.—1st. In a pegging machine, a shoe support, in combination with mechanism for imparting a lateral motion thereto. 2nd. In a pegging machine, a shoe support, mechanism for raising and lowering said shoe support and mechanism for imparting a lateral motion thereto. 3rd. In a pegging machine, a horn, pivotally secured to the frame thereof, and mechanism for rocking said horn upon said pivot. 4th. In a pegging machine, a horn, a rocking frame in which said horn is arranged to slide longitudinally, a rock shaft fast to said rocking frame, and mechanism for rocking said shaft. 5th. In a pegging machine, a horn, a rocking frame in which said horn is arranged to swivel, a rock shaft fast to said rocking frame, and mechanism for rocking said shaft. 6th. In a pegging machine, a horn, a rocking frame in which said horn is arranged to slide longitudinally and to swivel thereon, a rock shaft fast to said rocking frame, and mechanism for rocking said shaft. 7th. In a pegging machine, a horn, a rocking frame, in which said



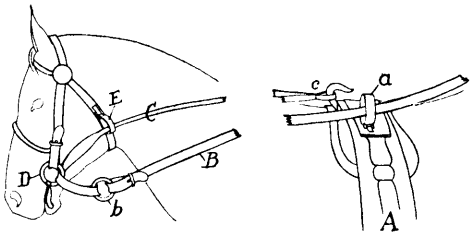
horn is arranged to slide longitudinally, a rock shaft fast to said rocking frame, mechanism for rocking said shaft, and means for adjusting said horn laterally. 8th. In a pegging machine, a horn, a rocking frame in which said horn is arranged to slide longitudinally, a rock shaft fast to said rocking frame, mechanism for rocking said shaft, consisting of a cam-lever fast to said rock shaft, and a cam fast to the driving shaft of said pegging machine. 9th. In a pegging machine, a horn, a rocking frame, in which said horn is arranged to slide longitudinally, a rock shaft fast to said rocking frame, mechanism for rocking said shaft consisting of a cam-lever 54, and cam 59, said cam-lever being adjustably secured to said rock shaft by a slotted arm 52, fast to said rock shaft. 10th. An anvil adapted to be attached to the shoe support of a pegging machine, said anvil having a cutting edge thereon. 11th. An anvil adapted to be attached to the shoe support of a pegging machine, said anvil having a chamber 63 therein. 12th. An anvil adapted to be attached to the shoe support of a pegging machine, said anvil having an annular chamber 63 therein, encircled by a rim 64, having an annular groove 67 in the upper face thereof. 13th. An anvil adapted to be attached to the shoe support of a pegging machine, having a chamber 63 therein, encircled by a rim having a cutting edge 72 upon the upper face thereof. 14th. An anvil adapted to be attached to the shoe support of a pegging machine, having a hollow stem thereon, and a chamber 63 therein, encircled by rim having a cutting edge 72 thereon. 15th. In combination with the organized mechanism of a pegging machine, a shoe support, a cutter attached to said shoe support, and mechanism for imparting to said shoe support a reciprocating motion. 16th. In combination with the organized mechanism of a machine for pegging boots and shoes, a shoe support, an anvil attached to said shoe support, said anvil having a cutting edge thereon, and mechanism for imparting a reciprocating motion to said shoe support. 17th. In combination with the organized mechanism of a machine for pegging boots and shoes, a shoe support, a cutter arranged to bear against the outer sole of a shoe placed upon said support, and mechanism for imparting a reciprocating motion to said cutter. 18th. In combination with the organized mechanism of a machine for pegging boots and shoes, a shoe support, a cutter arranged to bear against the outer sole of a shoe placed upon said support, a holder for said cutter, a lever to which said holder is fastened, and mechanism for rocking said lever, and imparting to said cutter a reciprocating motion. 19th. In combination with the organized mechanism of a machine for pegging boots and shoes, a shoe support, a cutter attached to said shoe support, and mechanism for imparting to said shoe support a reciprocating motion, together with a second cutter, arranged to bear against the outer sole of a shoe placed upon said shoe support, and mechanism for imparting to said second cutter a reciprocating motion.

No. 64,325. Reins and Check Line. (*Rênes.*)

James Gibson Hume, Ontario, Canada, 12th October, 1899; 6 years. (Filed 28th October, 1899.)

Claim.—1st. The combination of a check line and driving line passed through a suitable bit attachment and its end secured to a point in the harness, substantially as described. 2nd. The combination of a check line and a driving line passed through a suitable bit attachment then through a suitable ring or swivel and its end secured to the harness, substantially as described. 3rd. A check line attached

to the saddle passing through a ring or swivel toward the crown of the bridle, then through a suitable bit attachment and firmly



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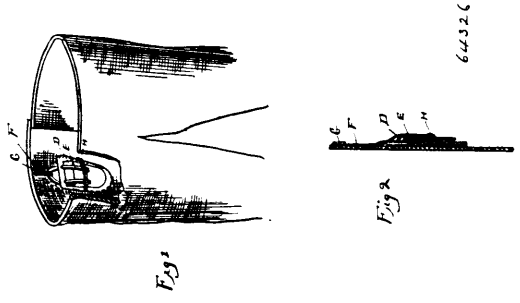
attached to the driving line, substantially as described. 4th. A check line attached to the saddle passing through the swivel and then through the ring of the bit and attached to a ring on the end of the driving line which will not pass through the bit attachment, substantially as described.

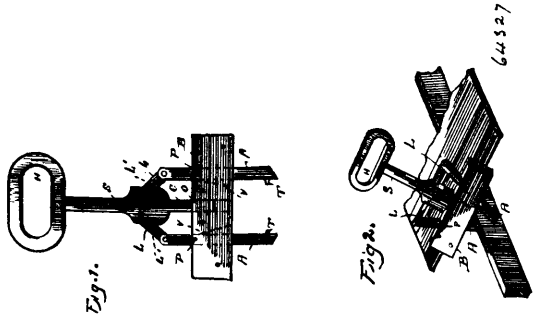
No. 64,326. Safety Pocket. (*Poche de sureté.*)



Maurice Moriarty Murray, Baxter, California, U.S.A., 12th October, 1899; 6 years. (Filed 1st August, 1899.)

Claim.—1st. A safety pocket comprising a supplemental pocket arranged upon the pocket proper and having a protecting flap and guard straps, substantially as shown and described. 2nd. A safety pocket attached to an ordinary pocket and having the protecting flap, the guard straps extending over said flap and through the pocket proper and an elastic suspension strap connected to the guard strap, substantially as shown and described.

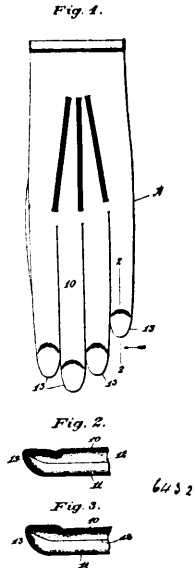
No. 64,327. Floor Clamp. (*Crampon pour planchers.*)



William M. Allan, Lena, Ohio, U.S.A., 12th October, 1899; 6 years. (Filed 1st August, 1899.)

Claim.—1st. In a floor set, the combination with a body having edgewise through it a central opening and two V-shaped openings of a shank having a guide reciprocating within said central opening, two arms pivoted in said side openings with teeth on the inner faces of their lower ends, a toggle connected with the shank and arms for operating the latter, and a stop at the upper end of said guide for limiting the descent thereof when the toggle is just past its greatest spread, as and for the purpose set forth. 2nd. In a floor set, the combination with a body having a central guide opening, and two arms pivoted to said body, of a shank having a handle at its upper end and a guide at its lower end reciprocating in said opening, and between them an enlargement adapted to strike the upper edge of said body when the jaws are closed, and toggle links pivotally connecting said enlargement with the upper ends of the arms and adapted to pass just below a horizontal line when the enlargement strikes the body, as and for the purpose set forth.

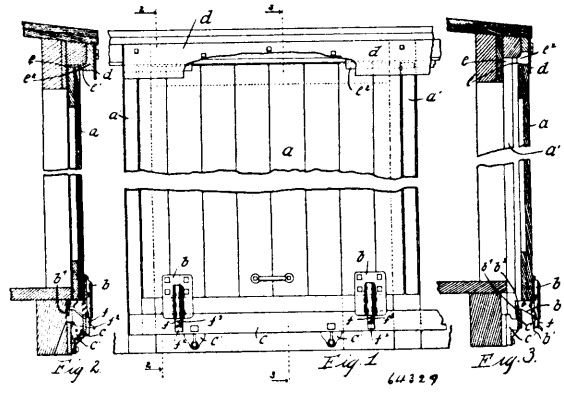
No. 64,328. Glove. (*Gant.*)



Daniel Henry Murphy, Hartford, Connecticut, U.S.A., 12th October, 1899; 6 years. (Filed 1st August, 1899.)

Claim.—1st. As an article of manufacture, a glove having the tips shaped to resemble and fit the finger nails, the shaped portions being permanently set to retain their form. 2nd. As an article of manufacture, a glove having tips with permanent representations of the finger nails in intaglio therein.

No. 64,329. Car Door. (*Porte de chars.*)



Jacob Neff Barr, West Milwaukee, Wisconsin, U.S.A., 12th October, 1899; 6 years. (Filed 2nd July, 1899.)

Claim.—1st. The combination with a shoe for a door, of a rail upon which said shoe is adapted to rest and to slide, a latch adapted to hold said shoe in engagement with said rail when the door is closed and to permit an outward movement of said door, the rail being provided with a hole for providing a locking engagement between the latch and the rail, substantially as described. 2nd. The combination with a door a, of cleats a^1 a^1, a groove e adapted to receive the top of said door, the shoes b attached to the bottom of said door, the rail c upon which said shoes are adapted to rest and to slide, the latch f adapted to hold the shoes in engagement with said rail and to permit a downward and outward movement thereof preparatory to sliding the door away from said opening. 3rd. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the door, said groove being higher nearer the doorway and lower away from the doorway, the outer wall or portion d of the groove extending below the top of the door in its lowered position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated, and to permit it to move away from the doorway when the door is lowered, means for supporting the door in its elevated or lowered position, and means for guiding the door in its horizontal travel when lowered, substantially as described. 4th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion d of

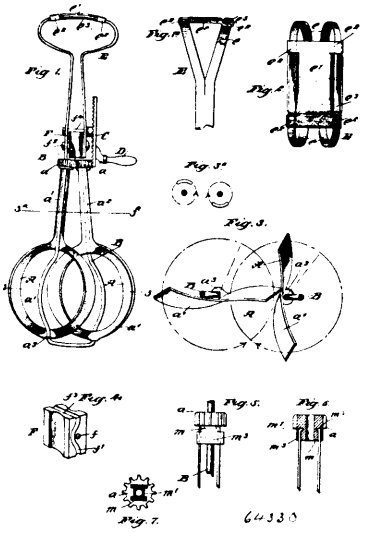
the said groove extending below the top of the door in its lower position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, the outer and lower portion of said groove being extended longitudinally of the doorway beyond the same to retain the top portion of the door in its lower outermost position in its horizontal travel, means for supporting the door in its elevated or lower position, and means for guiding the door in its horizontal travel when lowered, substantially as described. 5th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, the inner and upper portion of said groove being disposed between the side margins of the doorway, whereby the door may be closed flush, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, means for supporting the door in its elevated or lower position, and means for guiding the door in its horizontal travel, when lowered, substantially as described. 6th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, the inner and upper portion of said groove being disposed between the side margins of the doorway, whereby the door may be closed flush, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, the outer and lower portion of said groove being extended longitudinally of the doorway beyond the same to retain the top portion of the door in its lower outermost position in its horizontal travel, means for supporting the door in its elevated or lower position, and means for guiding the door in its horizontal travel when lowered, substantially as described. 7th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, bearing devices affording two points of support for the lower part of the door at different levels and at different distances from the door openings the inner point of support being at the higher level and affording an unobstructed path of travel for the door transverse to the frame to its lower outer point of support, and means for guiding the door in its longitudinal travel after it has been moved downwardly and outwardly, substantially as described. 8th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices and outer and lower portion of said groove being extended longitudinally of the doorway beyond the same to retain the top portion of the door in its lower outermost position in its horizontal travel, bearing devices affording two points of support for the lower part of the door at different levels and at different distances from the door opening, the inner point of support being at the higher level and affording an unobstructed path of travel for the door transverse to the frame to its lower outer point of support, and means for guiding the door in its longitudinal travel after it has been moved downwardly and outwardly, substantially as described. 9th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, the outer and lower portion of said groove being extended longitudinally of the doorway beyond the same to retain the top portion of the door in its lower outermost position in its horizontal travel, bearing devices affording two points of support for the lower part of the door at different levels and at different distances from the door opening, the inner part of support being at the higher level and affording an unobstructed path of travel for the door transverse to the frame to its lower outer point of support, means for guiding the door in its longitudinal travel after it has been moved downwardly and outwardly, and a rail upon which the door is adapted to travel, substantially as described. 10th. The combination with a door-frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, the outer and lower portion of said groove being extended longitudinally of the doorway beyond the same to retain the top portion of the door in its lower outermost position in its horizontal travel, fixed bearing devices upon the lower part of the door affording two points of support for the lower part of the door at different levels and different distances from the door opening, the inner point of support being at the higher level and affording an unobstructed path of travel for the door transverse to the frame to its lower outer point of support, means for guiding the door in its longitudinal travel after it has been moved downwardly and outwardly, and a rail upon which the door is adapted to travel and with which the supporting devices are adapted for engagement, substantially as described. 11th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, the outer and lower portion of said groove being extended longitudinally of the doorway beyond the same to retain the top portion of the door in its lower outermost position in its horizontal travel, fixed bearing devices upon the lower part of the door affording two points of support for the lower part of the door at different levels and at different distances from the door opening, the inner point of support being at the higher level and affording an unobstructed path of travel for the door transverse to the frame to its lower outer point of support, means for guiding the door in its longitudinal travel after it has been moved downwardly and outwardly, and a rail upon which the door is adapted to travel and with which the supporting devices are adapted for engagement, an inclined surface being interposed between said points of support, substantially as described. 12th. The combination with a door frame, of a vertically movable sliding door, a groove being provided at the upper portion of the doorway and being higher nearer the doorway and lower away from the doorway, the outer wall or portion *d* of the said groove extending below the top of the door in its lower position, said groove being thus adapted to engage and secure the top of the door close to the doorway when the door is elevated and away from the doorway when the door is lowered, and serving to compel the movement of the door, when elevated, toward the doorway, all without the aid of auxiliary devices, the outer and lower portion of said groove being extended longitudinally of the doorway beyond the same to retain the top portion of the door in its lower outermost position in its horizontal travel, means for supporting the door in its elevated or lowered, substantially as described. 13th. In a door, the combina- lower position, said means permitting of the free inward and upward and outward and downward movement of the lower portion of the door, and means for guiding the door in its horizontal travel when tion with a door frame, of a vertically movable door, fixed bearing devices upon the door, the inner device being located nearer the car and above the other, whereby when the door is elevated it may be maintained close to the car-body and when lowered it may be supported away from the car-body, said fixed bearing devices affording a free path for the travel of the lower part of the door in a direction transverse to the car-body and to the side of the car from its inner and upper position to its lower and outer position, and means for guiding the door in its horizontal travel when moved downwardly and outwardly, substantially as described.

No. 64,330. Egg Beater. (*Vergette de cuisine.*)

Thomas Holt, Tarrytown, New York, U.S.A., 12th October, 1899; 6 years. (Filed 2nd August, 1899.)

Claim.—1st. A beater, consisting of two rotating bows arranged on independent axes side by side and eccentric to each other, and having the blades of these bows set at an inclination to the radial line, substantially as and for the purpose set forth. 2nd. A beater, consisting of two rotating bows arranged on independent axes side by side and eccentric to each other, the lower and curved portion of the bows being longitudinally slotted and the blades of these bows set at an inclination to the radial line, substantially as and for the purpose described. 3rd. A beater, consisting of two rotating bows arranged on independent axes side by side and eccentric to each other, the lower portion of the bows being provided with longitudinal slots and the lower portions of the axes being correspondingly curved and provided with blades at their curved portions, extend-

ing in direction of the same side of the device but laterally in opposite directions, said blades being slotted and the blades of the bows

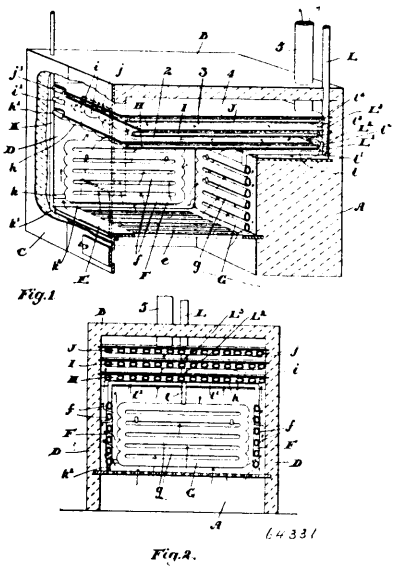


being set at an inclination to the radial line, substantially as and for the purpose specified. 4th. A beater, consisting of two rotating bows arranged on independent axes side by side and eccentric to each other, and having the blades of these bows set at an inclination to the radial line, the inclination of the lower half of the blades being reverse to that of the upper half, as and for the purpose described. 5th. A dasher for a beater, consisting of single ring with a single offset shank, both made in one piece, the ring being bent to form inclined blades and the shank portion being curved in cross section, substantially as and for the purpose described. 6th. In a beater, a handle consisting of a flat bar having its middle part bent into an elliptical bow split longitudinally into twin diverging sections and having between the split and diverging section a flat metal plate connecting and staying the twin bows and forming a broad handhold, substantially as set forth. 7th. The combination, with the two lower ends of the handle and the upper ends of beater shafts, of a spacing block arranged between the lower ends of the handle and having recessed seats to receive the upper ends of the beater shafts between the block and the lower ends of the handle section, and one or more bolts passing through the handle section and the block, and clamping the upper ends of the beater shafts between the same, substantially as and for the purpose described. 8th. A beater shaft consisting of two rotatating bows arranged on independent axes side by side and eccentric to each other, and the lower portion of the axes being correspondingly curved and provided with blades at their curved portions, extending in direction of the same side of the device but laterally in opposite directions, the said blades being provided with passages for the liquid, and the blades of the bow being set at an inclination to the radial line, substantially as and for the purpose set forth. 9th. A beater, consisting of two rotating blades arranged on independent axes side by side and eccentric to each other, the lower portion of the said axes being correspondingly curved, and provided with blades at their curved portions extending in direction of the same side of the device but laterally in opposite directions, and the blades of the said bows being set at an inclination to the radial line, and means for operating the said rotating bows, as described,

No. 64,331. Hot Water Heater. (*Chauffeur d'eau.*)

Robert Watt, Wiarton, Ontario, Canada, 12th October, 1899; 6 years. (Filed 19th July, 1899.)

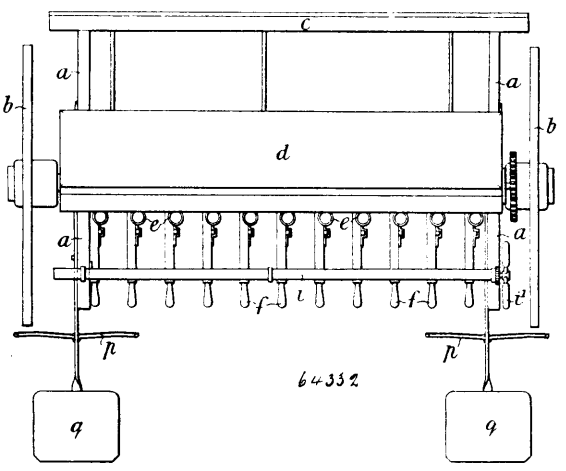
Claim.—1st. In a hot water heater, the combination with the fire pot, of the side and end coils, suitable return pipes, the branches connecting the side and end coils to the return pipe, the flow pipe and the branches connecting the side and end coils to the flow pipe, as and for the purpose specified. 2nd. In a hot water heater, the combination with the fire pot, of the side and end coils, suitable return pipes, the branches connecting the side and end coils to the return pipe, the flow pipe, the branches connecting the side and end coils to the flow pipe, the top horizontally placed coils suitably supported, the extensions to the flow pipe gradually increasing in size from bottom to top, each extension being connected by pipe to the coil opposite it, as and for the purpose specified. 3rd. In a hot water heater, the combination with the fire pot, of the side and end coils, suitable return pipes, the branches connecting the side and end coils to the return pipe, the flow pipe, the branches connecting the side and end coils to the flow pipe, the top horizontally placed coils suitably supported, the extensions to the flow pipe gradually increasing in size from bottom to top, each extension being connected



by pipe to the coil opposite it, and the deflecting plates resting on the top coils designed to direct the products of combustion around the coils to the smoke pipe, as and for the purpose specified.

No. 64,332. Seed Drill, Horse Hoe, etc.
(*Semoir en ligne, houe à cheval, etc.*)

Fig 1



Thomas Eagle Martin, Barmer, King's Lynn, England, 12th October, 1899; 6 years. (Filed 19th July, 1899.)

Claim.—1st. In a seed or manure drill, horse hoe or like agricultural implement, the combination with a main frame, of a swinging frame supported by arms or chains depending from the said main frame and carrying the coulters, hoes or the like, and a pedal arranged in proximity to a driver's seat and connected by suitable means with the said swinging frame in such a manner that the movement of the said pedal serves to communicate lateral movement to the said swinging frame relatively with the main frame, substantially as and for the purpose described. 2nd. In a seed or manure drill, horse hoe or the like, the combination of a main frame, an auxiliary frame carried by arms or chains depending from the main frame, a rock shaft pivoted in hangers depending from the said main frame, means for connecting one end of the said rock shaft to the swinging frame and a pedal upon the other end of the said rock shaft, all substantially as and for the purpose described. 3rd. The improved means hereinbefore described, for steering the coulters or tines of a seed or manure drill, horse hoe or the like by means of the feet of a person riding upon such seed drill or horse hoe, substantially as hereinbefore described and illustrated in the accompanying drawings.

No. 64,333. Pea Harvester. (*Arrache-pois.*)

Fig 1.

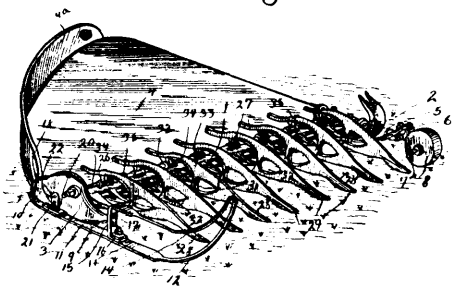
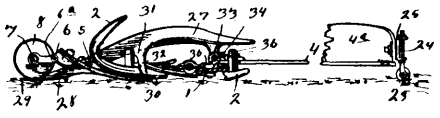


Fig 2.



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Alansing D. Pitcher, Marlette, Michigan, U.S.A., 12th October 1899; 6 years. (Filed 19th July, 1899.)

Claim.—1st. The combination with the finger bar, and a runner on the off end thereof, of a shoe fitted to the lower edge of the finger bar runner and extending forwardly thereof, the front end of said shoe being curved upwardly and provided with a vertical bar which is connected with the forward end of the finger bar runner, and a clamp for uniting the rear end of the shoe rigidly to the said runner, substantially as and for the purposes set forth. 2nd. In a harvester, a shoe having its front end curved upwardly and extending backward a suitable distance, and provided with a vertical bar which unites the shoe and its extended curved end, combined with a finger bar runner which rests upon the shoe and has its front end attached to said vertical bar, and means for uniting said shoe and runner rigidly together, substantially as described. 3rd. In a harvester, the shoe curved front and extending backwardly of its curved front extremity, said extended part of the shoe terminating in a vertical perforated bar which is attached to the lower part of the shoe, combined with a finger bar runner seated upon the shoe in the rear of said vertical bar and having its front extremity fitted in a perforation of the vertical bar, and an angular clamp fastened to the finger bar runner, substantially as described. 4th. The combination with a finger-bar having a runner at its off end, of a rod supported above the finger bar, a shoe clamped to the runner and vertically adjustable thereon, a wheel carrying shoe on the near end of the finger bar and also vertically adjustable thereon for sustaining the finger bar in connection with the off-end shoe, at the desired elevation, and a series of lifting fingers arranged between the near and off end shoes and mounted loosely on the rod, substantially as described. 5th. The combination with a finger bar, and a runner thereon, of the shoe clamped detachably at its near end to the runner, said shoe being vertically adjustable from the clamp as an axis for connection with the front end of the runner at different elevations, substantially as described. 6th. In a harvester attachment, a lifting finger cast in a single piece of metal and consisting of the arched upper bar provided at a point in advance of its near extremity with a bearing sleeve 33, the lower bar 30, in the vertical plane of the arched upper bar, the horizontal tapered foot 28, which unites the upper and lower arms, and the vertical bar 31, joining the two bars together and provided with a socket, substantially as described.

No. 64,334. Horse Collar. (*Collier de cheval.*)

Johnston Mealey, Howard Lake, Minnesota, U.S.A., 12th October, 1899; 6 years. (Filed 14th July, 1899.)

Claim.—1st. The combination with the collar frames and the pads secured thereto of rods swivelled on said frames and having their lower ends extending to a point at or near the lower ends of said frames, whereby long bearing surfaces are formed for said rods to permit them to turn easily and distribute the pressure or strain evenly upon the horse's shoulders, and means connecting the upper ends of said rods, substantially as described. 2nd. The combination with the collar frames and the pads secured thereto of rods mounted in bearings on said frames and revoluble therein, the upper ends of said rods projecting a considerable distance above the tops of said frames and their lower ends extending to a point at or near the lower ends of said frames, whereby long bearing surfaces are formed for said rods to ensure an even distribution of the pressure or strain on the horse's shoulders, and a pad provided between the upper ends of said rods and connected thereto, substantially

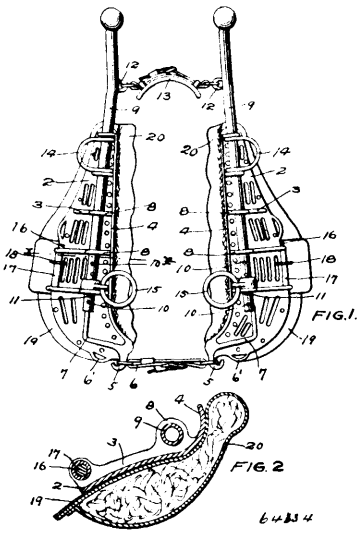


FIG. 1.

FIG. 2

64334

as described. 3rd. The combination with the collar frames having the inner edges outwardly turned, and pads provided on said frames and overlapping said outwardly turned edges, of swivelled rods provided on said frames, and means connecting the upper ends of said rods, substantially as described. 4th. The combination with the collar frames of the swivelled rods mounted thereon, a pad between the upper ends of said rods, pins 16 provided on said frames, and sleeves 17 carried by said pins and provided with flanges 18, substantially as described. 5th. The combination with the frames 2 having transverse ribs 3 provided with vertical sockets, of the rods 9 swivelled in said sockets and vertically adjustable therein, the lower ends of said rods terminating at a point at or near the lower ends of said frames, the tug connections provided on said frames at a point opposite the lower ends of said rods, a pad between the upper ends of said rods and connected thereto, and pads secured to the under sides of said frames, substantially as described. 6th. The combination with the neck pad of the two parts of the collar, and vertical pivots connecting said parts of the collar with said neck pad, and said pivots extending to a point at or near the lower end of the collar, for the purpose specified. 7th. The combination with the neck pad of the two parts of the collar, and vertical pivots connecting said parts of the collar with said neck pad, and said pivots extending a considerable distance above said collar and down to a point at or near its lower end, for the purpose specified. 8th. The combination with the neck pad of the collar frames adjustably mounted upon pins or rods 9, which extend for a considerable distance above said frames, and upon which said frames are free to turn, and means connecting said pins with said neck pad, substantially as described.

No. 64,335. Gymnastic Clubs. (*Massues.*)

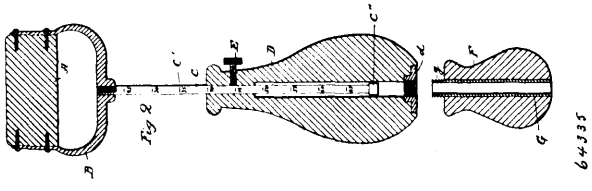


Fig 2

64335

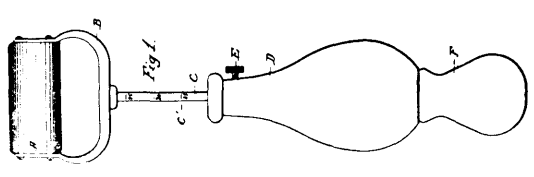


Fig 1.

Ralph Robert Gibson, Boston, Massachusetts, U.S.A., 12th October, 1899; 6 years. (Filed 3rd February, 1899.)

Claim.—A gymnastic club D adjustably secured upon a stem C having attached to its upper end a bail handle as described, combined with an auxiliary weight F having a screw-threaded hollo-

shank G adapted to be screwed into a screw-threaded female nut or plate *d* secured to the lower end of the club, substantially as and for the purpose set forth.

No. 64,336. Tea and Coffee Pot. (*Théière et cafetière.*)

FIG. 1.

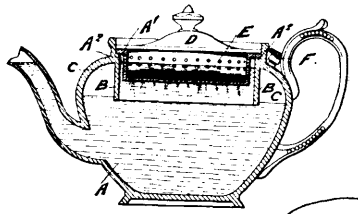
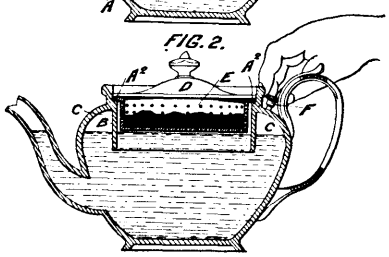


FIG. 2.



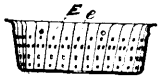
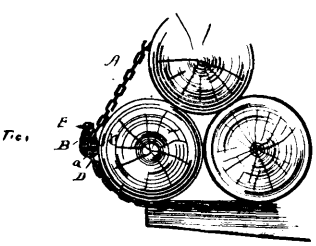


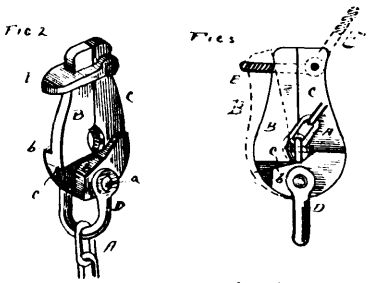
FIG. 3. 64336

John Marshall, 27 Clements Lane, London, E.C., 12th October, 1899; 6 years. (Filed 19th July, 1899.)

Claim.—1st. In a tea or coffee pot or other similar utensil, the combination therewith of a tubular trunk extending downwardly a predetermined distance and depending from the covered opening at the top, and a space formed between the wall of the tubular trunk and the side of the pot, means for permitting compressed air to escape from the air space, and a perforated strainer fitted within the tubular trunk, substantially as described and for the purpose specified. 2nd. In a tea or coffee pot or other similar utensil the combination therewith of tubular trunk B depending from the covered opening at the top, the annular air space C, the valve F and the strainer E, substantially as described and for the purpose specified. 3rd. In a tea or coffee pot or other similar utensil the combination therewith of a tubular trunk B, the annular air space C, the valve F and the collapsable strainer E seated in the edge A^{11} around the opening under the lid D, substantially as described and for the purpose specified.

No. 64,337. Chain Hook. (*Crochet de chaines.*)





64337

Joseph Paquette, Eidsvold, Wisconsin, U.S.A., 12th October, 1899; 6 years. (Filed 24th July, 1899.)

Claim.—1st. A device for securing together the ends of binding chains, consisting of two pivoted sections, each provided with shoulders upon opposite sides and at their pivoted ends and having segmental recesses upon their inner edges above the shoulders to form an opening for the reception of the binding chain when the two sections are brought to a closed position, and means for permanently securing to the device one end of the binding chain, and means for locking the two sections together, substantially as specified. 2nd. A device for securing together the ends of log binding chains, consisting of two tapering and pivoted sections, each having shoulders upon their opposite sides and recesses upon their inner edges above said shouldered portions, a pivoted clevis at the shouldered ends of the sections, and a pivoted locking link at the free or smaller ends of said sections, substantially as described.

No. 64,338. Rubber Insole. (*Fausse semelle en caoutchouc.*)

Fig. 2.

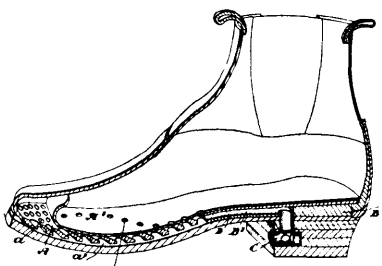


Fig. 1.

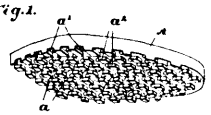


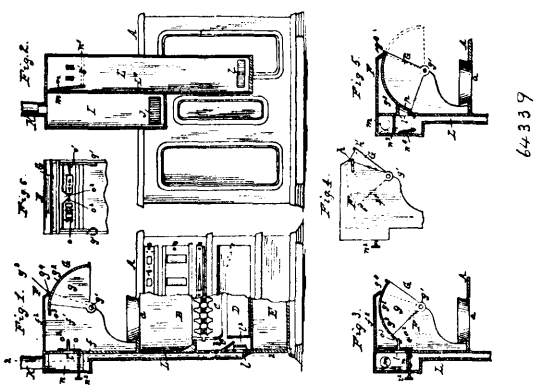
Fig. 3.

64338

Michael Alexander Kennedy, Montreal, Que., Canada, 12th October, 1899; 6 years. (Filed 24th July, 1899.)

Claim.—1st. In a boot or shoe, the combination with the sole, heel, upper and ordinary insole and valve opening and valve in the heel, of the rubber insole having inclined perforations extending through the sole, and ongitudinal and cross channels in the under portion of the sole into which such perforations lead, and an air passage way connecting such perforated sole to the valve opening in the heel, as and for the purpose specified. 2nd. In a boot or shoe, the combination with the sole, heel and upper and ordinary insole and valve opening and valve in the heel, of the rubber insole having inclined perforations extending through it, and a passageway or passageways communicating from underneath the rubber insole to the valve opening in the heel, as and for the purpose specified.

No. 64,339. Cooking Stove. (*Poêle de cuisine.*)



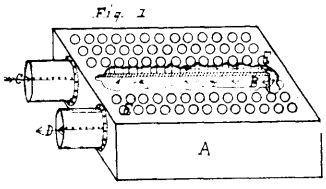
64339

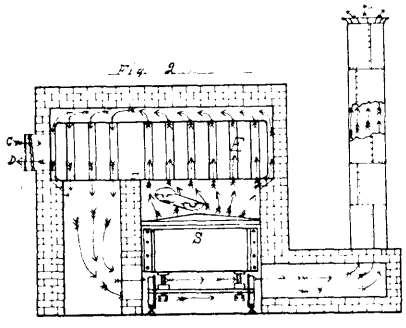
Alexander M. Amos, Buffalo, New York, U.S.A., 12th October, 1899; 6 years. (Filed 24th July, 1899.)

Claim.—1st. In a cooking stove, the combination with the ash pit, the fireplace, and an ascending smoke, flue connected with the fire place, of a vapor gathering hood overhanging the stove top, a descending vapor flue arranged adjacent to said smoke flue and extending from the rear portion of said hood to the ash pit, the upper portion of said vapor flue, communicating with the uppe

portion of the smoke flue by a connecting passage, and damper mechanism applied to said vapor flue and said connecting passage, whereby said passage may be closed and the vapor flue left unobstructed, or the vapor flue closed and said passage left open, substantially as set forth. 2nd. The combination with the body of the stove, the fireplace, the ash pit and a smoke flue, of a vapor gathering hood overhanging the stove top, a descending vapor flue connecting said gathering hood with the ash pit and having an inlet which opens into said hood and an exit which leads into said smoke flue and having its lower end pivoted at a point below the level of said vapor inlet, whereby the damper covers said vapor exit when turned to its upright position and obstructs the vapor flue below said vapor inlet, when turned to said horizontal position, substantially as set forth. 3rd. The combination with the body of the stove, the fireplace and the ash pit, of a vapor gathering hood overhanging the stove, a descending vapor flue connecting said hood with the ash pit and having a vapor inlet which opens into said hood, a damper applied to said vapor inlet, and a movable extension applied to said hood and arranged to operate said damper, substantially as set forth. 4th. The combination with the body of the stove, the fireplace and the ash pit, of a vapor gathering hood overhanging the stove, a descending vapor flue connecting said hood with the ashpit and having a vapor inlet which opens into said hood, a damper applied to said vapor inlet and provided with automatic means for opening it, and a folding extension pivoted to said hood and having a cam or wedge which engages with said damper and closes the same when the extension is folded into the hood, substantially as set forth.

No. 64,340. Hot Blast Box. *(Boite de courant d'air chaud.)*





64340

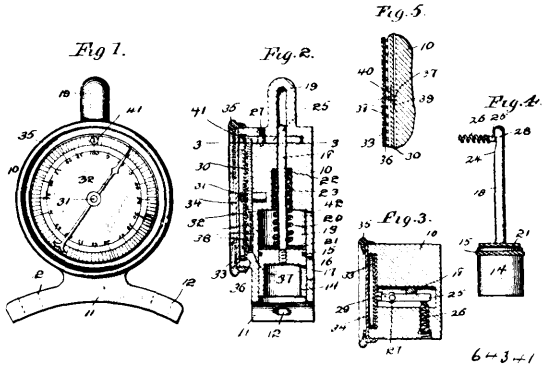
Sidney Elliott Bretherton, Silver City, New Mexico, 12th October, 1899; 6 years. (Filed 25th July, 1899.)

Claim.—1st. A hot blast box, consisting of a horizontal metal casing having a vertical longitudinal partition in the same, extending from one end of the box to a point near the other end, and provided with an inlet and outlet opening, located in the casing on opposite sides of said partition at its end which is joined to the casing, and a series of vertical tubes extending from top to bottom of the box, and opening into the space above and below the box to form passage ways and radiating tubes for hot ascending currents, substantially as and for the purpose described. 2nd. The combination of enclosing walls and a horizontally disposed hot blast box mounted at the upper part of said enclosing walls, said box having a vertical longitudinal partition extending from one end of the box to a point near the other end with inlet and outlet openings for the compartments on each side of the same, and a series of vertical tubes extending through said compartments and secured to, and opening through the top and bottom walls of the said box, substantially as and for the purpose described.

No. 64,341. Air Brake Recorder. *(Régistre de frein à air.)*

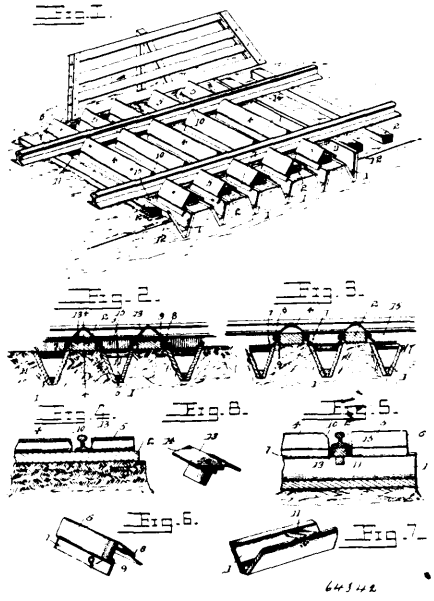
Wilson E. Symons and George W. Wildin, both of Savannah, Georgia, U.S.A., 12th October, 1899; 6 years. (Filed 27th July, 1899.)

Claim.—1st. An emergency pressure recorder for the purpose named, having a yielding element controlling an exhaust port, a reciprocatory element carried by said yielding element and having a cam face, a lever arranged in operative relation with said cam face, and registering devices actuated by said lever, substantially as specified. 2nd. An emergency pressure recorder for the purpose named, having a casing provided with a pressure chamber and a communicating exhaust port, a spring returned piston mounted in



said pressure chamber, and having a co-operating stem provided with a cam face, indicating devices including a graduated dial and a pointer, and means actuated by the cam face of said stem for advancing the pointer with relation to the dial, substantially as specified. 3rd. An emergency pressure recorder for the purpose named, having a casing provided with a pressure chamber, and a communicating exhaust port, a spring returned piston mounted in said chamber and normally held in position to close said port, a ratchet wheel, means carried by the piston for communicating a step by step forward movement to the ratchet wheel, a pointer or indicator carried by the spindle of the ratchet wheel, a graduated dial traversed by said pointer and having an inspection opening, a disc of higher denomination than said dial arranged to expose its characters, successively through said inspection opening, and means for communicating motion from the ratchet wheel to said disc, substantially as specified.

No. 64,342. Railway Cattle Guard. *(Garde bétail.)*

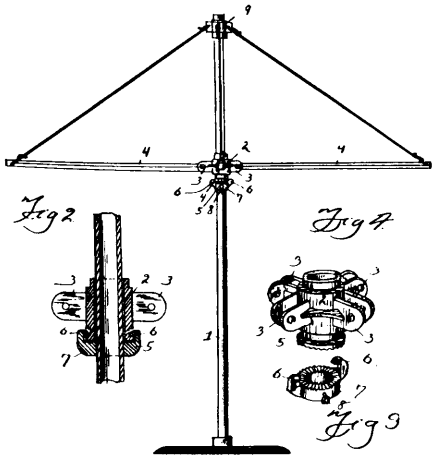


Richard V. Wallace, Marvell, Arkansas, U.S.A., 12th October, 1899; 6 years. (Filed 27th July, 1899.)

Claim.—1st. A device of the class described, comprising a series of transverse troughs designed to be arranged between the cross ties, and the transeverse guards detachably mounted in position, forming covers for the cross ties and composed of central and end sections, substantially as described. 2nd. A device of the class described, comprising a series of transverse troughs designed to be arranged between the cross ties, and a series of transverse guards composed of sections, said guards being substantially V-shaped in cross section and provided with removable side portions overlapping the upper edges of the troughs, substantially as described. 3rd. A device of the class described, comprising a series of transverse troughs designed to be arranged between the cross ties, and a series of transverse guards composed of substantially V-shaped upper portions or caps, and inclined lower side portions, the adjacent edges of the caps and the side portions being bent upon themselves and interlocked, substantially as described. 4th. A device of the class described, comprising a series of transverse troughs designed to be arranged

between the cross ties, transverse guards forming covers for the cross ties, and the cross pieces interposed between the slides of the troughs and arranged in alignment at points beneath the rails, substantially as described. 5th. A device of the class described, comprising a series of troughs having inclined sides and designed to be arranged beneath the cross ties, the outer sides of the end troughs being extended upward to the base of the rails, the transverse guards forming covers for cross ties, and the cross pieces interposed between the sides of the troughs, substantially as described. 6th. In a device of the class described, the combination with the cross ties and rails, of transverse troughs designed to be arranged between the cross ties, transverse guards forming covers for the cross ties, spacing blocks located beneath the rails and interposed between the cross ties, and the wear plates interposed between the rails and the cross ties and provided with extensions having wings, substantially as described.

No. 64,343. Clothes Drier. (*Séchoir à linge.*)



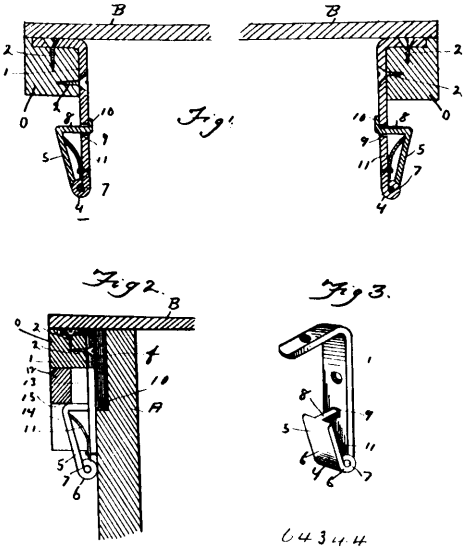
64343

Frank Overton and Charles A. McCally, both of La Grange, Indiana, U.S.A., 12th October, 1899; 6 years. (Filed 28th July, 1899.)

Claim.—In a clothes drier or frame, the combination with the vertical post, the vertically movable and rotatable hub mounted thereon provided with a peripheral flange at the lower end and with lugs at the upper end, the radial arms the rotatable collar at the upper end of the post and ropes, of the vertically movable non-rotatable collar mounted on the post formed with hooked lugs overlapping the said flange and positively engaging therewith so that said hub cannot move vertically independent of the collar, and the set screw for holding said collar in place, substantially as described.

No. 64,344. Box Lid Fastener.

(*Fermeture de couvercles de boites.*)

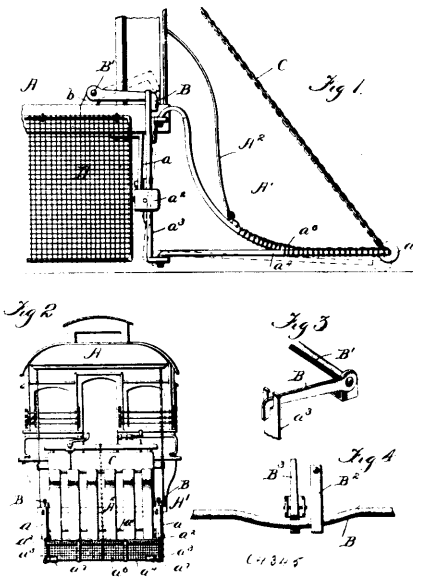


64344

Frank J. Robinson, Bozeman, Montana, U.S.A., 12th October, 1899; 6 years. (Filed 28th July, 1899.)

Claim.—A spring catch for the purpose described, comprising a metal strap having an opening, a catch plate pivotally connected thereto and provided at its free end with a reduced or narrowed portion which passes through the opening in the body portion and is headed as described to prevent its withdrawal, and a spring interposed between said catch plate and body for giving said plate a normal tendency away from the body, substantially as described.

No. 64,345. Car Fender. (*Défense de chars.*)



64345

Joseph Gravel, Montreal, Quebec, Canada, 12th October, 1899; 6 years. (Filed 28th July, 1899.)

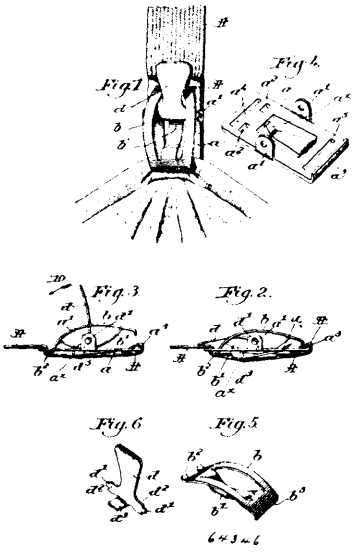
Claim.—1st. The combination with a car, of a fender pivotally connected therewith, said fender being adapted to be automatically lowered upon the track, substantially as described. 2nd. The combination with a car, a hanger secured thereto, a supporting bar pivoted to said hanger, a fender secured to said supporting bar, and a tripping mechanism, substantially as described, whereby the said fender is adapted to be automatically lowered upon the track, substantially as described. 3rd. The combination with a car, a hanger secured thereto, a supporting bar pivoted to said hanger, a fender secured to said supporting bar, a lock-bar pivoted to the car and adapted to engage the said supporting bar, a lever pivoted to the car and adapted to raise the said lock-bar out of engagement with the said supporting bar, whereby the fender will be lowered upon the track, substantially as described. 4th. The combination with a car, of a supporting car pivoted thereto, a fender secured to said supporting bar, and a tripping mechanism, substantially as described, whereby the said fender is adapted to be automatically lowered upon the track, substantially as described. 5th. The combination with a car, a hanger secured thereto, a supporting bar pivoted to said hanger, a fender secured to said supporting bar, a lock bar pivoted to the bar and adapted to engage the said supporting bar, a rod secured to said lock bar, a foot lever pivoted to the car and adapted to engage the said rod and to raise the said lock bar up out of engagement with the said supporting bar, whereby the said fender may be lowered upon the track, and a chain attached to the fender for raising the same up from the track into its normal position, substantially as described.

No. 64,346. Clasp. (*Agrafe.*)

Byron George Clark, Boston, Massachusetts, U.S.A., 12th October, 1899; 6 years. (Filed 28th July, 1899.)

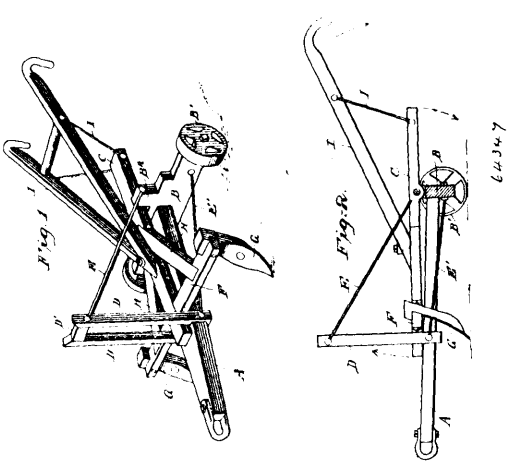
Claim.—1st. A clasp, comprising two opposing clasping members pivotally connected at one end, a lever mounted on one member to act upon the other member and lock them in closed position, and a spring integral with one member and independent of the pivotal connection of the clamping members, to normally maintain them open, the spring acting in opposition to the lever and also maintaining the latter in locked position. 2nd. A clasp, comprising two opposed clamping members pivotally connected at one end, one of said members having a longitudinally curved bearing portion, and the other member having a spring to act directly upon the adjacent surface of said bearing portion, and normally separate the members, and a locking lever to engage the opposite surface of the bearing portion and lock said members together, said lever being pivotally mounted on the spring carrying member. 3rd. A clasp, comprising two opposed clamping members pivotally connected at one end, one of which has an integral, inturned spring tongue, an inwardly curved longitudinal bearing on the other member, and a lever pivotally

mounted on the tongue carrying member, and provided with a locking lug to act upon the concave face of the bearing, and force it



against the spring tongue, to hold the clamping members locked together in opposition to the tension of the spring tongue. 4th. A clasp, comprising two clamping members pivotally connected at one end, means, including a longitudinally curved bearing portion on one member and a co-operative lever on the other member, to lock said members together, a spring to directly engage the bearing portion on the side opposite the lever and normally hold said clamping members open, and a supporting strap attached to one member and extended along its outer face around its free end. 5th. A clasp, comprising two clamping members one of which has a prong at one end to enter a slot in the other member, to pivotally connect them, an integral inturned spring tongue on one member, a lever transversely fulcrumed on said member and provided with a locking lug, and an inwardly turned longitudinal bearing portion on the other member interposed between the spring tongue and the inner end of the lever, to prevent disconnection of the clamping members, the locking lug acting upon the concave face of the bearing portion to hold the said clamping members locked together in opposition to the stress of the spring tongue. 6th. A clasp, comprising two clamping members pivotally connected at one end, an integral inturned spring tongue on one member, and a lever transversely mounted on said member and having a locking lug, the other clamping member being convexed longitudinally and provided with an inwardly curved longitudinal bearing portion, the fulcrum of the lever passing between the said bearing portion and the member of which it forms a part, the locking lug acting upon said bearing portion to hold the clamping members locked together in opposition to the stress of the spring tongue.

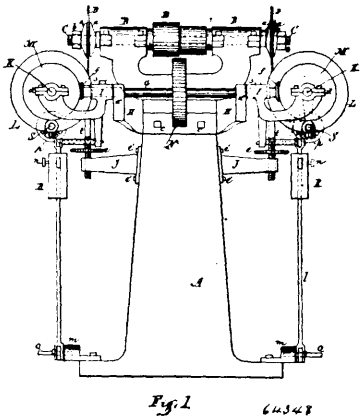
No. 64,347. Plough. (*Charrue.*)



Malinda Posttlethwait, Potosi, Missouri, U.S.A., 12th October, 1899; 6 years. (Filed 29th July, 1899.)

Claim.—1st. The combination with the main beam mounted upon ground wheels, of a supplemental beam pivoted above the main beam, and carrying toothed bar and handles, substantially as shown and described. 2nd. The combination with the main beam, attached to the axles, the bolster carrying the ground wheels, of the supplemental beam pivoted upon the axle or bolster and carrying the toothed bar and handles, substantially as shown and described. 3rd The combination with the main beam, of the bolster and ground wheels, the supplemental beam or toothed bar and handles, and the guide standards, all arranged and adapted to operate, substantially as shown and described. 4th. In a device of the kind described, the combination of the main beam, bolster and ground wheels, of the supplemental beam pivoted between standards arranged upon the bolster, the guide standards attached to the main beam, the toothed bar carried to the supplemental beam near its forward end and rear of the guide standards, the brace beams and rods and the handles, all arranged and adapted to be operated, substantially as described.

No. 64,348. Disc Bevelling Machine.
(*Machine d'équerrage de disques.*)

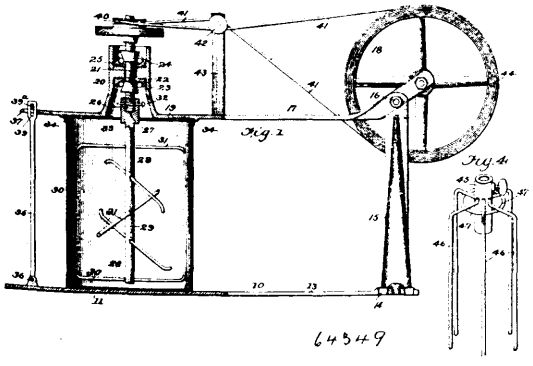


William Stephenson, Morris, Manitoba, and Arthur Stuart James, Hamilton, Ontario, both of Canada, 12th October, 1899; 6 years. (Filed 31st July, 1899.)

Claim.—1st. A machine for bevelling discs, consisting of a pedestal frame carrying two shafts, on which are mounted discs to be ground, and devices for holding them to the shafts, a shaft running at right angles thereto carrying a driving pulley and two emery wheels, feeding devices to take up the wear of the emery wheels, devices for guaging the size of the bevels to be made, clutch devices to throw the mechanism in and out of gear, a shaft carrying a driving pulley, and bevel pinions to engage with corresponding bevel wheels on the shafts that carry the discs, to rotate the discs, substantially as specified. 2nd. In a machine for bevelling discs, consisting of a pedestal frame A, carrying two shafts K K, on which are mounted two discs L L, to be ground, and held thereto between the plates T, and *r*, on the said shafts and tightened up by wedges *q q*, driven in slots formed in the said shafts, a shaft C, at right angles to shafts K K, carried in bearings B B, of the pedestal A, and provided with two collars *a a*, one loose and one affixed between which the grinding wheels D D, are held and tightened by the nuts *b b*, a driving pulley E on the said shaft C, to rotate the emery wheels D D, bevel pinions *f*, at the ends of the shaft G, to engage with the bevel wheels M M to rotate the shafts K K, and discs L L, and clutch devices O, oon the shafts K K, to throw the mechanism in and out of gear, substantially as and for the purpose specified. 3rd. In a machine for bevelling discs, in combination with the pedestal A, shafts K K, in bearings *d d*, of the castings I, provided with devices for holding discs, sleeves N^1 N^1, surrounding the said shafts, bevel wheels M, M, on the rear end of said shafts, clutch devices O on the same, to engage with the said bevel wheels, adjusting guage screw rod S, and its hand wheel *p*, and bracket projections *o*, for guaging the thickness of the discs to be ground, adjustable collars P, on the sleeves N^1, forked levers *j*, attached thereto, adjustable weights R, on the said levers *j*, with the pivoted foot levers G, at the base of the pedestal, a shaft G, carried in bearings a^1, a^{11}, of a bracket H, bolted to the rear end of the pedestal A, by bolts c c, bracket castings I I, on said shaft to which are attached bearings *d d*, for carrying the shafts K K, bevel pinions *f f*, at each end respectively of the shaft G, to engage with bevel wheels M M, on the shafts K K, to rotate them and the discs, a driving pulley N, on said shaft G, to rotate it by a belt, all arranged and constructed substantially as and for the purpose specified. 4th. In a machine for bevelling discs, in combination with a pedestal and devices for carrying two shafts upon which discs are mounted and a shaft for carrying grinding wheels and a shaft provided with a driving pulley and bevel gears to rotate the shafts and discs on which they are mounted, of the disc elevating and adjusting device consisting of the bracket J, attached to the pedestal A, carrying a vertical screw rod *t*, the end of which is attached to a part of the casting or bracket I, and the lower end

provided with a hand wheel r, by turning which the discs can be elevated or depressed as desired relative to the grinding wheels, substantially as specified.

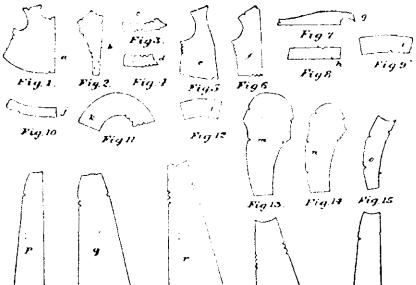
No. 64,349. Churn. (*Baratte.*)



James Wesley Maxey and Lawrence Linkenhett, both of Plymouth, U.S.A., 13th October, 1899; 6 years. (Filed 3rd August, 1899.)

Claim.—The herein described churn operating mechanism consisting of a base formed with a circular portion for the support of the churn body, a straight arm extending out from said circular portion and a foot extending laterally from the end of said arm, an upright post secured to the said foot and formed with an aperture at its upper end, a beam having between its ends a lateral lug received in said aperture whereby to pivot the beam on the post, the said beam having an offset portion whereby to bring its front end over the centre of the circular part of the base and having a ball bearing casing in such offset portion and entirely above its upper face, there being provided a slot in the front end of the beam, a shaft in the bearing casing, a band wheel on the rear end of said beam and having a belt connection with said shaft and a locking bar pivoted to the base at the forward end of the same and adapted to the base at the forward end of the same and adapted to be swung up into the slot in the end of the beam whereby to hold the latter on the churn body, as and for the purpose set forth.

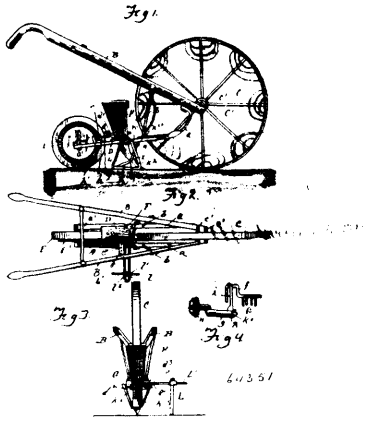
No. 64,350. Garment Pattern. (*Patron de vêtements.*)



Robert S. O'Loughlin, Glen Falls, New York, U.S.A., 13th October, 1899; 6 years. (Filed 13th April, 1898.)

Claim.—1st. As a new article of manufacture, a pattern for garments comprising a series of sheets representing different parts of a garment capable of being assembled together in a definite manner into a garment, each of the said sheets being provided with a different designating character, device or symbol constituted by perforations in the body of the said sheets, the said characters, etc., constituting a definite series, whereby designations of the pattern may be readily transferred to the garment material to which the pattern is applied, so that the material itself, when cut to the pattern may be assembled into a garment with certainty. 2nd. The herein described pattern for garments, comprising a series of sheets, each sheet having a different serial number perforated therein, so that the fabric cut from the said pattern may be appropriately marked with the serial numbers by chalking the pattern at the parts thereof where the numbers are applied, whereby reference may be made directly upon the fabric cut out to a schedule or chart of instructions referring to the numerals of the pattern.

No. 64,351. Cultivator and Seeder. (*Cultivateur et semoir.*)



Robert Collet Buckley, Peoria, Illinois, U.S.A., 13th October, 1899; 6 years. (Filed 12th July, 1899.)

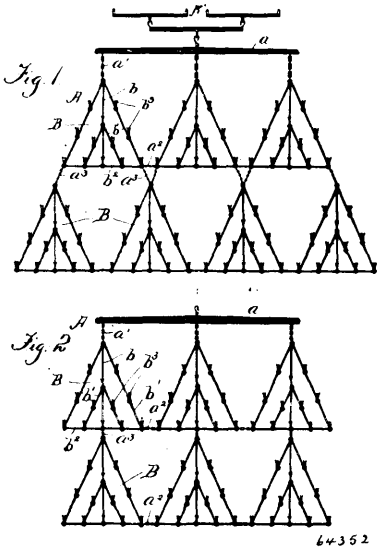
Claim.—1st. In a seeder and cultivator, or plow, the roller, the crank shaft geared therewith, the hopper, the agitator hung in said hopper and having its crank shaft linked or connected to the aforesaid crank shaft, and the seed slide arranged in said hopper, and having different sized seed dropping openings and arranged in juxtaposition with said agitator, substantially as set forth. 2nd. In a seeder and cultivator, the seed chute, and the seed coverer, adapted to contact with the ground in rear of said seed chute, and substantially bail-shaped, whose arms are angular and connected to a bolt passed through a socket in the underside of the carrying frame, substantially as set forth. 3rd. In a seeder and cultivator, the seed slide capable of readjustment, and the marker carrying arm produced with branches, one adapted to be secured to the carrying frame and the other having a downward bent end portion adapted to pass through the projecting portion of said seed slide and secured to the under side of said carrying frame, substantially as set forth. 4th. In a seeder and cultivator, or plough, the triangular marker, the clamp plate and its securing bolt, the arms formed of a bent or doubled wire rod, with its looped end portion let into recesses in said clamp plate and held upon the top cross portion of said marker by said clamp plate and said securing bolt passed centrally through said clamp plate and said top cross portion of said marker, and secured thereunder, the bent down end portions of said arm being secured to the seed slide and to the carrying frame, substantially as set forth. 5th. In a combined cultivator, or plough, and seeder comprising the seed hopper and its supporting frame, and the roller with its shaft bearing in said frame, the crank shaft geared to said roller, the bearing or support for said crank shaft, having obliquely arranged slotted end pieces integral with a base piece or casting bolted or secured to said carrying frame, the agitator secured to a crank shaft hung in said hopper, and connected by a pitman or link to the aforesaid crank shaft, the seed slide arranged in the lower end of said seed hopper, and the seed drill having the chute, or boot, and plough, or furrow-opener, and the bail-like coverer pivoted in the under side of said carrying frame and its looped end arranged in rear of said seed drill, substantially as set forth.

No. 64,352. Weeding Machine. (*Sarcleur.*)

Alexander Thomson, Douglas, Manitoba, Canada, 13th October, 1899; 6 years. (Filed 3rd August, 1899.)

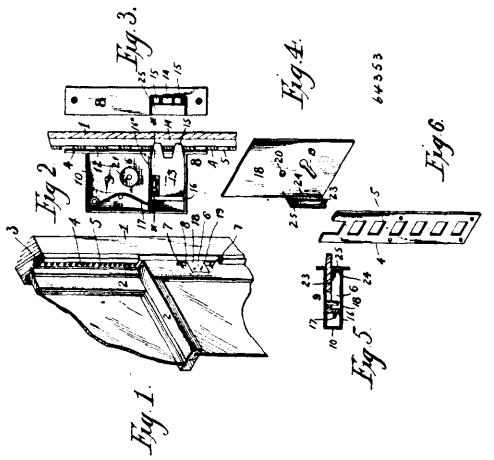
Claim.—1st. A weeding apparatus, comprising a plurality of weeding sections flexibly connected together, and suitable weeding hooks secured to said sections, substantially as described. 2nd. A weeding apparatus, comprising a plurality of weeding sections flexibly connected together and arranged in successive rows, one behind the other, and suitable weeding hooks secured to said sections, substantially as described. 3rd. A weeding apparatus, comprising a plurality of weeding sections flexibly connected together and arranged in successive rows, one behind the other, the sections of the rear row being interspaced with the sections of the preceeding row, and suitable weeding hooks secured to said sections, substantially as described. 4th. A weeding apparatus, comprising a plural-

ity of weeding sections, substantially triangular in form, a draft beam, chains secured to the angles of said sections, whereby the



sections are flexibly connected together and to the said beam, the said sections being arranged in successive rows, one behind the other, and suitable weeding hooks secured to said sections, substantially as described.

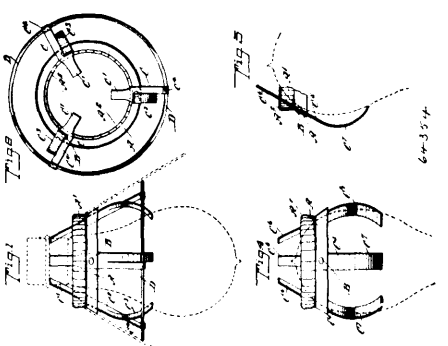
No. 64,353. Sash Lock. (*Serrure de croisées.*)



Julius W. Crigler, Bloomington, Illinois, U.S.A., 13th October, 1899; 6 years. (Filed 3rd August, 1899.)

Claim—The combination of double pointed spring actuated V-shaped bolt end with a keeper having a series of holes to receive the points of the bolts, the stay between each pair of holes being narrow enough to be straddled by the points of said bolts, substantially as described.

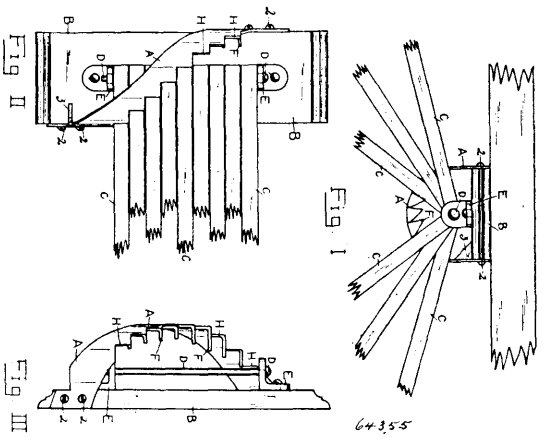
No. 64,354. Shade Frame. (*Cadre de réflecteurs.*)



Franklin Edward Howard, Buffalo, New York, U. S. A., 13th October, 1899; 6 years. (Filed 4th August, 1899.)

Claim.—1st. A shade frame for lamps, comprising a bevelled ring and supporting arms, the said ring having an annular upwardly projecting flange cut to yield sufficiently for the passage of the small end of the shade and for the edge of the shade to abut against. 2nd. A shade frame whose supporting arms project above and below the shade supporting ring, the lower ends of the arms being split to form two members of which one is bent inward to engage the bulb and the other forming part of the shade frame.

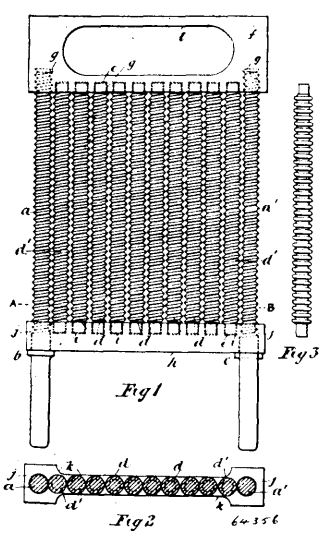
No. 64,355. Clothes Suspender. (*Porte-vêtement.*)



William Orr, Hamilton, Ontorio, Canada, 13th October, 1899; 6 years. (Filed 5th August, 1899.)

Claim.—1st. A clothes suspender of the character described, consisting of a wall bracket of spiral and semi-circular construction and formed with a series of radial arm supports having rear stops, and in step formation on the upper side thereof and secured to a wall plate, a number of radial projecting arms in contact with each other, pivoted to and radiating from a central vertical rod in upper and lower bearings on said wall plate, the underside of each said arm on the same plane as the said arm supports, to allow each arm to find a lodgement therein, as set forth. 2nd. A clothes suspender of the character described, consisting of a spiral semi-circular bracket secured to a wall plate, a number of radially projecting arms, the inner ends of which are in contact with each other and pivoted to a central vertical rod in upper and lower bearings of said plate, and which passes through said arm, to allow the same to have horizontal swivel connection and lodgement on an equal number of arm supports on the upper side of the spiral bracket, and on the same plane as the underside of each said arm supports bent inwardly to form a wide wearing surface and a rear stop, in step formation for said arms, and a lower brace bent inwardly from said spiral bracket as a support for the same on the said wall plate, as specified.

No. 64,356. Washing Board. (*Planche à laver.*)

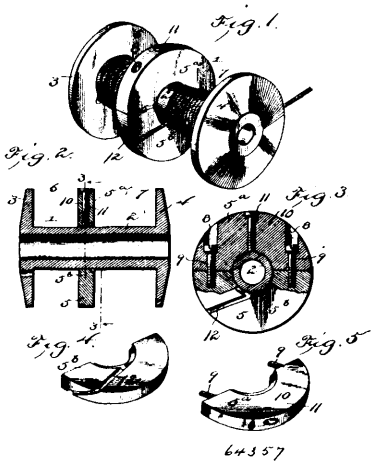


John Taylor, Tomago, New South Wales, Australia, 13th October, 1899; 6 years. (Filed 5th August, 1899.)

Claim.—1st. In a washing bord, a frame consisting of the top and bottom boards *f* and *h*, respectively, and the sides *a* and *a*^{1}, the

upper ends of which screw into said top board, substantially as set forth. 2nd. In a washing board, spindles such as *d*, free to move, and supported in a frame, substantially as set forth. 3rd. In a washing board, the combination of the sides *a* and a^1, on which are shoulders such as *b*, or in which are pins as at *c*, with the top and bottom boards *f* and *h*, the spindles d^1, d^1, and the spindles *d*, *d*, *d*, substantially as set forth. 4th. In a washing board, spindles such as shown in fig 3, free to move, and supported in a frame, substantially as set forth.

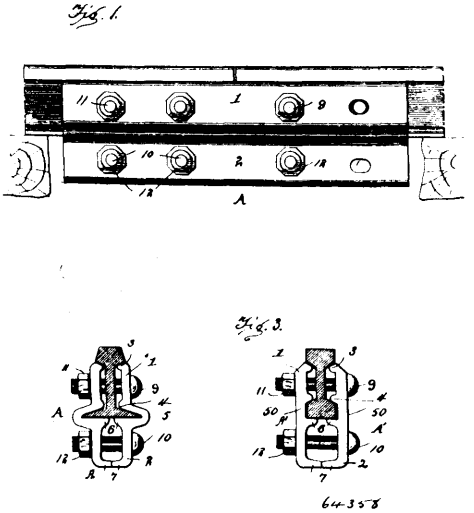
No. 64,357. Cable Reel. (*Dévidoir pour cables.*)



Edward Turney, Portland, Oregon, U.S.A., 13th October, 1899; 6 years. (Filed 5th August, 1899.)

Claim.—1st. A reel or drum, consisting of a shaft provided with rigid end pieces, a dividing head slidable on the said shaft longitudinally between the end pieces, and consisting of two sections, a pair of fastening devices for uniting the two sections of the dividing head and disposed respectively at opposite sides of the shaft, and a clamping device for securing the dividing head to the shaft at any point between the end pieces, and said fastening devices and clamping devices all disposed in one section with their bodies within the space bounded by the outer surface of the dividing head, and the other section having a groove in two parts formed respectively in the periphery and face thereof, as and for the purpose set forth. 2nd. A reel or drum, consisting of a shaft provided with rigid end pieces, a dividing head slidable on the said shaft longitudinally thereof between said end piece and consisting of two sections, one of which has a groove in two parts formed respectively in the periphery and face thereof, two screws located respectively at opposite sides of the shaft for detachably uniting the sections of the dividing head, and a third screw for clamping said dividing head to the shaft, and the heads of the screws being disposed in the space bounded by the outer surface of the dividing head.

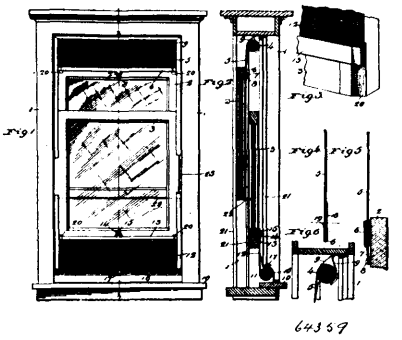
No. 64,358. Railway Rail Joint.
(*Joint de rail de chemin de fer.*)



Robert Hinchliffe, Chicago, Illinois, U.S.A., 13th October, 1899; 6 years. (Filed 7th August, 1899.)

Claim.—1st. The rail joint plate described, consisting of the metallic plate rectangular in outline, having webs 1, 2, in substantially the same plane having inwardly projecting ribs, above and below the connecting middle portion, said plate having bolt holes both above and below the rail flange bearing, all substantially as described. In a railway rail joint the combination with the rails having their proximate ends aligned, of a pair of similar joint plates, each plate having webs 1, 2, in substantially the same vertical plane connected around the flange of the rails, the web 1 having ribs extending inwardly and fitting closely against the rail head and flange the web 2 having ribs extending under the rail flange, the lower ribs in contact with each other, upper bolts extending through the plates and rails, and lower bolts extending through the plates between the ribs and below the rails, all substantially as described.

No. 64,359. Window Screen. (*Ecran de fenêtre.*)



Charles W. Rodecker, St. Louis, Missouri, U.S.A., 13th October, 1899; 6 years. (Filed 7th August, 1899.)

Claim.—1st. A window screen, comprising spring actuated rollers mounted in the upper and lower portions of the window frame, screens or netting composed wholly of textile fabric, one end of which is secured to said rollers, metallic strips secured to the opposite ends of said screens, in combination with suitable vertically moving sashes, and suitable fastening devices carried by said strips and adapted to co-operate with said sashes, whereby the screens are wound and unwound from said rollers by the movement of the sashes in either direction, substantially as described. 2nd. In combination with a window frame and upper sash thereof, of a spring actuated roller mounted in said frame, adjacent to the upper end of said frame, a screen or netting, one end of which is secured to said roller and having its opposite end removably secured to said sash, a flexible apron, one edge of which is secured to the top of the window frame, and having its free edge in contact with the screen or netting wound upon the roller, whereby said apron is reversed in position by the movement of the roller in either direction, as and for the purpose described. 3rd. In combination with a window frame and upper sash thereof, of a spring actuated roller mounted in said frame, adjacent to the upper end of said frame, a screen or netting, one end of which is secured to said roller and having its opposite end removably secured to said sash, and means carried by the upper portion of the window frame, and adapted to co-operate with the netting or screen wound upon the roller for closing the space between the latter, and the window frame, in all positions of said sash, substantially as described. 4th. In combination with a window frame and sash thereof, of a spring actuated roller mounted in said frame, a screen or netting, one end of which is secured to said roller, a metallic strip secured to the opposite end of said screen, and having its opposite ends bent inwardly, and adapted to be received by cut away portions formed on the opposite edges of the sash, whereby the outer surfaces or ends thereof will be flush with the outer surface of the remaining portion of the sash, and suitable means for detachably securing the strip to the window sash, as and for the purpose described. 5th. In a combination with a window screen, of a U shaped metallic strip adapted to receive one edge of said screen, and having a wide and narrow side, the latter adapted to be bent against the screen, as and for the purpose described. 6th. In combination with a window frame and lower sash thereof, of a spring actuated roller mounted in the lower portion of said frame, a netting or screen, one end of which is secured to said roller, a strip secured to the opposite end of said screen, a loop hinged to said strip, a pin carried by the sash, over which the said loop is hooked, a curved metallic shield, secured to the lower portion of the window frame, and adapted to cover said roller, together with its netting, and a hook, formed from the shield from which it forms a part, and with which the said loop is also adapted to co-operate, as and for the purpose described. 7th. A window screen, comprising spring actuated rollers mounted in the upper and lower portions of the window frame, vertically moving sashes, screens or netting carried by said rollers, and attached to the sashes, whereby the said screens are automatically wound and unwound from the rollers, by the movement of the sashes in either direction, and spring

plates secured to one edge of said sashes, the free ends of which are adapted to co-operate with the window frame between the ordinary guides thereof, as and for the purpose described.

No. 64,360. Check Hook Spring. *(Crochet à ressort pour rênes).*

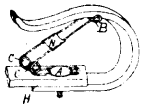


Fig. 1

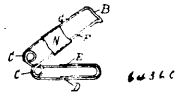
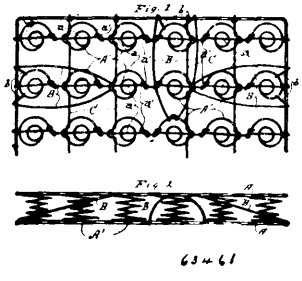


Fig. 2

Charles J. Watson, Shoal Lake, Manitoba, Canada, 13th October, 1899; 6 years. (Filed 7th August, 1899).

Claim.—1st. The combination with a checkrein hook, of a spring formed of spring wire or other suitable material, consisting of inclined parallel parts joined together at the upper end by a loop drooped downwards, and at the other ends are constructed coil springs, the horizontal parallel parts running from the coil springs a short distance, and the opposite ends bent around in a horizontal plane, substantially as described. 2nd. The combination with a checkrein hook of a spring attachment consisting of a single piece of spring wire or other suitable material, constructed into the form having two parallel inclined parts connected by a loop drooping downwards, and two spiral coils providing springs and two horizontal parts with a portion of each bent around parallel to their unbent parts, a second piece of sheet metal connects the two said parallel inclined parts, the whole attachment fitting into the open part of the checkrein hook so that the inclined part of the spring presses against the upper portion of the hook and is also capable of being pressed down, substantially as described.

No. 64,361. Spring Bed Bottom. *(Sommier élastique).*



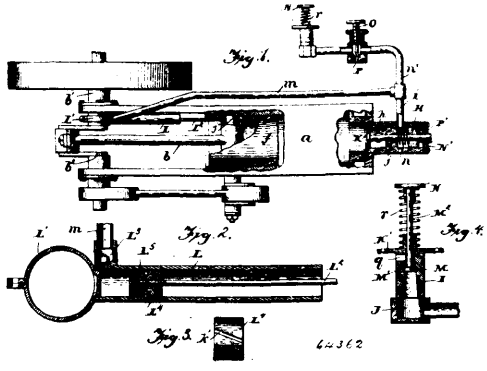
Francis Karr, Chicago, Illinois, U.S.A., 13th October, 1899; 6 years. (Filed 7th August, 1899).

Claim.—1st. In combination with a spiral spring bed bottom, braces having outwardly curved sides connected to and passing diagonally from one surface of the bed to the other so that vertical compression of the springs will cause the curved sides of the braces to diverge, substantially as and for the purpose set forth. 2nd. In combination with a spiral spring bed bottom, lateral braces having outwardly curved sides, said braces connected to and passing from one surface of the bed bottom to the other, diagonally, so that vertical compression of the springs will cause the sides of the braces to diverge, and spiral springs having their end coils prolonged to extend across the surface of, and be secured to the end coils of adjacent springs to form surface braces over said adjacent springs, substantially as and for the purpose set forth.

No. 64,362. Regulator for Explosive Engines.
(Régulateur pour machines explosives.)

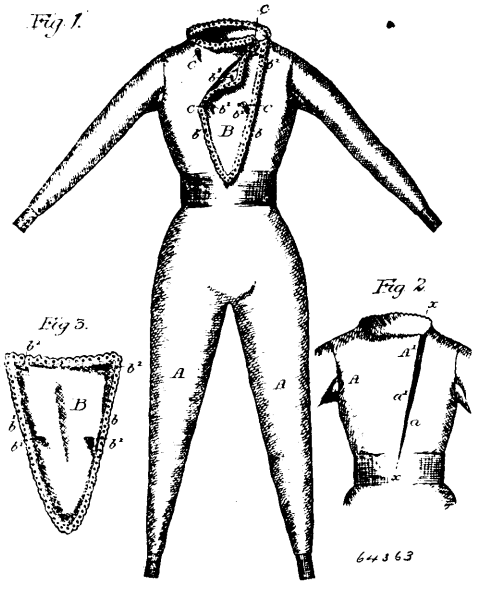
Alexander Winton, Cleveland, Ohio, U.S.A., 13th October, 1899; 6 years. (Filed 7th August, 1899.)

Claim.—1st. An explosive engine, comprising an explosion chamber, an explosive inlet value, a pressure actuated member connected with said valve, a pressure producing device in communication with the pressure actuated member, a pressure escape for said pressure communication, an endwise moving valve controlling said escape, and a spring for holding the valve normally closed, whereby the valve is adapted to be controlled by the downward pressure of the foot or hand, substantially as described. 2nd. In an explosive engine, an explosive chamber, an explosive inlet valve, a pressure actuated member connected with said valve, a pressure producing device in communication with said pressure actuated member, a pressure escape comprising an elongated tapering valve seat having an escape opening, and a valve situated within said seat and of a



length less than the length of the elongated seat, substantially as described. 3rd. In an explosive engine the combination of an explosive inlet port, an explosive inlet valve therefor, a pressure actuated member connected with said valve, a pressure producing device in communication with the said pressure actuated member, an elongated valve seat having its enlarged end in communication with the pressure communication and an escape at its small end, and a valve longitudinally movable within the elongated seat in a direction towards the enlarged end of the seat, substantially as described. 4th. An explosive engine comprising an explosive chamber having an explosive inlet port, a valve therefor, a pressure actuated member connected with said valve, a pressure producing device in communication with said pressure actuated member, an escape for said pressure, a governing valve therefor to regulate the engine to a given speed, a second escape, and a valve for controlling the said second escape and thus varying the speed of the engine, substantially as described. 5th. In an explosive engine, an explosive chamber, an explosive inlet port, a valve therefor having a pressure actuated member connected therewith, a pump having one end surrounding the drive shaft of the engine, a piston for the pump having its projecting end connected directly with the engine piston, and a communication between the pump and the said pressure actuated member, substantially as described. 6th. In an explosive engine the cylinder, a piston therefor, the cylinder having an explosive inlet port, a valve therefor, a pressure actuated member connected with said valve, a pump situated in a line with the engine piston, a pump piston having a rod connected directly with the engine piston, the pump piston having a yielding cup at its inner end and provided with an angularly arranged groove at a point outside of the yielding cup, and a communication between the pump and said pressure actuated member, substantially as described.

No. 64,363. Garment. *(Vêtement.)*

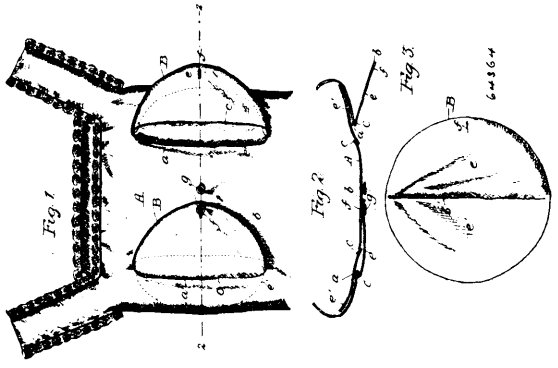


Alexander Allen, Philadelphia, Pennsylvania, U.S.A., 13th October, 1899; 6 years. (Filed 8th August, 1899.)

Claim.—1st. The combination of a union garment having an opening in the body portion cut on the bias from the neck opening

toward the waist, with a triangular shield secured to one edge of the garment at the opening and overlapping the other edge, substantially as described. 2nd. The combination in a union garment, of the body having an opening cut from one side of the neck down to about the centre of the waist, a triangular breast-piece secured to the garment at the edge of the opening and overlapping the garment at the breast, and fastenings securing the inner edge of the garment to the breast-piece and the outer edge of the breast-piece to the garment, substantially as described.

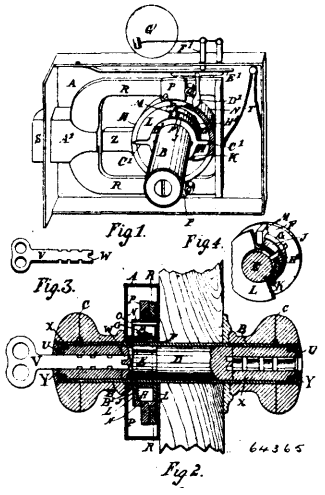
No. 64,364. Nursing Vest. *(Cache-corset pour nourrices.)*



Alexander Allen, Philadelphia, Pennsylvania, U.S.A., 13th October, 1899; 6 years. (Filed 9th August, 1899.)

Claim.—1st. The combination of a body of a nursing vest or like garment, having a breast opening in the form of a slit, with a piece of fabric also having a slit corresponding with the opening in the garment and forming two flaps and united to the garment by sewing the edges of the slits together, the fabric forming shields for the breast, substantially as described. 2nd. The combination of a body of a nursing-vest or like garment, having a breast opening in the form of a slit, a piece of fabric also having a slit corresponding to the slit in the garment, said fabric being secured to the outer side of the garment by stitching and forming a double flap, one flap adapted to be tucked through the breast opening and the other adapted to be passed over the same, substantially as described. 2nd. The combination of a body of a nursing vest or like garment, having a breast opening formed by cutting a slot therein, with a circular piece of fabric forming two flaps and having a slit cut therein corresponding to the slit in the garment, said slit terminating short of each edge of the piece, the cut edges of the piece of fabric being secured to the cut edges of the garment by cross stitching and the outer edge of the fabric being cross stitched to prevent fraying, substantially as described.

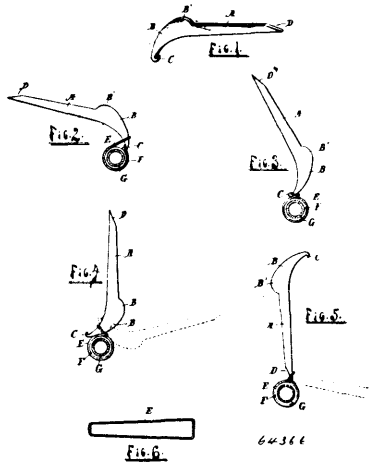
No. 64,365. Latch and Alarm Lock.
(Serrure et avertisseur à sonnerie)



Joseph Stevenson, 3 Agatha street, Essenden, Bourke, Victoria, Australia, 13th October, 1899; 6 years. (Filed 9th August, 1899.)

Claim 1st.—In an improved combination latch and alarm lock, a hollow or tubular spindle passing through the said lock and capable of a complete rotary motion in either direction, all as and for the purposes hereinbefore described and as illustrated in the drawings. 2nd. In an improved combination latch and alarm lock, a hollow spindle having therein a cylinder rotatable in either direction with an eccentric thereon, all as and for the purposes hereinbefore described 3rd. In an improved combination latch and alarm lock a hollow spindle having therein a cylinder with an eccentric thereon turned by a door key entering the spindle ends, all as and for the purposes hereinbefore described and as illustrated in the drawings. 4th. In an improved combination latch and alarm lock a hollow spindle having therein a cylinder in which (by a door key) an eccentric is turned operating a rod, a spring, and a driving key with a slot therein, said key entering a keyway inside a circular follower and by partially turning same with drawing the bolt, all as and for the purposes hereinbefore described and as illustrated in the drawings. 5th. In an improved combination latch and alarm lock, a hollow spindle having therein a cylinder rotatable by a door key passing through a key hole and a ward cylinder, all as and for the purposes hereinbefore described and as illustrated in the drawings. 6th. In an improved combination latch and alarm lock a circular follower surrounding a collar secured to a hollow spindle, said follower having two driving arms and a third arm, the latter preventing the prising back of the bolt, all as and for the purposes hereinbefore described and as illustrated in the drawing. 7th. In an improved combination latch and alarm lock, a hollow spindle having attached thereto a striking plate or ring with arms thereon making contact with one of the arms of a three armed pivoted lever and a spring operating by a push bell, all as and for the purposes hereinbefore described and as illustrated in the drawings. 8th. In an improved combination latch and alarm lock a radially travelling driving key the inner end of which by a spring is pressed centrewards and the outer end engages with a keyway in a follower, all as and for the purposes hereinbefore described and as illustrated in the drawings. 9th. In an improved combination latch and alarm lock a driving key radially travelling in grooves inside the lips of a collar secured to a tubular spindle, said key being pressed centrewards by a spring and outwardly by the spring and a rod operated by an eccentric situated on a rotating cylinder within a tubular handle, all as and for the purposes hereinbefore described and as illustrated in the drawings. 10th. An improved combination latch and alarm lock, consisting of a hollow spindle, an eccentric cylinder therein, an eccentric rod, a spring, a driving key with a slot therein, a circular follower having two driving arms and a third arm, a bolt with studs and an abutment, a striking plate with arms, a three armed pivotted lever and a spring operated by a push bell, all as and for the purposes hereinbefore described and as illustrated in the drawings. 11th. In an improved combination latch and alarm lock, a hollow spindle having therein a cylinder in which (by a door key passing through a key hole and a ward cylinder) an eccentric is turned operating a rod, a spring, a driving key with a slot therein said key entering a keyway inside a circular follower (having two driving arms and a third arm) and by operating same thereby withdrawing the bolt (having an abutment thereon and studs) and attached to said hollow spindle striking arms making contact with one arm of a three-armed pivotted lever operating by a spring, a bell push, all as and for the purposes hereinbefore described and as illustrated in the drawings. 12th. The whole of the combination and arrangement of parts as hereinbefore described and as illustrated in the drawings and constituting my improved combination latch and alarm lock.

No. 64,366. Tool for Attaching Bands to Hose.
(Outil pour attacher des bandages aux boyaux.)



Thomas De Laney, Grand Rapids, Michigan, U.S.A., 13th October, 1899; 6 years. (Filed 14th August, 1899.)

Claim.—1st. A tool, substantially as described, having a handle portion, a cam portion, and a hook at the point of the cam portion.

2nd. A tool, substantially as described, consisting of a handle portion having a pointed end and a cam shaped portion at the opposite end, and a hook on the end of the cam shaped portion. 3rd. A tool, substantially as described, consisting of a handle portion terminating in a wedge point at the end, a curved cam shaped portion at the other end, and a hook on the point of the cam shaped portion. 4th. A tool, substantially as described, consisting of a handle portion having a wedge shaped end, and a curved cam shaped end having a rounded heel adjacent to the handle portion, and a hook on the point of the cam shaped end.

No. 64,367. Staple. (*Crampon.*)

FIG. 1.

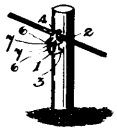
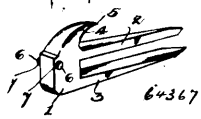


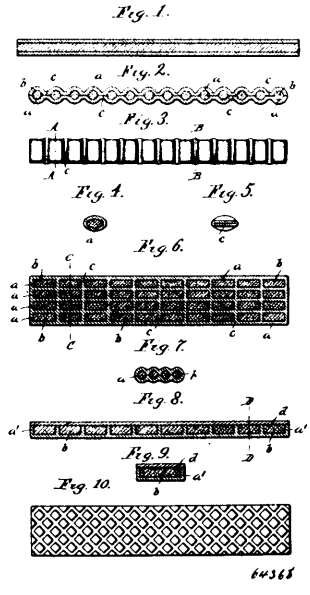
FIG. 2.



Alfred Leigh, Gognac, Kansas, U.S.A., 13th October, 1899; 6 years. (Filed 15th August, 1899.)

Claim.—1st. A staple or wire fastening, embracing a head, two pointed wedge-shaped tines having their widest faces at right angles with each other, and a pointed hook, substantially as described. 2nd. A staple or wire fastener, embracing a head, two wedge-shaped tines having their widest faces arranged at right angles with each other, and a pointed hook, substantially as described.

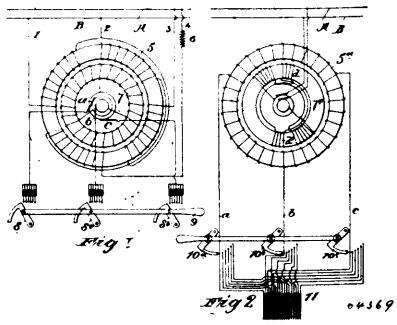
No. 64,368. Solder. (*Soudure.*)



Jesse F. Kester, Chicago, Illinois, U.S.A, 13th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—1st. A self-fluxing solder provided with a longitudinal series of independent cells or compartments each containing a suitable flux, substantially as set forth. 2nd. A self-fluxing solder, consisting of a tubular wire or rod of solder having its walls pressed together at intervals forming webs or partitions which divide the cavity of the tubular solder into a longitudinal series of isolated cells or compartments, said cells being filled with a suitable flux, substantially as set forth.

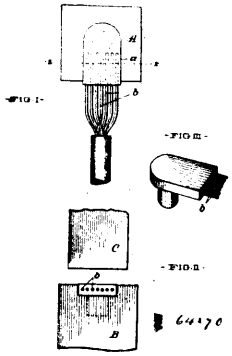
No. 64,369. Electric Motor. (*Moteur électrique.*)



Charles Schenck Bradley, Avon, New York, U.S.A., 14th October, 1899; 6 years. (Filed 1st September, 1898.)

Claim.—1st. An electric motor having on its primary element a rotary field winding arranged for connection with a single phase circuit, and having in its several branches different inductance to produce a difference of phase, and a secondary core or element having its winding connected with an adjustable phase advancing device, such as an electric condenser. 2nd. An electric motor having on its primary element a rotary field winding, the several cells of which are arranged for connection with a single phase alternating current circuit, and include inductance or inductances to produce a phase difference of current, and on its secondary element a winding connecting with one or more adjustable electric condensers of sufficient capacity for the purpose described.

No. 64,370. Method of Forming Electrical Connections.
(*Méthode de fermer des liaisons électriques.*)



William Bingham, Cleveland, Ohio, U.S.A., 14th October, 1899; 6 years. (Filed 31st May, 1899.)

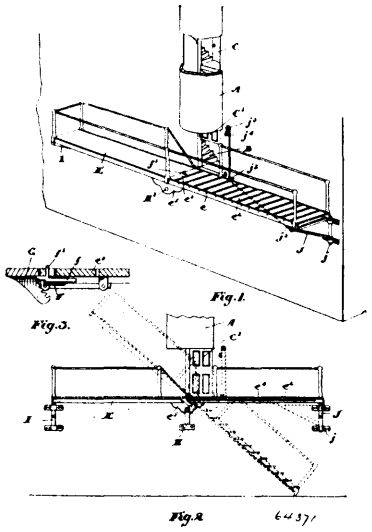
Claim.—The method of joining two members of copper to form an electrical connection, consisting of, first, casting one member upon the other, heating the two contiguous surfaces to a welding heat while free from atmospheric contact, second, supporting the casting in a die to prevent distortion, and third, uniting the two members by application of pressure while they are at a welding temperature and free from contact of atmospheric air, substantially as set forth.

No. 64,371. Fire Escape. (*Sauveteur d'incendie.*)

Charles Orlando Dutton, Lachine, Quebec, Canada, 14th October, 1899; 6 years. (Filed 15th August, 1899.)

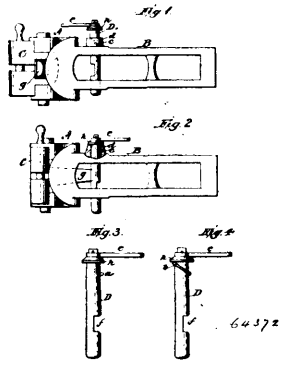
Claim.—1st. The combination with the hollow tower having a suitable stairway and exit doors, of a balcony centrally pivoted and fitted with a floor of pivotally swung slats designed to form a stairway when the balcony swings to the ground, the stationary supporting bracket at one end, the swing bracket at the opposite end, and means for removing the latter bracket to allow the balcony to overbalance, as and for the purpose specified. 2nd. The combination with the hollow tower having a suitable stairway and exit doors of a balcony centrally pivotal and fitted with a floor of pivotally swung slats designed to form a stairway when the balcony swings to the ground, the stationary supporting bracket at one end, the swing bracket at the opposite end, means for removing the latter bracket to allow the balcony to overbalance and means to keep the slats in a horizontal position to form a stairway when the balcony overbalances as and for the purpose specified. 3rd. The combination with a spiral stair case and a hollow tower, of a pivotally swung balcony fitted with a floor of pivotally swung slate connected by a rod intended to form a stairway, of a spring held bolt with an upper end projecting through a slot in the first slat, fashioned to operate a quadrant immediately under the balcony, and means for removing the supporting bracket from under one end of the balcony to allow

it to overbalance, as and for the purpose specified. 4th. The combination with a spiral stair case and a hollow tower and pivotally



swung balcony fitted with a floor of pivotally swung slats connected by a rod intended to form a stairway when the end of the balcony swings to the ground, of a quadrant to receive the spring held bolt with square shaped notches at each end and teeth in between to allow the bolt to slip when released from either of the end slats, as and for the purpose specified. 5th. The combination with a spiral stair case and tower, and pivotally swung balcony fitted with a floor, of pivotally swung slats connected by a rod intended to form a stairway, a spring held bolt, with an upper end projecting through the first slat fashioned to operate in a quadrant immediately under the balcony, the stationary bracket and the hinged bracket, of a rope or chain attached to the hinged bracket support and intended to pass under the balcony to the wall in proximity to the tower, and suitable guides and fastening for the rope, as and for the purpose specified.

No. 64,372. Car Coupler. (*Attelage de chars.*)



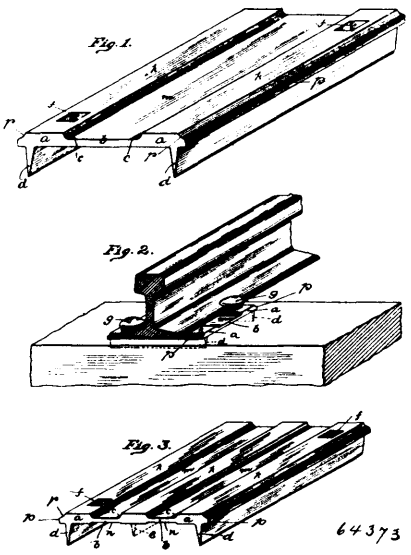
John T. Wilson, Pittsburg, Pennsylvania, U.S.A., 14th October 1899; 6 years. (Filed 14th August, 1899.)

Claim.—1st. In a car coupling, the combination of a laterally swinging hook, a pin engaged by the tongue of the hook and having a groove normally on the rear side thereof for the passage of the tongue, and means for effecting vertical and axial or rotary movements of the pin to couple and uncouple. 2nd. In a coupling, the combination of a laterally swinging hook, a pin vertically and axially movable and engaged by the tongue of the hook and having a lateral projection on the body thereof, and a vertically inclined groove in the draw bar engaged by the projection on the pin 3rd. In a car coupling, the combination of a laterally swinging hook, a pin engaged by the tongue of the hook and movable vertically and on its axis and provided with a lateral projection on the body thereof, and a spiral groove in the draw bar engaged by the projection on the pin.

No. 64,373. Tie Plate. (*Plaque de traverse.*)

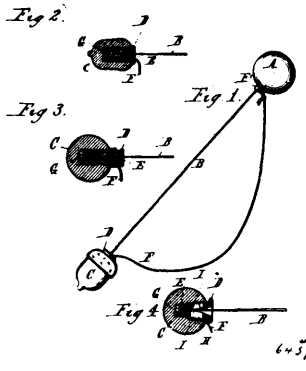
William Goldie, Wilkinsburg, Pennsylvania, U.S.A., 14th October, 1899; 6 years. (Filed 14th August, 1899.)

Claim.—1st. A rail sustaining plate, having its body formed of two or more thick, rigid rail-sustaining bars connected by one or more thin webs, and having downwardly projecting flanges below and extending along the bars and adapted to enter the tie, substantially as set forth. 2nd. The combination with a rail and tie, of a



tie plate having its body formed of two or more thick, rigid, raib sustaining bars upon which the rail rests, and a connecting we between said bars, and having downwardly projecting flange below and extending along the bars and entering the tie substantially longitudinally of its fibre, substantially as set forth. 3rd. A tie plate having a body portion provided with downwardly projecting tie-entering flanges extending along the same, said body portion having extensions beyond the flanges provided with inclined upper faces, substantially as set forth. 4th. In combination with a rail and tie, a tie plate having a body portion provided with downwardly projecting, tie-entering flanges extending along the same and entering the tie substantially longitudinally of its fibre, said body portion having extensions beyond the flanges provided with inclined upper faces and resting on the tie, substantially as set forth.

No. 64,374. Hat Pin. (*Epingle à chapeaux.*)



Martha J. Waymack, Manchester, Virginia, U.S.A., 14th October, 1899; 6 years. (Filed 15th August, 1899.)

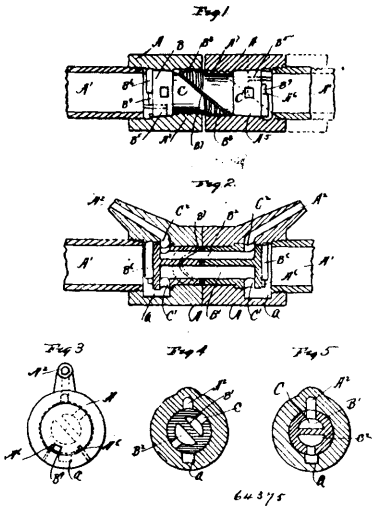
Claim.—An ornamental protector for a hat pin, consisting of a suitably fashioned body C, having a hole therein extending part way through the body only, yielding material E seated within the hole and adapted to be penetrated by the point of the pin, a tube also seated within the hole, and a cord with one end held in place within the hole by the yielding material and the other end attached to the pin, in substance as set forth.

No. 64,375. Valve. (*Soupape.*)

Nelson Herbert Medberry, East Province, Rhode Island, U.S.A., 14th October, 1899; 6 years. (Filed 15th August, 1899.)

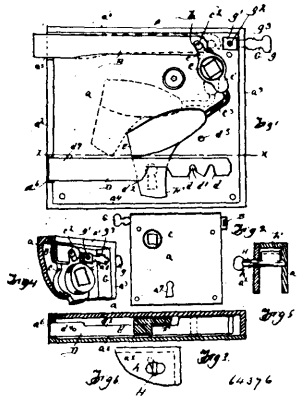
Claim.—1st. The combination with the two parts, of a coupling each provided with two or more ducts, of a two part valve, longitudinally divided into two or more ducts, closed at the opposite ends and provided with two or more ports, the said two part valve being connected by the two parts of the coupling and the ducts connected by the partial rotation of the valve, whereby two or more ducts may be simultaneously connected or disconnected, as described. 2nd. In combination, the two parts of a coupling, and connections for secur-

ing the coupling together, ducts connecting with the coupling, a two part rotatable cylindrical valve one part in each of the two



parts of the coupling and ports in ends of the valve, whereby on partially turning the valve, the ports in the valve and ducts in the coupling are connected, and the two parts of the coupling are locked together, as described. 3rd. In combination, the two parts of the coupling, connections for securing the two parts of the coupling together, a two part cylindrical valve one part connected with each of the two parts of the coupling, two or more ducts in the valve and ports in the valve for connecting the ducts in the valve with the ducts in the coupling, whereby, by the partial rotation of the valve, two or more passages are opened through the coupling, as described. 4th. In a coupling, the combination with one part of the coupling provided with two or more ducts near one end, a socket A^8 and annular groove A^9 connecting with the groove all on the other end and the pin A^{14} of the other part of the coupling provided also with two or more ducts and with the pins A^{10} and A^{12}, the two part cylindrical valve B having two or more ducts and the dowel A^{16} connecting the two parts of the valve, the ports C C near the closed ends of the valve, the slot A^{13}, and the cam slot A^{15}, whereby the coupling parts are secured together and the valve is operated to open the ports in coupling and close the ports in uncoupling, as described.

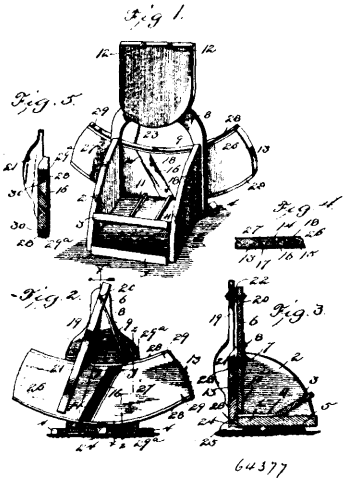
No. 64,376. Lock and Latch. (*Serrure et loquet.*)



Orin F. Day, Kansas City, Missouri, U.S.A., 14th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—1st. In a case for a combined lock and latch, a latch bolt, and a lock bolt having a recess in one side thereof, and a keyhole in the side of said case below the level of the lock bolt a pivoted hub having arms extending in opposite directions, one of said arms being pivotally connected with the rear end of said latch bolt and an extension of the other arm at right angles thereto, and a weight upon said extended end having its underside extending downwardly in a single outwardly curved line and adapted to bear normally upon the said lock bolt and permit of the rise and fall of said bolt when operated by the key, an offset from said weight forming a guard plate extending within the recess of the said lock bolt, and over one of the keyholes whereby the lock bolt may be thrown to lock the door from a position on the inner side of the door, without exposing the keyhole on the outer side of the door, and without moving the latch from a latched position. 2nd. The combination with a latch case having an opening in the rear end of said case of a latch bolt and a key consisting of a flat bar having shoulders adapted to enter said opening in said case, and a block having an opening for the inner end of said key adapted to contact with the rear end of said latch bolt, and a fastening device upon said block.

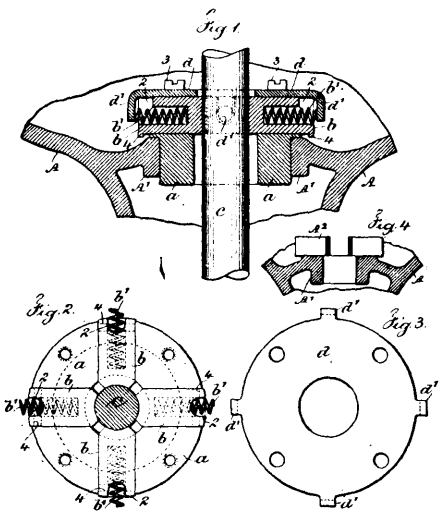
No. 64,377. Vegetable Cutter. (*Coupe légumes.*)



William R. Williams, Philipsburg, Pennsylvania, U.S.A., 14th October, 1899; 6 years. (Filed 14th August, 1899.)

Claim.—In a vegetable cutter, the combination of a hopper, comprising a bottom, two sides, a rearwardly inclined chute held between the sides and extending partially over the bottom, and longitudinal strips fixed to the bottom in parallel relation and running from the front termination of the chute to the front end of the hopper, the rear end of the hopper being open, as well as the top, an arm extended above the front open end of the hopper, a follower having its upper end hinged to the rear side of a part of the said urn and provided with bottom edge notches to fit over the said longitudinal strips, and a segmental board or frame pivotally depending in front of and close to the hopper, and provided with a grip for oscillating the same, the said board or frame having a diagonally disposed adjustable knife therein.

No. 64,378. Separator. (*Séparateur.*)

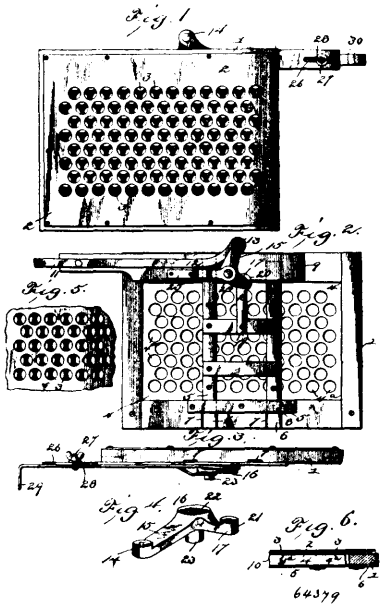


Thomas Collins and Ernest Louis Hartman, Bainbridge, New York, U.S.A., 14th October, 1899; 6 years. (Filed 14th October, 1899.

Claim.—1st. The combination with the frame and shaft of a centrifugal separator, of an annular extension to the frame of the machine, the said extension being slotted radially at equidistant points, spring actuated jaws placed and moving longitudinally in said slots and having curved adjacent ends to bear directly upon the surface of the shaft, a plate fitting upon the said annular extension above the said jaws and stops for limiting the movement of the said spring actuated jaws in either direction, substantially as set forth. 2nd. The combination with the frame and shaft of a centrifugal separator, of an annular frame adapted to fit the frame of the

machine, spring actuated jaws placed equidistant and moving longitudinally in slots in the upper face of the annular frame and having curved adjacent ends to bear directly upon the surface of the shaft and stops for limiting the movements of said spring actuated jaws in either direction, substantially as set forth. 3rd. The combination with the frame and shaft in a centrifugal separator, or an annular frame fitting an opening in the frame of the machine, and having an enlarged upper portion to rest upon the frame of the machine, said annular frame being grooved radially at equidistant places, jaws fitting the grooves of said frame and having curved adjacent faces to bear directly upon the separator shaft, said jaws having openings therein from the other end and springs in said openings, a ring plate fitting upon the annular frame and extending over the jaws and having depending fingers passing down behind said jaws to act as stops for the rear ends of the springs, as substantially set forth. 4th. The combination with the frame and the shaft in a centrifugal separator, of an annular frame fitting an opening in the frame of the machine and having its upper portion larger than the lower portion and provided with radial equidistant grooves, jaws fitting said grooves and having adjacent surfaces curved to conform to the separator shaft and bearing directly thereon, the said jaws having openings made therein from the opposite end and notches in the upper portions of said jaws at said openings, shoulders [2] along the lower edges of said jaws, springs within the openings in the jaws, a ring plate secured to the upper surface of the frame and extending over the spring actuated jaws and having depending fingers in line with the centre of said jaws and adapted to fit the notches therein and serving as stops at the rear ends of the springs, substantially as and for the purposes set forth.

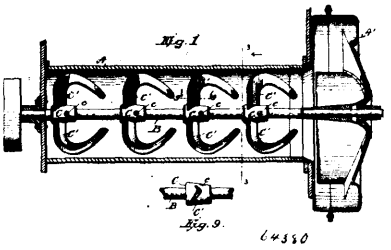
No. 64,379. Sieve. (*Tamis.*)



Arthur F. Page, Hazel, South Dakota, U.S.A., 14th October, 1899; 6 years. (Filed 10th August, 1899.)

Claim.—1st. In a device of the class described, the combination of a main frame, a movable frame mounted within the main frame and guided thereon, the fixed and movable sieves connected respectively to the main and movable frame and provided with openings adapted to register with each other, and means for adjusting the movable frame, substantially as described. 2nd. In a device of the class described, the combination of a main frame provided at opposite sides with recesses, a movable frame arranged within the main frame and provided with extensions fitting in the said recesses, whereby the movable frame is slidingly connected with the main frame, the fixed and movable screens connected respectively with the main and movable frames, and means for adjusting the movable frame, substantially as described. 3rd. In a device of the class described, the combination of a main frame provided at opposite sides with recesses, a movable frame composed of cross bars and connecting bars and provided at opposite sides with extensions or tongues fitting in the said recesses, whereby the movable frame is slidingly mounted on the main frame, means for adjusting the movable frame, and the fixed and movable sieves connected respectively with the main and movable frames, substantially as described. 4th. In a device of the class described, the combination of a main frame, a movable frame mounted on the main frame, fixed and movable sieves carried by the main and movable frames, a bell crank lever fulcrumed on the main frame and having one arm connected with the movable frame, and an operating bar connected with the other arm of the bell crank lever and arranged beneath the main frame, substantially as described. 5th. In a device of the class described, the combination of a main frame provided with a slotted extension, a movable frame mounted on the main frame, fixed and movable sieve secured to the main and movable frames, a bell crank lever fulcrumed on the main frame and having one arm connected with the movable frame, a reciprocating operating bar arranged beneath the main frame and connected with the other arm of the bell crank lever, and a fastening device carried by the operating bar and arranged in the said slot and adapted to clamp the operating bar at the desired adjustment, substantially as described. 6th. In a device of the class described, the combination of a main frame, a movable frame, fixed and movable sieves secured to the main and movable frames, an arm extending from the main frame, a bell crank lever having one arm connected with the movable frame, a reciprocating operating bar connected at its inner end to the other arm of the bell crank lever and provided at its outer end with a grip or handle and having a scale operating in connection with the arm of the main frame, and a clamping device for securing the reciprocating bar at the desired adjustment, substantially as described.

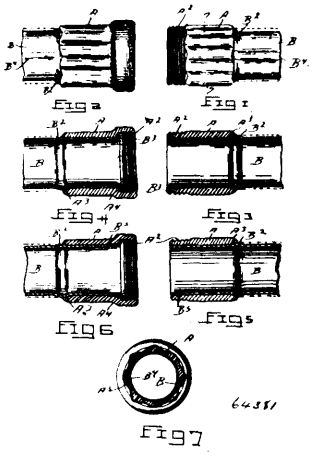
No. 64,380. Conveyor. (*Transport.*)



Frank F. Landis, Waynesboro, Pennsylvania, U. S. A., 14th October, 1899; 6 years. (Filed 14th August, 1899.)

Claim.—1st. A conveyor consisting of a casing and a shaft with separate conveyor flights or sections secured thereon at intervals, each composed of arms extending out at right angles with the shaft and then spirally for a distance equidistant from said shaft throughout its length, the distance between adjacent sections decreasing towards the discharge end of the conveyor, substantially as set forth. 2nd. A conveyor, consisting of a casing and a shaft with conveyor sections mounted thereon at intervals, said sections being formed of arms extending out from the shaft in a radical direction and then curved and extended forward in a substantially horizontal and spiral direction, substantially as set forth. 3rd. A conveyor, consisting of a casing and a shaft with conveyor sections thereon, said sections consisting of arms extended radially out from the shaft then curved and extended forward spiral y, said several sections being arranged with the radial portions of said arms in line with each other, substantially as set forth. 4th. A conveyor, consisting of a casing and a shaft with conveyor flights or sections thereon, said sections consisting of arms extending out from said shaft and then forward spirally, the outer edges of said forwardly extending portions being in advance of their inner edges. 5th. A conveyor, consisting of a casing and a shaft with conveyor flights thereon portions of which extend substantially equidistant throughout their length from the shaft, the outer edges of which portions are in advance of the inner edges, substantially as set forth. 6th. A conveyor, consisting of a casing and a shaft with conveyor flights thereon, said flights consisting of radial arms with horizontal outer ends, the outer edges of said radial portions being behind their inner edges, and the outer edges of the horizontal portions being in advance of their inner edges, substantially as set forth. 7th. A conveyor, consisting of a casing and a shaft with conveyor sections thereon, portions of which sections extend in a substantially horizontal plane, the outer edges thereof being substantially parallel with the shaft, and the inner edges being tapered away from the shaft toward the discharge end, substantially as set forth. 8th. A conveyor, consisting of a casing, a shaft, and conveyor flights or sections mounted on said shaft at intervals throughout its length, each of said sections consisting of two arms secured on opposite sides of the shaft, and each arm consisting of a radial portion extending out from the shaft, then a curved portion with a gradually rounded outer edge, and then a horizontally extending spiral portion, substantially as set forth.. 9th A conveyor consisting of a casing and a shaft with a series of conveyor flights or sections mounted thereon at intervals throughout its length, each of said sections consisting of a hub adjustably secured to the shaft and carrying conveyor arms which extend out from said hub radially and then are curved and extended horizontally, substantially as set forth. 10th. A conveyor consisting of a casing, a shaft and conveyor flights or sections mounted on said shaft at intervals throughout its length, each of said sections consisting of two arms secured on opposite sides of the shaft, and each arm consisting of a radial portion, then a curved portion with its outer edge rounded, then a horizontally extending spiral portion, substantially as set forth. 11th. A conveyor flight comprising a horizontally and spirally extending arm with its outer edge in advance of its inner edge, substantially as set forth.

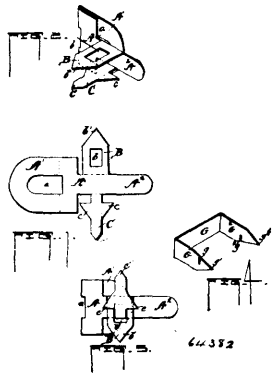
No. 64,381. Pipe Coupling. (*Joint de tuyaux.*)



David K. Keller, Montgomery, Ohio, U.S.A., 14th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—1st. The combination of a pipe coupling having a bevel or flare on its rear inner end, and a pipe having a shoulder formed exteriorly on it, the coupling being passed upon said pipe, and its flare fitting upon said shoulder, and the forward portion of the said pipe being connected to the coupling, so as to prevent the retraction of the pipe, from the coupling, substantially as and for the purpose specified. 2nd. The combination of a pipe coupling, having a bevel or flare on its rear inner end, and a pipe whose end portion is within said coupling, and provided with an exterior shoulder fitted within said flare, and whose forward end is crimped over an abutment on the forward portion of the coupling, substantially as and for the purpose specified. 3rd. The combination of a thin pipe having a shoulder, the pipe in front of the shoulder being spun or formed of less diameter than the remainder of the pipe, and a coupling having at its rear end a flare, and receiving the pipe within and the pipe shoulder against the flare, and a means near or at the forward end of the pipe and coupling for preventing the separation of the pipe from the coupling, substantially as and for the purpose specified. 4th. The combination of a coupling having a rear edge flare and a longitudinal interior channel, and a thin seamed pipe whose forward end is within said coupling, and whose seam is received in said channel, and which pipe is provided with an exteriorly raised inclined shoulder engaging with said flare, and means for enabling the pipe and coupling to hold firmly together and prevent the retraction of the pipe from the coupling, substantially as and for the purpose specified.

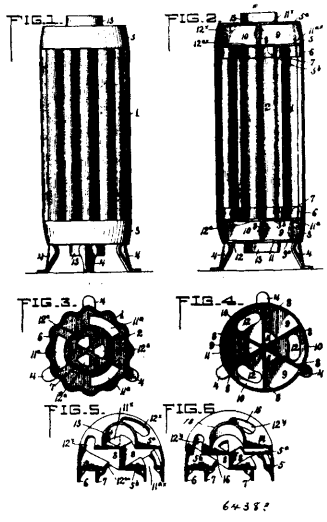
No. 64,382. Waistband Fastener. (*Attache de ceinture.*)



Carl H. Muehler, Peoria, Illinois, U.S.A., 14th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim—1st. In a waistband fastening of sheet metal, made in two parts, the combination of said parts, one of which is bent to form a hook at one end and has two pointed prongs which are made integral with the body of the hook, and extend laterally from opposite edges of said body, one of said prongs having a rectangular aperture *b*, the opposite prong being provided with lugs *c*, and both of said prongs being adapted to be bent at right angles to said body, so as to be passed through slits in the waistband, substantially as herein set forth and described. 2nd. In a waistband fastening of sheet metal, made in two parts, one of which forms a hook, and the other part forms an eye, the combination of said parts, the said part forming an eye, consisting of a strip which is pointed at its extremities and is provided near its ends with slots *g*, and g^3, open at their outward ends and cut in opposite edges of said strip, so that the ends of said strip may interlock and lap on one another, substantially as set forth and shown.

No. 64,383. Air Heating Radiator. (*Calorifere à air chaud.*



John Milton Sprechor, Ephrata, Pensylvania U.S.A., 14th October, 1899; 6 years. (Filed 16th August, 1899.)

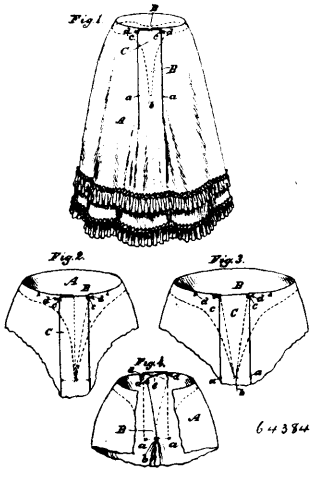
Claim.—1st. A heating radiator comprising inner and outer concentric chambers and upper and lower heads, each head made up of a side wall and inner and outer diaphragms and divided by radial partitions into flues, the inner diaphragms of each head being formed with ports located to connect some of the flues with the inner concentric chamber, and the other flues to the outer chamber, and the outer diaphragms provided with ports located for separately directing gases and air to and from the respective flues, substantially as explained. 2nd. In a radiator, the combination of concentric walls forming inner and outer chambers, upper and lower heads, and centrally located smoke pipe connections, said upper and lower heads being provided with inner diaphragms closing the ends of the concentric chambers, outer diaphragms for controlling inlet and discharge of air and smoke from the flues, and radial partitions dividing the heads into flues, said inner diaphragms being provided with ports which connect the flues of the inner chamber with the outer atmosphere and the flues of the outer chamber with the respective smoke pipe connections, substantially as explained. 3rd. A head for heating drums, comprising two diaphragms, a side wall and radially arranged partitions dividing the space within the head into a number, of segmental flues, said diaphragms being provided with ports communicating with the respective flues and located alternately at inner and outer ends of the flues and disposed so that each flue has an inlet and outlet at opposite ends and opposite sides, substantially as and for the purposes set forth. 4th. In combination with a heating drum head having radially disposed flues arranged for communication with separate chambers of the drum and having separate discharge openings at different radial distances from the centre of the drum, a rotary cap surmounting said head and formed with a central pipe attachment communicating with the inner series of openings, and a series of outer openings corresponding to the outer series of openings of the head and brought by rotation of the cap into and out of co-incidence with the opening of the head, substantially as and for the purposes set forth. 5th. In combination with a heating drum head having radially disposed flues arranged for communication with separate chambers of the drum and having separate discharge openings at different radial distance from the centre of the drum, a rotary cap surmounting said head and formed with a central pipe attachment cummunicating with the inner series of openings, and a series of outer openings corresponding to the outer series of opening or the head and brought by rotation of the cap into and out of co-incidence with the openings of the heads, said cap-openings having inwardly projecting flanges which space the cap apart from the head and form a smoke chamber, substantially as and for the purposes set forth.

No. 64,384. Skirt. (*Jupe.*)

Zipporah Giffillan Hara, Bayonne, New Jersey, U.S.A., 14th October, 1899; 6 years. (Filed 16th August, 1899.)

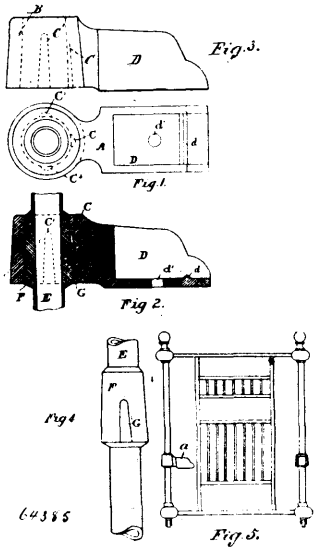
Claim.—A skirt having a placket leading down from its top opening, said skirt comprising two portions, the major portion forming substantially the complete circumference at the top, the minor portion being in the form of a flap secured to the skirt below the placket, the said major portion having a series of fastening devices

on opposite sides of the placket and the minor portion of flap having complementary fastenings thereon whereby the entire circumference



of the opening at the top of the garment is adjustably completed, substantially as shown and described.

No. 64,385. Bedstead Joint. (*Joint pour couchettes.*)



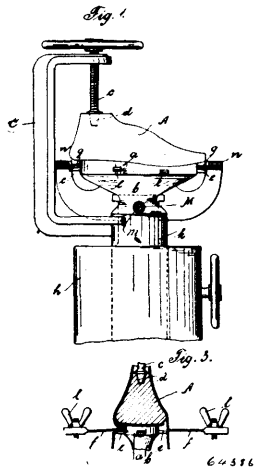
John Foster Stephenson, Cranmore Street, Glenferrie, Victoria, Australia, 14th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—A socket piece having conical cavity with keyways and a shoe in combination with a standard having a cone with key, substantially as and for the purposes set forth.

No. 64,386. Lasting Machine. (*Machine a enformer.*)

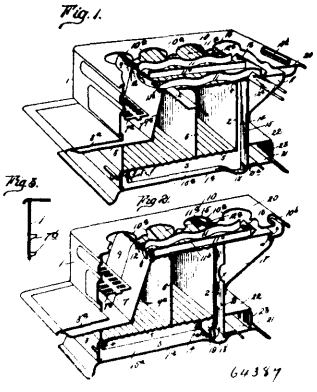
Chaskel Eisenberg, Berlin, Germany, 14th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—1st. The combination with the last and last support or form, of elastic crimping plates or wipers on each side of said form, means for moving said plates towards the form or last, and cams or inclines arranged in the path of the edges of said plates, whereby they are bent up towards the last in said movement. 2nd. The combination with the last and last support or form, of elastic crimping plates or wipers on each side thereof, means for moving said plates towards the form, cams or inclines arranged in the path of the edges of the plates to bend them towards the last in said movement, and means for moving the form toward the last. 3rd. The combination with the last and last support or form, of elastic crimping plates, one on each side thereof, extending from heel to toe and having outwardly slantingly extensions at each end to overlap each other, and means for moving said plates towards the form. 4th. The combination with the last and last support or form, of elastic crimping plates, one on each side thereof, extending from heel to toe and having outwardly slanting overlapping extensions at each end, means for moving the plates towards each other, and cams or inclines arranged around the form in the path of the edges of said plates and extensions to bend them toward the last in such movement. 5th. The combination with the last and last support or form,



of elastic crimping plates, one on each side thereof, extending from heel to toe and having outwardly slanting overlapping extensions at their ends, means for moving the plates towards each other, cams or inclines arranged around the form in the path of the edges of said plates and extensions to bend them towards the last in such movement, and means for moving the form towards the last.

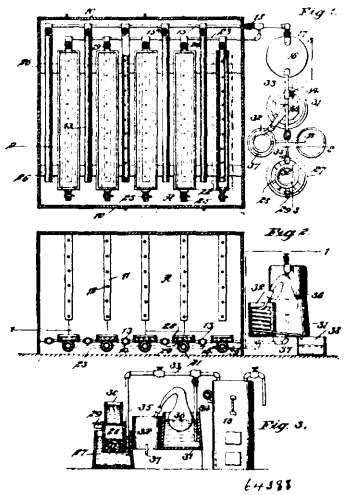
No. 64,387. Cooking Stove. (*Poêle de cuisine.*)



James R. Burgess, Port Huron, Michigan, U.S.A., 14th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—1st. In a cook stove, the combination with an outer casing, a fire pot, and an oven located in said casing so as to leave a space between the top thereof and the top of the casing, partitions dividing said space into three separate heat flue each communicating at one end with the fire pot, a smoke flues with which each heat flue communicates at its rear and dampers at or near the rear of each of said heat flues. 2nd. In a cook stove, the combination with an outer casing, a fire pot, a smoke flue, and an oven, of separate heat flues above the oven each communicating at its front end with the fire pot and at its rear end with the smoke flue, a diving flue communicating with one of said heat flues intermediate its ends, a damper in said heat flue in rear of said diving flue, a damper at the front of said heating flue, an uptake flue communicating with said diving flue, and a damper in said other heat flue in front of said uptake flue, and a smoke flue communicating with said uptake flue. 3rd. In a cook stove, the combination with an outer casing, a fire pot, and an oven located in said casing so as to leave a space above, below and to the rear of said oven, partitions dividing each of said spaces into three separate flues, all of the flues above the oven communicating with the smoke flue and the outside flues above the oven communicating with the outside flues in rear of the oven, dampers in said outside upper flues in front of and in rear of said rear flues, a damper in said upper central flue in front of said central rear flue, flues below the oven communicating with each other and with the rear flues, and a smoke flue communicating with the central rear flue, substiantially as described. 4th. In a stove, the combination with a fire pot, and oven, of a heat chamber below the oven provided with a depression or well, a flue from the fire pot communicating with said heat chamber, and an uptake flue for the heat products from said chamber communicating with the latter through said well or nepression.

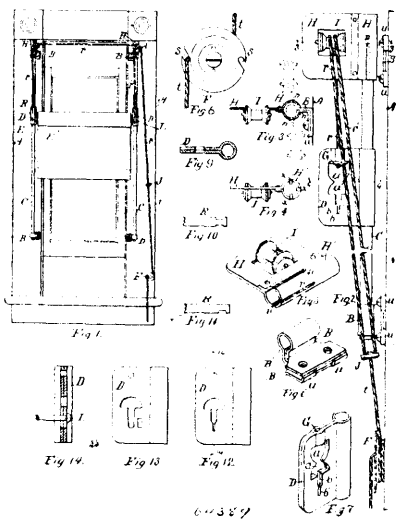
No. 64,388. Apparatus for Treating Tobacco.
(Appareil pour le traitement du tabac.)



Charles Edward Couty, Louisville, Kentucky, U.S A., 14th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—In an apparatus for the treatment of tobacco, a sealed compartment capable of ventilation, a generator of steam, series of steam pipes, one located below the other, the pipes of the two series being alternately arranged, the pipes of one series being provided with apertures facing downward, and the pipes of the other series being provided with apertures facing upward, trays located between the series of pipes having their apertures facing downward, jackets attached to the trays and inclosing the other series of pipes, and inlet and outlet valves for the incased steam pipes, as described.

No. 64,389. Window Shade Holder. *(Porte store de fenêtre.)*



Orville M. Gawne, Cassius H. White and Walter E. Cook, Adrian Michigan, U.S.A., 16th October, 1899; 6 years. (Filed 18th August, 1899.)

Claim.—1st. In a window shade holder of the class described the combination of the rod C, a bracket B formed of sheet metal wrapped around the same and extended to have a base having lugs *u u* on the lower leaf of the base to engage the upper leaf to clasp the rod, and a bracket H having a cylindrical engaging portion with slots *n*, to embrace the rods C, and engage the bracket B, so that it can be adjusted to different positions, and a pulley I, on said bracket H, co-acting for the purpose specified. 2nd. In a window shade holder of the class described, the combination of the rod C, a bracket B formed of sheet metal wrapped around the same and extended into adjacent leaves to form a base, lugs *u u* on the lower leaf of the base to engage the upper leaf to clasp the rod as specified. 3rd. The combination of a rod, a bracket formed of sheet metal folded to embrace the same and extended into adjacent leaves to form a base, said leaves containing perforations to receive supporting screws or nails whereby the leaves are forced together to clasp the rod for the purposes specified. 4th. In a window shade holder the combination of a suitable guide rod for the roller of the shade, of an adjustable bracket to fit on said guide bearing a suitable guiding pulley for the adjusting cords, for the purpose specified. 5th. A a window shade holder, the combination of the vertical parallel rods, brackets B of sheet metal adapted to embrace the same and extend into a base consisting of leaves B^1, B^{11}, which extend normally a little separated from each other to clasp the rods when secured in place by suitable screws or nails, for the purpose specified. 6th. In a shade holder, the combination of vertical parallel rods to each side of the window with suitable supporters therefor, slides constructed of sheet metal adapted to embrace and slide on said rods being extended into leaves containing perforations consisting of a half circular portion above the slot portion below, and a curtain roll having a round headed screw or nail for a bearing at one end and a stud at the opposite end to enter the slots of said bearing, and means of attaching cords thereto for adjusting the same as specified. 7th. A slide for use in a shade holder having a keyhole perforation conformed in its upper portion to a round headed screw and extended below to receive a journal. 8th. A slide for use in a shade holder having a keyhole perforation conformed in its upper portion to a round headed screw and extended below to receive a stud bearing, and a notch extending from said journal bearing to retain the stationary stud. 9th. A slide for a shade holder containing a perforation adapted to use a journal bearing and having a notch to one side to engage and retain a stationary stud so that the same perforation is adapted to either end of the shade roller. 10th. A slide for a shade holder having a flat extended portion consisting of single or double leaves containing a perforation to receive the studs on the ends of the rollers and being bended to form a vertical opening, and the cord therethrough. 11th. A slide for a shade holder having a flat extended portion consisting of single or double leaves containing a perforation to receive the studs on the ends of the rollers and being bended to form a vertical opening, and the cord therethrough, and a washer at the end of said cord for the purpose specified. 13th. A slide for use in a shade holder having a keyhole perforation conformed in its upper portion to a round headed screw, and extended below to form a journal bearing and receive and retain a stationary notched stud at the end of the roller.

No. 64,390. Car Brake. *(Frein de chars.)*

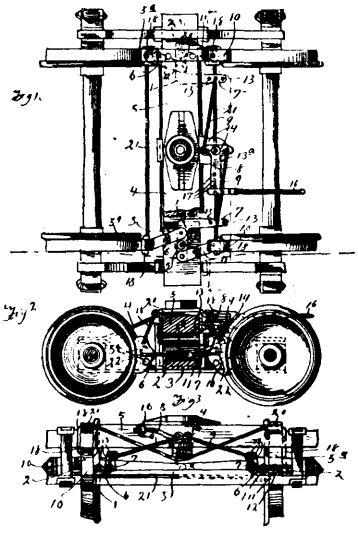


Fig 1. Fig 2. Fig 3.

64390

George Washington Dickey, Huntington, West Virginia, U.S.A., 16th October, 1899; 6 years. (Filed 19th August, 1899.)

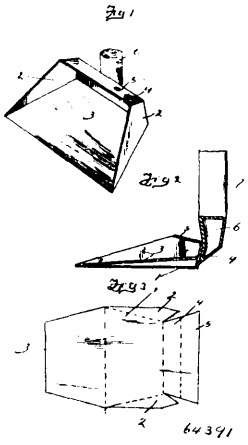
Claim.—1st. In a car brake, the combination with a truck, or brake shoes, L-shaped levers fulcrumed between the ends of one of their arms and connected with the brake shoes at opposite sides of the fulcrum point, and a centrally arranged T-shaped lever having its short arms connected with the other arms of said levers, substantially as described. 2nd. In a car brake, the combination of a truck, brake shoes suspended therefrom, L-shaped levers located at opposite sides of the truck and fulcrumed thereon at a point between the ends of their short arms, link bars located at opposite sides of the fulcrum points and connected with the brake shoes, a centrally arranged T-shaped lever mounted on the track, and transverse rods connecting the short arms of the T-shaped lever with the long arms of the L shaped levers, substantially as described.

No. 64,391. Dust Pan. *(Porte-ordure.)*

Emma E. Rice, Lake City, Minnesota, U.S.A., 16th October, 1899; 6 years. (Filed 19th August, 1899.)

Claim—1st. As an article of manufacture, a dust pan made in one piece from a single sheet of metal and comprising a bottom

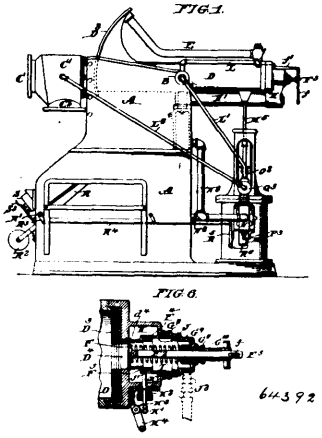
having upwardly extending and rearwardly converging sides, a back extending substantially at a right angle to the bottom and forming



a continuation of the bottom, a hood or guard forming a continuation of the back and extending forward and inclining upwardly and united to the top edges of the sides, a false bottom forming a continuation of the front edge of the bottom and bent backward at an inclination to the bottom, said false bottom extending backward and having its entire rear edge in contact with the sides of the pen, and an upwardly extending socket for a handle disposed perpendicularly to the bottom of the pan and united to the rear wall thereof, substantially as specified.

No. 64,392. Pneumatic Transmission System.

(*Système de transmission pneumatique.*)

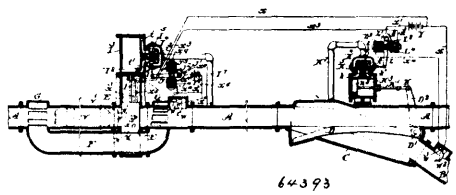


Birney Clark Batcheller, Philadelphia, Pennsylvania, U.S.A., 16th October, 1899 ; 6 years. (Filed 2nd May, 1899.)

Claim.—1st. The combination with a pneumatic transit tube and a tubular receiver adapted to receive a carrier transmitted through the tube and having a valve seated opening as D^4, at its rear end, of an exhaust opening connected with said opening, a valve to close the opening, and a pneumatic spring connected to the transit tube and with the valve aforesaid, all substantially as specified, and so that the normal pressure in the tube is utilized to hold the valve closed, while permitting it to move under the increased pressure in the receiver due to the entrance of a carrier. 2nd. The combination with a pneumatic transit tube and a tubular receiver adapted to receive a carrier transmitted through the tube, and having a valve seated opening, as D^4, at its rear end, of an exhaust opening connected with said opening, a valve to close the opening, a regulatable spring as I, and a pneumatic spring connected with the transit tube, and with the valve aforesaid, all substantially as specified, and so that the normal pressure in the tube is utilized to hold the valve closed while permitting it to move under the increased pressure in the receiver due to the entrance of a carrier. 3rd. The combination with a pneumatic transit tube, and a tubular receiver adapted to receive a carrier transmitted through the tube and having a valve seated opening, as D^4, at its rear end, of an exhaust opening connected with said opening, a valve to close the opening, yielding means acting to normally hold the valve closed, but adapted to permit its opening under the pressure produced by the entrance of a carrier into the receiver, means for holding the valve in open position after it is opened by the pressure of air in the receiver and means, operated by the movement of the receiver, to deliver the carrier, operating to return the valve to its closed position. 4th. The combination with a pneumatic transit tube and a tubular receiver adapted to receive a carrier transmitted through the tube and having a valve seated opening, as D^4, at its rear end, of an exhaust opening connected with said opening, a valve to close the opening, yielding means acting to normally hold the valve closed, but adapted to permit its opening under the pressure produced by the entrance of a carrier into the receiver, a latch as K, arranged to engage the valve and hold it open, and latch releasing mechanism operated by the movement of the receiver to deliver the carrier. 5th. In combination with a pneumatic transit tube, the pivoted receiver D, adapted to move into registry with the tube to receive a carrier and out of such registry to deliver the same, a shield D^2, arranged to close the end of the tubes when the receiver moves away from it, a pipe E, opening through shield D^2, in position to register with the tube when the receiver is in delivering position and leading to the rear end of the receiver, and a non-return valve as E^3, situated in said pipe. 6th. In combination with a pneumatic transit tube and a movable receiver adapted to move into registry with the tube to receive a carrier and out of registry therewith to deliver the same, a motor arranged to move the receiver, a motor controlling device and means, as a spring, for moving and holding said device to a position for actuating the motor to shift the receiver out of registry with the tube, a catch for holding said device in position to actuate the motor so as to return the receiver into registry with the tube, and catch releasing mechanism actuated by an increase of pressure in the receiver. 7th. In combination with a pneumatic transit tube and a movable receiver adapted to move into registry with the tube to receive a carrier and out of registry therewith to deliver the same, a motor arranged to move the receiver, a motor controlling device and means, as a spring, for moving and holding said device to a position for actuating the motor to shift the receiver out of registry with the tube, a catch for holding said device in position to actuate the motor so as to return the receiver into registry with the tube and catch releasing mechanism actuated by an increase of pressure in the receiver over that in the transmission tube. 8th. In combination with a pneumatic transit tube and a movable receiver adapted to move into registry with the tube to receive a carrier and out of registry therewith to deliver the same, a motor arranged to move the receiver, a motor controlling device and means, as a spring, for moving and holding said device to a position for actuating the motor to shift the receiver out of registry with the tube, a catch for holding said device in position to actuate the motor so as to return the receiver into registry with the tube, catch releasing mechanism actuated by an increase of pressure in the receiver, and means, actuated by the delivery of a carrier from the receiver, for returning the governing device to the catch. 9th. In combination with a pneumatic transit tube and a movable receiver adapted to move into registry with the tube to receive a carrier, and out of registry therewith to deliver the same, a cylinder and piston as MM^1 for shifting the receiver, a valve arranged to govern the admission and exhaust of motive fluid to and from the cylinder, means as a spring, for moving and holding said valve in position to effect the shifting of the receiver out of registry with the tube, a catch for holding said valve in its alternative position and means for releasing said catch actuated by an increase of pressure in the receiver. 10th. In combination with a pneumatic transit tube and a movable receiver adapted to move into registry with the tube to receive a carrier, and out of registry therewith to deliver the same, a cylinder and piston as MM^1 for shifting the receiver, a valve arranged to govern the admission and exhaust of motive fluid to and from the cylinder, means, as a spring, for moving and holding said valve in position to effect the shifting of the receiver out of registry with the tube, a catch for holding said valve in its alternative position, a cylinder Q^5 connected at one end with the rear of the receiver and at the other end with the transmission tube and a piston Q^4 working in said cylinder and connected with the catch as specified. 11th. In combination with a pneumatic transit tube and a receiver, substantially as specified, a pivoted receiving platform as R, arranged to receive the carrier after it is discharged from the receiver a catch acting to hold said platform in its receiving position and catch releasing mechanism arranged to be actuated by the delivery of a carrier onto said platform.

No. 64,393. Pneumatic Transmission System.

(*Système de transmission pneumatique.*)



Birney Clark Batcheller, Philadelphia, Pennsylvania, U.S.A., 16th October, 1899 ; 6 years. (Filed 2nd May, 1899.)

Claim.—1st. In a pneumatic transmission system, a main tube and a branch tube extending therefrom in combination with means

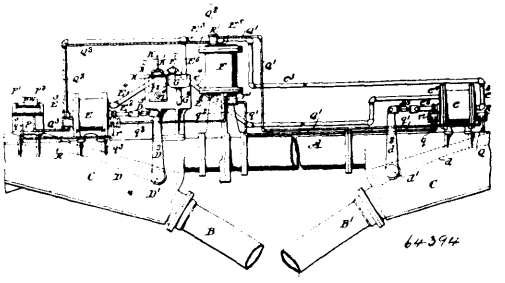
for checking the motion of a carrier as it approaches the junction of the tubes, a switch at the junction of the tubes and means arranged to be engaged and actuated by the carrier after its motion is checked for automatically moving said switch.. 2nd. In a pneumatic transmission system a main tube and a branch tube extending therefrom in combination with a gate arranged in advance of the juction of the tubes to close and open the main transmission tube, an air by-pass conduit connecting with the main tube on each side of the gate, the front connection being such as to leave a dead air space in front of the gate, and means for opening the gate having actuating devices situated in the dead air space aforesaid and arranged to be set in operation by a carrier as it approaches said gate. 3rd. In a pneumatic transmission system, a main tube and a branch tube extending therefrom in combination with a gate arranged in advance of the junction of the tubes to close and open the main transmission tube, an air by-pass conduit connecting with the main tube on each side of the gate, the front connection being such as to leave a dead air space in front of the gate, means for opening the gate having actuating sevices in the dead air space aforesaid and arrange to be set in operation by a carrier as it approaches said gate, and means for closing the gate arranged to be set in operation by the carrier as it recedes from the gate. 4th. In a pneumatic transmission system, a main tube and a branch tube extending therefrom in combination with a gate arranged in advance of the junction of the tubes to close and open the main transmission tube, an air by-pass conduit connecting with the main tube on each side of the gate the front connection being such as to leave a dead air space in front of the gate, a switch at the junction of the tubes, means for actuating the gate having actuating devices situated in the dead air space aforesaid and arranged to be set in motion by the carrier and means for actuating the switch arranged to be set in motion by a selecting device on the carrier. 5th. In a pneumatic transmission system, a main tube and a branch tube extending therefrom in combination with a gate arranged in advance of the junction of the tubes to close and open the main transmission tube, an air by-pass conduit connecting with the main tube on each side of the gate the front connection being spch as to leave a dead air space in front of the gate, a switch at the junction of the tubes, means for opening the gate having actuating devices situated in the dead air space aforesaid and arranged to be set in motion by a selecting device on the carrier, and means for closing the gate and switch arranged to be set in operation by the carrier as it recedes from said gate, and a switch. 6th. In a pneumatic transmission system, a main tube and a branch tube leading therefrom, a normally closed gate situated in the main tube in advance of the junction, an air by-pass leading around the gate, a switch at the junction of the main and branch tubes, means for opening and closing the gate in the main tube, an electromagnet arranged to actuate said means to open the gate, a normally open circuit including said electromagnet, means for closing said circuit actuated by the approach of a carrier to the gate, means for operating the switch, an electromagnet arranged to actuate said means, a normally open circuit including said electromagnet and means for closing said circuit arranged to be operated by a selecting device on the carrier, 7th. In a pneumatic transmission system, the combination with a tube of a sliding gate arranged to close the same, a passage, as T^6, through said gate which when open permits the air to escape through it, a valve arranged to close said passage, means as spring Q^5, tending to open said valve, a catch arranged to hold said valve closed and means actuated by an increase of pressure in front of the gate for releasing said catch. 8th. In a pneumatic transmission system, the combination with a tube of a sliding gate arranged to close the same, a passage, T^6, through said gate which when open permits the air to escape through it, a valve arranged to close said passage, means as spring Q^5, tending to open said valve, a catch arranged to hold said valve closed, means actuated by an increase of pressure in front of the gate for releasing said catch, and means actuated by the movement of the gate in opening arranged to close the valve and reset its catch. 9th. In a pneumatic transmission system, the combination with a tube of a sliding gate arranged to close the same, a passage, as T^6, through said gate which when open permits the air to escape through it, a valve arranged to close said passage, means as spring Q^5, tending to open said valve, a catch arranged to hold said valve closed, means actuated by an increase of pressure in front of the gate for releasing said catch, means for opening the gate and mechanism for setting said means in operation arranged to be actuated by a carrier and placed close to the front face of the gate. 10th. A pneumatic transmission system, the combination with a tube of a sliding gate arranged to close the same, a retractable head, as M, situated in the gate, rods as N, N^1, supported on said head and arranged to project beyond the face of the gate when the head is in the forward position, said rods constituting part of the gate actuating mechanism, means as rod I, for actuating the gate, means for retracting the head M and a connection from said last mentioned means to rod I, whereby the motion of said rod first retracts the head and then raises the gate.

No. 64,394. Pneumatic Transmission System.

(Système de transmission pneumatique.)

Birney Clark Batcheller, Philadelphia, Pennsylvania, U.S.A., 16th October, 1899; 6 years. (Filed 2nd May, 1899.)

Claim.—1st. In a pneumatic transmission system the combination of a series of devices for governing the motion of a carrier through the same with a series of separate actuating mechanism for actuating the individual carrier governing devices, a signal and means



governed only by the motion of each and all of the entire system of separate actuating devices for operating said signal. 2nd. In a pneumatic transmission system the combination of a series of devices for governing the motion of a carrier through the same with a series of separate actuating mechanisms for actuating the individual carrier governing devices, a governing device whereby an operator can simultaneously act upon each of the separate actuating mechanisms to regulate the passage of a carrier through the system, a signal and means governed only by the motion of each and all of the entire system of separate actuating devices for operating said signal. 3rd. In a pneumatic transmission system the combination with a main line of tubes and a loop extending from and to said line, of a gate arranged to close and open the main line intermediate of the ends of the loop, switches at the junction of the ends of the loop, with the main line, separate means for shifting the positions of each of the switches and of the gate so as to include or exclude the loop from the system, a signal to indicate the condition of the tube circuit and means for actuating said signal connected as described with each separate actuating device for the switches and gate and dependent for its capacity to actuate the signal on the movement of all said actuating devices. 4th. In a pneumatic transmission system the combination with a main line of tubes and a loop extending from and to said line, of a gate arranged to close and open the main line intermediate of the ends of the loop, switches at the junction of the ends of the loop with the main line, separate cylinders as *E e* and *F* for actuating each of said switches and the gate so as to exclude or include the loop from the system, two systems of pipes one leading to and connecting with one end of each cylinder and the other leading to and connecting with the other end of each said cylinder, a valve chamber connecting with each pipe system and with a source of fluid pressure, a valve situated therein and arranged to alternately connect one pipe system with the source of pressure and the other with an exhaust, means for actuating said valve, a signal to indicate the condition of the tube circuit and means for actuating said signal connected as described with each separate actuating device for the switches and gate and dependent for its capacity to actuate the signal on the movement of all said actuating devices. 5th. In a pneumatic transmission system the combination with a main line of tubes and a loop extending from and to said line, of a gate arranged to open and close the main line intermediate of the ends of the loop with the main line, separate means for shifting the positions of each of the switches and of the gate so as to include or exclude the loop from the system, means for simultaneously transmittsng motive power to each of the independent actuating devices to move them in alternately reverse directions, a signal to indicate the condition of the tube circuit and means for actuating said signal connected as described with each separate actuating device for the switches and gate dependent for its capacity to actuate the signal on the movement of all said actuating devices. 6th. In a pneumatic transmission system the combination of a series of devices for governing the course of a carrier through the same and with means for actuating said devices, a series of valves as R, one or more arranged in connection with each separate device governing the course of the carrier, and in manner as specified to be actuated by or in accordance with the shifting of said devices, a conduit or conduits leading through said valves and open only when all said valves are open, a source of fluid pressure connected to one end of said conduit, a movable part connected to the other end of said conduit and a signal arranged to be actuated by said moving part. 7th. In a pneumatic transmission system the combination of a series of devices for governing the course of a carrier through the same with a series of separate cylinders arranged to operate said devices, two conduits, one connecting to one end of each cylinder and the other to the other ends thereof, a common valve chamber with which both conduits connect, a source of fluid supply leading to said valve chamber, a valve situated in said chamber and arranged to alternately connect each conduit to the source of fluid pressure and the other to an exhaust, a series of valves as R *r*, connected to the top and bottom of each cylinder so as to be actuated by the movement of the pistons therein, two conduits, one leading through each set of valves and open only when all the valves of its set are open, a source of fluid pressure connected to one end of said conduits, movable parts as pistons p^3 p^4 connected with the other ends of said

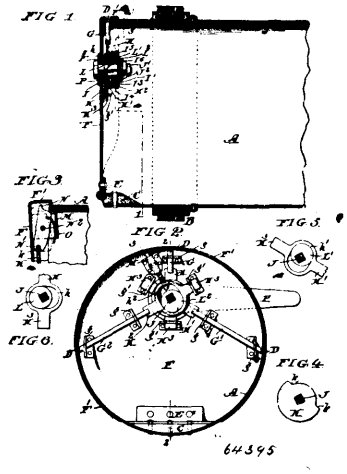
conduits, and a signal arranged to be actuated by said movable parts. 8th. In a pneumatic transmission system a series of switches or other movable devices controlling the path of a carrier through the system, means for moving said devices located in close proximity thereto, a common actuating device for simultaneously acting on said means to effect a shift in the positions of the parts they control, an indicator arranged in connection with such common actuating device to show the designed shift in the position of the controlled parts, and a signal system arranged as described in connection with the shifting devices to show whether they have all made their designed movements. 9th. In a pneumatic transmission system a series of switches or other movable devices controlling the path of a carrier through the system, means for moving said devices located in close proximity thereto, a movable common controlling device for simultaneously acting on said means to shift the position of the part they control, electromagnetic means for actuating said controlling device, circuit wires, a switch arranged in connection with said wires to close the circuits to actuate the electromagic devices and through them the controlling device as desired, a signal situated in and actuated by the circuit wires aforesaid and means governed and actuated by the devices governing the path of the carrier as specified and whereby the circuit is opened when the desired shift in their p sition is made. 10th. In a pneumatic transmission system a series of switches or other movable devices controlling the path of a carrier through the system, means for moving said devices located in close proximity thereto, a movable common controlling device as G for simultaneously acting on said means to shift the position of the parts they control, a cylinder H, and piston H^1 for moving said controlling device, chambers as I, I^1 connected to the opposite ends of said cylinder and each having a connection as K^4, with a source of fluid pressure, and a connection as I^6, I^5 to exhaust, valves as J^2, J^3 moving together and arranged to alternately open and close the said admission and exhaust ports, means holding said valves normally in position to close the admission ports and open the exhaust ports, two electromagnets, one arranged in connection with each set of valves and so as to open the admission and close the exhaust port when energized, electric circuits arranged as specified in connection with said electromagnets, and a switch in said circuits adapted to close the circuits through either magnet at will. 11th. In a pneumatic transmission system, a series of switches or other movable devices controlling the path of a carrier through the system, means for moving said devices located in close proximity thereto, a movable common controlling device as G for simultaneously acting on said means to shift the position of the parts they control, a cylinder H and H^1 for moving said controlling device, chambers as I, I^1 connected to the opposite ends of said cylinder and each having a connection as K^4, with a source of fluid pressure and a connection as I^6, I^5 to exhaust, valves as J^2, J^3 moving together and arranged to alternately open and close the said admission and exhaust ports, means holding said valves normally in position to close the admission ports and open the exhaust ports, two electromagnets, one arranged in connection with each set of valves and so as to open the admission and close the exhaust port when energized, electric circuits arranged as specified in connection with said electromagnets, a switch in said circuits adapted to close the circuit through either magnet at will, a signal arranged to lie always in the circuit branch opened by the switch and means for opening said circuit actuated by the shifting of the carrier controlling mechanism. 12th. In a pneumatic transmission system, substantially as specified, the combination with a series of independent cylinders arranged to actuate carrier controlling mechanism, of a series of valve casings as R, r having two chambers as R^2, R^3 and conduits leading from each chamber connecting said casings together in two sets and as a whole with a source of pressure fluid and an actuating device, valves as S^3, S^4 arranged to control the communication between the chambers R^2 and R^3 and the exhaust from chamber R^3 as described, and valve rods as S projecting into the cylinders and arranged to be moved by the piston moving therein. 13th. In a pneumatic transmission system, the combination with a cylinder arranged to actuate carrier controlling mechanism, of a valve casing as R, having two chambers as R^2, R^3, and conduits leading from each chamber, the one leading from chamber R^2 connecting with a source of fluid pressure and the one leading from chamber R^3 with a device to be actuated by such pressure, valves as S^3, S^4 arranged to control the communication between the chambers R^2, R^3 and the exhaust from chamber R^3, as described, and a valve actuating rod as S, projecting into the cylinder and arranged to be moved by the piston in said cylinder.

No. 64,395. Pneumatic Carrier System.

(*Système de transport pneumatique.*)

Birney Clark Batcheller, Philadelphia, Pennsylvania, U.S.A., 16th October, 1899; 6 years. (Filed 2nd May, 1899.)

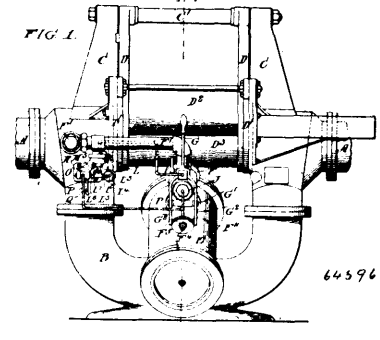
Claim.—1st. The combination with a carrier shell, a cap for closing the open end thereof, bolts for securing the cap to the shell and means, as lever P, for operating said bolts, of a lock, as N^1, arranged to normally prevent the motion of the bolts to lock the cap, and means as described whereby the placing of the cap in proper position on the shell withdraws the lock and permits the bolts to operate. 2nd. The combination with a carrier shell, a cap for closing the open end thereof, bolts for securing the cap to the shell and a bolt operating lever as P pivoted away from the centre of the cap and arranged to lie partly outside of the periphery of the cap at all times except when the bolts are shot, of a lock as N^1 arranged to engage and hold the lever P in position corresponding to the open position of the



bolts, and means as described whereby the placing of the cap in proper position on the shell withdraws the lock and permits the lever P to operate.

No. 64,396. Pneumatic Carrier System.

(*Systéme de transport pneumatique.*)



Birney Clark Batcheller, Philadelphia, Pennsylvania, U.S.A., 16th October, 1899; 6 years. (Filed 2nd May, 1899.)

Claim.—1st. In a pneumatic despatch tube system, the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the tube, a lever arranged to actuate said sending apparatus, a lock arranged to hold said lever in position to act on the sending apparatus and means for releasing the lever from the lock situated in the transit tube close to the sending apparatus and actuated by the escape of a carrier from the sending mechanism. 2nd. In a pneumatic despatch tube system the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the tube, a lever arranged to actuate the sending apparatus, a resilient connection arranged between said lever and the sending apparatus, a lever lock arranged to engage and hold the lever aforesaid in position to actuate the sending apparatus, and means for releasing the lever from the lever lock actuated by the escape of a carrier from the sending apparatus. 3rd. In a pneumatic despatch tube system the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the tube, a lever arranged to actuate the sending apparatus,' a resilient connection arranged between said lever and the sending apparatus, a lock or locks arranged to prevent the movement of the sending apparatus under certain conditions, a lever lock arranged to engage and hold the lever aforesaid in position to actuate the sending apparatus and means for releasing the lever from the lever lock actuated by the escape of a carrier from the sending apparatus. 4th. In a pneumatic despatch tube system the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the tube, a lever arranged to actuate the sending apparatus, a resilient connection arranged between said lever and the sending apparatus, a lock or locks arranged to prevent the movement of the sending apparatus under certain conditions, a lever lock aranged to engage and hold the lever aforesaid in position to actuate the sending apparatus, a finger arranged in the tube at the outlet of the sending apparatus, resilient means for holding said finger normally in position to be engaged by a carrier and return it to such position after being depressed, and means actuated by the return of said finger arranged to withdraw the lever lock. 5th. In a pneumatic despatch tube

system the combination with a transit tube of a sending apparatus, whereby a carrier can be injected into the tube, a lever arranged to actuate the sending apparatus, a resilient connection arranged between said lever and the sending apparatus, a lever lock arranged to engage and hold the lever aforesaid in position to actuate the sending apparatus, means, as a spring, acting to normally press the lever lock into position to engage the lever, a pneumatic cylinder and piston arranged to disengage the lever lock from the lever, a conduit for motive fluid leading from a source of supply to said cylinder, a valve or valves in said conduit arranged to regulate the passage of fluid therethrough and means arranged to be actuated by the exit of a carrier from the sending apparatus for operating said valve or valves. 6th. In a pneumatic despatch tube system the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the tube, a lever arranged to actuate the sending apparatus, a resilient connection arranged between said lever and the sending apparatus, a lock or locks arranged to prevent the movement of the sending apparatus under certain conditions, a lever lock arranged to engage and hold the lever aforesaid in position to actuate the sending apparatus, means, as a spring, acting to normally press the lever lock into position to engage the lever, a pneumatic cylinder and piston arranged to disengage the lever lock from the lever, a conduit for motive fluid leading from a source of supply to said cylinder, a valve or valves in said conduit arranged to regulate the passage of fluid therethrough and means arranged to be actuated by the exit of a carrier from the sending apparatus for operating said valve or valves. 7th. In a pneumatic despatch tube system the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device and a lock to secure it in position to actuate said controlling device, means, as a spring, acting to normally press the lever lock into position to engage the lever, and means for operating the lever lock to release the lever actuated by the escape of a carrier from the sending apparatus. 8th. In a pneumatic despatch tube system, the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device and a lock to secure it in postition to actuate said controlling device, means as one or more locks for temporarily preventing the motor controlling device from moving under the resilient pressure of the lever, means, as a spring, acting to normally press the lever lock into position to engage the lever, and means for operating the lever lock to release the lever actuated by the escape of a carrier from the sending apparatus. 9th. In a pneumatic despatch tube system the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device and a lock to secure it in position to actuate said controlling device, means as one or more locks for temporarily preventing the motor controlling device from moving under the resilient pressure of the lever, means, as a spring, acting to normally press the lever lock into position to engage the lever, a pneumatic cylinder and piston arranged to disengage said lock from the lever, a conduit for motive fluid leading to said cylinder, a valve or valves in said conduit regulating the passage of fluid therethrough and a trip arranged to be operated by the exit of the carrier from the sending apparatus and to open said valve or valves to admit motive fluid to the lock cylinder. 10th. In a pneumatic despatch tube system the combination with a transit tube of a sending apparatus whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device and a lock to secure it in position to actuate said controlling device, means as one or more locks for temporarily preventing the motor controlling device from moving under the resilient pressure of the lever, means, as a spring, acting to normally press the lever lock into position to engage the lever, a pneumatic cylinder and piston arranged to disengage said lock from the lever, a conduit for motive fluid leading to said cylinder, a valve or valves in said conduit regulating the passage of fluid therethrough, a trip arranged to be operated by the exit of a carrier from the sending apparatus and to open said valve or valves to admit motive fluid to the lock cylinder, and mechanism for closing said valve actuated by the motion of the lever lock or attached device. 11th. The combination with a pneumatic despatch tube, a sending apparatus whereby a carrier is injected into said tube, a lever for actuating said apparatus, a lever lock for latching said lever in operative position, a pneumatic cylinder as J having a supply conduit as P and an exhaust conduit as N leading therefrom, a piston working in said cylinder arranged to move the lever lock to release the lever and thereafter to open the exhaust port of the cylinder, a valve in the supply conduit, means actuated by the passage of a carrier from the sending apparatus arranged to open said valve and admit fluid to cylinder J and means actuated by fluid exhausting from said cylinder arranged to effect the closing of said valve. 12th. In combination with a pneumatic despatch tube, a sending apparatus whereby a carrier is injected into said tube, a lever for actuating said apparatus, a lever lock for latching said lever in operative position, a pneumatic cylinder as J having a supply conduit as P and an exhaust conduit as N leading therefrom, a piston working in said cylinder arranged to move the lever lock to release the lever and thereafter to open the exhaust port of the cylinder, a valve casing O in the supply conduit, a valve as R^1 R^2 situated in said casing arranged when closed to cut off the supply of motive fluid and to open the pipe P to the atmosphere, a valve actuating rod L^5 L^6, elastic means tending to hold said rod in position to actuate valve R^1 R^2, a cylinder M and piston M^1 connected to said rod and arranged when actuated to push said rod out of operative position, a finger as L^1 arranged when actuated by a carrier to withdraw rod L^5 L^6 from operative position and a connection as specified between conduit N and cylinder M. 13th. In a pneumatic despatch tube system, a sending apparatus adapted to move into registry with the tube to inject a carrier therein and to move out of registry therewith, to receive a carrier and means situated in the transit tube close to the sending apparatus and actuated by the escape of the carrier for effecting the return of the sending apparatus to receiving position.

No. 64,397. Pneumatic Transmission System.

(Système de transmission pneumatique).

FIG 1.

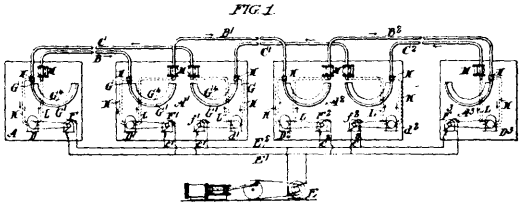
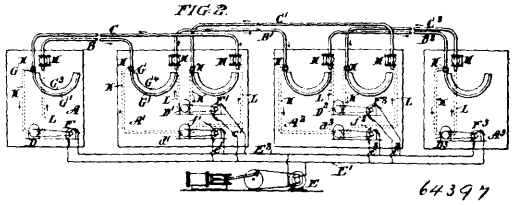


FIG 2.



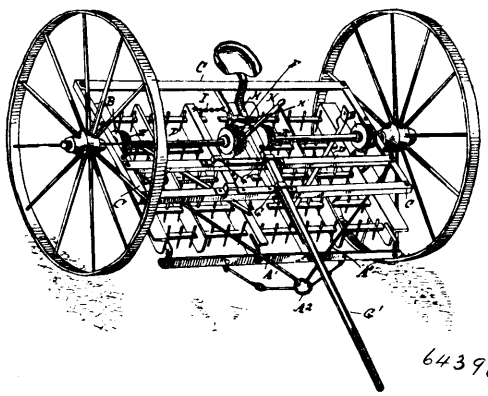
64397

Birney Clark Batcheller, Philadelphia, Pennsylvania, U.S.A., 16th October, 1899; 6 years. (Filed 20th July, 1899.)

Claim.—1st. A pneumatic transmission tube having a delivery end open to the atmosphere and its other or sending end connected to a source of air under pressure in combination with an air conduit connected to the transmission tube a short distance behind its open delivery end and an air pump connected to draw air through said conduit from the transmission tube. 2nd. A pneumatic transmission tube having its delivery end open to the atmosphere and terminating in a curve of comparatively short radius and its other or carrier receiving end connected to a force of air under pressure in combination with an air pump having its suction conduit connected to the tube a short distance behind its open delivery end. 3rd. A pneumatic transmission tube having a delivery end open to the atmosphere and its other or sending end connected to a source of air under pressure in combination with an air conduit connected to the transmission tube a short distance behind its open delivery end, an opening through said air conduit to the atmosphere other than the delivery end of the transmission tube and means for regulating the same, and an air pump connected to draw air through said conduit from the transmission tube and the outer atmosphere in proportion to the adjustment of the device regulating the opening in the air conduit aforesaid. 4th. In combination with two stations of a pneumatic transmission system, two transmission tubes connecting said stations respectively adapted to use in opposite directions and each having its delivery end open to the atmosphere, and air pumps at each station each having its delivery port connected to the charging end of the tube leading from the station and its suction ports connected to the delivery end of the tube leading to said station a short distance in the rear of the opening into the atmosphere. 5th. In combination with two stations of a pneumatic transmission system, two transmission tubes connecting said stations respectively adapted to use in opposite directions and each having its delivery end open to the atmosphere, air pumps at each station each having its delivery port connected to the charging end of the tube leading from the station and its suction ports connected to the delivery end of the tube leading to said station a short distance in the rear of the opening into the atmosphere and regulable air admission ports connected with the suction port of each engine and whereby air can be admitted otherwise than from the tube. 6th. A pneumatic transmission system comprising three or more stations connected in pairs by outgoing and incoming transmission tubes, said tubes having their receiving ends connected with a source of air under pressure and their other or delivery ends open to the atmosphere, air conduits connected to the transmission tubes a short distance behind their open delivery ends and air pumps arranged to draw air through said conduits from the transmission tubes. 7th.

A pneumatic transmission system comprising three or more stations, each connected to the adjacent station by an outgoing and an incoming transmission tube, said tubes having their receiving ends in each station connected to a source of air under pressure and their delivery ends in each station open to the atmosphere, an air conduit in each station leading from a point in the transmission tubes near their open delivery ends, and air pumps in each station drawing air from the transmission tubes through said air conduits. 8th. A pneumatic transmission system comprising three or more stations, each connected to the adjacent station by an outgoing and an incoming transmission tube, said tubes having their receiving ends in each station connected to the delivery conduit of an air compressor situated at or near each station and their delivery ends in each station open to the atmosphere, an air conduit in each station leading from a point in the transmission tubes near their open delivery ends to the suction conduits to the air compressors aforesaid, all substantially as described, and so as to maintain one body of air in circulation between each two adjacent stations. 9th. A pneumatic transmission system comprising a series of stations, outgoing and incoming transmission tubes connecting said stations in pairs, air compressors situated in separate stations of the series connected to force air into the receiving ends of the tubes and draw air from them at points adjacent to their delivery ends, electric motors in the separate stations connected to drive the compressors, an electric generator common to the system and circuit connections leading therefrom to the motors aforesaid. 10th. In a pneumatic transmission system comprising three or more stations connected in pairs by outgoing and incoming transmission tubes, said tubes being connected at their receiving ends to sources of air under pressure and open to the atmosphere at their delivery ends, and air pumps having their suction conduits connected to the delivery ends of the transmission tubes a short distance from their open ends, the combination with a transmitter situated in the receiving end of a transmission tube at one station of a curved delivery table, as G^1 G^3, connected with the delivery end of a transmission tube leading to the station and a chute as G^5, leading from said table to the transmitter.

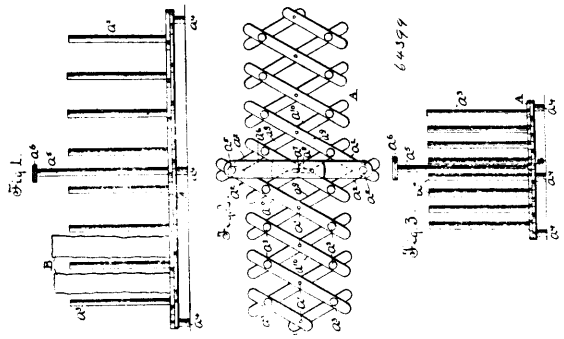
No. 64,398. Harrow Sulky. (*Herse.*)



Joseph Tucker, Julian, Nebraska, U.S.A., 16th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—In a sulky harrow, the combination with the ground wheels and tubular axle, of the main frame supported thereon, the winding drums or spools mounted upon said axle, the elevating chains attached to the drums and to the harrow for elevating the same, the ratchet F secured on one of the central drums, and a lever and pawl for operating said ratchet, the locking pawl having a foot piece and the draft rods attached to the main frames and adapted to operate, substantially as described.

No. 64,399. Toast Holder. (*Porte-rôtie.*)

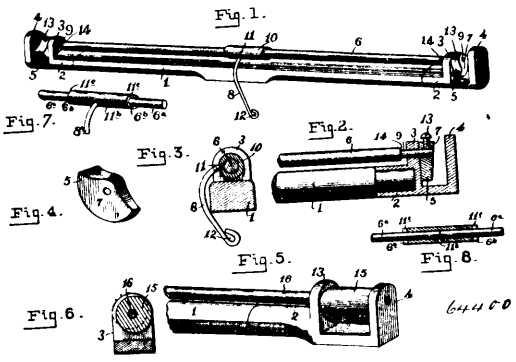


John Charles Kirby, New Brighton, New York, U.S.A., 16th October, 1899; 6 years. (Filed 21st August, 1899.)

10—13

Claim.—1st. A toast holder, consisting of a base, upright posts and handle for carrying said holder. 2nd. A toast holder, consisting of an adjustable base, upright posts mounted thereon, for the purpose described. 3rd. A toast holder, consisting of a base, means for adjusting the space between the upright posts, and upright posts mounted on said base, together with a handle for carrying said holder. 4th. A toast holder, consisting of a base, and means for extending and contracting said base, upright posts mounted pivotally upon said base for the purposes described. 5th. A toast holder, consisting of a lazy tongs base, upright posts mounted pivotally upon the ends of the levers and a handle, substantially as described. 6th. A toast holder, consisting of a lazy tongs base, extending on both sides of the handle, upright posts mounted pivotally on said base, and a handle thereto, substantially as described.

No. 64,400. Horse Detacher. (*Dételage instantané.*)



Samuel Alfred Haines, Garrett, Texas, U.S.A., 16th October, 1899; 6 years. (Filed 19th August, 1899.)

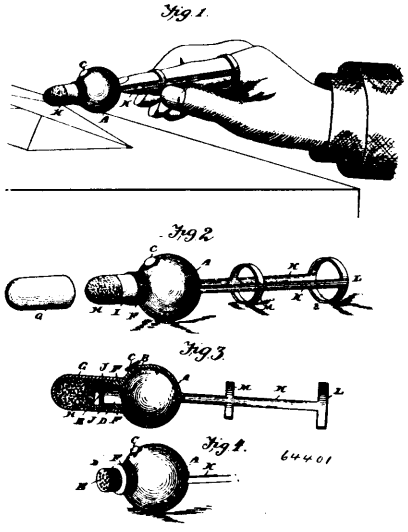
Claim.—1st. A device of the class described, comprising a whiffletree provided at its ends with inner and outer ears, forming between them trace-receiving spaces which are closed at one side, a longitudinal shaft journalled in suitable bearings of the ears and extending from one end of the whiffletree to the other, cams mounted on the ends of the shaft in a vertical position to co-operate with the closed walls of the trace-receiving spaces and adapted to be carried by the rotation of the shaft simultaneously into and out of engagement with the traces, the ears at the ends of the whiffletree serving to keep the traces from moving laterally, substantially as described. 2nd. A device of the class described, comprising a whiffletree sadapted to receive the traces, a longitudinal shaft journalled in uitable bearings of the whiffletree, and a pair of simultaneously operating cams mounted on the ends of the shaft and provided at their side faces with engaging portions arranged to clamp and hold t he traces, said cams being fastened to the shaft by set screws which allow for their adjustment in the arc of a circle, subs tantially as described. 3rd. A device of the class described, comprising a whiffle tree, a shaft extending longitudinally of the whiffletree and composed of two sections, devices arranged at the outer ends of the sections for engaging the traces, a sleeve connecting the inner ends of the sections and arranged to rotate the same simultaneously in one direction, said sections having a limited mo vement independent of the sleeve, and means for operating the sleeve, substantially as described. 4th. A device of the class described, comprising a whiffletree, a shaft extending longitudinally thereof, and provided with devices for engaging the traces, said shaft being composed of sections provided near their inner ends with projections, a sleeve connecting the inner ends of the sections and provided at its ends with recesses receiving the said projections and limited to the independent rotation of the sections, and means for operating the sleeve, whereby the sections are rotated simultaneously, substantially as described.

No. 64,401. Envelope and Stamp Moistener.
(*Humecteur pour enveloppes et estampilles.*)

Walter H. Knauber, Milwaukee, Wisconsin, U.S.A., 16th October, 1899; 6 years. (Filed 9th May, 1899.)

Claim.—1st. In a device of the character described, the combination of a reservoir having an outlet, a moistening pad arranged in said outlet, and a keeper carried by the receptacle to be engaged by the finger of the operator, substantially as set forth. 2nd. In a device of the character described, the combination of a reservoir having an outlet, a moistening pad arranged in said outlet, a keeper consisting of arms secured at one end to the reservoir and diverging at their opposite ends, rings connecting said arms at their outer ends and intermediate their ends, substantially as set forth. 3rd. A device of the character described, comprising a reservoir provided with an outlet tube having a perforated outer wall, a moistening pad arranged in front of said perforated outer wall, a cap adapted to inclose said moistening pad, and a keeper adapted to receive the finger of the operator, substantially as set forth. 4th. In a device

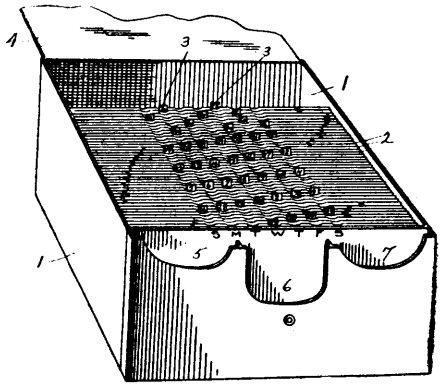
of the character described, the combination of a reservoir provided with an outlet tube, having a perforated outer wall, said outlet tube



being screw threaded and reduced adjacent its outer end, a moistening pad holder adapted to engage said screw threaded reduced portion, a cap adapted also to engage the screw threaded outlet tube and enclose the moistening pad, and a keeper adapted to be engaged by the finger of the operator, substantially as set forth. 5th. In a device of the character described, the combination of a reservoir provided with a filling orifice and an outlet tube having a perforated outer wall, a screw stopper closing the filling orifice, a pad arranged in front of the perforated end of the outlet tube, a cap adapted to enclose the moistening pad, and a keeper carried by the reservoir adapted to be engaged by the finger of the operator, substantially as set forth.

No. 64,402. Memorandum Case.

(*Casse de memorandum.*)



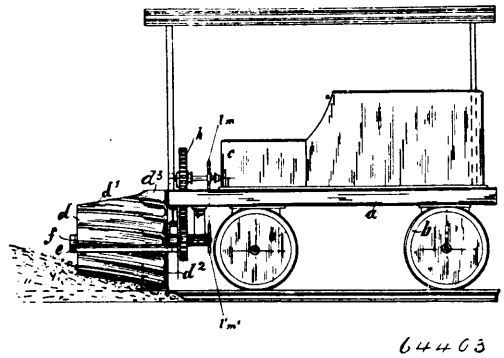
64402

Benjamin Ives Gilman, Newton, Massachusetts, U.S.A., 16th October, 1899; 6 years. (Filed 24th August, 1899.)

Claim.—1st. An improved article of manufacture, a memorandum case or file, consisting of a holder or box, and a series of removable receptacles or pockets contained therein, each adapted to hold memoranda, etc., and having thereon seven tag or marker holders for holding a movable tag or marker designating a month, or the day of a month, and said tag or marker, substantially as shown and described. 2nd. The combination with a box or case, of a series of removable receptacles or pockets contained therein, each adapted to hold memoranda, etc., and each having thereon seven tag or marker holders for holding a movable tag or marker designating a month, or the day of a month, and said tag or marker, substantially as shown and described. 3rd. An improved article of manufacture, a memorandum case or file, consisting of a case or box, and a series of removable receptacles or pockets contained therein, each adapted to hold memoranda, etc., and each having thereon seven tag or marker holders for holding a movable tag or marker designating a month, or the day of a month, and a filing index on the front of each receptacle, and a reference letter therefor, substantially as shown and described. 4th. An improved article of manufacture, a memorandum case or file, consisting of a case or box having one or more stationary compartments or pockets at the front thereof, and a series of removable receptacles or pockets contained in said box, each adapted to hold memoranda, etc., and each having thereon seven tag or marker holders for holding a removable tag or marker designating a month or the day of a month, and said tag or marker, and a filing index on the front of each receptacle, and a reference letter therefor, substantially as shown and described. 5th. An improved article of manufacture, a memorandum case or file, consisting of a case or box having one or more stationary compartments or pockets at the front thereof, and letters indicating the days of the week, and a series of removable receptacles or pockets contained in said box, each adapted to hold memoranda, etc., and each having thereon seven tag or marker holders for holding a removable tag or marker designating a month or day of a month, and said tag or marker, and a filing index on the front of each receptacle, and a reference letter therefor, substantially as shown and described.

No. 64,403. Railway Snow Plough.

(*Charrue pour chemin de fer.*)

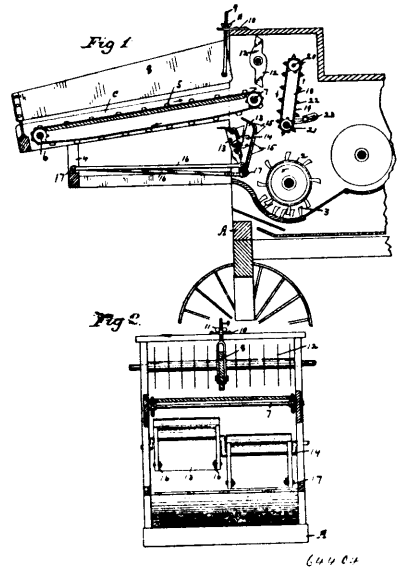


64403

John George Weniger, Mambach, near Zell, Baden, Germany, 16th October, 1899; 6 years. (Filed 21st August, 1899.)

Claim.—1st. In combination, two rotating scoop wheels with shafts being parallel to the rails, and with tangential scoops having in front a conical and behind a cylindrical form, all substantially as set forth. 2nd. The combination of two rotating scoop wheels with shafts being parallel to the rails, rotating both in the same direction, for the purpose specified.

No. 64,404. Threshing Machine. (*Machine à battre.*)

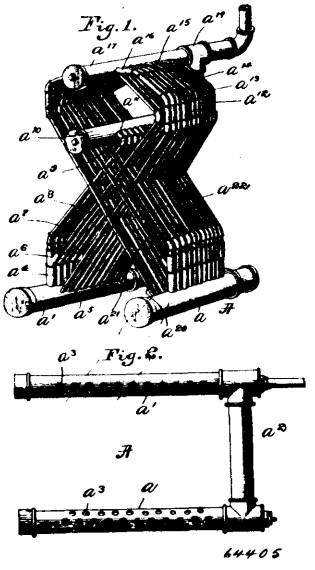


John Taylor, Joliette, North Dakota, U.S.A., 16th October, 1899; 6 years. (Filed 21st August, 1899.)

Claim.—1st. In combination with a threshing machine cylinder and self feeder, means for feeding the grain vertically to said cylinder and regulating the passage thereof, consisting of upright kickers, arranged above cylinder, the supports for said kickers allowing the same to be vertically reciprocated, a feed regulator

arranged above said cylinder and in front of said kickers and horizontally adjustable toward and from the kickers, and the teeth projecting outwardly from the kickers in position to engage and retard the grain in its passage to cylinder. 2nd. In a threshing machine, the combination with the self feeder, and the threshing cylinder, of the upright kickers arranged above and in front of said cylinder, the crank support for said kickers, the bars pivotally connecting the lower ends of the kickers with a fixed support, and the feed regutator arranged above said cylinder and adjustable toward and from the kickers to regulate the passage of grain to the cylinder. 3rd. In a threshing machine, the combination with the self feeder and threshing cylinder, of upright kickers interposed between said self feeder and cylinder and provided with outwardly projecting knives or sickles in position to engage the grain in its passage to the cylinder, means for vertically reciprocating said kickers, and a feed regulator arranged in front of said kickers and horizontally adjustable toward and from the same.

No. 64,405. Hot Water Heater. (*Chauffeur d'eau chaude.*)



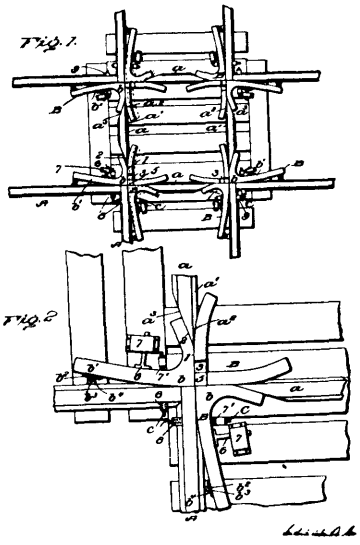
James Ephraim Evans and William Burke Curtis, both of Duluth, Minnesota, U.S.A., 16th October, 1899; 6 years. (Filed 17th August, 1899.)

Claim.—1st. In a tubular hot water heater, the combination of two centrally and horizontally arranged water drums located one above the other, horizontal return water legs forming a supporting base for the heater, two sets of tubes connected to the water legs and inclined upwardly and inwardly and intersecting each other, one set of tubes entering the lower water drum and the other set entering the upper water drum and another set of tubes extending from one set of the first mentioned tubes inclined upardly and entering the upper drum, which latter drum leads to the discharge, substantially as described. 2nd. In a tubular hot water heater, the combination of two water drums, one of which forms a discharge for the hot water, suitable return water legs, one of the legs being connected by a pipe and forming a supporting base for the heater, and two sets of apertures in each water leg, tubes secured in said aperatures and extending upwardly and crossing each other at approximately the centre of the apparatus, one set of the tubes from each of the legs entering the lower drum and the other set entering the upper drum and a third set of tubes connected to one set of the tubes from each of the legs which cross each other near the center of the apparatus and extend to the upper drum by means of short sections of pipe connected to the upper ends of said tubes and extending upwardly, substantially as described. 3th. In a tubular hot water heater, the combination of suitable return water legs forming a supporting base for the heater, two sets of tubes connected to the water legs and inclined upwardly and inwardly and intersecting each other, one set of the tubes entering one water drum and the other set entering another water drum arranged above the first mentioned drum and another set of tubes extending from one set of the first mentioned tubes and inclined upwardly and entering the upper drum which latter leads to the discharge, and a vertical pipe connecting the two drums, substantially as described.

No. 64,406. Railway Crossing. (*Traverse de chemin de fer.*)

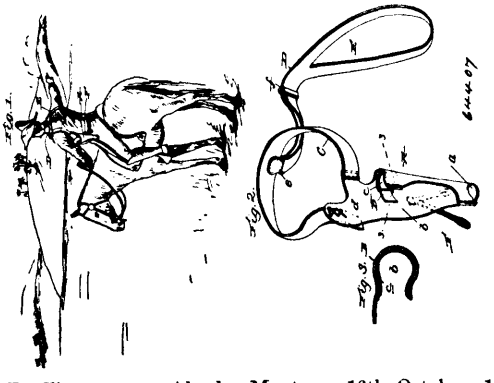
John W. Bennett, Sturgis, Michigan, U.S.A., 16th October, 1899 6 years. (Filed 17th August, 1899.)

Claim.—1st. In a railroad crossing having intermediate short rails, movable sections normally filling the spaces at the ends of such short rails and fitting up against the rails of an intersecting track so that the wheels of a train moving over the latter will contact with and



move such section, a pivot connection for each section, and means for holding such sections in their normal positions, as set forth. 2nd. In a railroad crossing having intermediate short rails, movable sections normally filling the spaces at the ends of such short rails, a pivoted connection for each of such sections, and a spring for holding each movable section in its normal position, as set forth. 3rd. In a railroad crossing having intermediate short rails formed with bevelled ends, hinged sections bearing against the ends of said short rails and filling the spaces between the latter and the adjacent rails, and springs for holding said sections in their normal positions, as set forth. 4th. In a railroad crossing having intermediate short rails formed with bevelled ends, bars hinged at one end and having lateral arms bearing against the bevelled ends of the short rails, and springs for holding said bars in their normal positions, as set forth. 5th. In a railroad crossing having intermediate short rails formed with bevelled ends, curved bars having lateral arms bearing against the bevelled ends of the short rail, a stop and guide for each bar, and springs for holding such bars in their normal positions, as as set forth. 6th. In a railroad crossing having intermediate short rails formed with bevelled ends, curved bars having lateral arms bearing against such bevelled ends, rod for each of such bars having a spring thereon. and a stop and guide for each bar, as set forth. 7th. In a railroad crossing having intermediate short rails, curved bars having lateral arms bearing against the ends of such short rails, and rods extended through coincident openings in said bar and the adjacent rails, springs on such rods, and adjusting enclosing cylinders for such springs, as set forth. 8th. In a railroad crossing having intermediate short rails formed with bevelled ends, curved bars hinged each at one end to the adjacent rail, a rod extended through such bar and rail, springs on such rod, adjustable cylindrical sleeves enclosing such springs, lateral arms bearing against the ends of said short rails and tongue carried by such bars, and guide blocks for tongues, as set forth.

No. 64,407. Pistol Holder. (*Porte-pistolet.*)

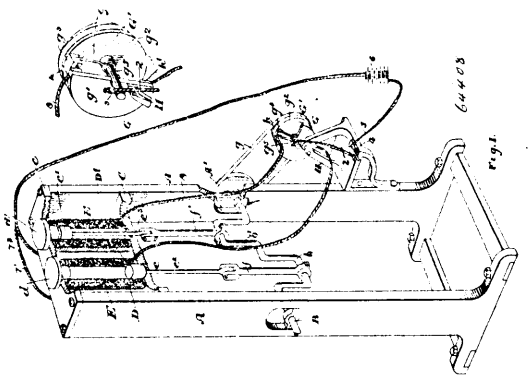


Elmer D. Zimmerman, Alzada, Montana, 16th October, 1899; 6 years. (Filed 7th February, 1899.)

Claim.—1st. The herein described pistol holder, having the opening *b*, in one side for the lateral introduction and removal of a pistol and also having the U-shaped spring connected to it, the said spring being disposed at right angles to the length of the holder with its

mouth contiguous to the opening *b* thereof, whereby it is enabled to grasp and hold a pistol and permit of the same being drawn laterally from the holder, substantially as specified. 2nd. The herein described pistol holder, having the shallow pocket *a*, at its lower end and the opening *b*, in one side extending from the pocket to its upper end and also having the cover *c*, connected to its inner side and the U-shaped spring arranged in said cover, the said spring being disposed at right angles to the length of the holder with its mouth contiguous to the opening *b* thereof, substantially as specified. 3rd. The combination of a pistol holder, tabs connected thereto, a shoulder strap also connected to the holder, and an elastic back strap adjustably connected to the shoulder strap and terminating in a shoulder loop, substantially as specified.

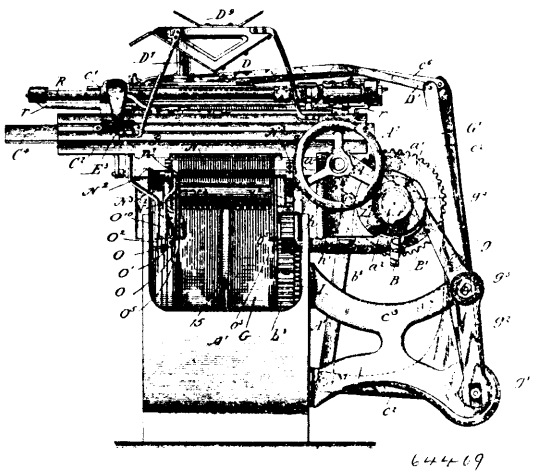
No. 64,408. Electro-Magnetic Cylinder Engine.
(*Cylindre de machine électro-magnétique.*)



George Henry Bingham Hooper, Toronto, Ontario, Canada, 16th October, 1899; 6 years. (Filed 2nd July 1898.)

Claim.—1st. In combination, the vertical standards, the cross bars extending between the upper parts thereof and connecting the same, the solenoids held between said cross bars, the removable cores having rods depending therefrom, a crank shaft extending between said standards below said solenoids, the rods connecting the cranks thereon to the core rods, a commutator, a pulley on said shaft, a drive connection from said pulley to the commutator and the electric source of supply and the leads, substantially as described. 2nd. In combination, a plurality of solenoids and cores and rods attached to the same, the connecting rods, the shaft and cranks, an electrical source of supply, the common return wires, the wire 5, switch 4, wires 8, 8^1, commutator G deriving motion from the main shaft and suitably journalled and consisting of the insulating plate g^1, contact plates h h^1 to which the wires 8 8^1 are respectively connected, contact block g^3, and spring finger g^4 secured in the abor g^5 to which the wire 5 is connected, as and for the purpose specified.

No. 64,409. Knitting Machine. (*Machine à tricoter.*)



John Franklin Nelson, Rockford, Illinois, U.S.A., 17th October, 1899; 18 years, (Filed 9th January, 1899.)

Claim.—1st. A knitting machine, comprising main knitting needles and transferring points operated independently of the needles for automatically transferring loops from one set of needles to the other, and means for actuating the needles and transferring points. 2nd. In a knitting machine, the combination of the front and back rows of main knitting needles, means for operating them, two rows of auxiliary or ribbing needles arranged parallel with the main knitting needles, transferring points and means for operating the needles and transferring points. 3rd. In a knitting machine, the combination of the main knitting needles, means for operating them, the pivoted auxiliary or ribbing needles mounted to move transversely of the machine, means for causing one set of ribbing needles to advance behind the heels of the other set of ribbing needles, means for giving to the ribbing needles other appropriate movements, transferring points for automatically transferring loops from one set of needles to the other and means for operating the transferring points. 4th. In a knitting machine, the combination of two sets of main knitting needles, two sets of auxiliary or ribbing needles, means for causing the heels of one set of ribbing needles to cross over and pass beyond the hooked ends of the opposite set of main knitting needles, means for giving to the ribbing needles other appropriate movements, means for operating the main knitting needles, transferring points for transferring loops from one set of needles to the other, means for operating the transferring points, a yarn guide for laying yarn in a row of main knitting needles behind the heels of the opposite row of ribbing needles, and means for operating the yarn guide. 5th. In a knitting machine, the combination of two sets of ribbing needles pivotally mounted on opposite sides of the machine, means for moving the ends of one set of ribbing needles past the heels of the other set of ribbing needles, means for giving to the ribbing needles other appropriate movements, two sets of main knitting needles, means for moving the ends of one set og main knitting needles past the heels of the opposite set of ribbing needles, a yarn guide for feeding yarn to a set of main knitting needles in rear of the heels of the ribbing needles on the same side of the machine, and means for operating the yarn guide. 6th. In a knitting machine the combination of two parallel rows of main knitting needles, two parallel rows of ribbing needles, two parallel rows of transferring points, means for actuating the transferring points to transfer loops from some of the main needles to the ribbing needles, and means for actuating the main knitting needles and the ribbing needles. 7th. A straight knitting machine provided with main knitting needles, auxiliary or ribbing needles and transferring points and mechanism for automatically operating the main needles for a time, then automatically actuating the transferring points to transfer loops from some of the main needles to the auxiliary or ribbing needles, and means for thereafter actuating some of the main knitting needles and the auxiliary or ribbing needles to make ribbed work. 8th. In a knitting machine, the combination of the front and back sets of main knitting needles, the two sets of ribbing needles, a yarn guide for feeding yarn to the front row of main needles and simultaneously to the back row of ribbing needles, and another yarn guide for feeding yarn to the back row of main needles and to the front row of ribbing needles while the back row of ribbing kneedles are crossed over and out of the way. 9th. In a knitting machine, the combination of the front and back rows of needles, means for operating the front and back rows to make a set-up, means for then throwing the front row of needles out of operation, means for causing the needles of the back row to form the toe of the sock, means for then throwing the front row of needles into operation, means for causing the front and back rows of needles to form the foot without leaving an open space between the foot and the toe, means for then throwing the front row of needles out of operation and causing the back row to knit the heel, means for then operating the front row of needles in connection with the back row to form the leg of the sock, means for then throwing some of the needles of the front row and some of the back row out of operation, means for transferring the loops of the fabric from the needles thrown out of operation to the auxiliary or ribbing needles, and means for then operating said ribbing needles in connection with some of the main needles of the front and back rows to produce a ribbed top on the sock. 10th. In a straight knitting machine, the combination of the main needles for knitting the main portion of the sock, means for operating these needles to properly form the toe, foot, heel and leg of the sock, ribbing needles co-operating with some of the main needles for knitting the ribbed top, means for holding the ribbing needles out of operation while forming the plain portion of the sock, means for automatically throwing some of the main needles out of operation and for casting off the loops therefrom while knitting the rib, means for throwing the rib knitting needles into operation to co-operate with those of the main needles not thrown out of operation to form the ribbed top, and means for casting off the loops from all the ribbing needles as soon as they have completed knitting the ribbed portion of the sock, and for holding the loops off these needles while the main needles are doing plain work. 11th. In a straight knitting machine, the combination of the front and back rows of needles for knitting the body or plain portion of the sock, the ribbing needles, means for throwing the ribbing needles into operation to co-operate with some of the main needles to form a ribbed top, and means for automatically starting the toe of the new sock after the ribbed top is formed. 12th. The combination of a yarn guide, two rows of main knitting needles, two rows of pivotted ribbing needles, means for moving the heels of one set of ribbing needles across the line of travel of the thread fed by the yarn guide to the other set of ribbing needles, means for actuating the main knitting needles, and means for actuating the yarn guide. 13th. The combination of a row of main knitting needles, their jacks, the jack-supporting levers, their operating bars, a pattern cylinder, and connections between the pattern

cylinder and the operating bars for moving the jack-supporting levers at the proper time. 14th. The combination of a row of knitting needles, the transferring points, the bars connecting them, a pattern cylinder, connections between these bars and the pattern cylinder, ribbing needles and means for actuating the ribbing needles to take loops from the transferring points. 15th. The combination of the main knitting needles, means for actuating them, means for throwing some of these needles out of operation, the transferring points, means for actuating them to take loops from the needles thrown out of operation, ribbing needles, means for actuating them to take the loops from the transferring points, and means for thereafter continuing the knitting by the ribbing kneedles and the main knitting needles to produce ribbed work. 16th. The combination of the pivoted ribbing needles and and an endwise moving slotted locking bar adapted to guide the needles as they oscillate and prevent them from oscillating when out of operation. 17th. The combination of the pivoted ribbing needles, the endwise moving slotted bars adapted to guide them as they oscillate, and means for shifting said bars into and out of operation at the proper time. 18th. The combination of the pivoted ribbing needles, an endwise moving slotted bar for guiding the ribbing needles, the pattern cylinder and connections between the pattern cylinder and the sliding bar for moving said bar into and out of operation at the proper time. 19th. The combination of the pivoted ribbing needles, the slotted frames in which they are mounted, the sliding toothed bar the teeth of which engage with the needles and prevent them from moving, and means for operating said toothed bars for opening the slots to permit the needles to oscillate and for also operating upon the needles to move them positively in one direction. 20th. The combination of the pivoted ribbing needles, the slotted frame in which they are mounted, a sliding toothed bar, the teeth of which are adapted to open and close the slots in the slotted frame and to engage with the needles and prevent them from moving and means for operating said toothed bar to open the slots in the frame and to also operate on the ribbing needles to move positively in one direction. 21st. The combination of a cam slide for a row of ribbing needles, a main cam slide, devices carried by the main cam slide and adapted to engage with devices on the cam slide of the ribbing mechanism, and means for engaging and disengaging said devices at the proper time whereby at times the cam slides of the ribbing mechanism are caused to move back and forth with the cam slides of the main knitting needles. 22nd. The combination of the cam slides of the ribbing mechanism, the guide bars therefor, the hooks connected with the slides, the sleeves connected with the main cam slides and adapted to move back and forth on the guide bars and hooks carried by these sleeves adapted to engage with the hooks carried by the cam slides of the ribbing mechanism. 23rd. The combination of the main cam slides, the ribbing needles, the cams, S, S^1, carried by the main cam slides and devices for actuating said cams at the proper times to move the ribbing needles from their inactive to their active positions. 24th. The combinafion of the main cam slides, the yoke connecting them, the levers pivoted to said yoke, the cams carried by said levers, the guide bars supported above the main cam slides, the arms mounted to slide back and forth on said bars, and means for operating said arms to move the cams on said pivoted levers into and out of the path of the ribbing needles. 25th. The combination of the main cam slides, the yoke connecting them, the ribbing needles, a cam pivotally connected with the yoke, a bar parallel with the line of movement of the yoke, a sleeve carried by said bar, an arm on said sleeve and means for moving said sleeve to cause the arm to raise and lower the pivoted cam. 26th. The combination of the main cam slides, the cam slides of the ribbing mechanism, parallel guide bars, sleeves on the arm slides of the ribbing mechanism arranged to travel back and forth on said guide bars, sleeves on said guide bars permanently connected with the main cam slides, and mounted to slide on and turn with said guide bars, devices carried by said last-mentioned sleeves adapted to interlock with devices on the first mentioned sleeves and means for actuating the guide bars to cause the engagement and disengagement of the sleeves. 27th. The combination of the ribbing cam slide, a pair of cams, a pivoted rod by which they are carried, a guide plate pivoted to the slide, and means for actuating the cams and guide plate to raise a cam at one end of the rod and at the same time to depress the same end of the guide plate, substantially as described. 28th. The combination of a cam slide, a longitudinal bar on which said slide is adapted to move, a yarn guide also carried by said bar, a guide bed on which the yarn guide rests as it travels back and forth and which has a depressed portion at one end for the purpose specified. 29th. The combination of a row of ribbing needles, a yarn guide adapted to travel back and forth across the machine, and a guide bed for the yarn guide having a depressed portion at one end. 30th. The combination of a row of knitting needles, a yarn carrier adapted to move back and forth to feed yarn to said needles, a row of ribbing needles, means for detaining the yarn carrier while the ribbing needles are in operation, a yarn guide for the ribbing needles and means for moving the yarn guide out of the path of the yarn carrier at the end of each stroke of said yarn guide in one direction. 31st. The combination of a row of ribbing needles, a cam slide provided with two sleeves, a bar on which said sleeves are adapted to move back and forth, a yarn guide connected with said bar between the two sleeves and having an independent endwise movement on the bar between the sleeves, and means for causing the sleeves on the cam slide to abut against the sleeve on the yarn guide. 32nd. The combination of the ribbing needles, a row of presser hooks, means for operating them, and devices for causing the presser hook at the end of the row to operate twice during each stroke in one d rection of the presser hook actuating mechanism. 33rd. In a knitting machine, the combination of a row of presser hooks, a spring for moving one of the end hooks in one direction and a cam for moving said end hook in the opposite direction. 34th. The combination of a row of knitting needles, a row of presser hooks, a cam slide provided with two recesses, and a spring for moving one of the presser hooks in one direction. 35th. The combination of a series of main knitting needles, a cam slide, cams carried thereby for actuating the main knitting needles to cause them to advance and retract during a movement in one direction of the slide, an auxiliary needle at the end of the row of needles, and devices for giving to said end needle and additional movement for the purpose specified. 36th. In a knitting machine, the combination of a row of needles having an additional or end needle, the jack to which said needle is connected, the cam for actuating said jack, the guides in which said cam moves, a switch at the end of said guides, and means for shifting said switch. 37th. The combination of a row of knitting needles, the cams for actuating them, and an additional cam acting on the end needle only. 38th. The combination of a row of knitting needles, the cams for actuating them, an additional cam for giving an additional movement to the end needle. 39th. The combination of a row of knitting needles the cams for actuating them, an additional cam for actuating the end needle, the presser hooks, and means for giving an additional movement to the end presser hook. 40th. The combination of a row of knitting needles, the cam for actuating them, an additional cam for actuating the end needle, a row of presser hooks, the end hook being spring actuated, and means for giving an additional movement to the end presser hook. 41st. The combination of knitting needles, the ribbing needles, the two yarn guides, one of which feeds yarn to the needles on one side and the other to the needles on the opposite side of the machine, and means for joining the yarn used for forming one side of the fabric to the fabric formed by the other yarn. 42nd. The combination of the yarn guide having a plurality of guide grooves, a lever connected with said yarn guide, a lug on the end of said lever, a guide rail for said lug, a switch on the end of said rail, a pattern cylinder and connections between the pattern cylinder and said switch. 33rd. The combination of the yarn guide having a plurality of guide grooves, a lever connected with said yarn guide, the pattern cylinder and connections between the pattern cylinder and said lever for operating the yarn guide at proper times. 44th. The combination of the main yarn carrier, the guide frames between which it reciprocates, the cutting frame supported on said carrier, the yarn guide, means carried by the yarn guide for moving the cutter frame, to separate the cutters, and a cam on one of the guide frames engaging the cutter frame to close the cutters. 45th. The combination of a needle, its jack formed with a tooth, b^6, and jack supporting lever formed with a tooth, b^7, in front of the tooth, b^6, substantially as and for the purpose specified. 45th. The combination of two parallel rows of main knitting needles, two parallel rows of ribbing needles pivoted above the main knitting needles, transferring points arranged to slide back and forth in lines parallel with the main knitting needles, means for dropping some of the main knitting needles out of operation, means for actuating the transferring points to withdraw the loops, of the fabric from the needles thus thrown out of operation, means for actuating the ribbing needles to take the loops from the transferring points, and means for thereafter actuating the ribbing needles and some of the main knitting needles to make ribbed work. 47th. The combination of a tension bar, means for operating it, a cam connected to and operated in both directions by the tension bar, a pivoted cam at times in contact with the first mentioned cam and moved while in contact therewith in one direction only, a lug carried by the pivoted cam and engaged by the tension bar, a guide bar and a lug carried by a pivoted cam and guided by said guide bar.

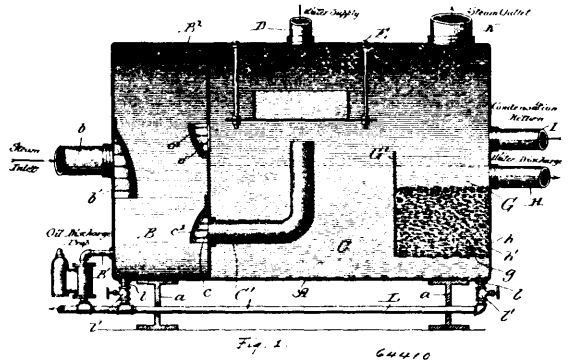
No. 64,410. Feed Water Heater.

(*Alimentateur pour chauffeur d'eau.*)

Thomas William Gleason, assignee of C. E. Ferriera, both of Chicago, Illinois, U.S.A., 17th October, 1899; 6 years. (Filed 10th August, 1899.)

Claim.—1st. A feed water heater comprising a water holding and heating chamber and a filtering chamber communicating with the steam space above the water level of the heating chamber, a condense return pipe entering the heater, above the water level of the filtering chamber and also above the water level of the heating chamber, such pipe emptying directly into the filtering chamber, whereby the condense water may be heated and withdrawn without traversing the heating chamber, a discharge pipe from the filtering chamber and a steam pipe or passage communicating with the heating chamber. 2nd. In combination with a feed water heater having a heating chamber and an outlet or purified water chamber communicating directly with the steam space above the water level of the heating chamber, of a condense water return pipe entering the heater above the water level of the heating chamber, such pipe emptying into the purified water chamber whereby the condense water may be heated and withdrawn without traversing the heating chamber, and an outlet pipe communicating with the purified water chamber at a point adjacent to the condense water return pipe. 3rd. In a feed water heater, the combination of a horizontal receptacle

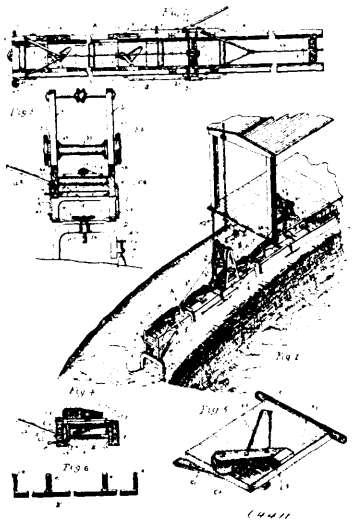
or tank divided into an expansion chamber and a heating and settling chamber arranged side by side and communicating with each



other, means for introducing steam into the heating and settling chamber, means for introducing water of condensation into the heating and settling chamber above the water level, and means for drawing off water from the heating and settling chamber. 4th. In a feed water heater, the combination of a horizontal receptacle or tank divided into an expansion chamber, a heating and settling chamber and a filtering chamber communicating with each other, such chambers being arranged in the same horizontal plane, means for introducing steam into the expansion chamber, means for introducing water into the heating and settling chamber, a pipe for introducing water of condensation into the heating and settling chamber above the water level, and a pipe for drawing off from the heating and settling chamber adjacent to the pipe for introducing water of condensation. 5th. In a feed water heater, the combination of a horizontal receptacle or tank divided into an expansion chamber and a heating and settling chamber, such chambers being arranged side by side, means for introducing steam into the expansion chamber, means for introducing water into the heating and settling chamber, a pipe extending from the expansion chamber into the heating and settling chamber and extending above the water level when in use, and means for drawing off water from the heating and settling chamber. 6th. A feed water heater comprising a tank or receptacle divided into three chambers arranged side by side, the first chamber being a steam or expansion chamber having a steam inlet, the second chamber being a heating and settling chamber having a pipe leading from the steam chamber to a point above the water level in the heating chamber and the third chamber being a filtering and outlet chamber for the heated and purified water and arranged beyond the other chambers in substantially the same horizontal plane, and a water outlet leading from the outlet chamber. 7th. A feed water heater comprising a tank or receptacle having arranged therein in substantially the same horizontal plane a steam chamber, a heating chamber and an outlet chamber, means of communication between the chambers, a steam inlet and a water inlet and a water outlet. 8th. A feed water heater comprising a tank or receptacle having arranged therein, in substantially the same horizontal plane, a steam chamber, a heating chamber and a filtering and outlet chamber and a filtering and outlet chamber respectively, a steam inlet into the steam chamber, a steam pipe leading from the steam chamber and into the adjacent heating chamber below the water level therein and extending upwards therein above such level, a water inlet into the heating chamber, means of communication between the heating and outlet chambers and a water outlet leading from the outlet chamber. 9th. A feed water heater comprising a tank or receptacle having therein, in substantially the same horizontal plane, a steam chamber, a heating chamber and an outlet or purified water chamber respectively, a steam inlet for the steam chamber, a water inlet and outlet, means of communication between the chambers and a condense water return emptying into the outlet chamber above the water level therein. 10th. A feed water heater comprising a tank or receptacle having therein, a steam chamber, a heating chamber and an outlet or purified water chamber respectively, a steam inlet for the steam chamber, a water inlet and outlet, means of communication between the chambers, such chambers being arranged in the horizontal plane and having the same water level in the heating chamber and outlet chamber. 11th. A feed water heater comprising a tank or receptacle having therein a steam chamber, a heating chamber and an outlet or purified water chamber respectively, a steam inlet for the steam chamber, a water inlet for the heating chamber, a water outlet for the outlet chamber, and a steam pipe entering from the steam chamber into the heating chamber and extending above the water level therein, the outlet chamber communicating substantially at its bottom with the heating chamber so as to have the same water level and also communicating at its top with the steam space above the level of the water in the heating chamber. 12th. A feed water heater comprising a tank or receptacle having a steam chamber B, an inlet b therein, a heating chamber C arranged at the side of the steam chamber, ports or openings c and c^1 from the steam chamber into the heating chamber, the former opening below and the latter opening above the water level in the heating chamber, a steam pipe C^1 leading from the port c through the body of water in the heating chamber and extending up above the water level, a water inlet D into the heating chamber, an outlet chamber G having the same water level as the heating chamber and an outlet H therefrom. 13th. A feed water heater comprising a tank or receptacle having a steam chamber B, an inlet b therein, a heating chamber C arranged at the side of the steam chamber, ports or openings c and c^1 between the steam and heating chambers, deflecting plates c^2 and c^3 for the openings respectively, a steam pipe C^1 leading from openings c through the body of water in the heating chamber and extending up above the water level therein, a water inlet D for the heating chamber, a chamber G communicating at its bottom with the water in the heating chamber and at its top with the steam space above the water level, a water outlet H from the chamber G and a condense water inlet l entering the tank above the water level of the chamber G and emptying therein, said three chambers being arranged side by side. 14th. A feed water heater comprising a heating chamber and a filtering chamber, a condense water return main or pipe emptying the condense water directly into the filtering chamber above the water level thereof without causing it to mingle with the water in the heating chamber, such pipe having a trap or seal, and a discharge pipe from the filtering chamber.

No. 64,411. Railway Tie Distributor.

(*Distributeur de traverse de chemin de fer.*)



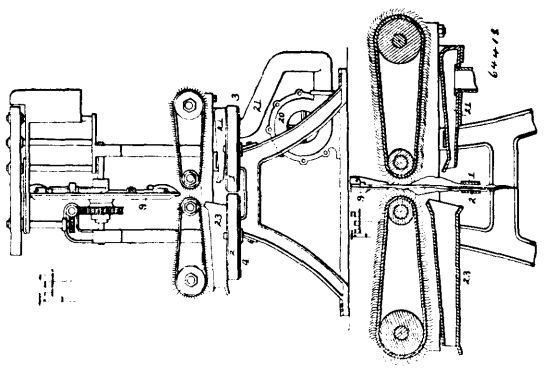
Caleb Cass Gates and James Skinner Hopkins, Forsyth, Montana, U.S.A., 17th October, 1889; 6 years. Filed 8th August, 1899.

Claim.—1st. In a railway tie distributor, the combination with a suitable supporting frame adapted to be mounted upon the tie distributing device proper, of transverse supporting rollers journalled in said frame, longttudinally extending discharge rollers journalled at predetermined intervals upon said frame, and a plurality of tripping devices arranged in proximity to the longitudinal rollers to divert the tie at these points, and cause them to be discharged from the supporting frame, substantially as described. 2nd. In a railway tie distributor, the combination with a supporting frame adapted to be secured to the tie distributer proper, of a plurality of supporting rollers journalled in said frame, a plurality of longitudinally extending rollers journalled at predetermined intervals in said frame, and a plurality of tripping or diverting devices also mounted in said frame and each comprising a pivoted plate, an inclined guide and a support for said plate, the construction and operation being such that after a trip has once been operated it falls out of the line of travel of the ties and permits the same to pass readily over it, substantially as described. 3rd. In a railway tie distributor, the combination with a supporting frame adapted to be secured to the tie distributer proper, of a plurality of transverse rollers journalled on said frame, a plurality of longitudinally extending rollers also journalled on said frame, a plurality of tripping devices arranged in proximity to said rollers and adapted to divert the ties to said longitudinal rollers so as to be discharged from the frame, and means for adjustably supporting the forward end of said frame, substantially as described. 4th. In a tie distributor, the combination with a frame adapted to be secured to the tie distributor proper, of a plurality of transverse supporting rollers mounted in said frame, a plurality of longitudinally extending discharge rollers also mounted in said frame, and a plurality of trips mounted in proximity to the longitudinal rollers for diverting the ties so that they will be discharged from said longitudinal rollers, and means connecting said

longitudinal rollers, and said trips, whereby upon the rotation of the former the latter will be lowered out of the path of the ties passing over the lateral rollers, substantially as described. 5th. In a tie distributor, the combination with a supporting frame comprising two hinged sections adapted to be secured to the tie distributor proper, means for adjustably supporting said hinged frames, transverse supporting rollers mounted in said frames, longitudinally extending discharge rollers also mounted in said frames, and tripping devices mounted in proximity to said longitudinal rollers and adapted to divert the ties on the latter to be discharged laterally from the apparatus, substantially as described. 6th. In a tie distributing apparatus, the combination with a construction car and tie distributor proper, of a supporting frame mounted thereon and projecting forward therefrom, a truss carrying a windlass, ropes connecting said windlass and truss to the forward projecting end of the frame, transverse supporting rollers mounted in said frame, and trips mounted in proximity to said rollers and adapted to divert the ties so that they will be discharged laterally from the apparatus, substantially as described. 7th. In a tie distributing apparatus, the combination with a suitable frame adapted to be secured to the tie distributor proper and comprising two hinged sections, of a truss carrying a windlass and mounted on one section, ropes connecting said windlass and truss with the outer end of the other section, whereby the same may be raised and lowered at will, transverse rollers mounted on the supporting frame, longitudinally extending discharge rollers also mounted on said frame and a plurality of trips mounted in proximity to said longitudinal rollers and adapted to divert the ties so that they will be discharged laterally from the apparatus, substantially as described. 8th. In a tie distributing apparatus, the combination with a supporting frame adapted to be mounted upon the tie distributor proper, of a plurality of tranverse supporting rollers mounted on said frame, longitudinally extending discharge rollers also mounted on said frame, trips mounted in proximity to said longitudinal rollers adapted to divert the ties on the same, so that they will be discharged laterally from the apparatus, a hinged supporting frame mounted upon the forward end of the frame proper and capable of being doubled back under the said lateral frame, and an adjustable supporting yoke mounted on said hinged frame and adapted to engage the road bed, substantially as described. 9th. In a tie distributing apparatus, the combination with a suitable frame adapted to be secured to the tie distributor proper, of transverse supporting rollers mounted on said frame, longtitudinally extending supporting rollers also mounted on said frame, trips mounted in proximity to said longitudinal rollers and adapted to divert the ties on to said longitudinal rollers, so that they will be discharged laterally from the machine, means for connecting the longitudinal rollers and said trips, whereby the latter are lowered out of the path of the ties by the revolution of the former, and resetting devices for replacing the trips in their normal positions, substantially as described. 10th. In a tie distributing apparatus, the combination with a suitable supporting frame adapted to be secured to the tie distributor proper, of transverse supporting rollers mounted on said frame, longitudinally supported supporting rollers also mounted on said frame and each provided with a worm, inclined supporting pieces mounted upon the side bars of said frame, trips mounted in proximity to the longitudinal rollers and each comprising a pivoted plate, an inclined roller journalled therein, an inclined guide and pivoted lever, the latter being adapted to normally support said trip, but to be actuated by the worm upon its respective longitudinal roller to cause it to slide down the inclined guides mounted upon the frame, substantially as described. 11th. In a railway tie distributor, the combination with a longitudinal conveyor, of a plurality of tripping devices mounted at intervals upon said conveyor and adapted to divert the ties and discharge them laterally from said conveyor, substantially as described.

64,412. Tobacco Stemming Machine.

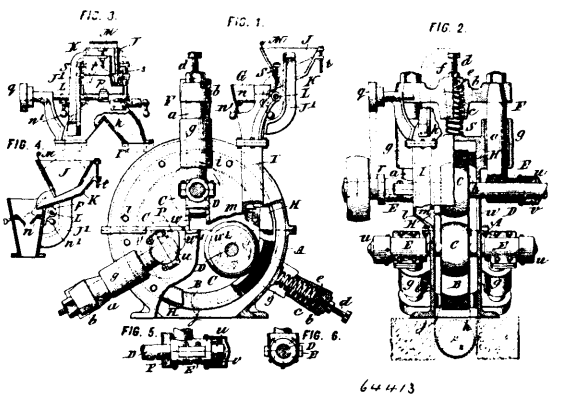
(*Machine à écôter le tabac.*)



The Universal Stripping Machine Company, assignee of Russell A. Coffee, all of Richmond, Virginia, U.S.A., 17th October, 1899; 6 years. (Filed 27th February, 1899.)

Claim. 1st. In a tobacco leaf stemming machine of the character described, the combination with the wiring mechanism and means for feeding and drawing the leaf therethrough, of a separator moving in closing relation to the strippers and normally adapted to engage and grip the outer portion of the leaf and thereby convey it away from the grippers in case the stem is broken, substantially as shown and described. 2nd. In a tobacco stemming machine, the combination with a stripper mechanism and a steam feeder and drawer, of a leaf engaging member movable in close relation to the wipers in a direction different to the line of pull on the stem, and normally adapted to engage the leaf and thereby convey it away from the wipers in case the stem is broken during the drawing or stripping action, as set forth. 3rd. A tobacco stemming machine, having in combination with the stripper and leaf feeding and stem drawing mechanism, means for frictionally engaging the outer portion of the leaf as it is being stripped and adapted to convey it away from the strippers and from the perfectly separated leaf particles, substantially as shown and for the purposes described. 4. In a tobacco stemming machine of the character described, the combination with the stripping and leaf feed and stem drawing mechanism, and the drive gearing therefor, of a separator comprising a pair of endless bands held to travel in line with the lateral movement of the stem through the wipers, the gearing for operating the said belts including a short shaft and having a drive pulley, and gear connections joining such pulley with the carrier drive gearing, all being arranged substantially as shown and described. 5th. In a tobacco stemming machine, in combination with the stripper and leaf carrier and stem drawing mechanism, arranged substantially as shown, of endless separated belts movable longitudinally of the machine, having co-acting faces in line with the line of lateral movement of the stem and leaf, the wipers, and means for adjusting the extent of the frictional contacts of the belts and their points of contact relatively to the entrant end thereof, substantially as shown and for the purposes described. 6th. In a tobacco stemming machine, in combination with the stripper or wiping mechanism, the leaf feeding and stem drawing devices, of an air blast arranged to discharge in front of the wiping faces of the strippers, whereby to blow off the perfectly separated leaf particles, substantially as shown and described. 7th. In combination with the stripping or wiping mechanism, and the leaf feed and stem drawing devices, arranged substantially as shown, of a separator mechanism comprising a pair of belts adapted to grip the lower portion of the leaf by frictional contact but with force insufficient to retard its being drawn therethrough by the stem drawing means, and an air blast having its throat discharge at a point between the wiper and the said separator belts, whereby to blow off the perfectly separated leaf particles as they are removed from the stem by the strippers, substantially as shown and for the purposes described.

No. 64,413. Pulverizing Mill. (*Moulin à broyer.*)

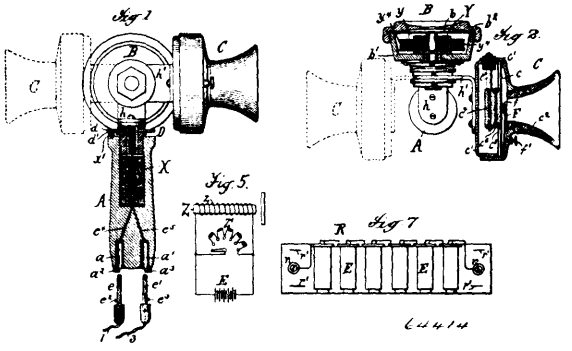


George Holt Fraser, assignee of Horace Leslie Kent, all of New York City, New York, U.S.A., 17th October, 1899; 6 years. (Filed 23th January, 1899.)

Claim.—1st. In a pulverizing machine, the combination of a revolving ring and a spring mounted crushing roll within and supporting said ring, the ring being free to yield, and both ring and roll being cushioned in substantially the manner specified. 2nd. In a pulverizing machine, the combination of a revolving ring and a plurality of spring mounted crushing rolls within and supporting said ring, so that the ring is yieldingly mounted on said rolls to substantially the effect specified. 3rd. In a pulverizing mill, the combination of a revolving ring and a plurality of rolls turning on substantially stationary axes, within and supporting said ring, and a spring arranged to press one or more of said rolls outwardly against the ring to cushion the ring on such roll, substantially as specified. 4th. In a pulverizing mill, the combination of a plurality of crushing rolls and their shafts turning on substantially stationary axes, a revolving ring encircling and supported by said rolls, movable bearings for said shaft, springs for forcing said bearings outwardly to press the rolls against the ring, and means for adjusting the tension

of said springs, substantially as specified. 5th. In a pulverizing mill, the combination of a revolving ring, combined with three crushing rolls within and supporting said ring, whereby the ring is yieldingly supported at three points, substantially as specified. 6th. In a pulverizing mill, the combination of a plurality of crushing rolls, a free revolving ring encircling and supported solely by said rolls, the inner face of said ring being concave and the outer faces of said rolls being convex and conforming thereto, and yielding means for forcing the rolls outwardly against the ring, whereby the ring is centered and held against lateral displacement, substantially as specified. 7th. In a pulverizing mill, the combination of a crushing roll, a free revolving ring encircling said roll, a casing enclosing said roll and ring, and fixed rings within said casing on opposite sides of said ring and normally slightly out of contact therewith, whereby narrow spaces are left between the revolving ring and fixed rings through which the pulverized material may escape, but preventing the escape of the uncrushed material, substantially as specified. 8th. In a mill of the described kind, the construction of the bearings for the roll shafts on opposite sides of the casing, with a frame uniting the two bearings of one shaft to keep them in alignment, and a spring applied to such frame for pressing the bearings outwardly, substantially as specified. 9th. In a mill of the described kind, the frame for uniting the two bearings of one roll shaft constructed as a slide movable in ways formed on the casing, substantially as specified. 10th. In a mill of the described kind, the construction of the casing in two parts divided horizontally, with slots through which the roll shafts project, and slots extended to the sub-division of said casing to facilitate the removal of the shafts, substantially as specified. 11th. In a mill of the described kind, having one of the crushing rolls at the top and beneath the upper side of the ring, the application of driving power to the shaft of such upper roll, so that the weight of the ring, in addition to the pressure against it of the lower rolls, is utilized to impart the traction for driving the ring, substantially as specified. 12th. The combination with a mill of the described kind, of a feeder having substantially the construction specified, so that the fineness of grinding may be controlled by regulating the rate of feed to the mill by said feeder.

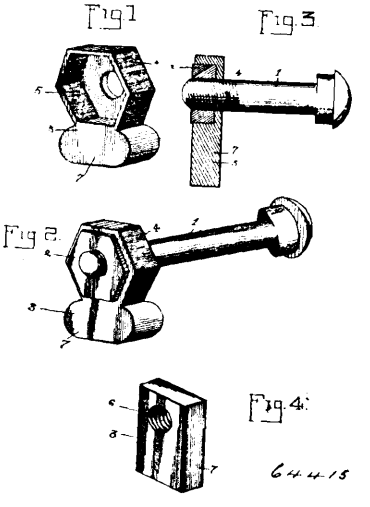
No. 64,414. Audiphone. (*Audiphone.*)



Reese Hutchison and James Howard Wilson, both of Mobile, Alabama, U.S.A., 17th October, 1899; 6 years. (Filed 16th May, 1899.)

Claim.—1st. The combination of a audiphone for the use of deaf persons, with means for varying at will the intensity of sounds reproduced in the audiphone, to suit the sensitiveness of the ear of the person. 2nd. The combination of an audiphone having a microphonic action, for the use of deaf persons, with a regulator to control the intensity of sounds in the instrument. 3rd. In an audiphone, an electrical ear piece provided with a diaphragm and electrical means for operating the diaphragm, in combination with a handle supporting the earpiece, and a device on said handle to regulate at will the intensity and effect of the electric current. 4th. In an audiphone for the use of deaf persons, an electrical earpiece, a receiving instrument, and an electric circuit including the earpiece and the receiving instrument, in combination with a handle supporting the earpiece and the receiving instrument, and a device on said hand to regulate the intensity and effect of the electric current. 5th. An earpiece, a handle supporting the same, and an electric circuit, the said earpiece being provided with a diaphragm and a core to act thereon, coils in said electric circuit wound on said core, reverse coils in the same circuit also wound on the same core, in combination with a movable device on said handle to cut in or out of the circuit the said reverse coils, substantially as described. 6th. The combination of a receiving instrument, and an electric circuit including the receiving instrument, with a core, coils in the said electric circuit wound on said core, and reverse coils in the same circuit also wound on said core, a diaphragm acted upon by said core, and means for cutting in and out of the circuit the said reverse coils, substantially as described. 7th. An electric circuit, an electromagnet comprising a soft iron core, coils wound on said core in one direction and reverse coils wound outside the first said coils on the same core in the opposite direction, the said coils being in series in the said electric circuit, and means for cutting in and out of the circuit any of the said coils. 8th. An electric circuit, an electromagnet comprising a soft-iron core, coils wound on said core in one direction and reverse coils wound on the same core in the opposite direction, the said coils being in series in the said electric circuit, and means for cutting in and out of the circuit the said reverse coils. 9th. An electric circuit, an earpiece comprising a casing, a diaphram, and a core to act on the diaphram, coils in the said electric circuit wound on the said core, reverse coils in the same circuit also wound on the said core, and means for cutting in and out the said reverse coils, substantially as described. 10th. In an audiphone, an electrical earpiece provided with a diaphragm and electrical means for operating the same, a device for regulating at will the intensity and effect of the electric current, and thereby the sensibility of the earpiece, and means for normally holding the regulator at the point of least sensibility. 11th. An audiphone comprising an earpiece instrument and a receiving instrument, in combination with a bent arm to which one of the said instruments is rigidly secured, and which is pivoted at the back of the other said instruments, substantially as and for the purpose set forth. 12th. In an audiphone, the combination of an electrical circuit, an electrical receiving instrument, and a plurality of earpieces in the said circuit adapted to reproduce sounds received in the said receiving instrument, each earpiece being provided with a regulator to control the intensity of sounds reproduced, at will, and adapted to remain at any desired point of adjustment, and a main current regulator, substantially as and for the purpose set forth. 13th. An electrical circuit, an electro magnet comprising a soft iron core, coils of wire wound on said core in one direction, and reverse coils, of wire of higher electrical resistance than the first mentioned coils, wound on the same core in the opposite direction, all the said coils being in series in the said electrical circuit, and means for cutting in and out of the circuit the said reverse coils, substantially as and for the purpose set forth. 14th. A multipupil instruction outfit for deaf and semi-deaf persons, comprising a series of electrical ear pieces each provided with a regulator to separately control the intensity of sounds reproduced therein to suit the varying sensitiveness of the ears of the deaf person, and a regulator whereby he may vary the strength of both earpieces at once, a receiving instrument and electrical connections whereby any one or more of the said series of earpieces may be cut in or out of circuit with the said receiving instrument, substantially as described. 16th. The combination of a series of electrical earpieces, a corresponding series of receiving instruments, with a separate receiving instrument, and electrical connections whereby any one or more of the series of earpieces may be cut in or out of circuit with the said separate receiving instrument, and any one or more of the series of receiving instruments may be isolated with its corresponding earpiece series but in closed electrical circuit therewith.

No. 64,415. Nut Lock. (*Arrête-ecrou.*)

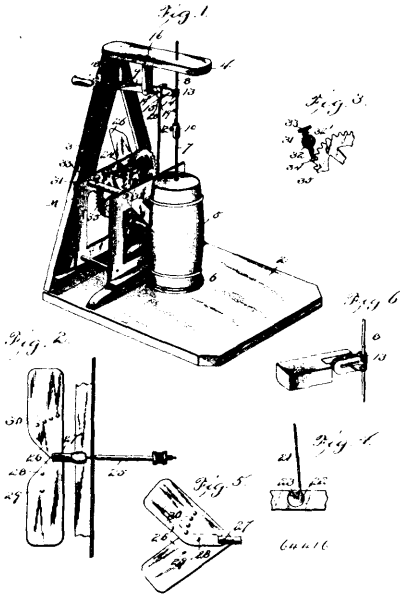


Eugene D, Boasso and Emile Guerard, both of Charenton, Louisana, U.S.A., 17th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—The combination with a bolt and nut, of a nut lock comprising a body provided in its outer side with a recess conforming in shape and dimensions to and adapted to receive a nut so that the nut will be completely surrounded and inclosed, the inner side of the lock being closed with the exception of a round bolt-opening

communicating with said recess, and a weight connected to the body and having a plane or flat lower surface with half round ends, the closed side of the lock being designed to be clamped between the nut and the object through which the bolt passes, substantially as described.

No. 64,416. Churn Motor. (*Moteur de baratte.*)



John Walter Duty and John Wilbur Grim, both of Bearsville, West Virginia, U.S.A., 17th October, 1899; 6 years. (Filed 17th August, 1899.)

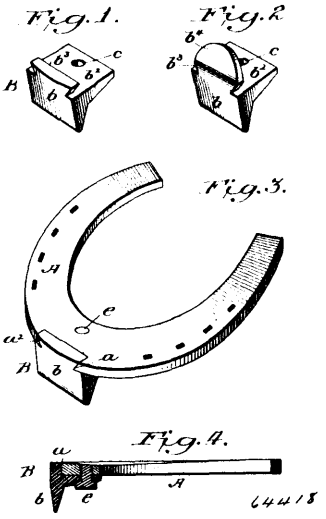
Claim.—1st. The combination with a motor having a power shaft, a supporting frame, a horizontal rocker fulcrumed between its ends on the supporting frame and provided at its rear end with a weight, a pitman connected with the power shaft and with the rocker at a point in advance of the fulcrum thereof, and a rod connected with the front end of the pitman, substantially as described. 2nd. The combination of a supporting frame, a motor having a power shaft, a horizontal rocker fucrumed between its ends on the supporting frame, a pitman connected with the power shaft, an adjustable clamp mounted on the rocker in advance of the fulcrum and connected with the upper end of the pitman, and a rod connected with the front end of the rocker, substantially as described. 3rd. The combination of a motor, a pitman connected with the motor, a rocker operated by the pitman designed to be connected with the dasher rod, and a governor consisting of two pivoted plates detachably interlocked and movable towards and from each other, substantially as described. 4th. The combination of a motor, a pitman connected with the same, a rocker operated by the pitman and designed to be connected with a dasher rod, and a governor consisting of two pivoted plates movable toward and from each other, one of the plates being provided with a recess and the other having a projection adapted to fit in the recess, whereby the plates are interlocked, substantially as described. 5th. The combination with a motor, a pitman connected with a motor, a rocker operated by the pitman and designed to be connected with a churn, and a governor consisting of two pivotal plates movable toward and from each other, one of the plates having a projection, and the other plate being provided with a series of recesses arranged to receive the said projection, whereby the plates are secured at the desired adjustment, substantially as described. 6th. The combination of a motor, a rocker connected with and operated by the motor and adapted to be connected with a dasher rod, a longitudinally movable pin mounted adjacent to one of the gear wheels of the motor and provided with a shoulder arranged to interlock with the teeth of the gear wheel, and a spring connected with the pin and adapted to hold the same normally out of engagement with the gear wheel, substantially as described.

No. 64,417. Method of Making Fluid for Impregnating Fibres, Fabrics, or Bodies for Incandescent Lighting. (*Méthode de fabriquer des fluides pour imprégner des tissus pour lumières incandescentes.*)

The Daylight Incandescent Mantle Company, 34 Palmerston Building, London, England, assignee of Gerhard Bodo Pichmüller, Schoenberg, Berlin, Germany, 17th October, 1899; 6 years. (Filed 29th March, 1898.)

Claim.—1st. The herein described method of manufacturing a fluid for impregnating fibres, fabrics, or bodies to be used for incandescent lighting, which method consists in combining oxides of strontium, zirconium, barium and aluminium and dissolving the same, substantially as hereinbefore described. 2nd. The herein-described method of manufacturing a fluid for the purpose above specified, which method consists in combining oxides of strontium, zirconium, barium and aluminium, dissolving the same, and adding thereto small quantities of soluable metallic compounds which, when ignited, produce light-giving metailic oxides, or metals, substantially as hereinbefore described. 3rd. A fluid for the purpose above specified, composed of a solution of oxides of strontium, zirconium, barium and aluminium, substantially as described. 4th. A fluid for the purpose above specified, composed of a solution of oxides of strontium, zirconium, barium and aluminium and a small quantity of dissolved metallic compounds which, when ignited, will produce light-giving metallic oxides, substantially as described. 5th. A fluid for the purpose above specified, composed of a solution of oxides of strontium, zirconium, barium and aluminium, and small quantities of magnesium nitrate, oxide of antimony, uranium nitrate, an ammonium compound adapted to impart a desired colour to the light, and chromic acid, substantially as described. 6th. A fluid for the purpose above specified, composed of a solution of oxides of strontium, zirconium, barium and aluminium and small quantities of magnesium nitrate, oxide of antimony, uranium nitrate, wolframate of ammonia, vanadate of ammonia and chromic acid, substantially as described. 7th. A fluid for the purpose above specified, composed of a solution of oxide of strontium, zirconium, barium and aluminium and small quantities of magnesium nitrate, oxide of antimony dissolved in water containing tartaric acid, uranium nitrate, wolframate of ammonia, vanadate of ammonia, chromic acid, and nitrate of silver, substantially as described.

No. 64,418. Horse Shoe and Calk.
(*Fer à cheval et crampons.*)



Horatio N. Killson and Edwin F. Wagner, both of Elroy, Wisconsin, U.S.A., 17th October, 1899; 6 years. (Filed 19th August, 1899.)

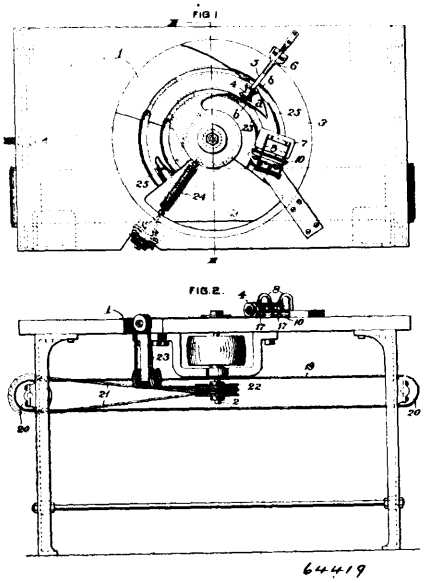
Claim.—1st. The combination of a horseshoe having throughout the front thereof a groove having bevelled sides parallel with the long axis of the shoe, and an angular toe calk having on its top shelf a dovetailed tenon part way of said shelf, and substantially of the same thickness and the same width as the face of the wearing portion of the calk, the height of said tenon being the same as the thickness of the shoe, and inserted therein from the front with a screw uniting said calk and shoe, substantially as described. 2nd. An angular toe calk having a vertical wearing portion and a perforated horizontal shelf, and upon said shelf over the wearing portion a dovetailed tenon having a thickness and a width substantially the same as that of said wearing portion and extended part way of said shelf, the top of said tenon having its sides parallel with the sides of the shelf, substantially as described. 3rd. An angular toe calk having a vertical wearing portion and a perforated horizontal shelf, and upon said shelf over the wearing portion a dovetailed tenon having a thickness and a width substantially the same as that of said wearing portion and extended only part way of said shelf, and on top of said tenon an arched toe cap, substantially as described.

No. 64,419. Machine for Subdividing Laminated Material. (*Machine à subdiviser des matières laminées.*)

Richard Willis Heard and Richard Andrew Lee Snyder, both of Edgewood Park, Pennsylvania, U.S.A., 17th October, 1899; 6 years. (Filed 16th February, 1899.)

Claim.—1st. In a machine for separating the laminæ of mica, etc., the combination of a blade having a point and edges diverging from said point and means for holding the block to be separated

in position to be operated on by the blade, substantially as set forth. 2nd. In a machine for separating the laminæ of mica, etc.,

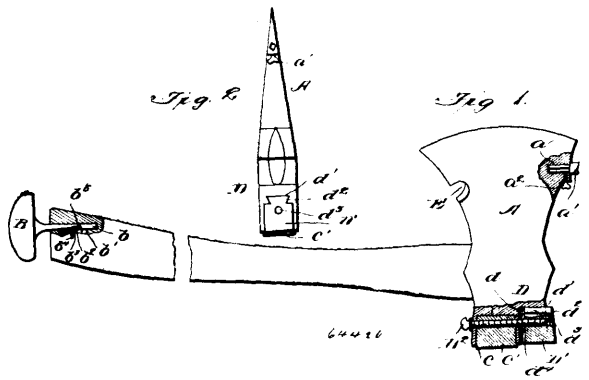


the combination of a revolving blade having an entering point and diverging operative edges, and means for holding the block to be separated in position to be operated by the blade, substantially as set forth. 3rd. In a machine for separating the laminæ of mica, etc., the combination of a movable blade, means for holding the block to be separated in position to be operated on by the blade, and means for moving a separated lamina, out of line with the block, substantially as set forth. 4th. In a machine for separating the laminæ of mica, etc., the combination of a bed or table, a blade movable over the surface of the bed or table, means for holding a block of mica on said table, and means for moving a separated lamina from under the block, substantially as set forth. 5th. In a machine for separating the laminæ of mica, etc., the combination of a bed or table provided with an opening, a blade movable along the surface of the table, means for holding a block of mica on said table, and means for moving a lamina when separated by the blade to such position that it will drop through the opening in the table, substantially as set forth. 6th. In a machine for separating the laminæ of mica, etc., the combination of a bed or table, a yielding presser for holding a block of mica on the table, fingers for preventing the movement of the block along the table, and a blade movable along the surface of the bed or table, substantially as set forth. 7th. In a machine for separating the laminæ of mica, etc., the combination of a bed or table, means for yieldingly holding a block of mica on the table, a blade movable along the surface of the table, and fingers vertically movable by the blade for preventing the movement of the block along the table, substantially as set forth. 8th. The method of subdividing laminated mineral substances such as mica into sheets by the action of a mechanically driven blade operating along the planes of lamination, substantially as set forth. 9th. In a machine for separating the laminæ of mica, etc., the combination of a movable blade provided on one side with grooves, means for holding a block of mica with its laminæ parallel with the plane of movement of the blade, and fingers for preventing the movement of the block with the blade, the ends of the fingers projecting into the grooves in the table, substantially as set forth. 10th. In a machine for separating the laminæ of mica, etc., the combination of a blade, means for holding a block of mica with its laminæ parallel with the sides of the blade, and means for forcing a separated lamina away from the blade, substantially as set forth. 11th. In a machine for separating the laminæ of mica, etc., the combination of a movable blade, means for holding a block of mica with its laminæ parallel with the plane of movement of the blade, means for causing a separated lamina to move with the blade and springs for forcing such lamina away from the blade, substantially as set forth. 12th. The method of subdividing pliable laminated mineral substances such as mica by the preliminary edgewise opening up or developing of the planes of lamination, followed by the action of a mechanically driven blade operating in and along the developed planes of lamination, substantially as set forth.

No. 64,420. Combination Tool. (*Outil à combinaison.*)

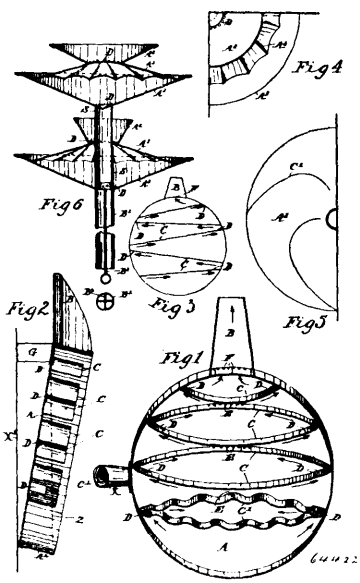
Maxime Gualbert Lambert, Katevale, Quebec, Canada, 17th October, 1899; 6 years. (Filed 28th April, 1899.)

Claim.—1st. A combination tool, comprising an axe, having a bit socket formed in the upper edge of the head, a bit removably secured therein, a nut wrench formed on the hammer end of said head and a hand grasp secured upon the extremity of the axe handle, substantially as described. 2nd. A combination tool, comprising an



axe, having a bit socket formed in the upper edge of the head, a bi secured therein, a hand grasp at the lower end of the handles, a sliding block adjustably mounted in the hammer portion of said axe head and an adjusting rod connected with said sliding block, substantially as described. 3rd. A combination tool, comprising an axe, having a bit socket formed in the upper edge of the head, a bit removably secured therein, a hand grasp rotatably mounted upon the extremity of the axe handle, a sliding block adjustably mounted in the hammer portion of the axe head, forming an adjustable nut wrench, an adjusting rod connected with said sliding block and a filling block secured to said axe head, substantially as described.

No. 64,421. Fireproofing Composition.
(*Composition à l'épreuve.*)



Gustave Xavier Dime, New York City, New York, U.S.A., 17th October, 1899; 6 years. (Filed 19th June, 1899.)

Claim.—1st. The herein described composition of matter, consisting of chloride of ammonium, carbonate of ammonium and microcosmic salt, substantially as described and for the purpose specified. 2nd. The herein described composition of matter, consisting of chloride of ammonium, 92·88 parts carbonate of ammonium 0·46 and microcosmic salt 6·66 parts, substantially as described and for the purpose specified.

No. 64,422. Appliances for Separating and Dissipating Froth from Fluids. (*Appareil pour séparer et disperser l'écume des fluides.*)

William David Bowkett, Winton, Queensland, Australia, 17th October, 1899; 6 years. (Filed 27th May, 1899.)

Claim.—1st. In an appliance for separating and dissipating froth from liquids, the combination with the pan A, having an inclined base and a wall A^1, of an outlet B, a foot G, on the same side as the outlet, and straight, curved, or corrugated partitions extending across the said pan, and having perforations therein, the whole so arranged as to allow liquid to drain down to the said outlet in a

ziz-zag or sinuous path leaving the foam behind, substantially as set forth. 2nd. In an appliance of the class indicated, the combination with a series of surfaces A, of a series of surfaces A^3, the said surfaces being placed in communication with one another by holes D in A^2, and connected or placed one vertically above another, and having an outlet B^1, the whole so arranged as to allow liquid to drain down to the said outlet in a zig-zag or sinuous path leaving the foam behind, substantially as set forth. 3rd. The combination with the surfaces A^2, and A^3, having holes D, of an outlet B^1, having a partition B^2 within the said outlet, all substantially as and for the purposes set forth.

No. 64,423. Processes of Treating Wood and other Vegetable Fibrous Substances. (*Procédé pour le traitement du bois et autres substances végétales fibreuses.*)

Fritz Hasselmann, Munchen, Nymphenburg, Bavaria, Germany, 17th October, 1899; 6 years. (Filed 7th April, 1899.)

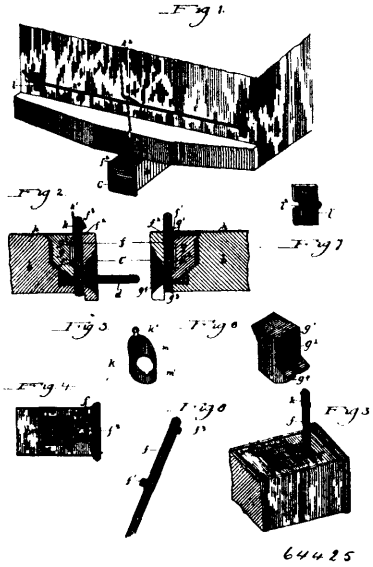
Claim.—The process herein described of impregnating wood and other vegetable fibrous substances, which consists in boiling them under pressure with a solution of double vitriol, aluminum sulfate and kainit for several hours, substantially as set forth. 2nd. The process herein described of impregnating wood and other vegetable fibrous substances, which consists in subjecting them to the action of a solution of double vitriol, aluminum sulfate and kainit for several hours at a temperature of from 135 to 140° C and at a pressure of from two to four atmospheres, substantially as set forth.

No. 64,424. Compound for the Destruction of Schizoneura Lanigera. (*Composé pour la destruction de schizoneura lanifèrique.*)

Adolf Marxsen, Osdorf, Blankenese, German Empire, 17th October, 1899; 6 years. (Filed 4th March, 1899.)

Claim.—An improved preparation for the destruction of Schizoneura lanigera consisting of 18 parts of quick lime, 4 parts of flowers of sulphur, 6 parts of fresh milk, 2 parts of saphocarbol, 2 parts of methylated spirit, 4 parts of lamp black and 6 parts of water, the whole being mixed together and stirred so as to form a pulpy mass, which when required for use may be advantageously diluted in water.

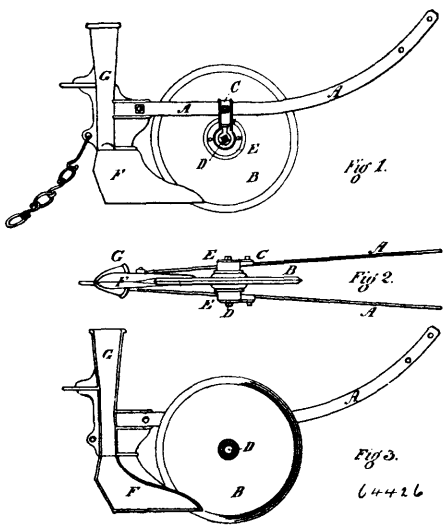
No. 64,425. Car Coupler. (*Attelage de chars.*)



Jefferson Jeffery, New Castle, Pennsylvania, U.S.A., 17th October, 1899; 6 years. (Filed 8th July, 1899.)

Claim.—1st. In a car coupler the combination of the draw head with a gravity block arranged therein, of a coupling link and pin, said pin carrying a sleeve having an inclined end, lugs formed on said pin, a chain connected to said sleeve, a cross rod operating in keepers secured to the end of the car and having an arm to which the aforesaid chain is attached, one of said keepers being provided with a cut away portion for locking the rod when the pin is in the elevated position, substantially as shown and described. 2nd. In a car coupler, the combination with a draw head and coupling pin and link, of a sleeve attached to said pin having an inclined end adapted to come in engagement with the lug provided on the coupling pin, a chain connected to said sleeve, a cross rod operating in keepers secured to the end of the car, said cross rod carrying an arm to which the aforesaid chain is attached, substantially as shown and described.

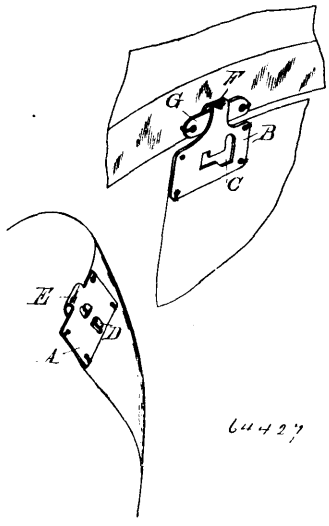
No. 64,426. Seed Drill. (*Semoir en ligne.*)



James Steep, Clinton, Ontario, Canada, 17th October, 1899; 6 years. (Filed 3rd July, 1899.)

Claim.—The combination of a flat-bottomed, knife-pointed shoe, hoe or cultivator F of any suitable material, and a knife-edged rotary coulter or disc, also of any suitable material B, both attached to swinging, adjustable drag bars A A, substantially as and for the purpose hereinbefore set forth.

No. 64,427. Skirt Clasp. (*Agrafe de jupe.*)



Clement A. Dunbar, Detroit, Michigan, U.S.A., 17th October, 1899; 6 years. (Filed 28th May, 1898.)

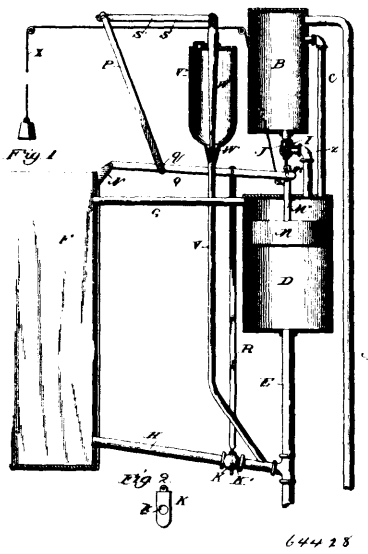
Claim—1st. A skirt clasp, consisting of two interlocking members having oppositely turned vertical hooks adapted for the purpose described. 2nd. A skirt holder, having on opposite sides oppositely formed vertical hooks, one adapted for holding down the belt and the other adapted to engage an eye or bar on the waist to support the skirt.

No. 64,428. Fire Extinguisher. (*Extincteur d'incendie.*)

Charles E. Lombard, East Wilton, Maine, U.S.A., 17th October, 1899; 6 years. (Filed 3rd March, 1899.)

Claim.—1st. A fire extinguishing apparatus, comprising a supply reservoir, a tank, a float carried therein, a chemical-containing receptacle, exit pipe leading from said float-carrying tank, communicating pipes between the supply reservoir and the latter and

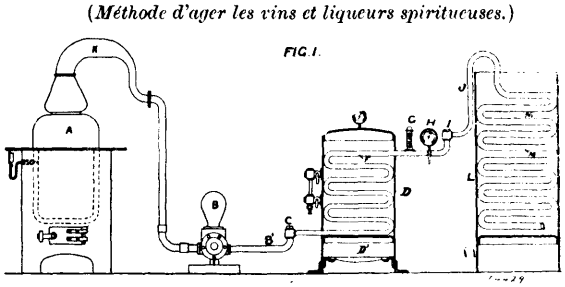
the exit pipe leading from the same, thé pipe leading from the chemical-containing receptacle and communicating with the pipe



connecting the reservoir with the exit pipe from the float-carrying reservoir, combined with the valves controlling the egress pipes leading from the chemical receptacle, and the supply reservoir and levers for operating the same, as shown and described. 2nd. In a fire extinguishing apparatus, the combination with the supply reservoir, the float-carrying tank, the float working therein, the exit tube leading away from the lower portion of the float-carrying tank, a tube connecting and communicating between the said exit tube and the supply tank, a slice valve in said connecting pipe, a lever Q pivoted at one end to a bracket on the reservoir, its other end pivoted to the stem of the float, and a rod connecting the lever Q and the valve combined, as shown and described. 3rd. In a fire extinguishing apparatus, the combination with the tank D, the float therein, the tank B, pipes communicating between said tanks, a valve located in one of said pipes, the lever Q, the pin Q^7 carried thereby and connected to said valve, the pin working in the slotted stem of the float, as shown and described. 4th. In a fire extinguishing apparatus, the tank D, the float therein, the supply reservoir, the pipe G communicating between said tanks, the exit pipe E leading away from tank D, the pipe H communicating between the supply reservoir and pipe E, the lever Q pivoted to a bracket, and having connection with the stem of the float, the valve in pipe H, the rod R pivoted at one end to said valve, the other end pivoted to lever Q, the bottle, the valve therein, the lever S^1 connected to the latter, and the link P connecting the levers Q and S^1 combined, as shown and described.

64,429. Method of Maturing Wines and Spirits.

(*Méthode d'ager les vins et liqueurs spiritueuses.*)

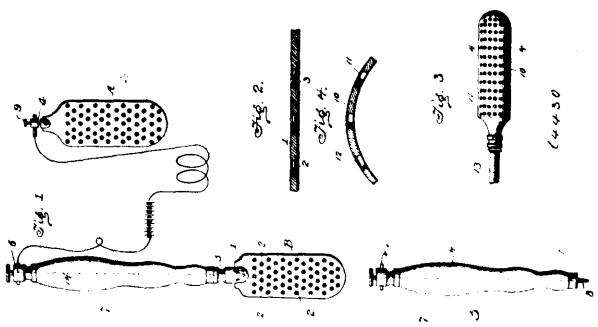


James Edmund Carroll, 393 Oxford street, London, England, 17th October, 1899; 6 years. (Filed 2nd February, 1899.)

Claim.—1st. The method of treating alcoholic liquids to produce the effect of ageing, consisting in heating the liquid to beyond its boiling point under pressure, substantially as described. 2nd. The method of treating alcoholic liquids to produce the effect of ageing, consisting in elevating the temperature of the vapour of the liquid to a point beyond the boiling point of the liquid, and maintaining such vapour under pressure until the desired effect is produced and finally condensing the vapour, substantially as described. 3rd. The method of treating alcoholic liquors to produce the effect of ageing, which consists in distilling the material from which the liquid is to be produced, then subjecting the distillate to the action of heat and pressure beyond that required for distillation, and finally condensing the resulting vapour, substantially as described. 4th. The method of treating alcoholic liquids to produce the effect of ageing, consisting in heating the material from which the liquid is to be produced, thereby vaporizing the alcoholic constituents, and continuously forcing the product of such vaporization through a reheating apparatus where it is subjected to heat and pressure greater than that required for distillation and finally condensing the vapour, substantially as described. 5th. The method of treating alcoholic liquids, consisting in vaporizing such liquid, then subjecting the vapour to pressure greater than that involved in distillation, and finally condensing the vapour, substantially as described. 6th. In a plant for treating alcoholic liquids, the combination with means for vaporizing the liquid, of means for submitting the vapour to pressure above that involved in distillation, substantially as described. 7th. In a plant for treating alcoholic liquids, the combination of a still, a pump, a reheating apparatus, and a condensing worm, constructed and arranged subsantially as described. 8th. In a plant for treating alcoholic liquids, the combination of a still, a vapour pump with which the still communicates, a reheating coil or receptacle communicating with the pump, and provided with valves and a condensing worm connected to said reheating coil or receptacle, substantially as described.

64,430. Electrode for Medical Purposes.

(*Electrode pour objets médicales.*)

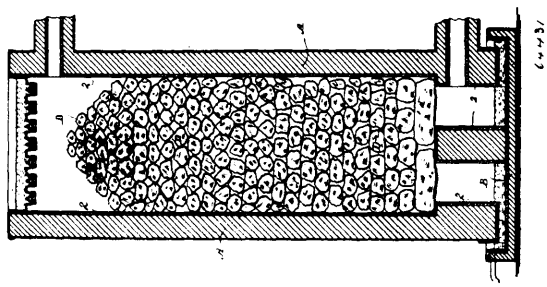


Marion Newton Clarke, Wilkesbarre, Pennsylvania, U.S.A., 17th October, 1899; 6 years. (Filed 5th July, 1899.)

Claim.—1st. In an electrical apparatus for medical purposes, an electrode comprising a suitably shaped metal plate, said plate having its surface filled with perforations which are countersunk on the operative face of the electrode, substantially as described. 2nd. In an electrical apparatus for medical purposes, an electrode or brush consisting of a suitably shaped plate filled with perforations which are countersunk on its operative face, a handle of non-conducting material, and a conductor connecting the plate with a suitable source of electricity, substantially as described.

No. 64,431. Acid Making Apparatus.

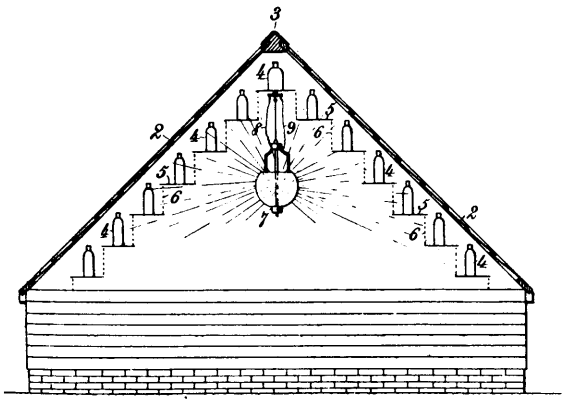
(*Appareil à faire des acides.*)



Jean Vilhelm Skoglund, Bayonne, New Jersey, and Albert Winter, New York City, U.S.A, 18th October, 1899; 6 years. (Filed 1st March, 1899.)

Claim.—1st. The tower for making acid having a coating of alkaline silicate and comminuted acid-resisting material upon the brick or similar lining to protect the same from injury by the hot acid and gases, substantially as described. 2nd. The method herein specified of rendering the interior of an apparatus proof against the action of acid and hot gases, consisting in coating the surface with a plaster composed of an alkaline silicate mixed with an acid-resisting material in a comminuted condition, drying the same and flushing the surface with an acid, substantially as and for the purpose set forth.

No. 64,432. Process of Improving Acoholic Liquor.
(*Procédé pour améliorer les liqueurs alcooliques.*)



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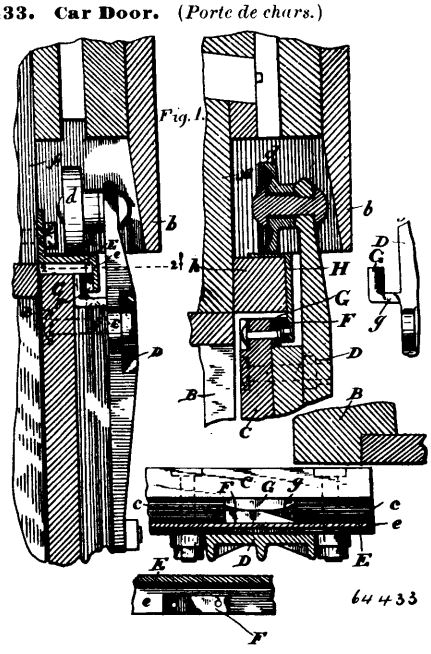
Thomas Andrew Bryan and Charles Humphrey Boone, assignees of Willard Gibson Day, all of Baltimore, Maryland, U.S.A., 18th October, 1899; 6 years. (Filed 26th June, 1899.)

Claim.—1st. The process or method herein described of improving alcoholic liquor, which consists in adding methyl alcohol to the liquor, and subsequently subjecting the latter to the influence of light, substantially as set forth. 2nd. The process or method herein described of improving alcoholic liquor, which consists in adding methyl alcohol to the liquor, and subsequently sujecting the latter to the influence of waves of radiant energy developed by an electric lamp, substantially as set forth. 3rd. The method or process herein described of improving alcholic liquor, which consists in adding purified methyl alcohol to the liquor, placing the liquor in a vessel through which rays of light can freely pass, and subjecting the vessel and the liquor therein contained to the influence of the actinic rays of light, substantially as set forth. 4th. The process or method herein described of improving alcoholic liquor, which consists in adding methyl alcohol to the liquor and subjecting the same to the actinic rays of light, substantially as set forth.

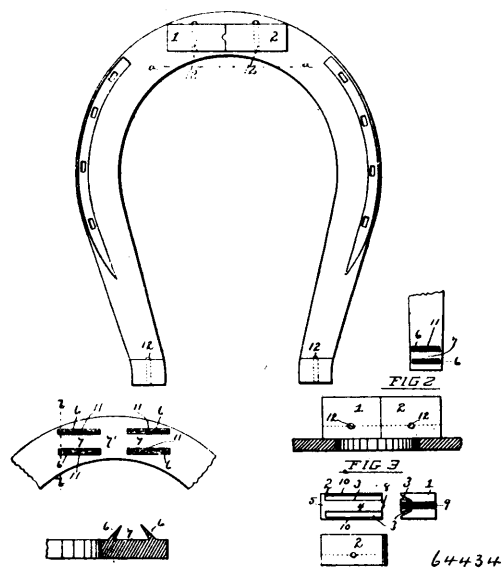
No. 64,433. Car Door. (*Porte de chars.*)



The National Railway Specialty Co., assignee of James McHenry Hopkins, all of Chicago, Illinois, U.S.A., 18th October, 1899; 6 years. (Filed 23rd August, 1899.)

Claim.—1st. The combination with a car body having a doorway, a hanger track secured to the car body above the doorway, and having a flat tread portion and a pendent flange, a door having its upper edge projecting within the track flange, and hangers secured to the door and running upon the track, of co-operating wedge or cam pieces secured respectively to the inner face of the track flange and the outer face of the door, and so disposed that they engage as the door arrives at the closed position and force the door against the car body, and are out of engagement during the remainder of the travel of the door. 2nd. The combination with a sliding door, of a hanger track above the door and having a pendent flange overhanging the door, a hanger secured to the door and engaging the track, and having an integral arm projecting within the track flange, a wedge block carried by such arm, and a wedge boss carried by the track flange and co-operating with the wedge block to force the door away from the flange.

No. 64,434. Horse Shoe. (*Fer à cheval.*)



Elmer Powell and Louisa Makley, both of Dayton, Ohio, U.S.A., 18th October, 1899; 6 years. (Filed 24th August, 1899.)

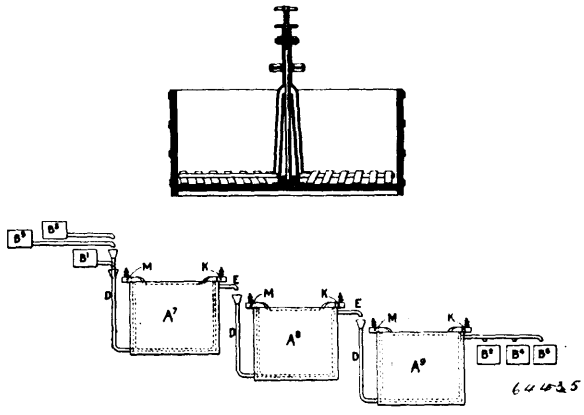
Claim.—1st. In a horse shoe, the combination with a shoe having two dovetail slots formed in its toe with an intervening space between the inner ends of said slots, of two toe calks engaging with said slots and filling the space between the slots. 2nd. In a horse shoe, the combination with a horse shoe having two dovetail slots at the toe with an intervening space between said calks, two calks adapted to fit in said slots with their inner ends projected into said space, and pins penetrating said calks and the walls of said dovetail slots to prevent endwise movement of the calks. 3rd. In a horse shoe, the combination with a shoe having two dovetail slots at the toe separated by a flat surface, of two calks engaging with said slots and filling the space between them, said calks having their inner ends provided with a projection and a groove respectively, and means for preventing said calks from moving out of said slots. 4th. A horse shoe having formed at its toe two dovetail slots with an intervening space between their inner ends, a similar dovetail slot on each of the heels of said shoe, the walls of said slots being integral parts of the shoe, calks having grooves cut therein to fit said slots, the calks at the toe being longer at such point so that they may extend across the space between the toe slots, and means for holding said calks in position.

No. 64,435. Treatment of Metalliferous Ores and Products. (*Traitement de minerais et produits métallifères.*)

Edgar Arthur Ashcroft, Melbourne, Australia, 18th October, 1899; 8 years. (Filed 4th February, 1897.)

Claim.—1st. The improved process whereby a solution containing copper and iron is obtained electrolytically by employing an anode consisting of the products resulting from the preliminary furnace treatment of products or ores containing copper and iron as the anode of a zinc depositing vat, substantially as described. 2nd. The improved process whereby from a solution obtained electrolytically as described, the copper is deposited and the dissolved iron simultaneously raised to the ferric state by the use, in an electrolytic vat, of copper or other cathodes in conjunction with carbon or other insoluble anodes, substantially as described. 3rd. The improved process consisting in including in one and the same electrical circuit, vats in which the electro deposition of zinc is proceeding, and vats provided with anodes of metallic iron and cathodes of metallic copper or other metal in which copper is being electrolytically deposited from a solution obtained by electrolysis with an anode consisting of the products resulting from the preliminary furnace treatment of products or ores containing copper and iron as

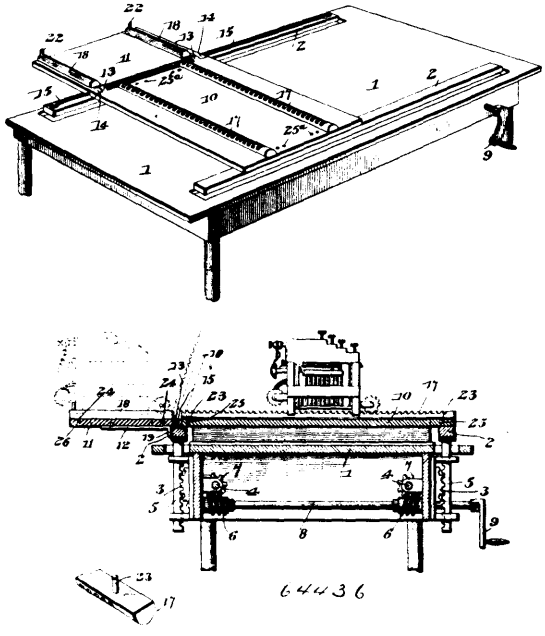
the anode of a zinc depositing vat, substantially as described. 4th. The method of preparing from copper mattes containing iron, a



solution of a ferric salt for use as a leaching solution while the other metal of the matte, viz., copper, is being deposited, substantially as described.

No. 64,436. Book Typewriting Machine.

(*Clarigraphe pour livres.*)



Hiram Joseph Halle, Cleveland, Ohio, U.S.A., 18th October, 1899; 6 years. (Filed 28th October, 1898.)

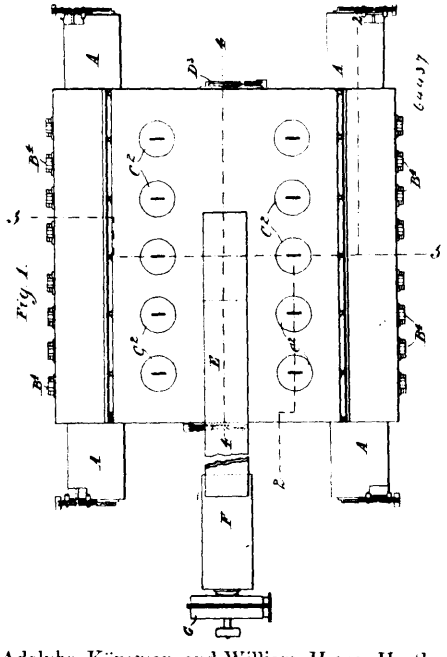
Claim.—A support for typewriting machines, having members arranged respectively outside of and within the printing area, and adapted to be traversed by the machine, the member within the printing area being displaceable from its normal position to permit adjustment of the impression receiving object, substantially as specified. 2nd. A support for typewriting machines, having members arranged respectively outside of and within the printing area or field, and adapted, respectively, to support the machine when the latter is at rest and is in operation, and one of said members being moveable independently of the other to permit the adjustment of the impression receiving object, substantially as specified. 3rd. A support for typewriting machines having stationery and moveable members located respectively outside of and within the printing area of the machine, and adapted, respectively, to support the machine when the latter is at rest and is in operation, the movable support member being adapted to be displaced to permit adjustment of the impression receiving object, substantially as specified. 4th. A support for typewriting machines having members normally located respectively outside of and within the printing area of the machine, and adapted, respectively, to support the machine when the latter is at rest and is in operation, that member which is normally located within the printing area of the machine being movable out of and into said area to permit adjustment of the impression receiving object, substantially as specified. 5th. A support for typewriting machines having members of which one is permanenty located outside of the printing area of the machine, and the other is normally located within the printing area of the machine to support the machine when in operation, said second named member being movable to a point outside of the printing area, substantially as specified. 6th. A support for typewriting machines having stationary and movable members arranged respectively outside of and within the printing area of the machine, said movable member being hinged for vertical displacement, to give access to the impression-receiving surface, the member which is outside of the printing area being adapted to receive the machine to release the movable member, substantially as specified. 7th. A support for typewriting machines having machine-traversed rails, each of which spans the printing area and extends to a point outside of or beyond said printing area, a portion of each rail being displaceable to give access to the printing area, to facilitate the adjustment of the impression receiving object, substantially as specified. 8th. A support for typewriting machines having machine traversed rails, for supporting the machine while traversing the printing area, and also while located outside of or beyond the printing area, one of said rails having a displaceable element to give access to the printing area to facilitate the adjustment of the impression receiving object, substantially as specified. 9th. A support for typewriting machines having machine-traversed rails, each comprising elements located respectively outside of and spanning the printing area, the element which spans the printing area being displaceable to give access to the printing area, for the adjustment of an impression receiving object substantially as specified. 10th. A support for typewriting machines having machine-traversed rails of sectional construction, each comprising a fixed element and a movable element, of which the former is arranged ouside of and the latter spans, the printing area, the moveable elements of the rails being displaceable to permit adjustment of an impression receiving object, substantially as specified. 11th. A support for typewriting machines having sectional rails comprising aligned stationary and movable members, of which the former are adapted to support a typewriting machine when the latter is at rest, to allow the displacement of the movable rail members to expose the impression receiving surface, substantially as specified. 12th. A support for typewriting machines having rails for supporting a machine for traversing the printing area, and also when located outside of or beyond the printing area, one of said rails being of sectional construction, and comprising hingedly connected, stationary and movable elements, of which the latter is adapted to be displaced, to give access to the printing area when the former is occupied by the machine, substantially as specified. 13th. A support for typewriting machines having sectional rails, each comprising hingedly connected stationary and movable elements, of which the former are adapted to receive the machine when the latter is at rest, to allow the swinging movement of the movable rail elements, substantially as specified. 14th. A support for typewriting machines having members located respectively outside of and within the printing area, one of said members having tracks for guiding a typewriting machine in traversing the same, that member which is located within the printing area constituting a platen, substantially as specified. 15th. A support for typewriting machines having members located respectively outside of and within the printing area, that member which is within the printing area being movable and constituting a platen, and having guides for a typewriting machine in traversing the same, substantially as specified. 16th. A support for typewriting machines having members located respectively outside of and within the printing area, and provided with tracks arranged in parallelism, that member which is within the printing area constituting a platen, substantially as specified. 17th. A support for typewriting machines having stationary and movable members located respectively outside of and within the printing area, and each having rails arranged in parallelism, and that member which is within the printing area constituting a platen for supporting an impression receiving object, substantially as specified. 18th. A support for typewriting machines having stationary and movable members located respectively outside of and within the printing area, that member which is within the printing area constituting a platen, in combination with superposed rails, each having stationary and movable elements respectively supported by said stationary and movable members, substantially as specified. 19th. A support for typewriting machines having a platen, and a rest located beyond the area of the platen, for temporarily supporting the machine when at rest, said platen being movable independently of the rest to facilitate the adjustment of the impression receiving object, substantially as specified. 20th. A support for typewriting machines having a platen, and a rest, located beyond the area of the platen, said platen and rest being adapted to receive the machine alternately by linear movement thereof in opposite directions, and the platen being movable independently of the rest to give access to the impression receiving object, substantially as specified. 21st. A support for typewriting machines having a platen, and a rest, forming a temporary machine support, arranged in a common plane with the platen, the platen being movable independently of the rest, to facilitate adjustment of the impression receiving object, substantially as specified. 22nd. A platen for typewriting machines having an extension forming a temporary machine support, said platen, when relieved of the weight of the machine, being movable independently of its extension to give access to the the impression receiving object, substantially as specified. 23rd. A platen for typewriting machines having an extension forming a temporary machine support,

one of which is movable independently of the other, and is provided with tracks for guiding a typewriting machine in traversing the same, substantially as specified. 24th. A platen for typewriting machines provided with an extension to form a temporary machine support, said platen extension being provided with tracks arranged in parallelism, substantially as specified. 25th. A platen for typewriting machine having an extension forming a temporary machine support, said platen and extension being provided with tracks arranged in parallelism, and the platen being movable independently of the machine support to expose the printing area. 26th. A platen for typewriting machines having an extension adapted to form a temporary machine support, the platen being movable independently of the extension to expose the printing area, and said platen and extension being provided with track elements engaged in alignement, substantially as specified. 27th. A platen for typewriting machines having an extension to form a temporary machine support, independently of which said platen is movable, in combination with rails, each consisting of elements carried respectively by said platen and extension, substantially as specified. 28th. A platen for typewriting machines having an extension, independently of which said platen is movable, in combination with rails, one of which consists of hingedly connected elements carried respectively by the platen and extension, substantially as specified. 29th. A platen for typewriting machines having an extension adapted to form a temporary machine support, independently of which the platen is movable to expose the printing area, in combination with rails, each consisting of hingedly connected elements arranged in alignement and carried respectively by said platen and extension, substantially as specified. 30th. A support for typewriting machines having members comprising a platen located within the printing area, in combination with sectional rails, each comprising elements respectively supported by said members, one of said rail elements, and the member by which it is supported, being hinged for swinging movement to expose the printing area, substantially as speified. 31st. A support for typewriting machines having members located respectively outside of and within the printing area or field, that member which supports the machine when within the printing area consisting of a platen to support an impression receiving leaf or sheet, substantially as specified. 32nd. A support for twpewriting machines having members located respectively outside of and within the printing area or field, that member which supports the machine when within the printing area consisting of a platen to support an impression receiving leaf or sheet, and being mounted jor swinging movement, substantially as specified. 33rd. A support for typewriting machines having members located respectively outside of and within the printing area or field, that member which is located within the printing area consisting of a platen to support an impression receiving leaf or sheet, and being provided with tracks for guiding a typewriting machine in traversing the same, substantially as specified. 34th. A support for typewriting machines having members located respectively outside of and within the printing area consisting of a platen to support an impression receiving leaf or sheet, in combination with parallel rail elements mounted upon the platen, substantially as specified. 35th. A support for typewriting machines having members located respectively outside of and within the printing area or field, that member which is located within the printing area consisting of a platen to support an impression leaf or sheet, in combination with parallel rail elements mounted upon the piston, one of said rail elements mounted for adjustment iudependently of the other, substantially as specified. 36th. A support for typewriting machines having members located respectively outside of and within the printing area or field, that member which is located within the printing area consisting of a platen to support an impression receiving leaf or sheet and said platen being provided with parallel machine guiding tracks, of which one consists of a rail element adjustable laterally toward and from the other, substantially as specified. 37th. A support for typewriting machines having members located respectively outside of and within the printing area or field of the machine, that member which is located within the printing area consisting of a platen having parallel tracks, and that member which is located outside of the printing area having parallel rail elements, substantially as specified. 38th. A support for typewriting machines having members located respectively outside of and within the printing area or field of the machine, that member which is located within the printing area consisting of a platen having parallel tracks, and that member which is located outside of the printing area having parallel rail implements arranged in alignment with the tracks of the other member, substantially as specified. 39th. A support for typewriting machines having members located respectively outside of and within the printing area, that member which is located within the printing area consisting of a platen, in combination with sectional rails, each comprising elements respectively supported by said members, the platen and platen supported rail elements being mounted for swinging movement by means of hinge joints arranged in proximate coincidence, substantially as specified. 40th. A support for typewriting machines having a platen and an extension thereof located respectively within and outside of the printing area and connected by a common hinge pin, substantially as specified. 41st. A support for typewriting machines having a platen and an extension located respectively within and outside of the printing area and connected by a common hinge pin of a length greater than the width of the platen members to allow movement of the latter parallel with said hinge pin, substantially as specified. 42nd. A support for typewriting machines having members consisting of a platen and an extension located respectively within and outside of the printing area, that member which is located within the printing area being mounted for adjustment parallel with the lines of writing, substantially as specified 43rd. A support for typewriting machines having a platen and an extension located respectively within and outside of the printing area, both being mounted for adjustment parallel with the lines of writing, substantially as specified. 44th. A support for typewriting machines having aligned members located respectively within and outside of the printing area, and mounted for simultaneous adjustment parallel with the lines of writing, substantially as specified. 45th. A support for typewriting machines having pivotal members located respectively outside of and within the printing area and mounted for adjustment parallel with the lines of writing of the typewriting machine, substantially as specified. 45th. A support for typewriting machines having pivotal members arranged in alignment respectively outside of and within the printing area, and mounted for adjustment parallel with the lines of writing of the typewriting machine, substantially as specified. 47th. A support for typewriting machines having members located respectively outside of and within the printing area, and mounted upon a common hinge pin for adjustment parallel with the lines of writing of the typewriting machine, substantially as specified. 48th. A support for typewriting machines having members located respectively outside of and within the printing area, and a common hinge pin arranged parallel with the lines of writing of the type writing machine, said members having eyes mounted upon said hinge pin, substantially as specified. 49th. A support for typewriting machines having members located respectively outside of and within the printing area, and a common hinge pin arranged parallel with the lines of writing of the typewriting machine, said members having interlocking eyes mounted upon said hinge pin, substantially as specified. 50th. A support for typewriting machines having a supporting strip arranged at one side of the printing area, and sectional means adapted to be traversed by the typewriting machine, having members mounted upon and extending respectively in opposite directions from the vertical plane of said strip, substantially as specified. 51st. A support for typewriting machines having spaced supporting strips arranged at opposite sides of the printing area, and sectional means adapted to be traversed by the typewriting machine, upheld by said strips, and having members located respectively outside of, and spanning, the interval between the strips, substantially as specified. 52nd. A support for typewriting machines having a base, spaced supporting strips mounted for adjustment perpendicular to the plane of the base, means for securing said strips at the desired adjustment, and sectional means, adapted to be traversed by the typewriting machine, upheld by said strips, and having members located respectively outside of, and spanning, the interval between the strips, substantially as specified. 53rd. A support for typewriting machines having a base, supporting strips arranged at opposite sides of the printing area and mounted for adjustment perpendicular to the plane of the base, means for securing said strips at the desired adjustment, and machine traversed members, of which one is carried by one of the strips, and the other is terminally supported by both strips and spans the interval there between, substantially as specified. 54th. A support for typewriting machines having a base, supporting strips arranged at opposite sides of the printing area and mounted for adjustment perpendicular to the plane, of the base, means for securing said strips at the desired adjustment, and machine traversed members of which one is supported by and extends rearwardly from one of the strips, and the other is hingedly mounted upon the strip which carries the first named member, and is upheld at its free end by the other strip, to span the interval between the strips, substantially as specified. 55th. A support for typewriting machines having a base, supporting strips arranged at opposite sides of the printing area and mounted for adjustment perpendicular to the plane of the base, means for securing said strips at the desired adjustment, a machine rest and a platen mounted upon one of said strips and located respectively outs de of, and spanning the interval between the strips, and rails having elements supported respectively by the rest and platen, for adjustment therewith, substantially as specified. 56th. A support for typewriting machine having a base, supporting strips arranged at opposite sides of the printing area, a hinge-pin carried by one of the strips, and a machine rest and platen mounted upon said hinge pin, and located respectively outside of, and within the area between the strips, substantially as specified. 57th. A support for typewriting machines having a base, supporting strips arranged at opposite sides of the printing area, a hinge pin carried by one of the strips, and a machine rest and platen mounted upon said hinge pin in a common plane and located respectively outside of, and within the area between the strips, substantially as specified. 58th. A support for typewriting machines having a base, supporting strips arranged at opposite sides of the printing area, a machine rest and platen supported by said strips and located respectively outside of and within the area between the same, and brackets extending rearwardly from one of said support strips under the machine rest, substantially as specified. 59. A support for typewriting machines having a base, supporting strips arranged at opposite sides of the printing area, a platen and platen extension supported by said strips and located respectively within and outside of the area between the

same, and brackets extending rearwardly from one of said supporting strips under the platen extension, substantially as specified. 60th. A support for typewriting machines having a base, supporting strips arranged at opposite sides of the printing area, a hinge pin carried by one of the strips, a platen and a platen extension mounted upon said hinge pin and located respectively within and outside of the area between the strips, and brackets extending rearwardly under the platen extensions from that strip which carries the hinge pin, substantially as specified. 61st. A support for typewriting machines having a base, supported strips arranged at opposite sides of the printing area, a hinge pin carried by one of the strips, a platen and platen extension mounted upon said hinge pin and located respectively within and outside of the area between the strips and a stop ear carried by the platen extension for contact with the adjacent strip to hold said platen extension in its operative position, substantially as specified. 62nd. A support for typewriting machines having a base, an elevated strip, and a support member mounted upon saids trip for pivotal movement in a vertical plane, and a stop ear carried by said support member for contact with the strip to maintain the support member in its operative position, substantially as specified. 63rd. A support for typewriting machines having a base, an elevated strip, a support member hingedly mounted upon said strip outside of the printing area of the typewriting machine, and having means for limiting the downward swing movement thereof to maintain it in its operative position, and means for guiding the typewriting machine while traversing the printing area, substantially as specified. 64th. A support for typewriting machines having a base, an elevated support member located outside of the printing area to receive the machine when at rest, and means for guiding the machine while traversing the printing area, said means being displaceable, when the machine occupies said support member, to facilitate the adjustment of an impression receiving object, substantially as specified. 65th. A support for typewriting machines having a base, a supporting strip mounted for adjustment perpendicular to the plane of the base, means for securing said strip at the desired adjustment, a support member having tracks carried by said supporting strip and located outside of the printing area, and means for guiding the typewriting machine while traversing the printing area, substantially as specified. 66th. A guide rail for typewriting machines having pivotally connected elements adapted to be traversed alternately by the machine, one element being free for movement, to expose the impression receiving surface when the other is occupied by the machine, substantially as specified. 67th. A guide rail for typewriting machines having pivotally connected elements adapted to be traversed alternately by the machine, one of said elements being adapted to swing in a vertical plane to expose the impressing receiving surface when the other is occupied by the machine, substantially as specified. 68th. A guide rail for typewriting machines having elements arranged in a common plane and adapted to be traversed alternately by the machine, one of said elements being displaceable, to give access to the impression receiving surface, when the other element is occupied by the machine, substantially as specified. 69th. A guide rail for typewriting machines having elements arranged in alignment and adapted to be traversed alternately by the machine, one of said elements being displaceable, to expose the impression receiving surface when the other element is occupied by the machine, substantially as specified. 70th. A guide rail for typewriting machines, having pivotally connected elements, of which one is provided at the joint with a reinforcing tongue, projecting beyond the pivot and overlapping the other element, substantially as specified. 71st. A guide rail for typewriting machines having pivotally connected elements, of which one is provided at the joint with a rigid reinforcing tongue, extending beyond the pivot and fitted in a cavity in the other element, in movement, being adapted to swing toward and from the plane of said tongue, to give access to an impression receiving surface, substantially as specified. 72nd. Parallel track rails for a typewriting machine having pivotal elements, and a transverse connection between said pivotal elements to provide for the simultaneous swinging movement thereof, in combination with a temporary machine support located beyond said pivotal elements, to receive the machine when at rest, substantially as specified. 73rd. A support for typewriting machines having a stationary rest or machine support, parallel track rails for the typewriting machine, having pivotal elements located beyond the area of said rest, and a transverse connection between said pivotal elements, to provide for the simultaneous swinging movement thereof to expose the impression receiving surface, substantially as specified. 74th. A support for typewriting machine having a stationary rest or machine support, and parallel trackrails, each having elements, of which one is carried by said rest, and the other is arranged in a common horizontal plane therewith, one of the rails having its elements pivotally connected, whereby that element which is located beyond the area of the rest may be displaced, by swinging movement, to expose the printing area, substantially as specified. 75th. A support for typewriting machine having a stationary rest or machine support, parallel trackrails, each having elements, of which one is located beyond the area of the rest, and is pivoted for swinging movement, and a connection between the rail elements which are located beyond the area of the rest, to provide for the simultaneous swinging movement thereof, substantially as specified. 76th. A support for typewriting machines having a stationary rest or machine support, parallel trackrails, each having pivotally connected elements, of which one is arranged upon said rest, and the other is arranged outside of or beyond the area of the rest, and a transverse connection between the track elements which are located beyond the area of the rest, to provide for the simultaneous swinging movement thereof to expose the impression receiving surface, substantially as specified. 77th. A support for typewriting machines having a stationary rest or machine support, parallel trackrails having pivotal elements to receive the typewriting machine when advanced from said rest, and a rigid transverse connection between said pivotal elements, to provide for the simultaneous swinging movement thereof when the machine is supported by the rest, substantially as specified. 78th. A support for typewriting machines having a stationary member for receiving the machine when at rest, parallel trackrails having pivotal elements located beyond the area of said stationary member, and adapted to receive the machine therefrom, a transverse connecting bar between said pivotal rail elements, and an adjustable connection between said bar and the rail elements, whereby the interval between the rail elements may be varied, substantially as specified. 79th. The combination with trackrails having pivotal elements arranged in parallelism and adjustable to vary the interval therebetween, of a connecting bar bewteen said pivotal rail elements, and an adjustable connection between said bar and the rail elements, substantially as specified. 80th. The combination with trackrails having pivotal elements arranged in parallelism and adjustable to vary the interval therebetween, of a transverse connecting bar between the pivotal rail elements and provided with seats to engage pins on said elements at different adjustments of the trackrails, substantially as specified. 81st. The combination with trackrails having pivotal elements arranged in parallelism and adjustable to vary the interval therebetween, of a transverse connecting bar between the rail elements and provided with spaced open sided seats, and pins on the pivotal rail elements consisting of thumb screws for engagement with the seats of the connecting bar, substantially as specified.

No. 64,437. Ore Roasting Furnace.

(*Fournaise pour le grillage des minerais.*)

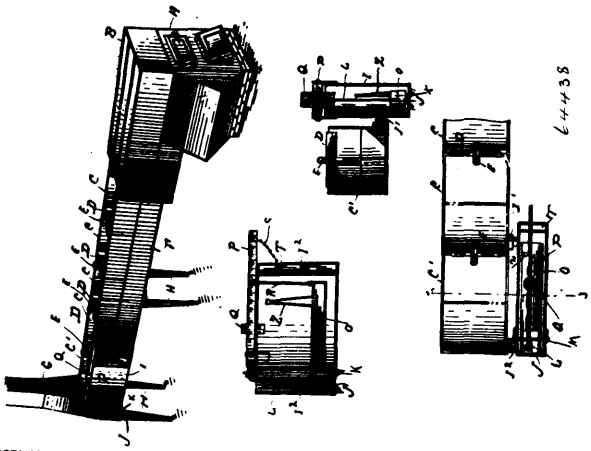


William Adolphe Köneman and William Henry Hartley, both of 23 Moorfields, London, England, 18th October, 1899; 6 years. (Filed 2nd November, 1898.

Claim.—1st. A furnace for roasting ores and the like, in which the heating medium is passed through the material to be treated and is abstracted by means of flues communicating with a suction chamber, substantially as and for the purpose described. 2nd. A furnace for roasting ore and the like in which the course of the heating medium through the material to be treated can be changed by means of valve controlled flues communicating with the suction chamber, in the manner and for the purpose described. 3rd. In an ore roasting furnace, an ore chamber communicating with a flame chamber and an exhaust or vacuum chamber by means of valve controlled passages. 4th. In an ore roasting furnace of the kind described, a flame chamber such as B, in which partitions or baffles are arranged between the rows of flues or ports, substantially as and for the purpose specified. 5th. In an ore furnace of the kind described, the combination with a suction chamber such as D, and flame chamber such as B, of an ore chamber such as C, having valve controlled, upwardly inclined flues B^1 C^3 in its side walls. 6th. An ore roast-

ing furnace of the kind described, comprising a central suction chamber placed between two ore chambers, each of which is heated by one or more flame chambers having separate fire chambers, substantially as described. 7th. In an ore roasting furnace an exhaust passage comprising a series of pockets such as E^1, and a succession of rows of inclined baffle plates such as E^3, for the purpose described. 8th. In an ore roasting furnace the combination with suction chamber such as D, of an exhaust passage E, baffle plates E^3, pockets E, screens F^1 and an exhauster G, substantially as described. 9th. In an ore roasting furnace having an ore chamber, a flame chamber, and a suction or exhaust chamber suitably connected one with the other, a passage way for trams or the like, and discharge openings such as C^5, substantially as described. 10th. In an ore roasting furnace of the kind described, a suction chamber such as D, having a bottom in the form of two inclined planes, substantially as and for the purpose described.

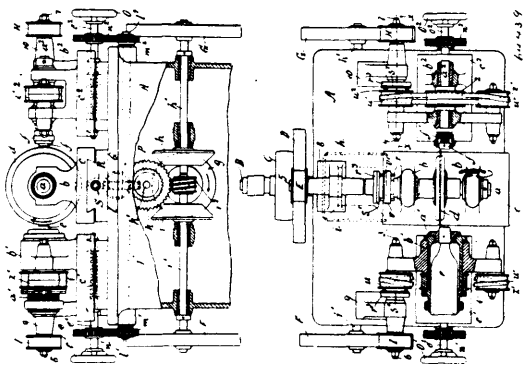
No. 64,438. Evaporating Pan. (*Basin à évaporation.*



William E. Shoales, Plymouth, New York, U.S.A., 18th October, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—1st. In an evaporating apparatus, a receptacle, having an inlet and outlet connection, a valve in its under side, said valve adapted to be automatically opened, a float pivoted in said receptacle and connected with said valve and a graduated bar pivoted to sides of the receptacle and connected with said float and valves, substantially as shown and described. 2ud. In an automatic evaporating apparatus, a series of evaporating pans, laterally connected with a receptacle, having an inlet and outlet connection with said pans and a valve and outlet in the bottom of said receptacle, a float pivoted in one end of said receptacle and connected at its opposite end with a graduated bar pivoted at the top of said receptacle, and said graduating bar being in turn connected with said valves and a weight on said bar adapted to graduate the action of said float, substantially as shown and described. 3rd. An evaporating apparatus, provided with pans in communication with a laterally arranged syrup delivery tank extending below the bottom of the pans, a discharge opening in the bottom thereof, vertical corner channels extending from the top to near the bottom thereof, and pipes communicating between the pans and tank and pans and channels, substantially as shown and described.

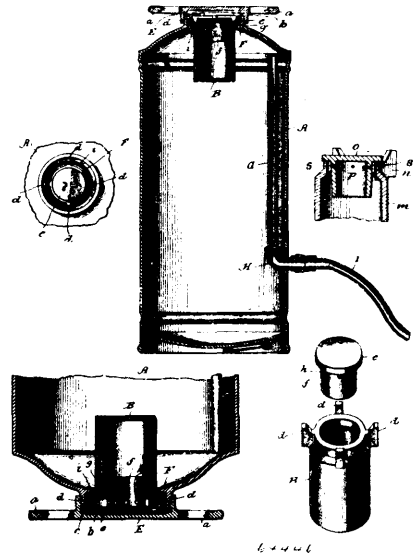
No. 64,439. Spindle Driving Mechanism.
(*Axe pour machines outils.*)



Josef Fliegel, No. 8 Sprottauer, Chaussée, Mallmitz, Silicia, Empire of Germany, 18th October, 1899; 6 years. (Filed 9th December, 1898.)

Claim.—The employment of the driving method as described in claim 1, in connection with grinding machines for grinding even or plain surfaces on blanks *e f*, rigidly connected to the working spindles 5 4 by means of a grinding disc secured to the driven spindle *a* or by having the blanks work one upon the other, in which machine the driven spindles 5, 6, 7 are provided with discs r^3 carrying bolts *r* pivotted on pins *t*, such bolts passing through spherical bodies *u* freely moving in the discs *v* and u^1 of the spindles *a*, 3, 4, respectively to be driven, substantially as described and shown in the drawings.

No. 64,440. Chemical Fire Extinguisher.
(*Extincteur d'incendie chimique.*)



William H. Douglas, Washington, District of Columbia, U.S.A., 18th October, 1899; 6 years. (Filed 13th June, 1899.)

Claim.—1st. The combination in a chemical fire extinguisher of an alkali reservoir A, an acid bottle B having a vent and immovably mounted with reference to said reservoir, and a movable plug for said bottle provided with discharge openings *h*, and adapted to close and disclose said vent according to the position of the plug. 2nd. The combination in a chemical fire extinguisher of a bottle B, a plug having a hollow cylindrical body *f* formed with openings *h* and adapted to enter the mouth of said bottle so as to provide a vent space thereabout, and a flange *e* formed on said plug to support the same in position and to close said vent space. 3rd. The combination in a fire extinguisher of an alkali reservoir A formed with a flange F in its mouth, an acid bottle B having lugs *d* extending laterally from and projecting above the mouth of said bottle, and a cap E for the mouth of the reservoir adapted to close the same and to engage the said lugs, whereby the bottle is held firmly in position. 4th. The combination in a chemical fire extinguisher of an acid bottle B and a plug for said bottle provided with discharge openings *h* and a flange *e*, the said bottle having a vent situated contiguous to said flange and adapted to be closed thereby.

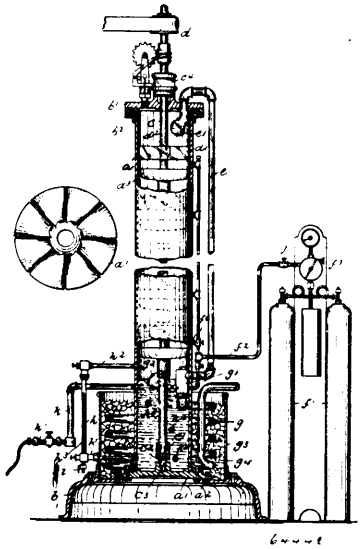
No. 64,441. Iron Castings. (*Fonte moulée.*)

Samuel Hufty and Joseph Kay Caldwell, Philadelphia, Pennsylvania, U.S.A., 18th October, 1899; 6 years. (Filed 24th February, 1899.)

Claim.—1st. A casting of iron susceptible of being drawn, welded, hardened or tempered, and containing throughout its mass allotropic carbon in amorphous condition, and having a specific gravity of about one and eight-tenths (1·8), a calorific power of about eight thousand (8,000) heat units, and a specific heat of about twenty-four hundred ten-thousandths (·2400). 2nd. A casting of iron susceptible of being drawn, welded, hardened or tempered, and containing throughout its mass allotropic carbon in amorphous condition and in excess of two per cent, said carbon having a specific gravity of about one and eight-tenths (1·8), a calorific power of about eight thousand (8,000) heat units, and a specific heat of about twenty-four hundred ten-thousandths (·2400). 3rd. A casting of iron susceptible of being drawn, welded, hardened or tempered, and containing throughout its mass allotropic carbon in amorphous condition and much in excess of the combined carbon, and having a specific gravity of about one and eight-tenths (1·8), a calorific power of about eight thousand (8,000) heat units, and a specific heat of about twenty-four hundred ten-thousandths (·2400).

No. 64,442. Carbonating Apparatus.

(Appareil à carboniser).



David Boyle, Paterson, New Jersey, U.S.A., 18th October, 1899; 6 years. (Filed 9th June, 1899.)

Claim.—1st. In a carbonating apparatus, the combination with a carbonating chamber having a suitable discharge for the carbonated liquid at its lower end, and with means for admitting thereto the carbonating gas, of a jacket surrounding the lower end of said chamber and spaced therefrom, said lower end of the chamber constituting a temporary reservoir for the carbonated liquid, and a liquid conductor including a coil and extending directly to, and communicating with the upper portion of said chamber, said coil being enclosed in said jacket and surrounding the chamber, substantially as described. 2nd. The combination with a vertically arranged elongated chamber, means for admitting the liquid to be carbonated at the upper end thereof and the carbonating gas at a point or points in said chamber beneath the point for admitting the liquid, radially arranged and inclined blades or paddles disposed in series situated one above the other and beneath the point of liquid admission, the blades or paddles of each series being appreciably out of vertical coincidence with each other, perforated partitions arranged alternately with said sets of blades, and means for rotating said sets of blades or paddles, substantially as described. 3rd. The combination of a vertically arranged elongated chamber, a liquid supply pipe communicating with said chamber at its upper end, a pipe for carbonating gas having a plurality of communications with said chamber situated beneath the discharge point of the liquid supply pipe, radially arranged inclined blades or paddles disposed in series situated the one above the other and each above a point of discharge from the gas supply pipe, the blades or paddles of each series being appreciably out of vertical coincidence with each other, means for rotating said sets of blades or paddles and perforated partitions alternately arranged in said chamber with said paddles and disposed beneath said points of discharge from the gas supply pipe, substantially as described. 4th. The combination of a vertically arranged elongated chamber, a liquid supply pipe communicating with said chamber at its upper end, a pipe for the carbonating gas having a plurality of communications with said chamber situated beneath the point of discharge of the liquid, radially arranged and inclined blades or paddles disposed in series situated one above the other and each above a point of discharge from the gas supply pipe, the blades or paddles of each series being appreciably out of vertical coincidence with each other, perforated partitions alternately arranged in said chamber with said blades or paddles and disposed beneath said points of discharge from the gas supply pipe, and a revoluble shaft having suitable bearings and being operatively connected to, and adapted to rotate, said sets of blades or paddles, substantially as described. 5th. The combination of a vertically arranged elongated chamber, a liquid supply pipe communicating with said chamber at its upper end, a pipe for the carbonating gas having a plurality of communications with said chamber situated beneath the point of discharge of the liquid, radially arranged and inclined blades or paddles disposed in series situated the one above the other and each above a point of discharge from the gas supply pipe, the blades or paddles of each series being appreciably out of vertical coincidence with each other, perforated partitions alternately arranged in said chamber with said blades or paddles and disposed beneath said points of discharge from the gas supply pipe, a revoluble shaft having suitable bearings and being operatively connected to, and adapted to rotate, said sets of blades or paddles, a suitable discharge at the lower end of the chamber and a ball float arranged in said chamber and controlling the liquid supply, substantially as described. 6th. The combination of a vertically arranged elongated chamber, a liquid supply pipe communicating with said chamber at its upper end, and a pipe for the carbonating gas having a plurality of communications with said chamber situated beneath the point of discharge of the liquid, radially arranged and inclined blades of paddles disposed in series situated one above the other and each above a point of discharge from the gas supply pipe, the blades or paddles of each series being appreciably out of vertical coincidence with each other, perforated partitions alternately arranged in said chamber with said blades or paddles and disposed beneath said points of discharge from the gas supply pipe, a revoluble shaft having suitable bearings and being operatively connected to, and adapted to rotate said sets of blades or paddles, a suitable discharge at the lower end of said chamber, a coil surrounding said chamber and constituting a portion of the liquid supply pipe, a jacket surrounding said chamber and the coil, constituting a receptacle for a refrigerating medium, and a ball float arranged in said chamber and controlling the liquid supply pipe, substantially as described. 7th. The combination of a vertically arranged elongated chamber, a liquid supply pipe communicating with said chamber at its upper end, a pipe for the carbonating gas having one or more communications with said chamber situated beneath the discharge point of the liquid supply pipe, sets of inclined blades or paddles, perforated partitions arranged in said chamber beneath said points of of discharge from the gas supply pipe, a revoluble shaft having suitable bearings and being operatively connected to and adapted to rotate said sets of blades or paddles, a suitable discharge at the lower end of said chamber, a coil surrounding said chamber and constituting a portion of the liquid supply pipe, a jacket surrounding said chamber and the coil, a ball float arranged in said chamber and controlling the liquid supply pipe, a valve in the top of said chamber and actuating means therefor operatively connected to said shaft, substantially as described. 8th. The combination of a vertically arranged elongated chamber, a liquid supply pipe communicating with said chamber at its upper end, a pipe for the carbonating gas having one or more communications with said chamber situated beneath the discharge point of the liquid supply pipe, sets of inclined blades or paddles each disposed above a point of discharge from the gas supply pipe, perforated partitions arranged in said chamber beneath said points of discharge from the gas supply pipe, a revoluble shaft having suitable bearings and being operatively connected to and adapted to rotate said sets of blades or paddles, a suitable discharge at the lower end of said chamber, a coil surrounding said chamber and constituting a portion of the liquid supply pipe, a jacket surrounding said chamber and the coil, a ball float arranged in said chamber and controlling the liquid supply pipe, a valve in the top of said chamber, actuating means therefor operatively connected to said shaft, a liquid gauge communicating with said chamber, and a spray or rose connected to and constituting the terminus of the liquid supply pipe, substantially as described.

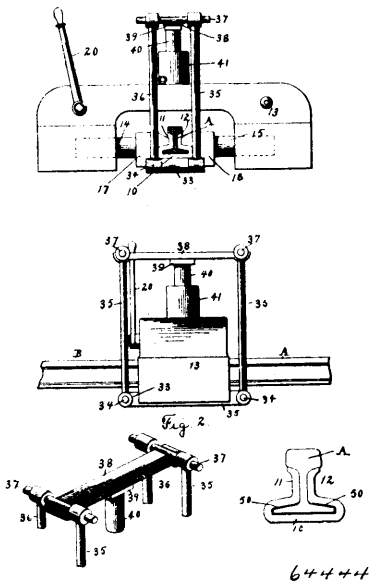
No. 64,443. Process of Producing Alkali Alluminates.

(Procédé pour les production d'alkali euluminés.)

Henry Spencer Blackmore, Mount Vernon, New York, U.S.A., 18th October, 1899; 6 years. (Filed 25th May, 1899.)

Claim.—1st. The process for transforming salts into aluminates and eliminating original combined acid, which consists in melting the salt to be transformed and introducing into the molten mass aluminium hydroxid or aluminium oxid containing absorbed or occluded elements of water, substantially as described. 2nd. The process for producing alkali aluminate, which consists in introducing into a molten alkali salt aluminium hydroxid (hydrate) or or aluminium hydrated oxid, substantially as described. 3rd. The process for producing sodium aluminate, which consists in introducing into molten sodium chlorid aluminium hydroxid (hydrate) or aluminium hydrated oxid, substantially as described. 4th. The process for producing sodium aluminate and hydrochloric acid, which consists in melting sodium chlorid and introducing gradually into the same aluminium hydroxid or hydrated oxid and collecting the acid fumes eliminated, substantially as described. 5th. The process for producing alkali aluminates, which consists in dissociating aluminium hydroxid or hydrated oxid in a molten bath of salt or compound to be transformed by introducing the same at intervals, substantially as described. 6th. The process for producing alkali aluminates, which consists in exposing a molten alkali salt to the action of aluminium hydroxid or hydrated oxid introduced at intervals, substantially as described. 8th. The process for producing alkali aluminates, which consists in gradually transforming a molten alkali salt by the introduction at intervals of aluminium hydroxid or hydrated oxid, substantially as described. 8th. The process for producing alkali aluminate, which consists in adding aluminium hydroxid or hydrated oxid to molten or naturally moving or circulating body of alkali salt, substantially as described. 9th. The process for producing alkali aluminate, which consists in subjecting a molten alkali salt to the action of circulating particles of aluminium hydroxid or hydrated oxid, substantially as described.

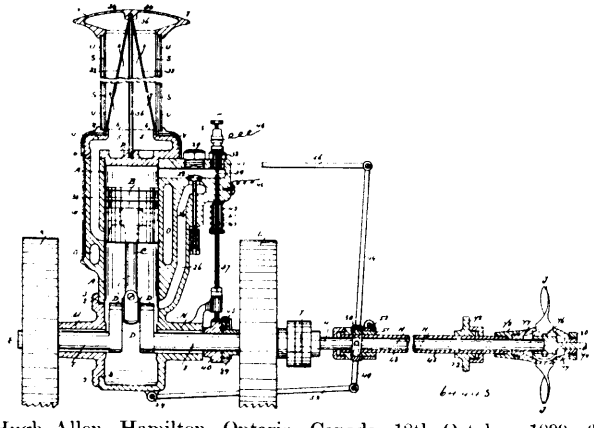
64,444. Rail Joint. (*Joint de rails.*)



Herbert Rudolph Keithley, New York City, New York, U.S.A., 18th October, 1899; 6 years. (Filed 24th March, 1899.)

Claim.—1st. A rail joint, comprising a single metallic piece, the sides of which are forged into permanent contact with the meeting ends of two rails, substantially as described. 2nd. A rail joint, comprising a single metallic piece, the sides of which are forged into permanent contact with the head and base of the meeting ends, substantially as described. 3rd. A rail joint comprising a single metallic piece, the sides of which are hot-forged into permanent contact with the meeting ends of two rails, substantially as described. 4th. A rail joint comprising a single metallic piece, the sides of which are forged into permanent contact with the meeting ends of two rails, and a bond interposed between the joining piece and the rails, substantially as described.

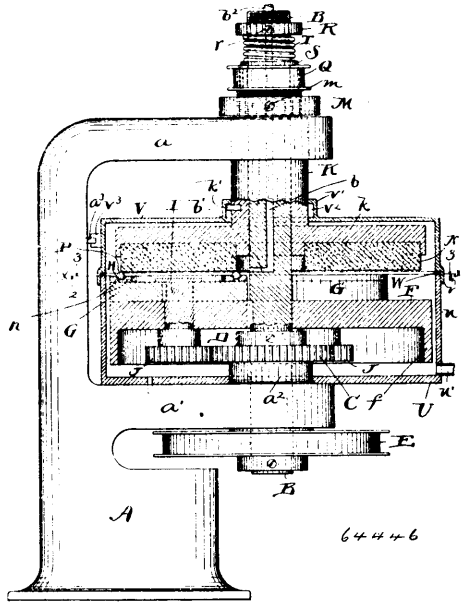
64,445. Gasoline Engine. (*Machine à gazoline.*)



Hugh Allen, Hamilton, Ontario, Canada, 18th October, 1899; 6 years. (Filed 13th May, 1899.)

Claim.—1st. A gasoline engine of the character described, comprising a water jacketed cylinder having lower supply entrance, side induction passages supplied with upper tension valve exhaust passage with upper opening into the perforated cone extending upwards in the funnel, the lower end of said cylinder opened out to the enclosed crank chamber, having end bearings for the crank shaft connected to the cylinder piston by oscillating rod, the vertical igniting rods apart, with buffer spring and sleeve, and capable of contact in combustion chamber with the upper adjustable igniter rod having battery connection, by means of igniter cam movement on said crank shaft, engaging with the end of said igniter rod, as set forth. 2nd. A gasoline engine of the character described, comprising a water jacketed cylinder, having lower supply entrance with side induction passage provided with tension valve and inspection plug, exhaust passage opening into a perforated cone, extending upwards in the upper apertured funnel, air space around said cylinder and funnel-formed by outer casings, the lower end of the cylinder opened to the crank chamber, crank shaft bearings on the outer enclosing ends of said chamber, piston connected to said cranks by oscillating connecting rod, fly wheel, and igniter cam on said shaft, an igniting rod capable of vertical tension positioned to engage with said cam to connect to the point of the upper adjustable rod, in combustion passage or chamber, said upper rod directly connected to a battery, and the lower rod indirectly connected to a battery, substantially as set forth. 3rd. In a gasoline engine of the character described, a suitable throttle valve connected to the saturated vapor supply passage in and through the lower part of the cylinder of the engine, a suitable tension valve in said passage, air and gasoline regulating lever and valve throttling lever, said throttle valve connected to the carburator through the medium of a safety tube comprising a number of small tubes with gauze covered ends, substantially as set forth.

No. 64,446. Ball Grinding Machine.
(*Moulin a broyer les boules.*)



Robert Schulze and Leon F. Schulze, both of Cleveland, Ohio, U. S. A., 18th October, 1899; 6 years. (Filed 10th April, 1 899.)

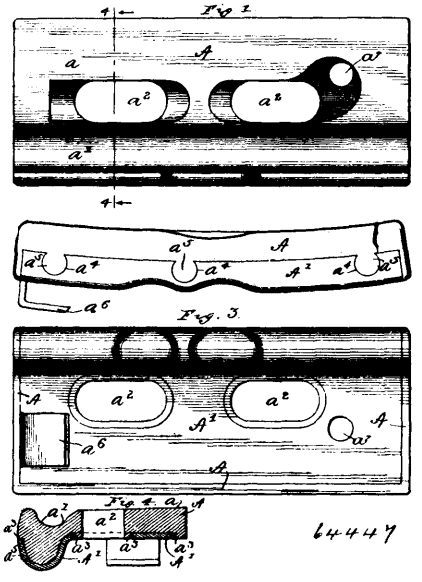
Claim.—1st. In a machine for grinding balls, in combination, a rotating disc, a plurality of smaller discs carried by said first mentioned disc and independently rotatable thereon, said smaller discs being adapted to carry balls to the ground, and a grinding wheel adapted to contact with balls so carried, substantially as described. 2nd. In a machine for grinding balls, a rotating disc F, a plurality of smaller discs G supported by said disc F and compelled to rotate therewith, means for giving said smaller discs an independent rotation about their own axis, and ball-races H carried by said smaller discs, in combination with a grinding surface adapted to contact with balls in said races, substantially as described. 3rd. In a machine for grinding balls, in combination, a disc F, means for rotating the same, a plurality of smaller discs supported by said disc and carried by it and also independently rotatable thereon, means for causing said independent rotation when said disc F rotates, ball races carried by said smaller discs, a grinding surface adapted to contact with balls in said races, and means for rotating said surface in the opposite direction to the rotation of the disc F, substantially as described. 4th. In a machine for grinding balls, a frame, a shaft B journalled therein, a disc F carried by said shaft B, a plurality of smaller discs F, carried by said disc F, and adapted to carry balls, said smaller discs having shafts I, journalled in said disc F, a stationary gear C, a gear J on each side of shafts I in mesh with said gear C, in combination with a grinding surface adapted to contact with balls carried by said disks G, substantially as described. 5th. In a machine for grinding balls, in combination, a rotatable disc F, smaller discs G carried thereby, but adapted to rotate on their own axis, ball races on said discs G, a rotating disc *k* carrying grinding material adapted to contact with balls in said races, the said disc *k* having the capacity for axial movement, and a stop for limiting said movement in the direction towards the ball races, substantially as described. 6th. In a machine for grinding balls, in combination, a frame, a shaft B journalled therein, a disk F secured to said shaft, a plurality of smaller discs carried by said disc F and adapted to rotate about their own axis, ball races on said smaller discs a sleeve K surrounding said shaft B and journalled in said frame and capable of longitudinal movement through the same, a disc *k* secured to said sleeve and having a grinding surface adapted to contact with the balls in said racer, and a collar on said sleeve adapted to limit the movement of said disk in the direction toward

said races, substantially as described. 7th. In a machine for grinding balls, in combination, a plurality of circular ball races, means for causing the same to revolve about their centre, and means for giving the ball races as a whole a circular translation, a grinding ring adapted to contact with balls in said races, the outer corner of said grinding ring being in contact with the highest point of the outermost balls in said races, and the inner corner being in contact with the highest point of the innermost balls in said races, substantially as described. 8th. In a machine for grinding balls, in combination, a plurality of circular ball races, means for causing the same to revolve about their centres and means for giving the ball races as a whole a circular translation, a grinding ring adapted to contact with balls in said races, the outer corner of said grinding ring being in contact with the highest point of the outermost balls in said races, and the inner corner being in contact with the highest point of the outermost balls in said races, and means for rotating said grinding ring and for pressing the same against said balls, substantially as described. 9th. In a machine for grinding balls, in combination, a frame, a shaft B journalled therein, means carried by said shaft for supporting a plurality of circular ball races and giving them rotation about their centres, and a circular translation about the axis of the said shaft B, a sleeve K journalled in said frame and surrounding said shaft B, and grinding material connected with said sleeve K, adapted to contact with balls in said races, means for rotating said sleeve, and a spring compressed between said sleeve, and an adjustable collar R, on said shaft B, substantially as described. 10th. In a machine for grinding balls, in combination, a frame, a shaft B, journalled therein, means carried by said shaft for supporting balls to be ground, a sleeve K, surrounding said shaft B, and journalled in said frame, a disc secured to said sleeve and carrying grinding material adapted to contact with said balls, said sleeve and grinding material being capable of movement toward and from said balls, a collar on said sleeve limiting its movement toward said balls, a collar R, on said shaft B, and a spring T, compressed between said collar and said sleeve and thereby pressing the grinding material toward said balls, substantially as described. 11th. In a machine for grinding balls, in combination, a frame, a shaft B, journalled therein, means for rotating said shaft, a disc F, carried by said shaft, a plurality of smaller discs G, supported by said disc F, and adapted to carry balls, shafts I, axially secured to said discs G, and journalled in said disc F, a stationary gear C, surrounding said shaft B, and secured to the frame, gears J, secured to said shaft I, and meshing with said gear C, a sleeve K, journalled in the frame and surrounding the shaft B, a grinding ring N, adapted to contact with balls carried by the discs G, means for securing said grinding ring to the sleeve K, said sleeve being capable of movement toward or from the balls being ground, a collar on said sleeve limiting its movement toward said balls, and a spring pressing said sleeve toward said balls, substantially as described. 12th. In combination, with a machine for grinding balls, having ball rotating and grinding parts, of a casing surrounding said parts, and an entrance pipe and an exit pipe communicating with the interior of said casing, substantially as described. 13th. In a machine for grinding balls, in combination, a frame, a shaft journalled therein, means carried by said shaft for supporting balls and causing them to travel, a grinding ring surrounding said shaft and adapted to contact with the balls so carried, there being a hole in said shaft, having its exit near the balls so carried, a pipe or tube connected with said hole, a casing surrounding said ball supporting parts and said grinding ring, and a tube or pipe communicating with the interior thereof, substantially as described. 14th. In a machine for grinding balls, in combination, a frame, a shaft B, journalled therein, means carried by said shaft for supporting a plurality of circular ball races, a grinding ring surrounding said shaft and adapted to contact with balls in said races, a two-part stationary casing enclosing said ball rotating and grinding parts, said casing being separable upon a line near said ball races, a tubular hole in said shaft B, having its exit near said ball races, a pipe or tube connected with said hole, and a pipe or tube connected with said casing, substantially as described. 15th. In a ball grinding machine, in combination, a frame, a shaft B, journalled therein, ball rotating mechanism carried by said shaft, one part of a stationary casing surrounding said ball rotating mechanism and supported by said frame, a grinding ring surrounding said shaft B, and adapted to contact with balls carried by the ball rotating mechanism and capable of movement toward and from said balls, a second part of said casing surrounding said ball grinding ring and engaging with said first part, and means for preventing the rotation of said second part, and means whereby movement of said grinding ring and its attached parts from said balls may compel said second part to move with them and thereby separate the two parts of the casing, and an entrance and an exit to said casing for allowing an in-and-out passage of fluid, substantially as described.

No. 64,447. Brake Shoe. (*Sabot de frein.*)

Alfred L. Streeter, Chicago, Illinois, U.S.A., 18th October, 1899; 6 years. (Filed 1st May, 1899.)

Claim.—1st. A flanged brake shoe comprising a cast iron body portion, a strengthening plate of steel or wrought iron secured to the back thereof and holes or openings in said shoe adjacent to the flange thereof, said strengthening plate extending laterally on both sides of said holes or openings and around the flange of said shoe, substantially as described. 2nd. A flanged brake shoe comprising a cast iron body portion, a steel or wrought iron strengthening



plate, holes or openings in said shoe adjacent to the flange thereof, said strengthening plate extending laterally on both sides of said holes or openings and around the flange of said shoe, the edges of said plate being dovetailed into the body of the shoe around their, outer edges and also around the edges of said holes or openings substantially as described. 3rd. A flanged brake shoe comprising a cast iron body portion, a steel or wrought iron strengthening plate, holes or openings in said shoe adjacent to the flange thereof, said strengthening plate extending laterally on both sides of said holes or openings and around the flange of said shoe, holes formed in the flanged edge of said plates and studs or projections formed integral with the body of the shoe, which interlock with said holes or openings, substantially as described. 4th. A flanged brake shoe comprising a cast iron body portion, a steel or wrought iron strengthening plate, holes or openings in said shoe adjacent to the flange thereof, said plate being dovetailed into the body of the shoe around the edges of the holes or openings in said shoe, holes in the edge of said plate which extends around the flange of the shoe and which cut out at the edge of said plate and studs or projections formed integral with the body of the shoe, which interlock with said holes or openings in the edge of said plates, substantially as described.

No. 64,448. Manufacture of Roofing Paper.
(*Fabrication de papier de toiture.*)

John W. Paterson, Montreal, Quebec, Canada, 18th October, 1899 6 years. (Filed 17th June, 1899.)

Claim.—As a new article of manufacture, a ready roofing paper, made of two, three or more layers of tarred or felt paper, having an inner layer of pitch or asphalt, thoroughly mixed with a percentage of sand, substantially as described and for the purposes set forth.

No. 64,449. Composition for Cleansing Gold and Silver Ware. (*Composition pour nettoyer l'argenterie.*)

Alice Loretta Marcou and Charles McEachern, assignees of Alfred Louis Napoleon Marcou, all of Souris, Prince Edward Island, Canada, 20th October, 1899; 6 years. (Filed 16th August, 1899.)

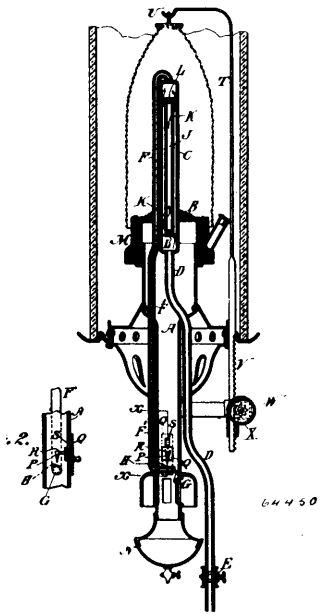
Claim.—The herein described composition of matter consisting of coal oil, camphor, olive oil, jeweller's rouge and whiting, substantially as described and for the purpose specified. 2nd. The herein described composition of matter for the removal of dirt stain, tarnish, &c., from gold and silver and gold and silver plated ware, consisting of coal oil, eighteen scruples, camphor, two scruples, olive oil, six scruples, jeweller's rouge, two scruples, and whiting thirty-six scruples, substantially as described.

No. 64,450. Incandescent Lamp. (*Lampe incandescente.*

Watson Birdsall Rulon and Joseph Swift Keen, both of Philadelphia, Pennsylvania, U.S.A., 20th October, 1899; 6 years. (Filed 10th June, 1899.

Claim.—1st. In a lamp, the combination of a vapourizing chamber with an apertured pipe located within the latter, and in communication therewith at its opposite ends. 2nd. In a lamp, the combination of a vapourizing chamber, an apertured pipe within said chamber, and a perforated diaphragm located at or near the

end of said pipe. 3rd. In a lamp, a vapourizing chamber, in combination with a pipe therein provided with ports forming communi-



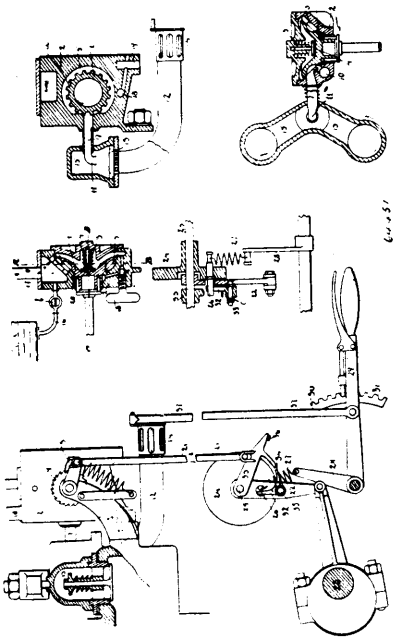
cation between said parts and perforated pieces connecting the ends of said pipe with the interior of said chamber. 4th. In a lamp, the combination of a flue, a burner, a vapourizing chamber extending above the same, an apertured pipe contained within said chamber and having perforated diaphragms at its ends, a superheater located in proximity to said chamber and communicating therewith, a branch extending laterally from said superheater into said flue and provided with an outlet port and means for pricking said port. 5th. A vapour flue, a vapourizer, a pipe extending from said vapourizer, and a branch continuing laterally from said pipe into the flue and provided with a discharge opening in said flue, in combination with a pin in said flue adapted to enter said opening and a carrier for said pin adapted to move the latter to and from said opening. 6th. In a lamp, a vapour flue and a vapourizer leading to a superheater in communication therewith, and a sliding pin for pricking the discharge opening of the conveying pipe within said flue. 7th. A vapour flue and a vapour conveying pipe entering said flue and provided with an outlet therein, a pin in said flue adapted to enter said outlet and a plate carrying said pin adapted to move said pin to and from said outlet. 8th. In a lamp, a vapour flue and a cap at the lower end of said flue adapted to receive the carbonization of the latter. 9th. In a lamp, the combination of a flue, a vapourizing chamber, a pipe having closed ends located within the latter and communicating with said chamber, perforated diaphragms located near the ends of said pipe, a superheater communicating with said chamber, a pipe leading from said superheater to a branch entering said flue, an outlet port in said branch and means for pricking said port. 10th. The combination of a flue, a vapourizing chamber, an aperatured pipe located therein and communicating therewith, a superheater leading from said chamber to said flue and a cap at the lower end of said flue adapted to receive the carbonization of the latter. 11th. In a lamp of the character named, a vapourizing chamber, in combination with a pipe therein having closed ends and provided with ports and perforated diaphragms common to the ends of said pipe and the interior of said chamber, whereby the hydro-carbon is divided up into a plurality of streams in its passage through said chamber. 12th. In a lamp of the character described, a support for the mantle and means for vertically adjusting the same, consisting of the crane T, rack V, pinion W and a hand piece.

No. 64,451. Speed Regulator for Explosive Engines.

(*Régulateur de vitesse pour machines explosifs.*)

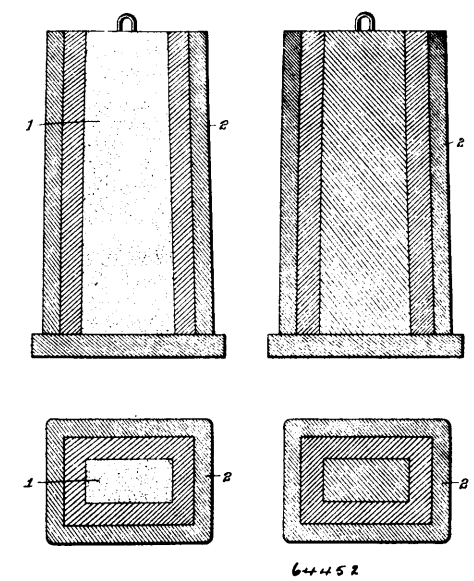
Eugene Brillié, Paris, France, 20th October, 1899; 6 years. (Filed 14th April, 1899.)

Claim.—1st. In an explosive engine fed by a revoluble distributor, a regulating device for controlling said distributor, consisting of an oscillating heavy body 24 operated by the drive shaft, and mechanism for transmitting motion from said oscillating body to the distributor, as and for the purpose set forth. 2nd. In an explosive engine fed by a revoluble distributor, a regulating device for controlling said distributor, consisting of an oscillating heavy body 23, an actuating mechanism therefor, operated by the drive shaft, a spring tensioning said body, whereby the weight of the same is equilibrated, a bell crank lever and a connecting rod for transmitting motion from said body upon the ratchet device, as and for the purpose set forth. 3rd. As an improvement in explosive engines, a combined distributor and regulator, consisting of a spring pressed revoluble distributor



provided with a liquid fuel reservoir, an oscillating heavy body, eccentric mechanism for actuating the same, operated by the drive shaft, a spring tensioning said body, whereby the weight of the same is equilibrated, a hand lever for adjusting the potency of said spring, a ratchet mechanism for the distributor, and mechanism for transferring motion from said oscillating body upon the ratchet device, as and for the purpose set forth.

No. 64,452. Compound Ingot. (*Composé de métal.*)

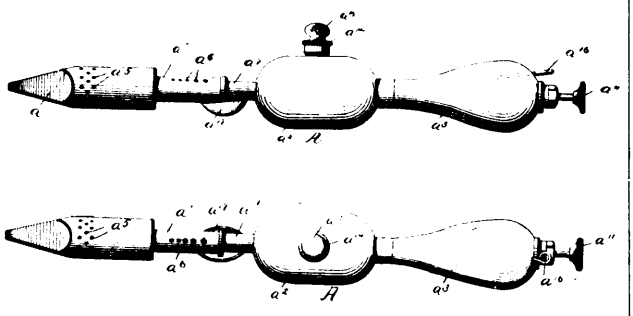


Sylvester Alphonse Casgrave, Edgewood Park, Pennsylvania, U.S.A., 20th October, 1899; 6 years. (Filed 9th August, 1899.)

Claim.—1st. The method herein described of forming compound ingots, which consists in so treating the portions of a body of one grade of steel to which another body of a different grade of steel is to be united, that when the larger body of steel is cast thereon, the two metals will mix together, and the chemical and physical characteristics of each will modify those of the other, and then casting the second metal on the first while the latter is at a high temperature, substantially as set forth. 2nd. As an improvement in the art of manufacturing compound ingots, the method herein described, which consists in casting one of the metals against a mould wall consisting of or formed in part by a fluxing material

and then removing the mould wall and casting the other metal on the fluxed surface when the latter is at a welding temperature, substantially as set forth. 3rd. As an improvement in the art of manufacturing compound ingots, the method herein described which consists in casting a body of metal in a suitable mould, applying a flux to the molten surface of said body, and subsequently casting the other metal on such treated surface, substantially as set forth.

No. 64,453. Soldering Iron. (*Fer à souder.*)

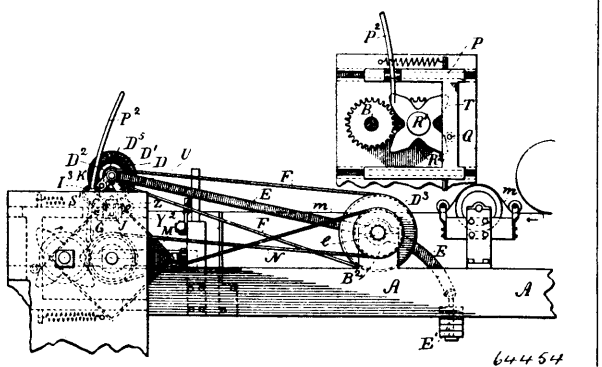


64453

William Chamberlain Herbert, Stanstead, Quebec, Canada, 20th October, 1899; 6 years. (Filed 11th January, 1899.)

Claim.—A soldering iron, comprising a soldering point, said soldering point being provided with an interior perforated chamber, a reservoir, an extension integral with said reservoir and provided with a valved passage, a perforated injector tube removably attached to said extension and to said soldering point, a pan mounted upon said extension adjacent to said injector tube and covering one or more of said perforations, a valve operating in said valved passage, a handle secured to said reservoir, and a rod secured to said valve and passing through said reservoir and handle, substantially as described.

No. 64,454. Box Covering Machine.
(*Machine à couvrir les boîtes.*)



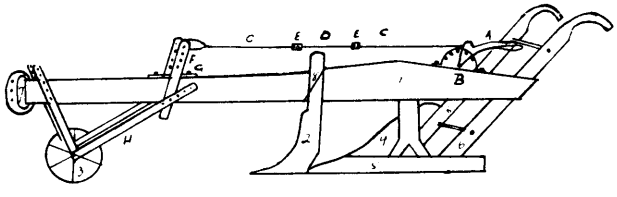
64454

Frank Henry Lanter, New York City, U.S.A., 20th October, 1899; 6 years. (Filed 10th January, 1899.)

Claim.—1st. In a machine for covering paper boxes, the brush-rim or crown-brush D^1 in combination with the cylindrical branch D arranged to operate relatively to a former B^1, all substantially as herein specified. 2nd. In a machine for covering paper boxes, the brush-rim or crown-brush D^1 in combination with the cylindrical brush D, and with a frame E, partially counterbalancing weight E^1, and the driving pulleys D^2 and D^3 and belt F, all arranged to serve relatively to each other and to a former B^1, substantially as and for the purposes herein specified. 3rd. In a machine for covering paper boxes, the brush-rim or crown-brush D^1 and the cylindrical brush D, arranged to operate relatively to a former B^1, in combination with the revoluble inside branch G for pressing the paper into contact with the inner face of the box, substantially as herein specified. 4th. In a machine for covering paper boxes, the combination with provisions as the former B^1 for holding and slowly revolving the box body, and provisions as the brush D D^1 for pressing a sufficiently broad paper strip into intimate contact with the exterior and deflecting the edges inward, and an inside brush G arranged to act on one edge of the covering-paper so as to unite it smoothly with the inner face of the box, a framing I supporting such inside brush and adapted to turn on an axis coincident with the centre of the main brush D D^1 and a train of gears D^5, K, W, W^1, G^1, for rotating the inside brush G in all positions, substantially as herein specified. 5th. In a machine for covering paper boxes, the combination with provisions as the former B^1 for holding and slowly revolving the box-body, of provisions as the brush D D^1 for pressing a sufficiently broad paper strip into intimate contact with the exterior and deflecting the edges inward, and an inside brush G arranged to act on one edge of the covering paper and unite it smoothly with the inner face of the box, a framing I supporting such inside brush and free to turn on an axis coincident with the centre of the main brush D, and a train of gears, D^5, K, W, W^1, G^1, for rotating the inside brush in all positions, and means as the reciprocating carriage P with its curved upper arm P^1, and swivelling piece S S^1 engaged with said frame I, arranged to move the inside brush G forward and backward, and to impart continuous rotation to it in all positions, all adapted for joint operation, substantially as herein specified. 6th. In a machine for covering paper boxes, the main brush D D^1, and rising and sinking frame E with provisions for partially counterbalancing and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the link I and cross bar I^1, turning on an axis coincident with the axis of the main brush D D^1, and with the arm J fixed on said cross-bar and the inside brush G carried on such arms, so that the brush may swing forward and backward to maintain its close relation to the main brush D, all adapted for joint operation, substantially as herein specified. 7th. In a machine for covering paper boxes, the main brush D D^1, a rising and sinking frame E with provisions for partially counterbalancing, and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the link I and cross-bar I^1, turning on an axis coincident with the axis of the main brush, and with the arm J fixed on said cross-bar, and the inside brush G carried on such arm, so that said brush may swing forward and backward to maintain its close relation to the main brush, and with the gearing D^5, K, W, W^1 and G^1 adapted to communicate the required rapid rotary motion from the main brush D D^1 to the branch G in all positions to the latter, substantially as herein specified. 8th. In a machine for covering paper boxes, the main brush D D^1, and rising and sinking frame E, with provisions for partially counterbalancing and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with an inside brush and means for operating it, and with provisions as the splined cross-bar I^1 and the splined sleeve L for adjusting the position of the inside brush and its connected parts to allow for different depths of box, all substantially as herein specified. 9th. In a machine for covering paper boxes, the main brush D D^1, and rising and sinking frame E with provisions for partially counterbalancing, and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the link I, cross-bar I^1, turning on an axis coincident with the axis of the main brush, and with the arm J fixed on said cross-bar, and the inside brush G carried on such arm, so that said brush may swing forward and backward to maintain its close relation to the main brush, and with the gearing D^5, K, W, W^1, and G^1, adapted to communicate the required rapid rotary motion from the main brush D D^1 to the brush G in all positions to the latter, and with the reciprocating carriage P and the arm P^2 extending upward therefrom and partaking of the reciprocating motion thereof, adapted to serve relatively to the said inside brush, substantially as herein specified. 10th. In a machine for covering paper boxes, the main brush D D^1, and rising and sinking frame E with provisions for partially counterbalancing, and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the link I, cross bar I^1, turning on an axis coinciding with the axis of the main brush D D^1, and with the arm J fixed on said cross bar, and the inside brush G carried on such arm, so that said brush may swing forward and backward to maintain its close relation to the main brush D, and with the gearing D^5 E, W, W^1, and G^1, adapted to communicate the required rapid rotary motion from the main brush D D^1 to the brush G in all positions of the latter, and with the reciprocating carriage P and the arm P^2 extending upward therefrom and partaking of the reciprocating motion thereof adapted to serve with the forked headed screw S S or equivalent swiveling piece mounted of the parts connected with the inside brush and engaged with said arm, all arranged for joint operation, substantially as specified. 11th. In a machine for covering paper boxes, the main brush D D^1 and rising and sinking frame E with provisions for partially counterbalancing, and provisions for holding the box to be covered and slowly revolving the latter as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the link I and cross bar I^1 turning on an axis coincident with the axis of the main brush D D^1 and with the arm J fixed on said cross bar, and the inside brush G carried on which arms and with a cam T receiving motion from the former and connected to the carriage so as to give a predetemined traverse backward and forward to the said inside brush, all arranged for joint operation, substantially as herein specified. 12th. In a machine for covering paper boxes, the main brush D D^1, and rising and sinking frame E with provisions for partially counterbalancing, and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the link I and cross bar I^1 turning on an axis coincident with the axis of the frame E of the main brush D D^1 and with the arm J

fixed on the said cross bar and the inside brush G carried on such arm and with the cam T receiving motion from the former and connected to the carriage so as to give a predetermined traverse backward and forward to the said inside brush, and with the clutch R adapted to disconnect a portion of the mechanism at will, all substantially as herein specified. 13th. In a machine for covering paper boxes, the main brush D D^1, and rising and sinking frame E, with provisions for holding the box to be treated and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the removable clamp X adapted to hold the box on the former, all arranged for joint operation substantially as herein specified. 14th. In a machine for covering paper boxes, the main brush D D^1, and rising and sinking frame E, with provisions for partially counterbalancing, and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the removable clamp X adapted to hold the box on the former, and with the removable former E^1 and the pins B^4 on the shaft B engaged therewith adapted to allow of ready change of the former, substantially as herein specified. 15th. In a machine for covering paper boxes, the main brush D D^1 and rising and sinking frame E with provisions for partially counterbalancing, and provisions for holding the box to be covered and slowly revolving it as required, and provisions for supplying a strip of glued paper to be fixed thereon, in combination with the link I, cross bar I^1 turning on an axis coincident with the axis of the main brush, and with the arm J fixed on the said cross bar, and the inside brush G carried on such arm, arranged as shown, so that the brush may swing forward and backward, maintaining its close relation to the main brush, and with the gearing D^6, E, W, W^1 and S^1 adapted to communicate the required rapid rotary motion from the main brush D D^1 to the brush G in all positions of the latter, and with the reciprocating carriage P, and the arm P^2 extending upward therefrom and partaking of the reciprocating motion thereof, adapted to serve relatively to the said inside brush, and with the fork-headed screw S S or equivalent swiveling piece mounted on the parts connected with the inside brush and engaged with the said arm and with the inside bar Y adapted to serve as an inside support for the box, with provisions for changing its position so that it shall be always near the line where the brushes D D^1 and G act, all adapted for joint operation, substantially as herein specified.

No. 64,455. Plough Tilt. (*Bascule pour charrues.*)



64455

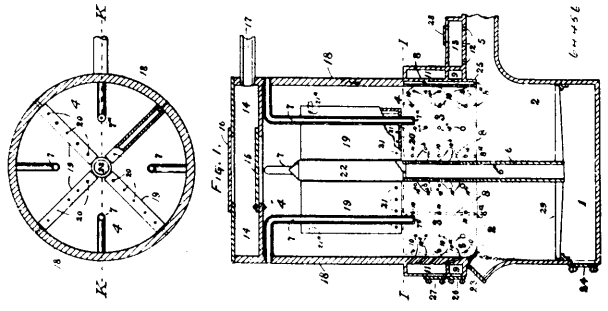
John McCallum and Elgin Ode Unger, Oak River, Manitoba, Canada, 20th October, 1899; 6 years. (Filed 7th August, 1899.)

Claim.—The standards C, C, the lengthener D, the ferule nuts E, E, the two plates F, the plate G on top of beam, and the two straps H, all as set forth in the accompanying drawing.

No. 64,456. Heat Generator. (*Générateur de la chaleur.*)

Newton J. Carey, Jackson, Michigan, U.S.A., 20th October, 1899; 6 years. (Filed 14th August, 1899.)

Claim.—1st. In a heat generator, a fuel chamber having an opening at or near one end for the admission of fuel, an opening at or near the lower end for the withdrawal of unburned residue, an intermediate opening to a draft chimney, one or more drop air tubes depending downwardly and adapted to be surrounded by fuel and having openings to deliver air into the fuel between the opening for fuel and the draft opening to chimney, substantially as described and for the purpose set forth. 2nd. In a heat generator consisting of a fuel chamber having an opening at or near the upper end for the admission of fuel, an opening at or near the other end for the withdrawal of unburned residue, an intermediate opening to a draft chimney, one or more air boxes extending partially or entirely across the fuel chamber and having openings to deliver air into the body of the fuel, substantially as described and for the purpose set forth. 3rd. In a heat generator, a fuel chamber having an opening at or near the upper end for the admission of fuel, an opening at or near the other end for the withdrawal of unburned residue, an intermediate opening to a draft chimney, a draft flue extending from below the opening to the draft chimney to some point above the opening to the draft chimney and having openings to deliver air into the body of fuel above the draft opening to chimney, substantially as described and for the purpose set forth. 4th. A heat generator, consisting of a fuel chamber adapted to admit fuel at its upper end and adapted to discharge unburned residue at its lower end, an intermediate smoke flue leading to a chimney, air channels formed in the walls and having means for introducing air into said channels and draft openings from said channels to the interior of the fuel chamber above the opening to the draft chimney, substantially as described and for the purpose set forth. 5th. A heat



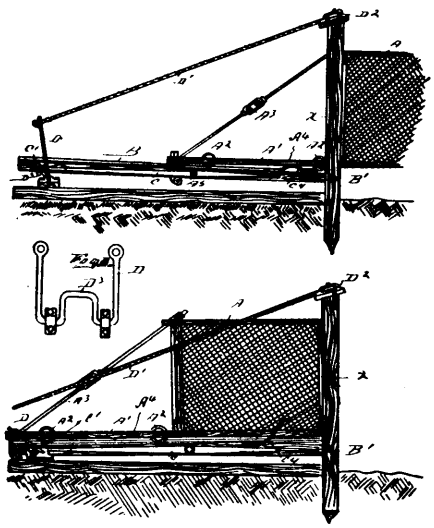
generator, a fuel chamber having an opening at or near the upper end for the admission of fuel, an opening at or near the lower end for the discharge of unburned residue, an intermediate opening to a draft chimney, channels in the walls of the fuel chamber above the opening to the draft chimney, openings from the said channels arranged to discharge air into the flame as it goes toward the opening to the draft chimney, substantially as described and for the purpose set forth. 6th. A heat generator, a fuel chamber having an opening at or near one end for the admission of fuel, an opening at or near the other end for the discharge of unburned residue, an intermediate opening to a draft chimney, a circumferential series of draft openings between the opening for fuel and the draft opening to chimney, substantially as described and for the purposes set forth. 7th. A heat generator, a fuel chamber having an opening at or near the other end for the discharge of uuburned residue, an intermediate opening to a draft chimney, downwardly inclined air drafts opening into the fuel chamber above where the flame goes to a draft chimney, substantially as described and for the purposes set forth. 8th. In a heat generator, a fuel chamber with opening for the admission of fuel, opening for the discharge of unburned residue, intermediate opening to a draft chimney, series of draft openings into the fuel chamber above draft opening to chimney, down draft openings to admit air to the top of the flame as it goes through the draft opening to the draft chimney, substantially as described. 9th. A heat generator, a fuel chamber, opening for the admission of fuel, opening for the withdrawal of unburned residue, intermediate opening to a draft chimney, down draft openings admitting air to the top of the flame as it goes to draft chimney, an air chamber admitting air to said down draft openings and having means for controlling said air, substantially as described and for the purpose set forth. 10th. A heat generator, a fuel chamber having means for the removal of unburned residue at the lower end, means for introducing fuel at or near the upper end, an intermediate opening to a draft chimney, air channels in the walls of the fuel chamber with openings into the fuel chamber, openings outwardly from the fuel chmaber and connected with an air chamber with suitable means for regulating the draft, substantially as described. 11th. A heat generator, a fuel chamber having an opening at or near one end for the admission of fuel, an opening at or near the other end for the withdrawal of unburned residue, an intermediate opening to a draft chimney, a series of draft openings into the fuel chamber through the walls thereof between the opening for fuel and the opening to draft chimney, an air chamber surrounding said draft openings and having means for regulating the draft, substantially as described and for the purpose set forth. 12th. A heat generator, a fuel chamber having means for the withdrawal of unburned residue at the lower end, an opening to a draft chimney above said opening, suitable draft opening into the fuel chamber above said opening to a draft chimney, a feed chamber on top of the fuel chamber and provided with door to receive fuel, a door to allow fuel to go into the fuel chamber and an intermediate opening to a draft chimney, substantially as described and for the purpose set forth.

No. 64,457. Gate. (*Barrière.*)

Kossuth Gore, Auburn, California, U.S.A., 20th October, 1899; 6 years. (Filed 9th August, 1899.)

Claim.—1st. In combination with a gate moving on a track and mounted in suitable guides, a lever adapted to change the inclination of the said track on its pivot, and a latch pivoted on the side of the said track having a head on one end to engage and lock the lever in position, a spring mounted upon the opposite end of said latch to assist in holding said latch disengaged, substantially as described. 2nd. In combination with a gate mounted upon rollers, a pivoted track for said gate, a lever having an extension to raise and lower one end of said pivoted track, means attached to said lever whereby it may be operated from a distance, a latch to hold the said track in its elevated position, substantially as described. 3rd. In combination with a gate moving on a track, a lever below said track and adapted to elevate the same on its pivot, a latch pivoted on the side of the

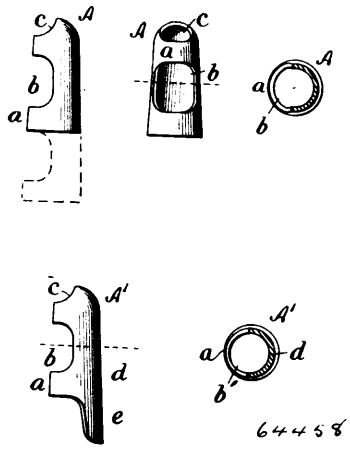
track, a head upon one arm of said latch adapted to engage the lever and lock the same in elevating position, and a spring upon the



64457

other arm of said latch and in the path of movement of a member upon the gate, whereby when the gate moves into close position its said member engages the spring and moves the latch to lock the lever, substantially as described.

No. 64,458. Finger Shield. (*Garde-doigt.*)

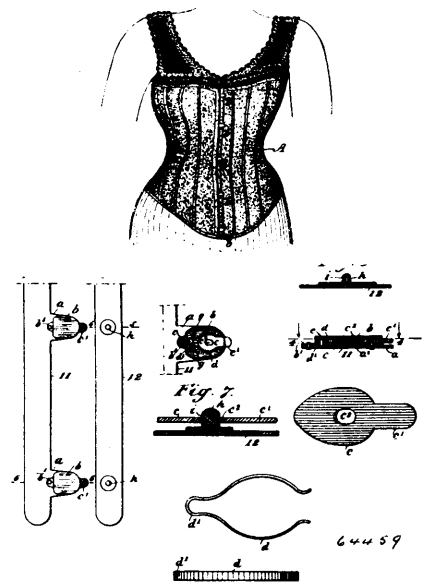


64458

Otis Edwin Fowbe, Los Angeles, California, U.S.A., 20th October, 1899; 6 years. (Filed 25th August, 1899.)

Claim.—1st. A finger shield or protector, consisting of a tubular body composed of flexible material adapted to fit over the end or tip of a finger or thumb, and having an opening in the rear or back portion thereof to register with the knuckle or joint of the finger or thumb whereby the shield is permitted to bend at said joint, substantially as described. 2nd. A finger shield or protector, consisting of a tubular body composed of flexible material adapted to fit over the end or tip of a finger or thumb, and having a thick or reinforced front or inner portion and a thinner back or outer portion, the latter being cut away at a point to register with the knuckle or joint of a finger or thumb whereby the shield is permitted to bend at said joint, substantially as described. 3rd. A finger shield or protector, consisting of a tubular body composed of flexible material adapted to fit over the tip or end of a finger or thumb, and having an opening in the back or rear portion thereof to register with the knuckle or joint of a finger or thumb whereby the shield is permitted to bend at said joint, and an extension at the lower inner or front portion thereof, substantially as and for the purposes specified. 4th. As a new article of manufacture, a finger shield or protector, consisting of a tubular body composed of vulcanized india rubber or similar material, adapted to fit over the tip or end of a finger or thumb, and having an opening in the end or tip thereof, and an opening in the back or rear portion to register with the knuckle or joint of a finger or thumb, whereby the shield is permitted to bend at said joint, substantially as described.

No. 64,459. Corset Fastener. (*Attache de corset.*)

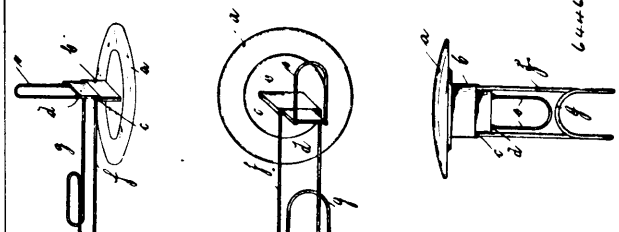


64459

Mary Olive Ross, Carlinville, Illinois, U.S.A., 20th October, 1899; 6 years. (Filed 25th August, 1899.)

Claim.—1st. A corset fastener, comprising a case attachable upon a corset busk over a hole therein, a latch plate slidable in the case and having a projecting push piece thereon, and a perforation in said latch plate, a bow spring held in the case and at its bow end embracing with its resilient limbs the opposite convex edges of the latch plate, and a notched locking stud on an opposing busk, which stud may enter the case, pass through the perforation in the latch plate, and be locked therein by engagement of an edge of the latch plate perforation with the notch of the stud. 2nd. The combination with a corset busk having spaced ears thereon, and latching sections each comprising a case secured upon an ear of the busk, a latch plate the body of which is flat and ovate, and from which a push piece projects through a slot in the case, said latch plate having a perforation therethrough, a bow spring held at its bow end by a stud that projects from the bottom of the case, and guard pins erected in the case and contacting with the bow spring to press its resilient limbs upon the convex edges of the latch plate, of a plurality of locking studs on an opposing busk and spaced to enter the perforations of the latch plates, each stud having a cross notch adapted to receive the edge of a latch plate perforation through which said stud is inserted.

No. 64,460. Stud and Scarf Holder.
(*Bouton de chemise et porte-écharpe.*)



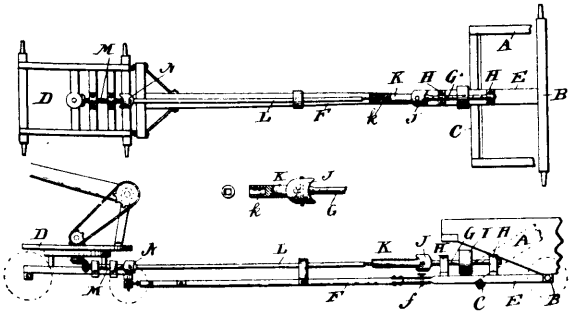
64460

Johannes Poncke Berlin, Germany, 20th October, 1899; 6 years. (Filed 16th August, 1899.)

Claim.—1st. The combination with a collar stud, of a bent and recurved bail hinged to its stem, and a shorter bail also hinged to said stem, both bails being adapted to be brought into line with said stem for insertion through the button hole, and the shorter bail to be closed down towards the return of the other to confine the scarf. 2nd. The combination with a collar

stud, of a bail hinged to its stem to swing through an arc of 90 degrees and having a return bend at its free end, and a second and short bail also hinged to said stem to swing through an arc of 180 degrees and past the other, said second bail being adapted to fold toward the return of the first and form therewith a closed pocket for the scarf band. 3rd. The combination of the head *a*, the stem *b*, the bail *f*, *g* hinged thereto intermediate of its length, and the shorter bail *e* hinged to said stem at or adjacent to its end, said bails being adapted to be turned down and enclose the scarf band between them when the stud is in position on the collar.

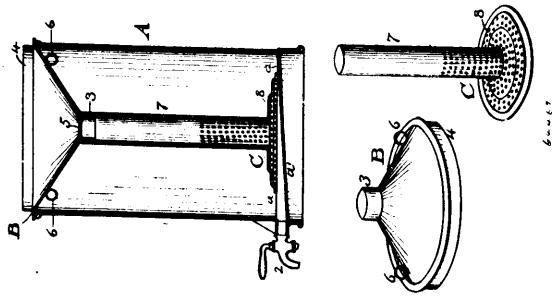
No. 64,461. Stacker. (*Appareil a ameulonner.*)



John A. Parkinson, Rock Valley, Iowa, U.S.A., 20th October, 1899 ; 6 years. (Filed 24th August, 1899.)

Claim.—1st. In connection with the operating mechanism of a swinging stacker, a tumbling rod in the same vertical plane and parallel with the draft connection of the swinging stacker and separator, said rod having one end squared, a knuckle joint connecting the other end of said rod to the operative mechanism, a sleeve having a socket adapted to receive the squared end of said rod, and a knuckle joint connecting said sleeve to the driving mechanism, substantially as shown and described. 2nd. In connection with the operating mechanism of a swinging stacker, a tumbling rod in the same vertical plane with and parallel with the draft connection between the swinging stacker and separator, a knuckle joint connecting the rear end of said rod and the operating shaft of said stacker, a shaft mounted on the rear part of the separator frame, and provided with a pulley adapted to be driven by a belt and a knuckle joint attached to the last-mentioned shaft and adapted to receive the forward end of said rod, substantially as shown and described. 3rd. In connection with the operating mechanism of the swinging stacker, a tumbling rod having its forward end squared, said rod extending above the tongue of the swinging stacker, and passing loosely through a bearing fixed on said tongue, a knuckle joint connecting said rod with the operating shaft of the swinging stacker, a shaft mounted on the rear part of the operating frame and provided with a pulley adapted to be driven by a belt, a knuckle joint attached to said last-mentioned shaft, and a sleeve fixed to said joint and provided with a square socket adapted to receive loosely the square end of said rod, substantially as shown and described.

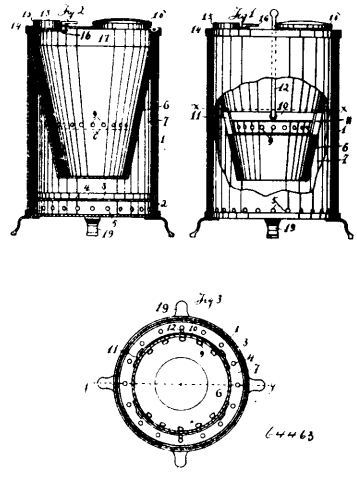
No. 64,462. Cream Separator. (*Séparateur pour la crème.*)



Arthur Ernest Dulmage, Oberlin, Ohio, U.S.A., 20th October, 1899 ; 6 years. (Filed 18th August, 1899.)

Claim.—1st. A fluid mixer for cream separators, consisting in a tubular column open at both ends and provided with numerous fine perforations for injecting water horizontally into the milk at successive elevations from the bottom upward, and a substantially dish-shaped perforated base rigid with said column, substantially as described. 2nd. A fluid mixer for milk in a can consisting of a column open at both ends and finely perforated between its ends to inject water into a can horizontally at different elevations and a base rigid with said column, in combination with a can and a cover therefor constructed to be inverted to convey the water into the said column, substantially as described.

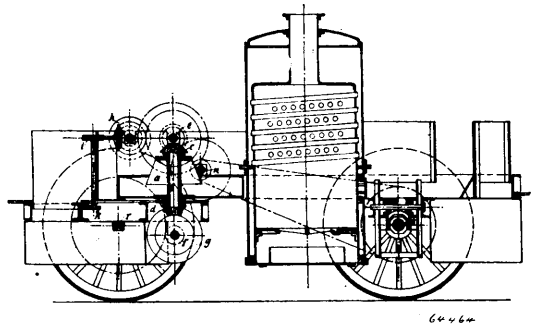
No. 64,463. Stove. (*Poêle.*)



Christian Olsted, Lawrence, Kansas, U.S.A., 20th October, 1899 ; 6 years. (Filed 21st August, 1899.)

Claim.—1st. In a stove, the combination of a fire chamber having an imperforate bottom, and provided with suitable draft openings around its sides at a distance from its bottom, a hot air chamber surrounding said fire chamber and communicating therewith through said draught openings, a draught regulator upon said fire chamber arranged to control the draught through said draught openings, and a cold air chamber under said hot air chamber and communicating therewith, substantially as set forth. 2nd. A stove consisting of an inner casing forming a fuel and combustion chamber having an imperforate bottom, and provided with draught openings around its sides at a distance from its bottom, an outer casing forming with said inner casing a hot air chamber surrounding said fuel and combustion chamber and communicating therewith through said draught openings, a draught regulator upon said inner casing arranged to control the draught between said hot air chamber, and said fuel and combustion chamber, and a double bottom in said outer casing forming a cold air chamber communicating with said hot air chamber, substantially as set forth.

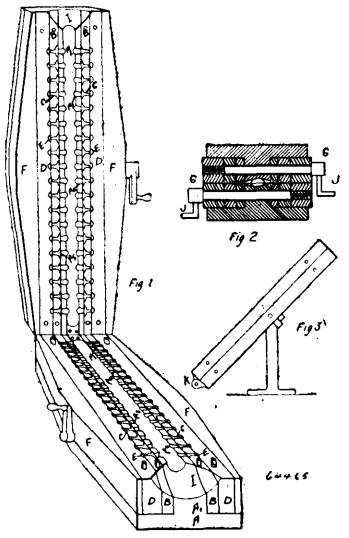
No. 64,464. Road Locomotive. (*Locomotive de routes.*)



Fritz Brutschke, Charlottenburg, near Berlin, German Empire, 20th October, 1899 ; 6 years. (Filed 24th August, 1899.)

Claim.—1st. A road locomotive with four driving wheels, wherein one axle is pivoted in a horizontal plane for effecting the steering of the locomotive, and the other axle is movable in the vertical plane for enabling the locomotive to pass over inequalities in the ground so that all four wheels can be actuated for driving the locomotive, substantially as hereinbefore described. 2nd. A road locomotive of the kind described, wherein the axle which is movable in a horizontal plane is connected to an under frame which is secured to the main frame by a triangular structure and wherein the pivot axis coincides with the middle line of the power transmission shaft, substantially as hereinbefore described. 3rd. A road locomotive of the kind described, wherein the axle which can move in the vertical plane is supported in a beam, the fulcrum of which lies in the median (middle) plane of the main frame, substantially as hereinbefore described. 4th. The combination and arrangement of parts forming the improved road locomotives hereinbefore described and illustrated in the accompanying drawings.

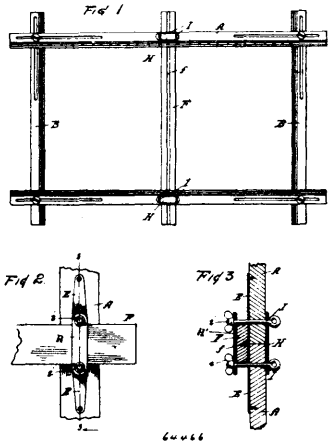
No. 64,465. Mould for Buttons. (*Moule pour boutons.*)



John S. Barnes, Detroit, Michigan, U.S.A., 20th October, 1899; 6 years. (Filed 21st August, 1899.)

Claim.—1st. The combination in a moulding machine for forming laundry and other buttons and small metal articles, consisting of hinged duplicate halves made of separate parts A and A¹, B, D and F, said parts being countersunk, indented, grooved, plugged and bored, substantially as shown and described. 2nd. The combination in a moulding machine of parts above described, consisting of duplicate halves hinged, and provided with pins and screw bolts, said screw bolts having handles, all as shown and described.

No. 64,466. Curtain Stretcher. (*Tendeur de rideau.*)



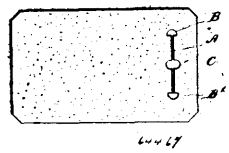
Walter Albert Maye, Chicago, Illinois, U.S.A., 20th October, 1899; 6 years. (Filed 21st August, 1899.)

Claim.—1st. In a curtain stretcher frame, the combination of side bars, and a transverse bar arranged to maintain parallelism between the bars, and right angles at the intersection of the bars, and the transverse bar when in use, substantially as described. 2nd. In a curtain stretcher frame, the combination of end bars, jointed side bars and a transverse bar provided with a groove to receive the ridges or axes of the hinges, and means for securing the transverse bar to the side bars, whereby the sagging of the side bars is prevented when the frame is on its edge, substantially as herein described. 3rd. In a curtain stretcher frame, the combination of end bars, jointed side bars and strap hinges arranged on the reverse or back side of the side bars, whereby the bars are permitted to fold back to back when not in use, and prevented from sagging when arranged in a horizontal position with their faces up and in use, substantially as herein described.

No. 64,467. Tag. (*Etiquette.*)

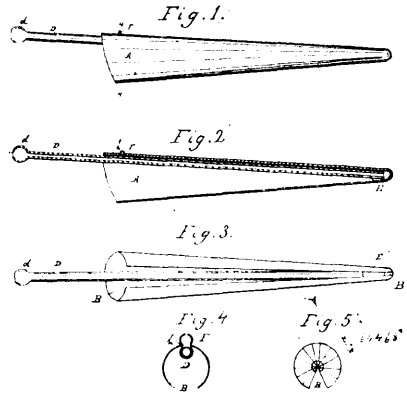
Adam Keller, Brooklyn, New York, U.S.A., 21st October, 1899; 6 years. (Filed 16th March, 1899.)

Claim.—1st. A marking tag formed of stiff material and provided with a straight narrow slit having its end walls curved and provided near the middle with an enlargement, thus providing elastic tongues on both sides of the slit capable of yielding to admit a button. 2nd.



A tag formed of a card of suitable material and provided with central and terminal openings in a line extending across one end of the card, said openings being connected by a transverse cut narrower than the openings and arranged centrally of the openings, whereby a plurality of elastic tongues are formed on both sides of said cut.

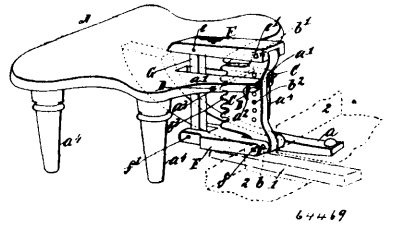
No. 64,468. Intra-Uterine Irrigator. (*Irrigateur.*)



Wallace A. Dunton, Los Angeles, California, U.S.A., 21st October, 1899; 6 years. (Filed 17th July, 1899.)

Claim.—1st. An intra uterine irrigator comprising a conical shell terminating in an inner rounded point and having a slit extending from the inner rounded point to the rear or open end, a water supply tube attached to the within said shell, the outer end thereof provided with means for attachment to a water supply, the inner end terminating near the point of the outer shell and having a longitudinal discharge slot registering with the slit B, substantially as described. 2nd. An intra uterine irrigator comprising a conical shell terminating in a rounded point with a longitudinal slit therein terminating at the rounded point, a water supply tube attached to and within such shell, and terminating near the point thereof, and having a bulb, as *d*, for connecting with a water supply, and having a longitudinal slot in the inner end, as for the purposes shown and described. 3rd. The herein described intra uterine irrigator comprising the conical shell A, having longitudinal slit B, water supply tube D, within and attached to shell A, having bulb *d* at its outer end for connection with a water supply, and slot E in the inner end thereof and arranged to register with slit B in shell A, the spring catch F for holding the supply tube in place in said shell, substantially as and for the purposes shown and described.

No. 64,469. Piano Pedal. (*Pedale de pianos.*)

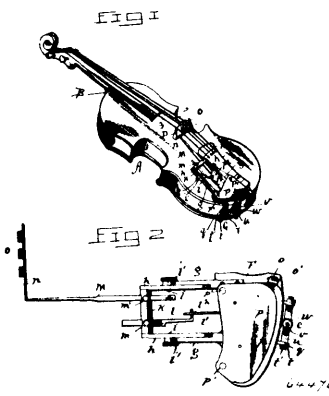


Henry Francis Spurr, jr., Boston, Massachusetts, U.S.A., 21st October, 1899; 6 years. (Filed 14th March, 1899).

Claim.—1st. An auxiliary piano pedal consisting of a foot rest having an arm to contact the piano to retain the foot rest body in position, and provided with a forked arm extending from the body, a pin passing through the forked arm portion of the body and being fixed thereto, a removably fitted pin passing through the forked arm, an auxiliary pedal adjuster entering the space of the forked arm, a series of notches provided on the edge of the pedal adjuster and engaging the fixed pin, a series of holes opposite the notches through the adjuster and engaging the removably fitted pin, a piano pedal operating arm having one end freely connected to the lower end of the adjuster, a connecting rod having its lower end freely connected

to the opposite end of the piano pedal operating arm, and an auxiliary pedal being connected to the upper end of the adjuster, and having its opposite end freely connected to the upper end of the connecting rod, substantially as and for the purpose described. 2nd. In an auxiliary pedal for pianos, a foot rest having an arm to contact the piano to retain the foot rest body in position, and a forked arm extending from the body, in combination with a pin passing through the forked arm and being fixed thereto, a removably fitted pin passing through the forked arm, an auxiliary pedal adjuster entering the space of the forked arm, teeth provided on the edge of the pedal adjuster and the adjuster thus engaging the fixed pin, holes respectively opposite the teeth notches through the adjuster, and the adjuster thus engaging the removably fitted pin, a piano pedal operating arm having one end freely connected to the lower end of the adjuster, a connecting rod having its lower end freely connected to the opposite end of the piano pedal operating arm, and an auxiliary pedal being connected to the upper end of the adjuster, and having its opposite end freely connected to the upper end of the connecting rod, substantially as described.

No. 64,470. Chin Rest and Modulator for Musical Instruments. (*Appui-menton et modulateur pour instrument de musique.*)



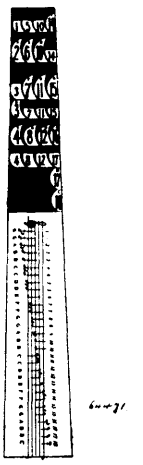
Calvin C. Harlan, Eaton, Ohio, U.S.A., 21st October, 1899; 6 years. (Filed 25th March, 1899.)

Claim.—1st. A mute or modulator for stringed iustruments, consisting of a vertically movable arm provided at one end with a lateral extension carrying modulating tines or fingers having their upper free ends bent outwardly beyond the plane of their lower ends, and means for operating said arm, substantially as described. 2nd. A mute or modulator for stringed instruments, comprising a base piece provided with a clamp and a pair of arms projecting forward therefrom, bars adjustably connected to said arms, a rock shaft journalled in said bars, a chin rest mounted upon a shaft supported by the base plate, a spring on the base plate in rear of the said shaft acting to hold the front end of the chin rest normally inclined downward, an adjustable connection between the chin rest and rock shaft, and a modulator arm connected to said shaft and projecting forward therefrom and provided at its front end with an extension carrying a series of upwardly projecting tines or fingers, substantially as described. 3rd. A mute or modulator for stringed instruments, comprising a base piece carrying bracket arms, bars adjustably connected to said bracket arms, a shaft mounted in said bars, a modulator arm connected with said shaft and carrying modulator tines or fingers, a depressible chin rest pivoted to said base piece, a connection between the shaft and chin rest, and means for returning the chin rest to its normal position and retracting the shaft and modulator arm, substantially as described. 4th. A mute or modulator for stringed instruments, comprising a base piece provided with a clamp and carrying bracket arms, bars adjustably connected to said arms, a shaft mounted in the bars, a modulator arm connected at one end to said shaft and provided at its free end with an extension carrying modulating tines or fingers, a depressible chin rest pivoted to the base piece, a connection between the chin rest and shaft to move the latter and modulator arm, and a spring to restore the chin rest to its normal position, and retract said shaft and arm.

No. 64,471. Finger Guide for Musical Instruments.
(*Doigtier pour instruments de musique.*)

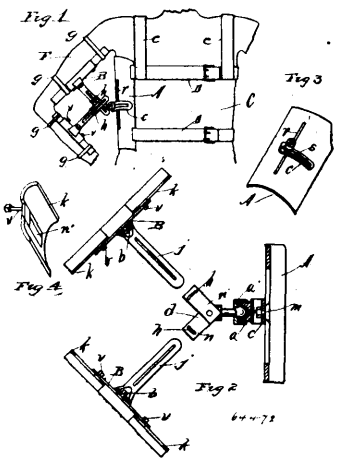
Philip Marcuson, Baltimore, Maryland, U.S.A., 21st October, 1899; 6 years. (Filed 27th March, 1899.)

Claim.—1st. A finger board having finger pressure position lines inscribed thereon at various angles, said lines inclosing a numeral or other indicating characters, as and for the purpose described. 2nd. A finger board having curved lines thereon adapted to register with the contour of the finger when the finger is in proper position for producing a desired note. 3rd. A finger board having a series of curved lines thereon adapted to register with the contour of the finger when the finger is in proper position and a second series of



curved lines distinguishable from the first named series, as and for the purpose described.

No. 64,472. Surgical Apparatus. (*Appareil chirurgical.*)



Charles Sherman Smith, Providence, Rhode Island, U.S.A., 21st October, 1899; 6 years. (Filed 22nd May, 1899.)

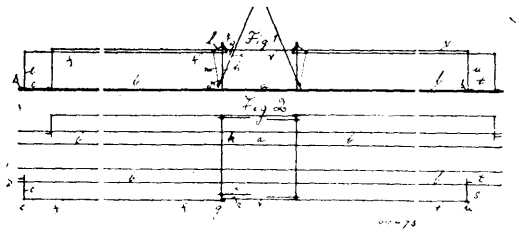
Claim.—1st. A surgical apparatus consisting of a body plate, two bars adjustedly attached thereto, with means for securing the outer end of one of said bars to the upper arm and means for securing the outer end of the other of said bars to the forearm, substantially as described. 2nd. In an apparatus for securing a fractured limb, the combination of a plate adapted to be attached to the body and having a vertical slot made therein, a clip having a slot made in it, a bolt to pass through the two slots and hold the clip to said plate, an angle plate attached to said clip by a bell and socket joint, means attached to said angle plate to hold the forearm and the upper arm, substantially as described. 3rd. In an apparatus for the purpose described, the combination, a plate fitted to the body, plates curved to fit the upper arm and having slots to receive bolts to attach them to a plate having a slotted bar attached, a like set of plates for the forearm also attached to a slotted bar, with means for adjustably securing said slotted bars to said body plate, substantially as described.

No. 64,473. Railway Barrier Opener and Closer.
(*Barrière automatique de chemin de fer.*)

Georg Rämmensée, Gräfenberg, Bavaria, and August Kaesser, Schwäb, Gmünd, Wurtemberg, both of the German Empire, 21st October, 1899; 6 years. (Filed 3rd August, 1899.)

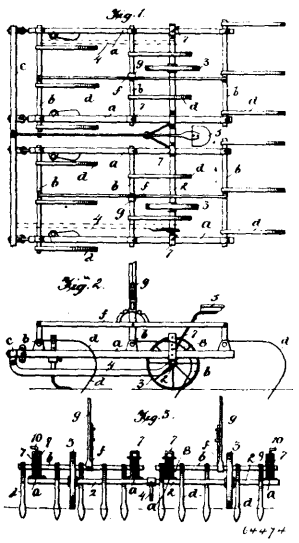
Claim.—Means for effecting the automatic closure and opening of the barriers of railway crossings by a train, consisting in the actuation by the train before and after the crossing is passed of an arm (*d* and *t* respectively) which is arranged upon the line *b* at a certain distance from the crossing *a*, so that by means of a lever mechanism (*e*, *f*, *g*, *k*, *l*, *m* and *n*) a weight *o* is lifted off the barrier

i and the barrier thereby closed by means of a second lever mechanism (*u*, *v* and *r*) a cam projection *p* of the first mechanism is



released so that the weight *o* aforesaid causes the barrier arm to be uplifted or opened.

No. 64,774. Harrow Support. (*Support de herse.*)



Hannah M. Whipple, Detroit, Michigan, U.S.A., Administratrix of the Estate of Effingham E. Whipple, 21st October, 1899; 6 years. (Filed 25th August, 1899.)

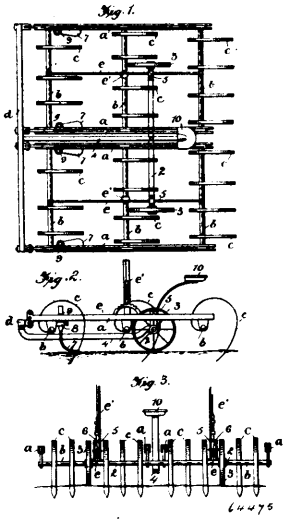
Claim.—1st. A harrow having a wheeled supporting attachment extending transversely beneath all the side frame bars of the harrow and having supporting wheels with the harrow frame and draft connections. 2nd. A harrow having the axle arranged transversely beneath the inner and outer side frame bars of the harrow with supporting wheels, and draft connections extending forwardly and connected with the draft of the harrow. 3rd. A harrow having a supporting attachment extending beneath the side frame bars thereof with supporting wheels between the frame bars and draft connections, and arranged to permit independent vertical play of the harrow and to uphold the same by the frame bars when the teeth are elevated. 4th. A two section lever adjustment harrow having a wheeled support extending transversely beneath the inner and outer side frame bars of both sections between the tooth bars thereof and beneath the harrow teeth, and draft connections from the support connected with the draft of the harrow. 5th. A wheeled supporting attachment for a harrow having draft attachments and guides to receive the harrow frame bars provided with springs to yieldingly hold the harrow down to work, substantially as described. 6th. A wheeled supporting attachment for harrows, comprising an axle having wheels, a forwardly extending draft tongue, and inclosing guides to receive parts of the harrow and rigid with the axle elongated vertically, substantially as described. 7th. A harrow having a wheeled supporting attachment loosely connected thereto to permit independent vertical movement of the harrow, and springs carried by the wheeled support and yieldingly holding down the harrow to work, substantially as described. 8th. A wheeled supporting attachment for harrows having vertical guides to hold the harrow against lateral swaying and permit independent vertical movement, substantially as described. 9th. A two section harrow having a front evener bar, and supporting devices from the side frame bars a distance back from the front ends thereof, and a wheeled axle, coupled with the draft of the harrow and extending transversely beneath the harrow section and the inner and outer frame bars thereof and between the tooth bars thereof and beneath the teeth of the tooth bars immediately in front thereof. 10th. A two section harrow having a wheeled supporting attachment arranged transversely thereof and loosely connected with the draft thereof to permit independent vertical play of the sections and to uphold the same when the teeth are raised, said attachment holding sections in line and against independent lateral swaying, substantially as described. 11th. A curved spring tooth rocking tooth bar harrow comprising several independent sections in combination with an independent wheeled riding attachment moving forward with the harrow and provided with a support arranged about at the transverse central portion of the harrow and constructed and arranged to balance each section at opposite sides of the section and sustain practically the entire weight thereof in a certain plane with the section frame elevated from the ground and permit independent play of each section above such plane, substantially as described. 12th. A rocking tooth bar curved spring tooth harrow, in combination with an independent riding attachment moving forward with the harrow and having a support arranged transversely of the harrow about at the transverse central portion thereof and upholding opposite side portions of the harrow in a certain elevated plane and permitting independent play thereof above said plane, and whereby the harrow is balanced from the attachment, substantially as and for the purpose stated. 13th. A lever adjustment curved spring tooth harrow, in combination with a wheeled supporting attachment having a seat and comprising an axle in length approximately equal to the width of the harrow and arranged transversely thereof at about the transverse central portion of the harrow and having wheels between the frame and tooth bars of the harrow, said axle supporting and balancing the harrow in an elevated position whether the teeth are in or out of operative engagement with the soil and permitting independent movement of the harrow above such position, substantially as described. 14th. A two section harrow in combination with a wheeled riding attachment moving forward with the harrow and comprising an axle arranged transversely of the side frame bars of each section at an intermediate portion thereof, and provided with supporting wheels approximately within the longitudinal central portion of the sections, repectively, said axle supporting each section from points on opposite sides thereof and intermediate the longitudinal length of said section, whereby the section frame is carried in an elevated plain above the ground, substantially as described. 15th. A lever adjustment curved spring tooth harrow having its adjusting lever on an intermediate tooth bar, in combination with an independent wheeled riding attachment moving forward with the harrow and arranged about at the transverse central portion of the harrow and provided with a rider's seat, said attachment provided with a support upholding the harrow at the frame sided thereof in an elevated plane above the ground so that the harrow is balanced from the support and practically its entire weight is carried thereby, whereby the harrow frame is held elevated when the teeth are raised so that the teeth can be lowered by said lever without lifting the frame. 16th. A several section lever adjustment harrow having depending frame supports in advance of its transverse centre, in combination with an axle arranged transversely of the several sections and frame bars thereof and provided with supporting wheels, said action arranged transversely of the sections a distance in advance of their rear ends, and having a forwardly extending draft connection to the draft of the harrow, each section being supported or upheld by its opposite side frame bars from said axle in an elevated plane above the ground and independently moveable vertically above said plane, substantially as described. 17th. A lever adjustment curved spring tooth harrow comprising several independent sections, and an independent wheeled riding attachment therefor combined with and arranged in respect to said sections as to uphold and balance each section on its opposite side frame bars and at intermediate points thereof and thereby support the section frames in an elevated plane above the soil and permit independent play thereof above such plane, substantially as described. 18th. A several section harrow having a front evener bar, in combination with a wheeled and supporting attachment having a draft bar rigid therewith and extending forwardly beneath the plane of the tooth bars of the harrow and at its front end secured to the evener bar, substantially as described. 19th. A harrow, in combination with a wheeled axle carrying a seat, the harrow having a vertical movement independently of said axle, and a draft bar or tongue from the axle extending forwardly of the harrow beneath the plane of its tooth and frame bars, and at its front coupled with the draft of the harrow, substantially as described. 20th. A harrow, with an independent wheeled riding attachment coupled with the draft of the harrow and provided with vertical elongated guides embracing parts of the harrow and permitting vertical play of the harrow independently of said wheeled attachment and provided with stops limiting the play of the harrow.

No. 64,475. Harrow Support. (*Support de herse.*)

Hannah M. Whipple, Detroit, Michigan, U.S.A., administratrix of the estate of Effinger E. Whipple, 21st October, 1899; 6 years. (Filed 25th August, 1899.)

Claim.—1st. A sectional harrow having the tooth adjusting bars arranged about centrally of the sections thereof, a wheeled support within the harrow and across the sections thereof with guides between which said bars play having stops to limit the downward movement of the said bars. 2nd. A harrow having an independent wheeled riding and supporting attachment coupled loosely with the harrow and arranged within the frame of the harrow with supporting parts or portions beneath and limiting the downward move-

ment of the harrow, whereby the weight of the harrow is carried by said attachment and the harrow is suspended from or balancing



on said supporting parts. 3rd. A several section lever adjustment harrow having front depending supports, and provided with a wheeled riding attachment or support loosely coupled with the harrow and arranged transversely of the harrow sections and intermediate of the length thereof and in advance of the rear ends of the sections, substantially as described. 4th. A lever adjustment several section harrow having an independent wheeled riding action attachment or support extending beneath intermediate portions of the adjusting bars of the harrow sections, and arranged to uphold the sections through the medium of said bars. 5th. A lever adjustment several section harrow having an independent wheeled riding attachment extending transversely of the sections and beneath parts thereof between the front and rear harrow tooth bars, said attachment constructed and arranged to permit independent vertical play of the sections, and to hold the same suspended or balanced from said intermediate parts, and sustain practically the full weight of the sections, substantially as described. 5th. A lever adjustment curved spring tooth harrow comprising several independent sections, in combination with a wheeled riding attachment limiting the downward movement of said harrow sections and permitting independent vertical movement of said sections above a fixed plane or planes, said attachment arranged intermediate of the length of the harrow sections, and extending transversely of the space between the two sections, and of the inner frame-bars of the sections and having its wheel between the frame and the tooth bars, and in advance of the rear tooth bars, substantially as described. 7th. A lever adjustment curved spring toothed harrow comprising several independent sections, in combination with a wheeled riding and supporting attachment limiting the downward movement of the harrow sections to uphold the frame thereof from the ground whether the teeth are in or out of operative adjustment, said attachment comprising an axle or frame arranged transversely of the sections in advance of the rear ends thereof and across the space between the sections with supporting wheels between the frame and tooth bars of the respective stations, and a draft appliance from said frame or axle extending forwardly to move the attachment forward with the harrow. 8th. A lever adjustment harrow comprising several independent sections, in combination with a wheeled riding and supporting attachment having an axle arranged transversely of the sections and across the inner sides thereof and in front of the rear portions of the sections having supporting wheels within intermediate parts of the sections, said attachment constructed and arranged to limit the downward movement of both sections and permit free upward play thereof above said limit, and provided with means coupling the attachment with the draft of the harrow and holding the axle against tilting, and depending ground supports from the harrow sections just in advance of the wheeled attachment, substantially as described. 9th. A several section harrow, in combination with an axle arranged above the sections and extending transversely of intermediate portions of both sections and provided with supporting wheels between the frame and tooth bars and teeth of the respective sections and a draft tongue from the axle extending forwardly and coupled with the draft of the harrow, said axle provided with elongated guideways loosely receiving a part of each harrow section and each having an adjustable stop, as and for the purpose set forth. 10th. A several section lever adjustment curved spring tooth harrow, each section having the central connecting bar and the hand lever on an intermediate tooth bar, in combination with a wheeled supporting and riding attachment arranged transversely of an intermediate part of the harrow with its supporting wheels between the tooth and frame bars of the respective sections, said attachment having supports beneath the respective connecting bars of the sections limiting the downward movement thereof below certain planes and arranged beneath intermediate parts of the lengths of the bars and thereby upholding or balancing the sections from said connecting bars, said sections having depending frame supports in advance of the wheeled attachment to hold the front ends of the sections frames from tilting forwardly onto the ground. 11th. A two-section lever adjustment curved spring tooth harrow, each section having the about central connecting bar, and depending frame supports in advance of its central portion, in combination with an independent wheeled riding attachment arranged transversely of the sections at or about the central or an intermediate portion thereof, said attachment coupled with the draft of the harrow and provided with vertically elongated supports receiving the connecting bars of the sections, respectively, near the central or intermediate portions of the lengths thereof, and limiting the downward movement of each connecting bar and thereby upholding the sections and balancing the same independently from and by the connecting bar of each. 12th. A lever adjustment curved spring tooth harrow having the connecting bars, in combination with an independent wheeled riding attachment provided with a support at an intermediate portion of said connecting bar and arranged with relation to co-acting with said connecting bar to hold the same so that the harrow frame is drawn up to permit the teeth being forced down without requiring the rider to leave his seat or lift the harrow frame by hand, substantially as described. 13th. A rocking tooth bar lever adjustment curved spring tooth harrow, in combination with an independent wheeled riding attachment coupled to move with the harrow and permit independent play of the harrow, said attachment having a support constructed and arranged to co-operate with a part of the harrow about at the transverse central portion thereof, and lift the harrow frame independently of the riding attachment and balance the harrow therefrom and carry practically its full weight, substantially as described. 14th. A rocking tooth bar lever adjustment curved spring tooth harrow, having the usual connecting bar, the harrow frame and connecting bar approaching or receding from each other as the tooth bars are rocked, in combination with an independent wheeled riding attachment moving the harrow and provided with a stop or support at an intermediate part of the connecting bar and limiting the downward movement thereof below a certain plane and thereby causing the harrow frame to draw up toward said bar when the tooth bars are rocked beyond certain points and hence elevating the harrow frame and permitting the teeth to easily move down independently of the riding attachment and while the operator retains his seat, substanially as described. 15th. A lever adjustment curved spring tooth harrow having depending ground supports in advance of its transverse central portion, in combination with an independent wheeled riding attachment moving forward with the harrow and arranged transversely intermediate of the harrow, and comprising supports about at the central portion of the harrow and upholding the same in an elevated plane and balancing and sustaining practically the weight thereof, said harrow allowed vertical play independent of the riding attachment and above the plane of said supports, substantially as described. 16th. A harrow having an independent wheeled riding attachment arranged within the frame thereof and constructed and arranged to limit downward movement of said frame at intermediate points of the harrow and to thereby balance and uphold practically the entire harrow from the riding attachment, and means to hold the harrow frame from rocking or tilting into engagement with the ground, substantially as described. 17th. A rocking tooth bar lever adjustment harrow having the connecting bar, in combination with an independent wheeled supporting attachment moving forward with the harrow and provided with a support at a point over the harrow holding said bar against downward movement below a certain plane, whereby the frame draws up toward said bar when the tooth bars are rocked beyond certain points, said support upholding practically the entire weight of the harrow through the medium of said bar and throwing said weight on to the wheeled attachment. 18th. A harrow, in combination with an independent wheeled riding attachment moving forward therewith and provided with adjustable supports arranged about at the transverse central portion of the harrow and upholding the harrow in an elevated plane and governing the working depth of the teeth and balancing the harrow and throwing practically the entire weight of the harrow on to the attachment from the intermediate points of the harrow, substantially as described. 19th. A harrow having depending shoes between its transverse centre and front end, in combination with a wheeled riding attachment arranged within the harrow just in rear of its transverse centre line and provided with supports about at the centre portion of the harrow constructed and arranged to limit the downward movement of the harrow whether the teeth are in or out of the soil, and balancing and upholding the harrow from the said intermediate points. 20th. A lever-adjustment harrow having a connecting bar in combination with an independent wheeled support having an upright guide loosely receiving said connecting bar and in which said bar moves vertically and provided with a stop limiting the downward movement of the bar and upholding the harrow through the medium of said bar.

No. 64,476. Wire Fence. (*Clôture de fil de fer*).

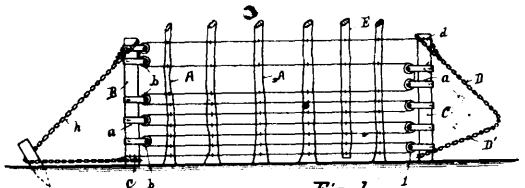


Fig. 1.

64476

Fig. 2.

Lorin W. Young, Dayton, Ohio, U.S.A., 21st October, 1899; 6 years. (Filed 25th August, 1899).

Claim.—1st. In a fence wire stretching device the combination of a movable post, and an anchored post, a series of sheaves attached to said posts at predetermined intervals, whereby a wire may be passed alternately from one post to the other over said sheaves and the whole simultaneously and uniformly strained in juxtaposition to a row of hedge plants, substantially as described. 2nd. In a fence wire stretching device the combination of a movable post and an anchored post, means for simultaneously straining said posts in a common vertical plane, and a series of sheaves attached to said posts at predetermined intervals, whereby a wire may be passed alternately over said sheaves from the bottom of one post to the top of the other, and the same can be strained to a uniform tension and attached to a row of hedge-plants, substantially as described. 3rd. In a fence-wire-straining device the combination of a movable post and on an anchored post, means for straining said posts apart in a vertical plane, a series of sheaves attached to said posts at predetermined intervals, the sheaves being journalled to revolve in the plans of the posts, whereby a fence wire may be passed over the said sheaves from one post to the other from top to bottom and simultaneously and uniformly strained between said posts in juxtaposition to a row of hedge plants, the wires attached to said plants, severed, and the posts moved along to form another panel, substantially as described.

No. 64,477. Wire Fence. (*Cloture de fil de fer.*)

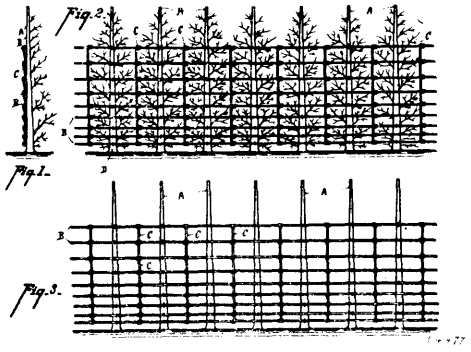


Fig. 1. Fig. 2. Fig. 3.

Lorin W. Young, Dayton, Ohio, U.S.A., 21st October, 1899; 6 years. (Filed 25th August, 1899.)

Claim. 1st. A combined hedge and wire fence composed of a line of hedge plants trimmed of the branches to a suitable height, a strip of woven wire having rectangular meshes secured to one side of the hedge-plants by stapling the horizontal strands thereto under tension, the cross wires forming vertical barriers between the plants along the hedge, substantially as specified. 2nd. A combined hedge and wire fence composed of a line of hedge plants trimmed of its branches to a suitable height upon one side, and a strip of woven wire having horizontal and vertical strands secured to the trimmed side of the hedge plants under tension by stapling the horizontal strands thereto, substantially as specified.

No. 64,478. Incubator. (*Incubateur.*)

Charles S. Newson, Athens, Ohio, U.S.A., 21st October, 1899; 6 years. (Filed 25th August, 1899.)

Claim. 1st. In an incubator, the combination with a suitable housing, of a rotatable egg carrier journalled therein having egg receptacles, and a water compartment surrounding said rotatable carrier, as set forth. 2nd. An incubator, consisting of a housing provided with suitable doors to gain access to the interior, a rotatable egg holder mounted in said housing and suitable means

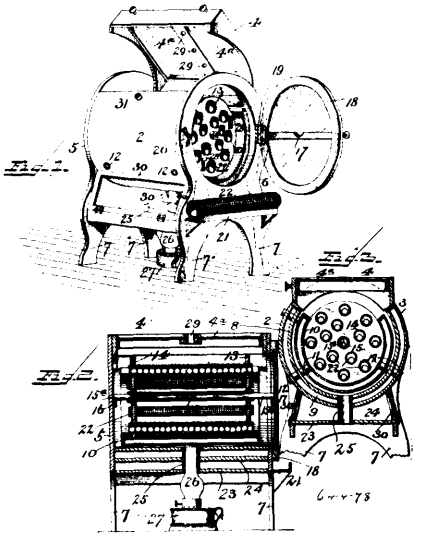


Fig. 1. Fig. 2. Fig. 3.

64478

carried by said holder to carry each individual row of eggs, in combination with a water jacket surrounding said rotatable carrier, and suitable means for raising the temperature of the water in said reservoir, as and for the purpose set forth. 3rd. In an incubator, a housing consisting of separated walls, a rotatable egg carrier mounted in said housing and consisting of perforated end discs, a series of egg holders carried by said discs and fitting said perforations, a water jacket surrounding the same and suitable means for heating the water carried thereby, as and for the purpose set forth. 4th. In an incubator, the combination of a suitable housing having a substantially cylindrical interior, a rotatable egg carrier mounted in said housing, a series of tubular egg carriers formed of meshed or perforated material, and a water jacket surrounding said parts whereby a uniform temperature may be maintained by the heat of a lamp, as and for the purpose set forth. 5th. In an incubator, the combination of a suitable housing, a rotatable egg carrier mounted therein, a water jacket surrounding said housing and a brooding chamber or compartment located beneath said jacket, and suitable means for conveying the heat from a lamp through said brooding chamber into contact with said jacket, whereby the temperature of the water contained therein will be raised to and maintained at the desired point, as specified.

No. 64,479. Culvert. (*Ponceau.*)

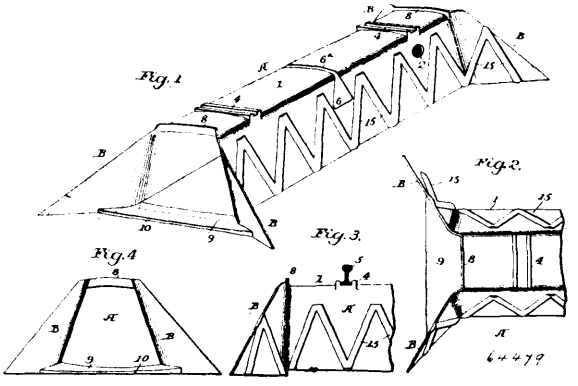


Fig. 1. Fig. 2. Fig. 3. Fig. 4.

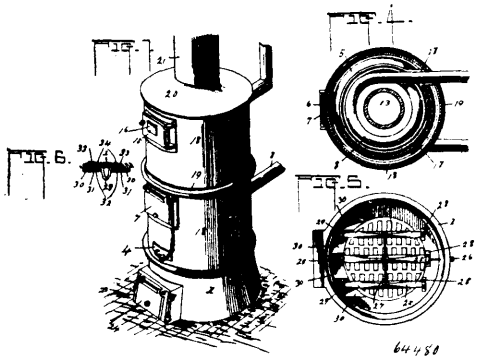
64479

William Albert Nichols. St. Davids, Pennsylvania, U.S.A., 21st October, 1899; 6 years. (Filed 25th August, 1899.)

Claim.—1st. A culvert, comprising a main body portion, outwardly flaring wings extending from one or both of the ends of said body portion and forming continuations of the side walls thereof, and flanges extending from the top and bottom walls of the body portion, substantially as described. 2nd. A culvert formed in a single piece, comprising a main body portion and outwardly diverging wings at one or both of its ends, the interior surface of the body portion and wings being smooth and unbroken through their length, substantially as described. 3rd. A culvert formed with a concave bottom, upwardly converging sides, a top, and having at one or both of its ends top and bottom flanges and diverging side wings, substantially as described. 4th. A culvert formed with a top, bottom and connecting side walls and provided at its top with

separated grooved bearings, each formed with continuous parallel flanges, substantially as described. 5th. A culvert formed at one or both of its ends with a base plate inclined upwardly to the bottom of the main body of the culvert, substantially as described. 6th. A culvert formed with top, bottom and connecting side walls and being provided intermediate its length with a transverse conduit, substantially as described. 7th. A culvert, drain or conducting main formed with upwardly converging side walls and with a concave bottom, substantially as described. 8th. A culvert provided at its end with outwardly diverging side wings and with a bottom plate connecting the side wings and inclined upwardly to the bottom of the main body of the culvert, substantially as described.

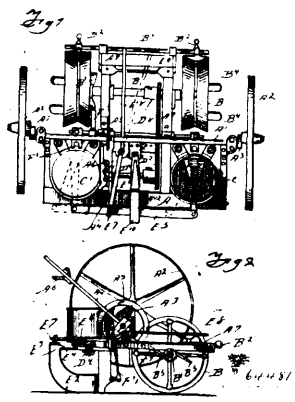
No. 64,480. Hot Air and Hot Water Heater.
(*Chauffeur à air eau.*)



Edwin Adams and Vernon P. Adams, both of Binghampton, New York, U.S.A., 21st October, 1899; 6 years. (Filed 26th August, 1899.)

Claim,—1st. In a heater, the combination with the exterior casing, of an inner body portion formed of a plurality of matching sections, the intermediate and adjacent sections being provided at their contiguous meeting edges with offstanding registering semi-tubular clamp sleeves projecting beyond the exterior of the inner body portion and extending entirely across the space between the latter and the exterior casing, and an inner heating pipe coil located entirely within the intermediate body section, and having straight tangential upper and lower terminals seated within and held by the said clamp sleeves when the sections of the body are assembled, substantially as set forth. 2nd. In a heater, the combination with the exterior casing of the inner body portion composed of a plurality of matching interlocking sections, the upper of said sections being formed with an offset feed chute open at its upper side, and with a central pendant magazine flue joined at its front wall directly with the flat bottom of the chute at the inner end thereof, the rear wall portion of said magazine flue being provided with a flanged upper end disposed flush with the top edge of the body section, a flanged cover plate completely fitting over the top edge of the body section, the open upper side of the feed chute and the magazine, and a fastening connection between the cover plate and the flanged upper end of the magazine flue, substantially as set forth.

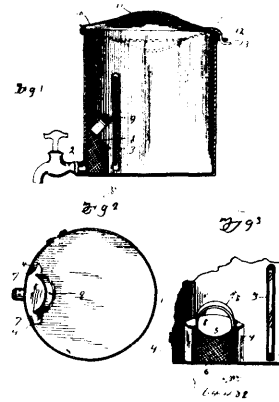
No. 64,481. Corn Planter. (*Plantoir pour blé d'inde.*)



Raphael Finot, Murphysborough, Illinois U.S.A., 21st October, 1899; 6 years. (Filed 26th August, 1899.)

Claim.—1st. In a planter, the combination with a frame, of a plough pivotally supported by a fixed part at one end and free to oscillate independently of said frame, and means for adjusting the angle of said plough transversely to the frame, substantially as specified. 2nd. In a planter, the combination with a frame, of a plough pivotally supported thereby and adapted to oscillate independently of said frame, and a pivoted adjusting lever adapted to oscillate said plough transversely to the frame, substantially as specified. 3rd. In a planter, the combination with a frame, of oppositely located pivoted ploughs, a reciprocating cross bar connecting the free end of said ploughs, a lever pivoted upon the frame and engaging said cross bar, and means to retain said lever in its adjusted position, substantially as specified. 4th. In a planter, the combination with a frame, of a plough having a pivoted seed tube mounted in said frame, means to oscillate said plough independently of said frame, a seed valve mounted in said tube, and means for operating said valve, substantially as specified. 5th. In a planter, the combination with a frame provided with seed dropping mechanism, a covering wheel in line with said mechanism, a tappet independent of and rotatable with said wheel, a seed valve in said dropping mechanism, a link extending from said seed valve through a fixed part of said frame, a spring surrounding said link and compressible against a portion of said frame, a rock shaft having an angle arm engaging the upper end of said link above the frame, and a finger adapted to be engaged and operated by said tappet, substantially as specified. 6th. In a planter, the combination with a frame provided with seed dropping mechanism, a covering wheel in line with said mechanism, a tappet independent of and rotatable with said wheel, a seed valve in said dropping mechanism, a link extending from said seed valve through a fixed part of said frame, a spring surrounding said link and compressible against a portion of said frame, a rock shaft having an angle arm engaging the upper end of said link above the frame, a finger adapted to be engaged and operated by said tappet, a seed box having therein a rotatable disc, a shaft for rotating said disc, and a sprocket chain extending to the shaft of said covering wheel, substantially as specified. 7th. In a planter, the combination with a frame provided with seed dropping mechanism, a covering wheel in a line with said mechanism, a tappet rotatable with said wheel, a seed valve in said dropping mechanism, a link extending from said seed valve, a spring secured to said link and bearing against a portion of said frame, a rock shaft having an angle arm engaging the upper end of said link, a finger adapted to be engaged and operated by said tappet, a seed box having therein a rotatable disc, a shaft for rotating said disc, a sprocket chain extending to the shaft of said covering wheel, a laterally extending marker from the periphery of said covering wheel, an axle pivotally mounted in the frame and having crank portions at its opposite ends, carrier wheels mounted upon said crank portions, and means for retaining said axle in its adjusted position, substantially as specified. 8th. In a planter, the combination with a frame of a seed box located thereon and having a discharge aperture, a seed tube pivotally mounted beneath said aperture, a plough extending from said tube and provided with a guiding lug, flange carried by the frame and co-operating with said lug, and means for shifting said plough, substantially as specified.

64,482. Cream Separator. (*Séparateur pour la crême.*)



Joshua A. Rosback, Hermon, New York, U.S.A., 21st October, 1899; 6 years. (Filed 26th August, 1899.)

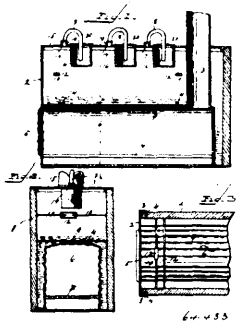
Claim.—A cream separator consisting of a can, a faucet located near the bottom thereof, a convexed strainer located over the port to the faucet, the top of said strainer being imperforate and slanting at an angle towards the centre of the can.

64,483. Steam Cooker. (*Appareil pour la cuisson à la vapour.*)

Sally M. Wilson, Chapel Hill, North Carolina, U.S.A., administratrix, of the estate of Theophilus G. Wilson, 21st October, 1899; 6 years. (Filed 26th August, 1899.)

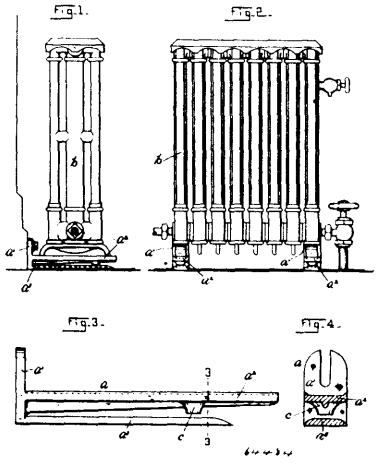
Claim.—1st. In a cooker of the character described, the combination with the wooden casing having vertical grooves near the front ends, the metal front having its ends bent backwardly and inwardly

forming flanges engaging with said grooves and the screw rods abutting against the inner side of said casing and provided with a screw



threaded swivel, substantially as specified. 2nd. In a steam cooker, the combination with the casing and heater, with a water space or chamber therebetween, of the cover having depressions forming food receptacles, and formed with holes and flanges adjacent thereto, the movable goosenecks having a long arm extending into said receptacles and the short arm extending through said holes and communicating with the interior of the casing and the perforated covers carried by said goosenecks, substantially as described.

64,484. Radiator Support. (*Support du calorifère.*)



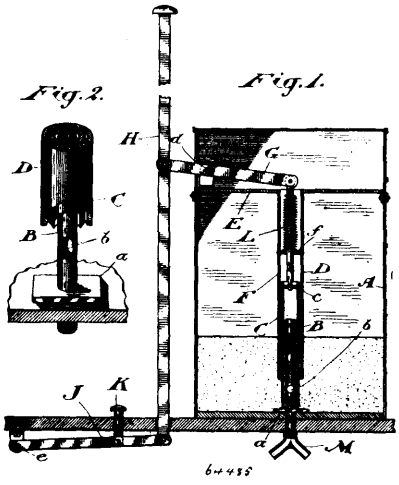
Frank H. Patrick, Norwich, Connecticut, U.S.A., 21st October, 1899 ; 6 years. (Filed 28th August, 1899.)

Claim.—1st. A radiator support, consisting of an arm fixed at one end, and elevated above the floor sufficiently to receive a carpet, and means substantially as set forth, for supporting the free end of said arm. 2nd. A radiator support consisting of two super-imposed arms, one of said arms overhanging the other, and means intermediate said arms for supporting the free end of the upper arm when the radiator is mounted thereon. 3rd. A radiator support, consisting of two arms having space between them sufficient to receive the carpet as set forth, and means for supporting the free end of the upper arm consisting of a hinged piece, substantially as specified. 4th. A radiator support, consisting of two super-imposed arms, the upper one of which is provided with an extensible portion with a support *c* substantially as specified.

No. 64,485. Track Sander. *(Appareil a sabler les rails.)*

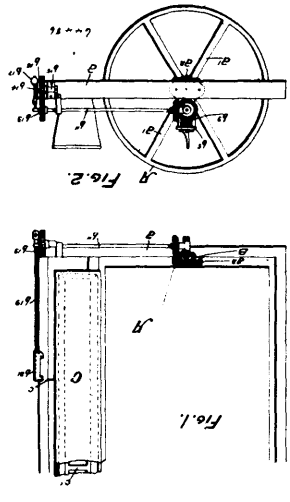
Charles Pickering and Peter Clarke, 21st October, 1899; 6 years. (Filed 28th August, 1899.)

Claim.—1st. In a sander, an outlet pipe having an opening therein above the bottom of the sander, in combination with a slide pipe suitably guided and vertically movable, so that it may be caused to descend to cut off the sand from the opening in the outlet pipe, or raised to permit it to pass freely through the same, substantially as and for the purpose specified. 2nd. In a sander, an outlet pipe having an opening therein above the bottom of the sander, in combination with a slide pipe suitably guided and vertically movable so that it may be caused to descend to cut off the sand from the opening in the outlet pipe, or raised to permit it to pass freely through the same, and a suitably supported guard pipe surrounding the said slide pipe and descending to a point near the opening in the outlet pipe but above the same, substantially as and for the purpose described. 3rd. In a sander, an outlet pipe having an opening therein above the bottom of the sander, in combination with a slide pipe surrounding loosely the said outlet pipe and having



its lower end normally in contact with the bottom of the sander or other fixed part, and means for raising the said pipe to bring its lower end above the level of the aforesaid opening, substantially as and for the purpose specified. 4th. In a sander, an outlet pipe having an opening therein above the bottom of the sander, in combination with a slide pipe surrounding loosely the said outlet pipe and having its lower end normally in contact with the bottom of the sander or other fixed part, means for raising the said pipe to bring its lower end above the level of the aforesaid opening, and a suitably supported guard pipe surrounding the said slide pipe and descending to a point near the opening in the outlet pipe but above the same, substantially as and for the purpose specified. 5th. In a sander, an outlet pipe having an opening therein above the bottom of the sander, in combination with a slide pipe surrounding loosely the said outlet pipe and having its lower end normally in contact with the bottom of the sander or other fixed part, means for raising the said pipe to bring its lower end above the level of the aforesaid opening, and means for automatically returning the slide pipe to its normal position, substantially as and for the purpose specified. 6th. In a sander, an outlet pipe having an opening therein above the bottom of the sander, in combination with a slide pipe surrounding loosely the said outlet pipe and having its lower end normally in contact with the bottom of the sander or other fixed part, means for raising the said pipe to bring its lower end above the level of the aforesaid opening, means for automatically returning the slide pipe to its normal position, and a suitably supported guard pipe surrounding the said slide pipe and descending to a point near the opening in the outlet pipe but above the same, substantially as and for the purpose specified.

No. 64,486. Land Roller and Seeder.
(*Rouleau dagriculture et semoir.*)

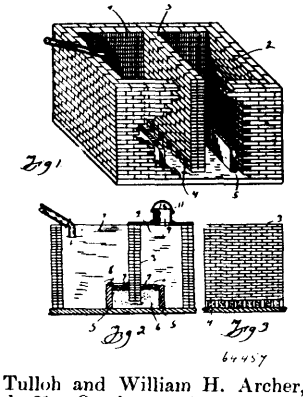


Dominat Quintal, Ile du Pas, Quebec, Canada, 21st October, 1899 ; 6 years. (Filed 28th August, 1899.)

Claim.—1st. The combination with a landed roller and its frame, of a seeding attachment mounted on said frame, and means operated

by the movement of said roller for operating said seeding attachment. 2nd. The combination with a land roller and its frame, of a seeding attachment mounted on said frame, means operated by the movement of said roller for operating said seeding attachment, and means for disconnecting the operative connection between said land roller and said seeding attachment, whereby said land roller may be used in connection with said seeding attachment. 3rd. The combination with a land roller and its frame, said roller having a gear wheel movable therewith, of a support carried by said frame, a slide block carrying a pinion, movably vertically and adjustably within said support, the movement of said block serving to engage and disengage said pinion with said gear wheel, a seeding attachment mounted on said frame, and connections between said seeding attachment and said pinion for imparting movement to the dropping mechanism connected to said attachment. 4th. The combination with a land roller and its frame, said roller having a gear wheel movable therewith, of a support carried by said frame, a slide block, carrying a pinion, movable vertically within said support, the movement of said block serving to engage and disengage said pinion with said gear wheel, means for moving said slide block vertically, a seeding attachment secured on said frame, a slide plate operatively connected to the dropping mechanism within said attachment, and means, connected to said slide plate and to said pinion for imparting a reciprocating movement to said slide plate. 5th. The combination with a land roller and its frame, said roller having a gear wheel movable therewith, of a support carried by said frame, a slide block, carrying a pinion, movable vertically within said support, the movement of said block serving to engage and disengage said pinion with said gear wheel, means for moving said slide block vertically, a shaft carried by said slide block and operatively connected to said pinion, a forwardly extending shaft secured adjustably on said frame, and adjustment being pivoted on said lateral shaft, gearing mounted on said shafts adapted to co-operate a gear wheel mounted at the forward end of shaft, a co-acting gear wheel mounted on said frame, said latter gear wheel mounted on said frame, said latter gear wheel carrying a forwardly extending pin, a seeding attachment secured on said frame, a slide plate mounted on said frame, a slide plate mounted on said frame and operatively connected with the dropping mechanism of said attachment, and a rod adjustably connecting said slide plate and pin, whereby a rotary movement of said pinion will impart a reciprocating movement to said slide plate.

No. 64,487. Filter. (*Tamis.*)



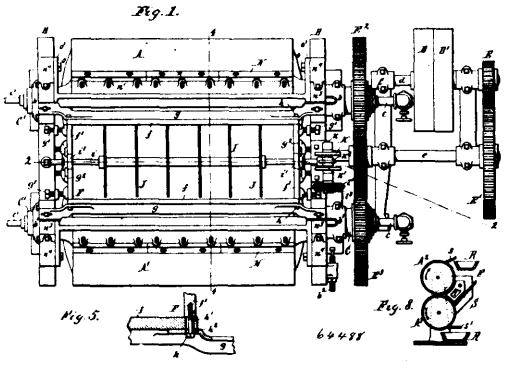
Franklin A. Tulloh and William H. Archer, both of Lockport, New York, 21st October, 1899; 6 years. (Filed 26th August, 1899.)

Claim.—A filtering cistern, divided into two compartments, a water receiving compartment 1, and a filtered water compartment 2, by a substantially vertical main partition or wall 3, having perforations 4, in its lower portion filled with filtering material, two supplementary walls 5, extending a short distance upward from the floor on each side of the main partition or wall, and forming between themselves and the main wall, bins which are adapted to be filled with filtering material 6, an upper layer of heavier material 7, to sustain it in place, and a cloth 8, placed over the top of the bin in the water receiving compartment 1, to catch the leaves and floating particles, the water in filtering passing from the water receiving compartment through the cloth, the upper layer of heavier material and the filtering material in the first bin through the filtering material in the perforations in the main partition, and through the filtering material in the second bin into the filtered water compartment, a top covering entirely covering the compartment 2, having an opening 9, a woven wire screen 10, over said opening, and exterior cap 11, above the screen, as set forth.

No. 64,488. Drying Apparatus. (*Appareil à sécher.*)

The Merrell-Soule Company, assignee of William Buell Gere and Irving Seaward Merrell, all of Syracuse, New York, 23rd October, 1899; 6 years. (Filed 14th July, 1899.)

Claim.—1st. In a drying apparatus, the combination with two opposing drying cylinders and means whereby said cylinders are rotated with their opposing surfaces downwardly, or of a feed enclosure for the liquid or semi-liquid material to be dried, fitted tightly against the upper decending portions of both cylinders,



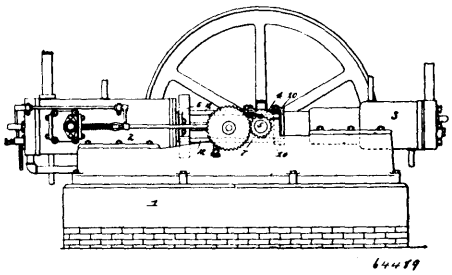
which portions support the material in said enclosure and means whereby the dried material is removed from the cylinders, substantially as set forth. 2nd. In a drying apparatus, the combination with two opposing drying cylinders and means whereby said cylinders are rotated with their opposing surfaces downwardly, of end boards which close the downwardly converging space between the upper decending portions of both cylinders and receive the liquid or semi-liquid material to be dried between them, confining the body of said material upon the upper decending portions of both cylinders, from which said material escapes through the space between both cylinders, substantially as set forth. 3rd. The combination with two opposing drying cylinders and means whereby said cylinders are caused to rotate with their opposing surfaces in the same direction, of a feed receptacle having end boards which are arranged against the cylinders and enclose the space between the converging portions of the same, substantially as set forth. 4th. The combination with two opposing drying cylinders, means whereby said cylinders are caused to rotate with their opposing surfaces downwardly, and the stationary frame in which said cylinders are mounted, of a feed receptacle having end boards which are arranged against the ends of said cylinders and which close the space between the upper descending portions of the cylinders at the ends thereof, and adjusting devices mounted on said stationary frame and pressing the end boards against the ends of said cylinders, substantially as set forth. 5th. The combination with two opposing drying cylinders and means whereby said cylinders are caused to rotate with their opposing surfaces downwardly, of a feed receptacle composed of side boards arranged lengthwise over the descending upper portions of said cylinders and end boards arranged against the ends of said cylinders, substantially as set forth. 6th. The combination with two opposing drying cylinders, means whereby said cylinders are caused to rotate with their opposing surfaces downwardly, and the stationary frame in which said cylinders are mounted, of a feed receptacle composed of side boards which are arranged lengthwise over the descending upper portions of said cylinders and are secured to said stationary frame and end boards which are arranged against the ends of the cylinders and between the side boards, adjusting screws arranged in the stationary frame and pressing said end boards against the cylinders, and screws connecting the end boards with the side boards and passing through longitudinal slots in the side boards, substantially as set forth. 7th. In a drying apparatus, the combination with two opposing drying cylinders and means whereby said cylinders are rotated with their opposing surfaces downwardly, of a feed receptacle for the liquid or semi-liquid fitted against the upper descending portions of both cylinders and confining the material upon the same, a stirrer arranged in said receptacle near the surfaces of said cylinders, and mechanism whereby said stirrer is actuated, substantially as set forth. 8th. The combination with two opposing drying cylinders, means whereby the same are rotated with their opposing surfaces in the same direction and a feed receptacle arranged against the converging or approaching surfaces of said cylinders, of a horizontal reciprocating rod and converging stirrer blades secured to said rod and projecting into converging space between the approaching surfaces of the cylinders, substantially as set forth. 9th. The combination with two opposing drying cylinders and means whereby said cylinders are caused to rotate with the opposing surfaces in the same direction, of a feed receptacle having end boards which are arranged against the ends of both cylinders and close the space between the approaching or converging portions of the cylinders at the ends thereof, and end scrapers which bear against the ends of said cylinders, substantially as set forth.

No. 64,489. Compressor. (*Compresseur.*)

Fairbanks, Morse & Co., assignees of James Adams Charter, Chicago, Illinois, and Franklin Gatfield Hobert, of Beloit, Wisconsin, U.S.A., 23rd October, 1899; 6 years. (Filed 1st May, 1899.)

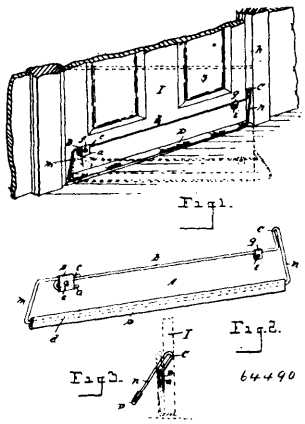
Claim—1st. An improvement in compressors comprising the combination with a bed or frame, a power cylinder and a com-

pression cylinder mounted thereon, a power piston and a compression piston operating in said cylinders, and a yoke connection



between said pistons, a crank shaft mounted between said cylinders, said yoke connection comprising rods arranged on opposite sides of said shaft and also on opposite sides of said crank, of slots in the inwardly projecting end of said compression cylinder, said slots forming clearance or guideways for said yoke and being arranged in position on a diagonal plane corresponding to the plane of the rods of the yoke, substantially as described. 2nd. An improvement in compressors comprising the combination with a bed or frame, a power cylinder and a compression cylinder mounted thereon, a power piston and a compression piston operating in said cylinders, and a yoke connection between said pistons, of slots in the inwardly projecting end of said compression cylinder, said slots forming clearance or guideways for said yoke.

No. 64,490. Weather Strip. (*Bourrelet de portes.*)



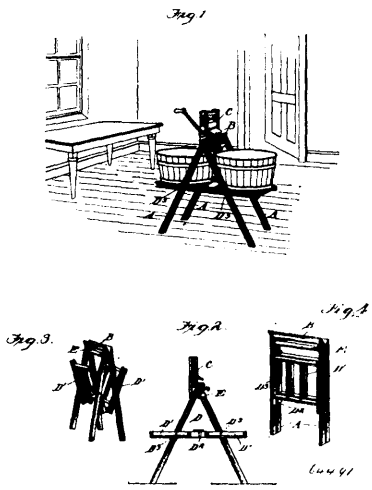
William Franklin Wilmot and Parker Wilmot, both of Mt. Clemens, Michigan, U.S.A., 23rd October, 1899; 6 years. (Filed 6th September, 1899.)

Claim.—1st. In a weather strip for doors, the combination of the integral spring frame having its upper member rigidly secured to the door at one end and attached at the other end to the door so as to rotate the lower member of said frame, the fabric strip mounted on said lower member, the projecting arm attached to said members of the frame and adapted to engage the jamb of the door. 2nd. In a weather strip, the combination of a quadrangular spring frame formed of a continuous piece, a plate uniting the meeting ends of said frame in which one of said ends is held from rotation, a fabric strip mounted on said frame, a projecting arm at the end of said frame connected with the members thereof and adapted to engage the jamb of the door, and means for attaching said frame to the door near its lower edge. 3rd. In a weather strip for doors, the combination of the quadrangular frame, the upper bar of said frame consisting of a torsion rod secured to the face of the door so as to rotate at one end only, the lower bar of said frame carrying the fabric strip, the integral projecting arm connected with said torsion bar and with said lower bar, said arm standing at an angle to the plane of the secured end of the torsion bar and adapted to engage the jamb of the door to carry said fabric strip against the lower edge thereof, substantially as set forth.

No. 64,491. Wash Bench. (*Banc à laver.*)

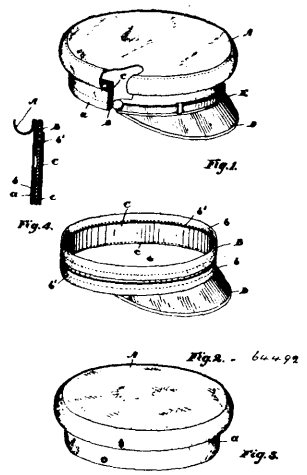
Henry Wilson, Farwell, and L. Gifford Bunyea, Gladwin, both of Michigan, U.S.A., 23rd October, 1899; 6 years. (Filed 1st September, 1899.)

Claim.—1st. In a folding wash bench, the combination with the standards having their upper ends bevelled, of the abutting boards attached to said bevelled ends, said abutting boards being hinged together, and the supports intermediately pivoted to the said standards, substantially as shown and described. 2nd. In a folding wash bench, the combination with the standards bevelled at their upper ends, of the abutting boards secured to said bevelled



ends and hinged together, a catch trough attached to one of the said abutting boards, supports intermediately pivoted to said standards, and the wringer adapted to be clamped upon the abutting boards, substantially as shown and described.

No. 64,492. Cap. (*Casquette.*)



Gillespie, Ansley & Co., assignee of John Jacob Zweifel, all of Toronto, Ontario, Canada, 23rd October, 1899; 6 years. (Filed 31st August, 1899.)

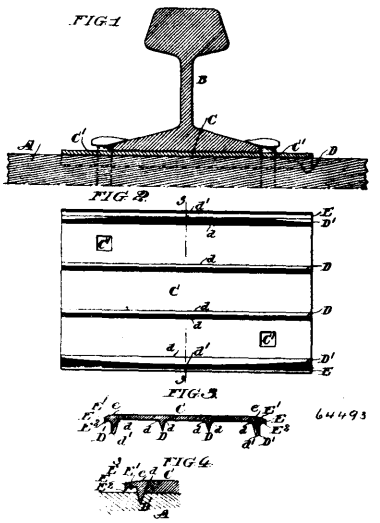
Claim.—1st. In a washable cap, the combination with a crown and flexible band, of a supplemental stiff band inserted therein and provided with a perspiration leather band connected to the bottom edge thereof, as and for the purpose specified. 2nd. In a washable cap, the combination with a crown and flexible band, of a supplemental stiff band inserted therein and provided with a perspiration leather band provided with the top and bottom edge strips of flexible material, and the perspiration band secured at the bottom to the lower edge strip, as and for the purpose specified.

No. 64,493. Tie Plate. (*Plaque de traverse.*)

The Diamond State Steel Company, assignee of Asa Walter Griffith, all of Wilmington, Delaware, U.S.A., 23rd October, 1899; 6 years. (Filed 31st August, 1899.)

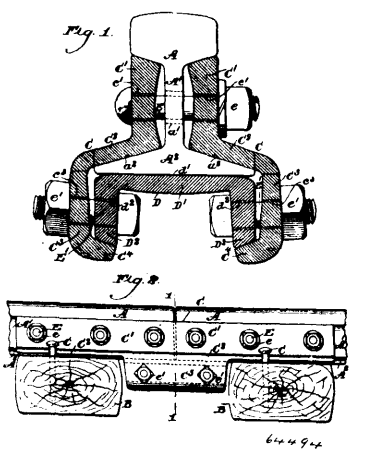
Claim.—1st. A rest plate for rails having flanges, as D D^1 for engaging the plate with a tie and lateral water shedding flanges E with downwardly turned edges E^2 extending beyond the outer flanges D^1. 2nd. A rest plate for rails having flanges, as D D^1, for engaging the plate with a tie and lateral water shedding flanges E with downwardly turned edges E^2 and their lower faces E^3 lying in a plane above that of the under side of the plate proper extending beyond the outer flanges D^1. 3rd. A rest plate for rails having a flat upper face and flanges, as D and D^1, extending from its lower face, and water shedding flanges E extending from the edges of the plate beyond the outer flanges D^1, said flanges having their top

faces E^1 chamfered from a line lying substantially above the said outer flanges D^1. 4th. A rest plate for rails having a flat upper face



and flanges, as D and D^1, extending from its lower face, water shedding flanges E extending from the edges of the plate beyond the outer flanges D^1, said flanges having their top faces E^1 chamfered from a line lying substantially above the said outer flanges D^1 and their outer lower edges E^2 turned downward. 5th. A rest plate for rails having two or more downwardly extending and downwardly tapering flanges D D^1 each of uniform cross-section throughout, the lines of junction *d* of said flanges with the plate proper being parallel, and one or more of said flanges having its or their points or edges d^1 bent at the centre to one side only, and so that the points or edges d^1 will at each side of the centre of the plate run at diverging angles to the lines of junction *d*. 6th. A rest plate for rails having two or more downwardly extending and downwardly tapering flanges D D^1, each of uniform cross-section throughout, the lines of junction *d* of said flanges with the plate proper being parallel, and two of said flanges having their points or edges D^1 bent at their centre in opposite directions, and each to one side only, substantially as and for the purpose specified. 7th. The combination with a rail and wooden tie of a rest plate C having flanges D D^1 projecting into the fibre of the tie, and lateral water shedding flanges E formed with a downwardly turned outer edge E^2.

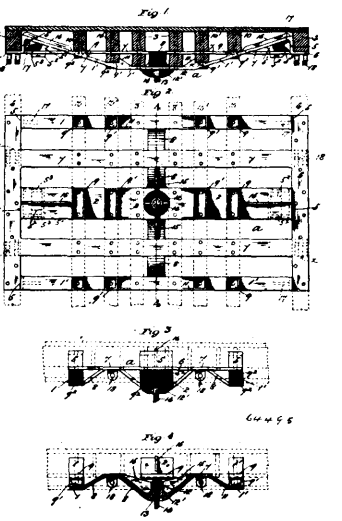
No. 64,494. Rail Joint. (*Joint de rails.*)



The Diamond State Steel Company, assignee of Asa Walter Griffith, both of Wilmington, Delaware, U.S.A., 23rd August, 1899; 6 years. (Filed 31st August, 1899.)

Claim.—1st. A rail joint having in combination two fish plates C C formed with flanges C^3 extending below the rail base and formed with inwardly extending lugs C^4 at their lower edge, a U-shaped section D adapted to fit below the rail base and having its arms D^2 extending over the lugs C^4 of the fish plates, bolts as E securing the upper flanges of the fish plates together and to the rail and two series of bolts E^1 securing the flanges C^3 of the fish plates to the adjacent trms D^2 of the section D. 2nd. A rail joint having in combination awo fish plates C C formed with flanges C^3 extending below the rail base and formed with inwardly extending lugs C^4 at their lower edge, a U-shaped section D having a convexly curved face d^1 adapted to fit below the rail base and having its arms D^2 extending over the lugs C^4 of the fish plates, bolts as E securing the upper flanges of the fish plates together and to the rail and two series of bolts E^1 securing the flanges C^3 of the fish plates to the adjacent arms D^2 of the section D.

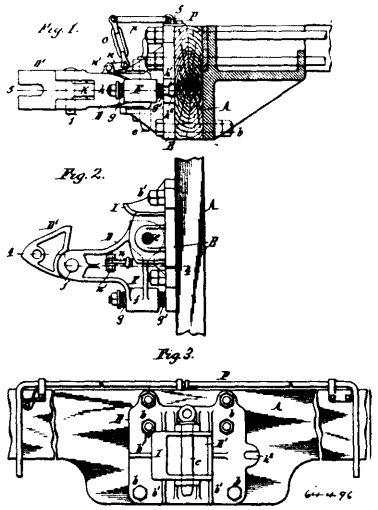
No. 64,495. Car Transom. (*Entretoise pour chars.*)



Mors B. Schaffer and Clarence H. Howard, both of St. Louis, Missouri, U.S.A., 23rd October, 1899; 6 years. (Filed 30th August, 1899.)

Claim.—1st. A car transom composed of one piece having top and bottom plates, arranged transversely to the car in different vertical planes, and united to each other by inclined connecting plates, each end of the bottom plates respectively having a depending flange, one of the bottom plates having the body centre bearing, the centre plate, and the side bearings, and the said piece having a horizontal plate arranged longitudinally to the car at each side thereof, and united to the corresponding ends of the top plates and to the corresponding flanges of the bottom plates, the said horizontal side plates having lugs for the truss rods, all the said parts being integral with the said piece, substantially as and for the purpose hereinbefore set forth. 2nd. A car transom composed of one piece having top plates, and a bottom plate arranged transversely to the car in different vertical planes, the bottom plate having the body centre bearing, the centre plate and the side bearing, and each end of the bottom plate having a dependent flange, and the said piece having a horizontal plate arranged longitudinally to the car at each side thereof and united to the corresponding ends of the top plates and to the corresponding flange of the bottom plate, the said horizontal side plates having lugs for the truss rods, all the said parts being integral with the said piece, substantially as and for the purpose hereinbefore set forth. 3rd. A car transom composed of one piece having bottom plates arranged transversely to the car in different vertical planes, each end of the bottom plates respectively having a depending flange, one of the bottom plates having the body centre bearing, the centre plate and the side bearings, and the said piece having a horizontal plate arranged longitudinally to the car at each side thereof, and united to the corresponding flanges of the bottom plates, the said horizontal side plates having lugs for the truss rods, all the said parts being integral with the said piece, substantially as and for the purpose hereinbefore set forth. 4th. A car transom composed of one piece having a plurality of surfaces arranged transversely to the car in different vertical planes, and having a horizontal surface arranged longitudinally to the car at each side thereof, and uniting with the said transverse surfaces, the said surfaces bearing upon the under sides of the car sills, and the said piece having integral therewith the body centre bearings, the centre plate, the side bearings and the lugs for the truss rods, substantially as and for the purpose hereinbefore set forth. 5th. A car transom composed of one piece having a plurality of surfaces arranged transversely to the car in different vertical planes, and having a horizontal surface arranged longitudinally to the car, at each side thereof, and uniting with the said transverse surfaces, the said surfaces bearing upon the under sides of the car sills, and the said piece having integral therewith the body centre bearing, the centre plate and the side bearings, substantially as and for the purpose hereinbefore set forth.

No. 64,496. Locomotive Tender Coupler.
(*Attelage de tender de locomotive.*)



The Gould Coupler Company, New York City, assignee of Willard Fillmore Richards, Buffalo, all of New York, U.S.A., 23rd October, 1899; 6 years. (Filed 26th August, 1899.)

Claim.—1st. The combination with a base plate or support having a socket which is open at its side, of a removable coupler having its shank pivoted in said socket and provided with an arm or lug which projects laterally through the side opening of said socket, front and rear righting springs which bear respectively against the front and rear side of said arm or lug, and a supporting bolt for said springs which is detachably secured at its rear end to said base plate or support and which passes through said arm or lug and against which the front righting spring abuts, substantially as set forth. 2nd. The combination of the base plate or support, of a car coupler having its draw bar or shank pivoted to said base plate or support and provided with a laterally arranged longitudinal sleeve or socket having an internal web and righting springs operating against opposite sides of said web, substantially as set forth. 3rd. The combination with a base plate or support. of a car coupler having its draw bar or shank pivoted to said base plate or support and provided with a laterally arranged longitudinal sleeve or socket having an internal web, a bolt attached to said base plate or support and extending through said sleeve and its web, an inner righting spring applied to said bolt between the said base plate and said web, and an outer righting spring applied to the bolt between said web and a nut or washer on said bolt, substantially as set forth. 4th. The combination with a base plate or support having a notch or recess at one side thereof, of a car coupler having its draw bar or shank removably pivoted to said base plate or support and provided with a laterally projecting arm or lug, a bolt removably interlocked with the notch or recess of said base plate and passing through said arm or lug and righting springs applied to said bolt and operating against said arm or lug, substantially as set forth. 5th. The combination with a base plate adapted to be attached to tender or car and provided with a forwardly projecting socket which is open at one side, of a car coupler having its draw bar or shank removably pivoted in said socket by an upright pin and provided with a laterally projecting lug or arm, righting springs applied to the front and rear sides of said lug or arm and a bolt passing through said righting springs and said lug or arm and detachably connected to said base plate or support, substantially as set forth.

No. 64,497. Paint. (*Peinture.*)

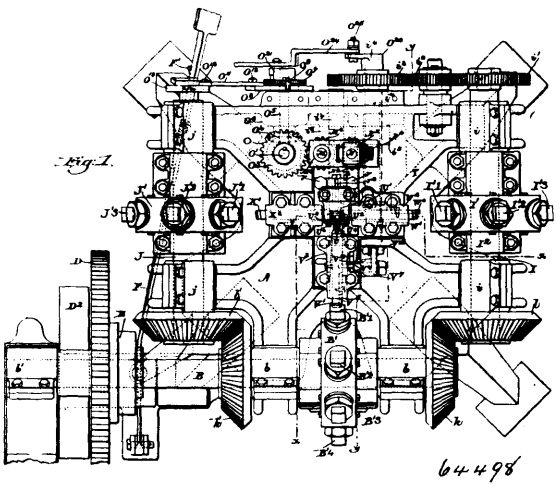
Helena Amelia O'Sullivan, assignee of Thomas John O'Sullivan, London, Ontario, Canada, 23rd October, 1899; 6 years. (Filed 3rd March, 1899.)

Claim.—The process of producing a pigment which consists in saturating sawdust with a salt or iron and then drying it and burning it, substantially as shown and described.

No. 64,498. Toe Calk Machine. (*Machine à crampon.*)

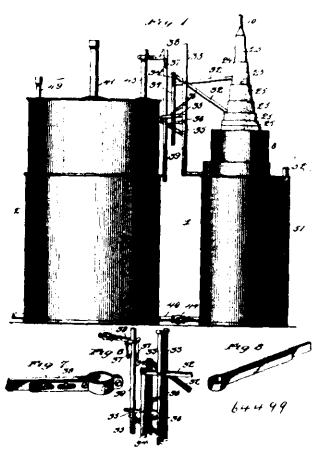
Kate B. Wormwood and Luther H. Wormwood, both of Boston, Massachusetts, U.S.A., 23rd October, 1899; 6 years. (Filed 30th August, 1899.)

Claim.—1st. In a toe calk machine, the combination with means for holding the stock, of means for off-setting the end of the same to provide material to form a spur, spur forming hammers for forming a spur from the offset material and connected mechanism operating automatically to actuate the said elements, substantially as described. 2nd. In a toe calk machine, the combination with means for holding the stock, of means for offsetting the end of the same to provide material to form a spur, spur forming hammers for forming a spur from the offset material, means for cutting off the completed toe calk, and connected mechanism operating automatically to actuate



said elements, substantially as described. 3rd. In a toe calk machine, the combination with means for holding the stock, of toe calk forming hammers and connected mechanism operating automatically to feed a short length of the stock, to actuate said hammers to form a spur on said stock to feed a long length of the stock and to actuate one of said hammers to cut off the completed toe calk, substantially as described. 4th. In a toe calk machine, the combination with means for feeding a short length of the stock, of means for holding the same, means to offset the end of the same to provide material to form a spur, spur forming hammers for forming a spur from the offset material, means for feeding a long length of the stock and connected mechanism operating automatically to actuate said elements and to actuate one of said spur forming hammers after the completion of the long feed of the stock to cut off the completed toe calk, substantially as described. 5th. In a toe calk machine, the combination with means for holding the stock of means for offsetting the end of the same to provide material to form a spur, spur forming hammers for forming a spur from the offset material, means to positively withdraw said hammers after having struck their blows, and connected mechanism operating automatically to actuate said elements, substantially as described. 6th. In a toe calk machine, the combination with means for holding the stock of a bringing down hammer to offset the end of the stock, spur forming hammers for forming a spur from the offset material, and means for actuating the said elements, substantially as described. 7th. In a toe calk machine, the combination with feeding mechanism to feed the stock a short feed, of means for holding the stock to provide material to form a spur, means for actuating the bringing down hammer, spur forming hammers and means for actuating them to form a spur from the offset material, substantially as described.

No. 64,499. Acetylene Gas Generator.
(*Générateur de gaz acétylène.*)

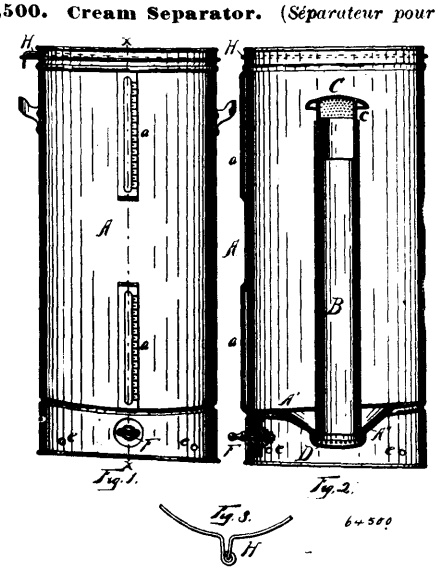


Joseph Arthur Painchaud, Montreal, Quebec, Canada, 23rd October, 1899; 6 years. (Filed 14th December, 1898.)

Claim.—1st. An acetylene gas generator, comprising a generating machber, a carbide receptacle arranged to deliver carbide to said

chamber, a delivery tube located in said chamber, said tube being automatically closed during the decomposition of the carbide, and a perforated support located below said tube, said support being adapted to hold the carbide in suspension during its decomposition, substantially as described. 2nd. The combination with an acetylene gas generator of a supplemental chamber connected therewith, said chamber forming an automatic water supply reservoir for the generating chamber, and a tube operated from without said generating chamber for withdrawing the residue from said chamber, said reservoir serving to automatically prevent the escape of gas during such withdrawal, substantially a described. 3rd. An acetylene gas generator, comprising a generating chamber, a vertically movable delivery tube b ted therein normally held in its open position, means substantially as described for automatically moving said tube to its closed position during the generation of gas, and a perforated receptacle for holding the carbide in suspension during the period of decomposition, substantially as described. 4th. A carbide receptacle for gas generating apparatus, comprising a casing having a series of vertically arranged communicating chambers, doors pivotally mounted within said casing for emptying each of said chambers, a locking device for each door mounted in said casing, and a tripping mechanism for automatically releasing said doors one by one, each succeeding charge passing through the chambers occupied by the preceding discharged charges, substantially as described. 5th. A carbide receptacle for gas generating apparatus, comprising a casing having a series of communicating chambers normally held closed, and a tripping mechanism for automatically releasing the charges contained in said chambers, each succeeding charge passing through the preceding discharged chambers, substantially as described. 6th. A carbide receptacle, comprising a series of chambers, doors for closing the delivery opening of said chambers, a catch for each door, each catch being normally held in a position to hold the door closed, and a tripping device operated automatically for releasing said catch from contact with the door, substantially as described. 7th. A catch comprising a casing, a plunger located therein having one end extending outward therefrom, a pivotally mounted portion connected to said casing and adapted to hold said plunger in one position, and a spring located within said casing for moving said plunger in its opposite position when said portion has been released from contact with the plunger, substantially as described. 8th. An acetylene gas generator, comprising a generating chamber, a supplemental chamber mounted thereon and connected therewith by a downwardly extending tube, a delivery funnel located in said supplemental chamber and having its tubular portion loosely sleeved within said downwardly extending tube, a carbide receptacle arranged to deliver carbide to said funnel, a vertically movable cone secured to said funnel tube, and a perforated support mounted in said generating chamber below said cone, substantially as described.

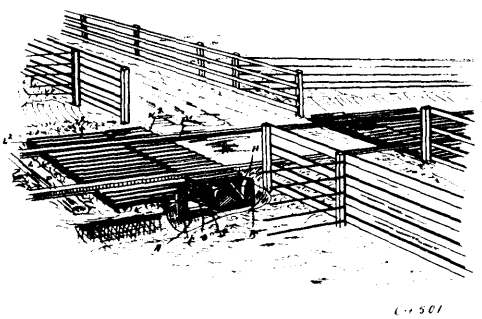
No. 64,500. Cream Separator. (*Séparateur pour la crème.*)



Henry Stephen Hunt, Cato, New York, U.S.A., 23rd October, 1899 ; 6 years. (Filed 1st March, 1899.)

Claim.—In a creaming can, the cylindrical shell A, provided with a bottom, which slopes toward one side, and which is raised a suitable distance above the lower end of the shell, a faucet secured to the bottom and enclosed by the chamber in the lower end of the shell, and a central shaft tube, which extends vertically in the shell within a short distance of its top, and which tube has its lower end to extend a suitable distance below the bottom, and which tube has its lower end braced by the portion A¹ L, combined with a perforated cover D, which is placed over the lower end of the tube, and the cap C, placed above the end of the tube and provided with suitable perforations, substantially as described.

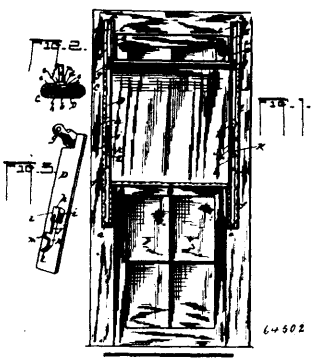
No. 64,501. Cattle Guard Gate. (*Barrière de garde-bétail.*)



Gustaf Bergstrom, Republic, Michigan, U.S.A., 23rd October, 1899 ; 6 years. (Filed 31st August, 1899.)

Claim.—1st. The combination with the platform mounted upon the upper ends of pivotal links and pivotal sector-shaped frames, of a gate pivoted in a normally horizontal position, and a link connecting the short end of the gate with the lower corner of the sector-shaped frames, substantially as described. 2nd. The combination with the platform mounted upon the upper end of pivotal links and pivotal sector-shaped frames, between the rails of a railway track and a similar platform similarly mounted outside of each rail, of gates pivoted in corresponding normally horizontal positions, and a link connecting the short end of each gate with the lower corner of the sector-shaped frames, substantially as described. 3rd. The combination with a suitable support, of metal bars mounted thereon, brackets on metal bars, links and sector-shaped frames pivoted to the brackets, a platform pivotally connected to the upper ends of the links and sector shaped frames, a gate pivoted in a normally horizontal position with its short end projecting over the sector-shaped frames, links for connecting said short ends and frames, and a spring for normally holding the gate in its lowered or horizontal position, substantially as described.

No. 64,502. Window Shade Fixture.
(*Attache pour stores de fenêtres.*)



Frank P. Casey, Bloomington, Illinois, U.S.A., 23rd October, 1899 ; 6 years. (Filed 31st August, 1899.)

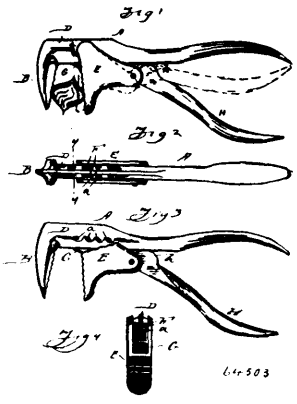
Claim.—The herein described window shade fixture, comprising the frame, twin slides secured to the frame having upturned and inwardly projecting flanges forming a vertical channel and provided with notches, vertical sliding plates D, having brackets or arms *g*, formed integral therewith at their lower ends, and lugs *h*, secured upon their faces, a spring *j*, secured to the lug, having its free end curved outwardly to engage the notches in the twin slides, and a thumb piece or knob *m*, formed upon said spring, whereby the spring is disengaged from the notches, and a roller carrying a shade secured in the brackets, all combined and arranged for joint operation, substantially as shown and specified.

No. 64,503. Nut Cracker. (*Casse-noisettes.*)

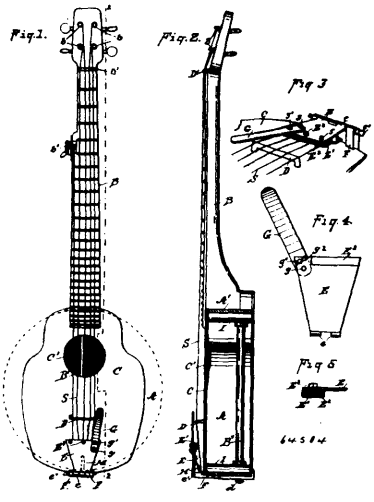
William H. Edwards, Rockford, Illinois, U.S.A., 23rd October, 1899 ; 6 years. (Filed 31st August, 1899.)

Claim.—The implement of the character described, comprising the body or lever having a fixed jaw at one end, and a series of lateral notches along its longitudinal portion, in proximity to said jaw, and a spring-pressed movable jaw substantially triangular, and adapted to receive said body and having at its upper forward angle, opposite inwardly projecting studs or pivots, adapted to engage said series of

notches, and the handle or lever pivoted or connected directly to said movable jaw, at its lower rear end or angle, and having, contiguously to the latter angle or end of the movable jaw, a cam projection adapted to fulcrum directly upon said body, substantially as set forth.



No. 64,504. Stringed Musical Instrument.
(Instrument de musique à cordes.)



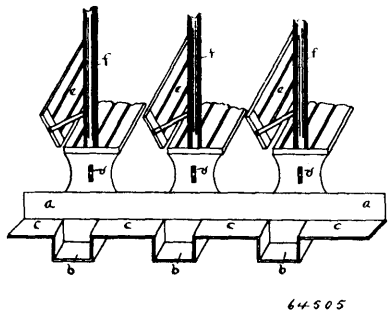
Albert J. Forrest, Seattle, Washington, U. S. A., 23rd October, 1899; 6 years. (Filed 13th July, 1898.)

Claim.—1st. An attachment for stringed musical instruments, comprising a pivoted bar, or plate, adapted to engage the strings between the bridge and their end fastenings, and adapted to be engaged by the hand of the player, substantially as described. 2nd. An attachment for stringed musical instruments, comprising a pivoted bar or plate, adapted to engage the strings and their fastenings, and an arm attached thereto, and extending alongside the strings, substantially as described. 3rd. An attachment of stringed musical instruments, comprising a pivoted bar or plate adapted to engage the strings between the bridge and their end fastenings and by means of which its pressure upon the strings may be varied at will, substantially as described. 4th. An attachment for stringed musical instruments, comprising a pivoted bar or plate adapted to engage the strings between the bridge and their fastenings, an arm attached thereto and extending alongside the strings and means for adjusting the position of said arm, substantially as described.

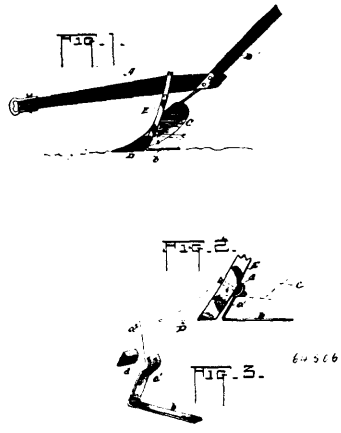
64,505. Car Step. *(Marche de chars.)*

John Boyd Thacher, Albany, New York, U.S.A., 23rd October, 1899; 6 years. (Filed 31st August, 1899.)

Claim.—1st. In a car or vehicle of the class shown and described a running board having openings therein and steps arranged to coincide with said openings, said step being arranged below said running board, substantially as described. 2nd. In a car or vehicle of the class shown and described, a running board having openings therein and steps arranged to coincide with said openings, said steps being arranged below the running board and in a vertical line with the seat ends, substantially as described. 3rd. In a car or vehicle of the character shown and described a running board as *c* having steps below it as *b* all arranged so that the steps will stand in vertical line with and in front of the end openings between the seats and having means arranged whereby passengers may assist themselves to mount the steps, substantially as described.



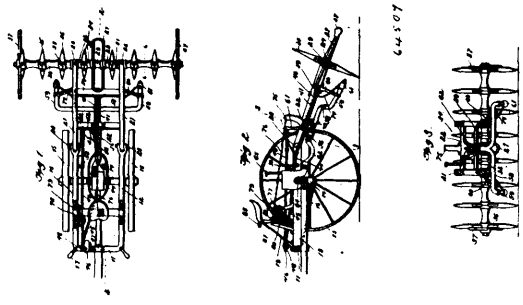
No. 64,506. Plough. *(Charrue.)*



William H. Sherrod, Castell, Texas, U.S.A., 23rd October, 1899; 6 years. (Filed 31st August, 1899.)

Claim.—1st. In combination with a plough stock or standard, of a bolt extending transversely therethrough towards the rear, a removable block of hemispherical form having an opening therein for the passage of said bolt, the front plane face of said block being held against the standard and the convex survey thereof standing to the rear, and a flat blade having an upwardly extending arm provided with an upper receding curved end to form a front concavity to snugly fit over and of less extent than the rear convex face of said block, said receeding end being slotted longitudinally for adjustable reception of the bolt.

No. 64,507. Stalk Rake and Burner.
(Machine à bruler et racler les tiges.)

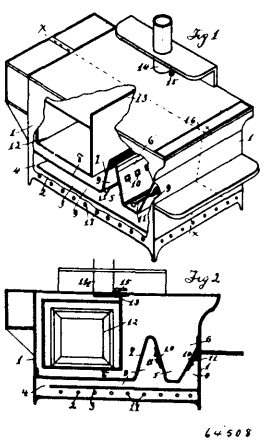


Charles B. Crabtree, Manchester, Illinois, U.S.A., 23rd October, 1899; 6 years. (Filed 1st September, 1899.)

Claim.—1st. The combination in a machine for raking and burning stalks, of a rake, a slidable oil pipe mounted in front thereof, and carrying a burner, a valve in the burner held normally closed by a spring, and means whereby the valve is opened when the pipe and burner are moved rearward toward the pile of stalks, substantially as described. 2nd. The combination in a machine for raking and burning stalks, of a rake, a slidable oil pipe mounted in front thereof, a burner at the rear end of the pipe, a valve in the burner normally held closed and having a stem projecting forward, and a

chain connecting the valve stem with the frame of a length to withdraw the valve from its seat when the burner is moved rearward, substantially as described. 3rd. The burner herein described, provided with jet holes and a diaphragm with valve seat and small vent, in combination with the valve, its stem, the spring coiled around it, the frame of the machine, the chain connecting the stem with the frame and means for moving the burner rearwardly, substantially as described. 4th. In a machine for raking and burning stalks, the combination with the revolving rake, its tripping mechanism, the slidable oil pipe and burners of the treadle, of connections between the treadle and the rake tripping mechanism, and burners respectively, constructed to permit the rake to remain locked during the first portion of rearward movement of the burner and afterwards by the continuation of the same movement of the treadle, to release the tripping mechanism, substantially as described. 5th. In a machine for raking and burning stalks, the combination with the revolving rake, its tripping mechanism, the slidable burner, a treadle and a bracket on the treadle, of connections between the treadle and the tripping mechanism ending with a rod having a slot in its forward end, connections between the burner and treadle, ending with a rod having a ronnd hole in its forward end, and a bolt passing through the treadle bracket and the round hole and slot of the two rods, ubstantially as described. 6th. In a machine for raking and burning stalks, the combination with the main frame, a rearwardly extended frame, pivoted thereto and a rake carried by said extension frame, of an oil can carried on the main frame, an oil pipe and burners carried on the extension frame, and a flexible pipe or hose connecting the oil and pipe, substantially as described. 7th. In a machine for raking and burning stalks, the combination with the main frame, a rearwardly extended frame pivoted thereto and a rake carried by the extension frame, of an oil can carried on the main frame, an oil pipe and burners carried on the extension frame, a bracket projecting above the extension frame, a windlass beam journalled on the main frame, a worm gear for turning the beam, a chain connecting the beam with the bracket, substantially as described. 8th. A machine for raking and burning stalks, the combination with the main frame, and rearwardly extending frame pivoted thereto, of means for tilting the extension frame carried by the main frame, and an oil can on the main frame, an oil pipe and burners slidably mounted on the extension frame, a flexible pipe connecting the oil can and pipe, a rock shaft, journalled on a cross beam, of the extension frame, a downward projecting arm thereon having forks embracing the oil pipe, an upward projecting arm on said rock shaft, a treadle pivoted at its rear end to the main frame and rod connections between the upper end of the upper arm of the rock shaft and the forward end of the treadle, substantially as described.

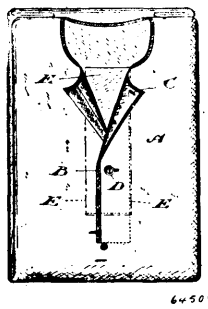
No. 64,508. Cooking Stove. (*Poêle de cuisine.*)



Christian Olsted, Lawrence, Kansas, U.S.A., 23rd October, 1899; 6 years. (Filed 1st September, 1899.)

Claim.—1st. In a cooking stove, the combination of a fire chamber arranged in the front of the stove, having an imperforate bottom, and sides provided with suitable dampered draft openings, at a distance from its bottom, a hot air chamber surrounding said fire chamber, and communicating therewith through said draft openings and extending horizontally to the rear of the stove, an oven in the rear of said fire chamber arranged relative to the horizontal portion on the hot air chamber to form an independent heat passage for heating the air passing through the same, and a cold air chamber under said hot air chamber and communicating therewith, substantially as set forth. 2nd. A cooking stove, consisting of an inner casing forming a fuel and combustion chamber arranged in the front of the stove, having an imperforate bottom and sides, provided with suitable dampered draft openings, at a distance from its bottom, a plate extending from the rear wall of said fuel and combustion chamber diagonally and horizontally to the rear of the stove, an outer casing forming with said inner casing and said diagonal and horizontal plate, a hot air chamber surrounding said fuel chamber and communicating therewith through said draft openings and extending horizontally to the rear of the stove, an oven in the rear of said fuel chamber arranged relative to the horizontal portion of said plate to form an independent heat passage for heating the air passing through the horizontal portion of said hot air chamber, and a double bottom in said outer casing forming a cold air chamber under said hot air chamber and communicating therewith, substantially as set forth.

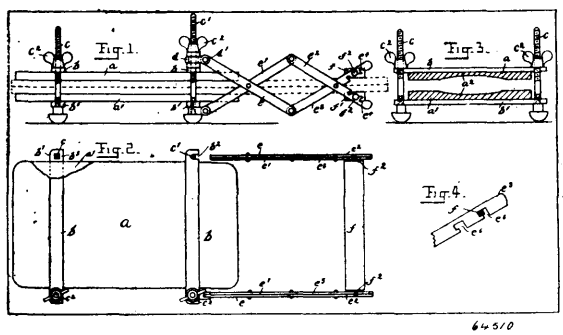
No. 64,509. Garment. (*Vêtement.*)



Alfred Lawson Gibson, Manitoba, and James Edward McClung, Toronto, Ontario, Canada, 23rd October, 1899; 6 years. (Filed 2nd September, 1899.)

Claim.—1st. In an undershirt or undervest the combination with the front A, having the opening B, formed therein and provided with the buttons D, and button holes C, of flap E, secured to the front at one side of the said opening, substantially as and for the purpose specified. 2nd. In an undershirt or undervest the combination with the front A, having the opening B, formed therein and provided with the buttons D, and the button holes C, of a flap E, secured to the front behind the said opening by the bottom and one edge, substantially as and for the purpose specified.

No. 64,510. Trousers Presser and Stretcher.
(*Tendeur et presse à pantalon.*)



William Frederick Steggall, 68 Cambridge Road, London, England, 23rd October, 1899; 6 years. (Filed 29th August, 1899.)

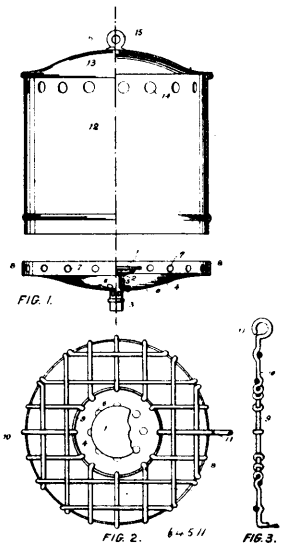
Claim.—1st. A combined trousers presser and stretcher comprising two plates or boards fitted with adjusting or tightening screws or bolts and nuts constituting the presser, and a series of pivoted cross bars fitted to the bolts and nuts at one end of the presser, in the manner of a lazy tongs, and carrying two cross pieces between which the upper end of the trousers is gripped for stretching the same by the action of the said cross bars substantially as described. 2nd. In a trousers presser and stretcher, the combination of two plates or boards such as a, a^1, provided with bars b, b^1, formed with slots b^2, b^3, for receiving and holding the bolts or screws c, c^1, and the pivoted cross bars or lazy tongs devices e, e^1, e^2, e^3, connected to the front bolts e^1, and to the nuts c^2, thereon by means of a loose collar d, and carrying the cross pieces f, f^1, adjustably mounted in the slots e^4, or e^5, formed in the front cross bars e^2, e^3, substantially as described and for the purposes specified.

No. 64,511. Gas Stove. (*Poêle à gaz.*)

Lyman Hunt Stoddard, New York City, New York, U.S.A., 23rd October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. The herein described base for a convertible heating and cooking gas stove, the same consisting of a plate having a central hole in its body surrounded by a series of perforations, and provided with an upwardly extending perforated flange around its periphery, a burner passing through the central hole and terminating short of the edge of the flange, and a collar secured to the plate around the central hole and adapted to embrace the burner, substantially as and for the purpose set forth. 2nd. The herein described convert-

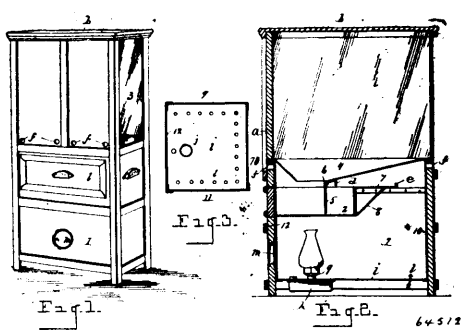
ible heating and cooking gas stove, consisting of a base plate having a central hole in its body surrounded by a series of perforations and



provided with an upwardly extending flange around its periphery, a burner passing through the central hole and terminating short of the edge of the flange, a collar secured to the plate around the central hole for embracing the burner, and an independent member provided in its body with openings and adapted to engage the base plate remote from the burner, substantially as and for the purpose set forth. 3rd. In a convertible heating and cooking gas stove, the combination with a burner, a base plate surrounding the burner, and a perforated flange around the periphery of said plate, of a wire netting, having an enlarged opening at its centre, a downwardly extending portion around its edge and a loop at one point thereof, said netting being adapted to rest upon the edge of, and engage the flange of the base plate to convert the same into a cooking stove, substantially as described.

No. 64,512. Peanut and Cracker Warmer.

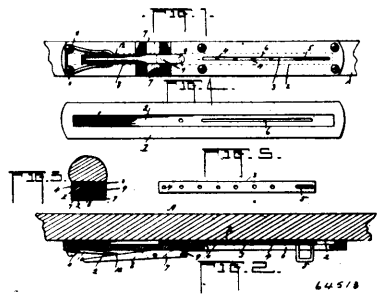
(*Réchaud de pistache et biscuit.*)



Jule H. Gellet and William H. Woods, both of Detroit, Michigan, U.S.A., 23rd October, 1899; 6 years. (Filed 30th August, 1899.)

Claim.—1st In a warming device, a heating chamber, a reciprocatory drawer, and a supply chamber above the drawer communicable with the drawer, said drawer arranged to cut off communication of the supply chamber therewith when the drawer is drawn outward, substantially as set forth. 2nd. In a warming device, a supply chamber provided with a hopper at its base, a movable drawer therebelow into which said supply chamber communicates, and a heating device located below the drawer, said hopper provided with a swinging door at the base thereof, and said drawer with a rearwardly extended arm or shelf movable with the drawer arranged to close the swinging door when the drawer is pulled out, and to allow said door to open when the drawer is inserted within the case of the warming device, substantially as set forth. 3rd. In a warming device, a heating chamber, a reciprocatory drawer, a supply chamber provided with a hopper at its base communicable with said drawer, said hopper provided with a swinging door at the base thereof, and said drawer with a rearwardly extended arm or shelf arranged to close said door when the drawer is pulled out, the walls of the heating chamber provided with interlocking metal plates, and a base supported upon said plates, substantially as set forth. 4th. In a warming device, a heating chamber provided with a heating device, a movable drawer located toward the top of said chamber, a supply chamber located above said drawer and communicable therewith, said hopper provided with a swinging door at the base thereof, and said drawer with a rearwardly extended arm or shelf arranged to close said door when the drawer is pulled out, said heating chamber provided with outlet orifices below said hopper, substantially as set forth.

No. 64,513. Harness. (*Harnais*)

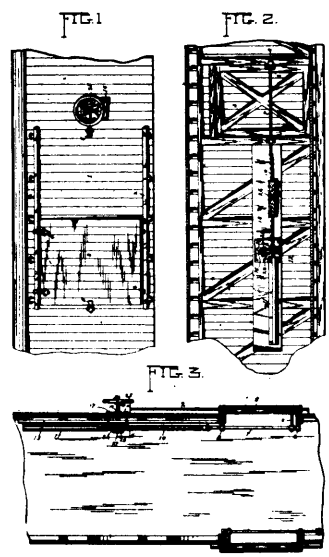


Lewis J. Ham and David T. Howard, both of Carlile, Kentucky, U.S.A., 24th October, 1899; 6 years. (Filed 7th September, 1899.)

Claim.—1st. In a harness attachment, the combination with a stationary bar or base having an elongated opening therein, of a slide supported by said bar or base, a loop or staple projecting from said slide and through the elongated opening in the base, and a spring pressed latch pivotally attached to the stationary base and adapted to engage the slide, substantially as set forth. 2nd. In a harness attachment, the combination with a bar or base having a groove and an elongated slot, of a slide mounted in the groove in the bar or base and having a series of perforations or sockets, a loop or staple secured to said slide and projecting through said slot in the bar or base, a spring pressed lever pivoted to the bar or base, and a pin projecting from one end of said lever, passing through the bar or base and adapted to enter one of the perforations in the slide, whereby to hold said slide and loop or staple in the position to which they may be adjusted, substantially as set forth. 3rd. The combination with a bar or base having a longitudinal groove and a longitudinal elongated slot, of a slide in the groove and provided with a series of sockets or perforations, a loop or staple secured to said slot and projecting through the elongated slot in the bar or base, a lever pivoted between its ends to the bar or base, a pin projecting from one end of said lever and adapted to enter one of the sockets or perforations in the slide, and spring secured at one end to the bar or base and bearing against said lever so as to force the pin into a socket or perforation of the slide, substantially as set forth.

No. 64,514. Car Door Mechanism.

(*Mécanisme de posse de chars.*)

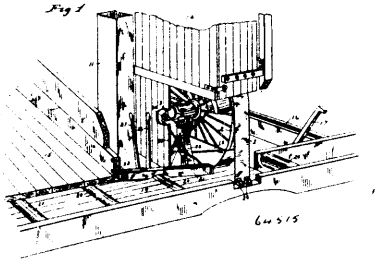


Enoch C. Vanstone and John L. Cupp, both of Cambria, Wyoming, U.S.A., 24th October, 1899; 6 years. (Filed 6th September, 1899.)

Claim.—1st. The combination, in a freight car, of a sliding door, a rack bar connected with the inner side of the door, a hollow shaft

extending through the wall of the car and carrying a gear meshing with said rack, and locking mechanism adapted to engage and hold the gear wheel immovable, said locking mechanism being accessible through the bore of said shaft, substantially as described. 2nd. The combination, in a freight car, of a sliding door, a rod connected with the inner side of the door, a grooved guide rail, a rack bar connected with said rod and flanged to fit and slide in the guide rail, and a shaft extending through the side wall of the car and carrying at its inner end a gear meshing with said rack bar and at its outer end a hand grasp, substantially as described. 3rd. In door operating mechanism, the combination with the door frame carrying a keeper, and a sliding door, of a rod carrying an arm connected with the inner side of the door and having one end projecting beyond the arm and adapted to engage the keeper, and means for actuating the the rod to close said door, substantially as described. 4th. The combination, in a freight car, of a sliding door, a base plate secured to the inner side of the side wall of the car, bearing plates on the inner and outer sides of said wall, a shaft extending through said wall and having bearing in said plates, a rod connected with the inner side of the door, a rack bar connected with the rod, and a gear wheel mounted on the inner end of the shaft and meshing with said rack bar, substantially as described. 5th. The combination, in a freight car, of a sliding door, a base plate, secured to the inner side of the side wall of the car, bearing plates on the inner and outer sides of said wall, a shaft extending through said wall and having bearing in said plates, a rod connected with the inner side of the door, a rack bar connected with the rod, a gear wheel mounted on the inner end of the shaft and meshing with said rack bar, and a locking device adapted to engage the gear wheel and hold it and the shaft immovable, substantially as described. 6th. The combination, in a freight car, of a sliding door, a rack bar connected with the inner side of the door, bearing plates on the inner and outer sides of the car wall, a hollow shaft having bearing in said plates, a gear wheel on the shaft provided with locking orifices and meshing with said rack bar, and a plunger rod in said shaft carrying a bolt adapted to engage the said locking orifices, substantially as described. 7th. The combination, in a freight car, of a sliding door, a rack bar connected with the inner side of the door, a hollow shaft having bearing in the side wall of the car, a gear wheel carried by the shaft and meshing with the rack, a plunger rod fitted in the bore of said shaft and carrying a bolt adapted to lock said gear wheel, and means for normally acting on the plunger rod to hold the bolt projected, substantially as described. 8th. The combination, in a freight car, of a sliding door, a rack bar connected with the inner side of the door, a hollow shaft having bearing in the side wall of the car, a gear wheel carried by the shaft and meshing with the rack, a plunger rod fitted in the bore of said shaft, and carrying a bolt adapted to lock said gear wheel, and a spiral spring encompassing the plunger rod and acting thereon to normally hold the bolt projected, substantially as described. 9th. The combination, in a freight car, of a sliding door, a rack bar connected with the door, a hollow shaft carrying a gear wheel meshing with the rack, a plunger in the shaft carrying a bolt adapted to engage the gear and hold it immovable, means for normally holding the bolt projected, and a key adapted to be inserted into the bore to retract said rod and bolt, substantially as described. 10th. The combination, in a freight car, of a sliding door, a rack bar connected with the door, a hollow shaft carrying a gear wheel meshing with the rack, a plunger in the shaft carrying a bolt adapted to engage the gear and hold it immovable, means for normally holding the bolt projected, and a seal adapted to be applied to the outer end of the shaft to prevent access to the bore thereof, substantially as described. 11th. The combination, in a freight car, of a sliding door, a rack bar connected with the door, a hollow shaft carrying a gear wheel meshing with the rack, a plunger in the shaft carrying a bolt adapted to engage the gear and hold it immovable, a spring for normally holding the rod and bolt projected, and a detent for holding said rod and bolt retracted against the tension of the spring, substantially as described. 12th. A key for the purpose described, comprising a hand wheel having a shank formed with left hand threads and a concavity in its outer end, substantially as described.

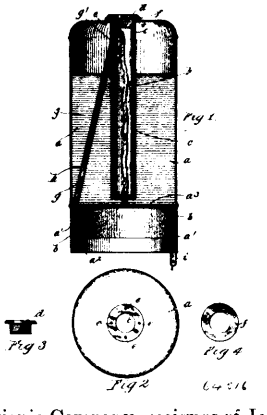
No. 64,515. Sawmill Machinery. (*Mécanisme de scieries.*)



The Edward P. Allis Company, Milwaukee, Wisconsin, assignee of Freeman S. Farr, Minneapolis, Minnesota, U.S.A., 24th October, 1899; 6 years. (Filed 26th August, 1899.)

Claim.—1st. The combination of a vertically adjustable band-saw mill, of a live roll way encompassed by the saw, and a lumber guide adjustable to vary the width of the lumber throat or passageway between the saw and its upper supporting wheel, in compensation for the up and down motion of the mill, for insuring the passage of the lumber, without striking the mill, substantially as described. 2nd. The combination with a vertically adjustable band-saw mill, of a live roll way encompassed by the saw, and a lumber guide automatically adjustable, under the up and down motion of the mill to vary the width of the lumber throat or passageway between the saw and its upper supporting wheel, substantially as and for the purposes set forth. 3rd. The combination with a vertically adjustable band-saw mill, of a live roll way encompassed by the saw, and a lumber guide pivoted at its forward end to a part of the fixed structure, at the inner side of the live roll way, and movable crosswise of the rollway, at its opposite or free end, to vary the width of the lumber throat or passageway between the saw and its upper supporting wheel and direct the lumber therethrough under the action of the rolls, substantially as described 4th. The combination with a vertically adjustable band-saw mill, of a live-roll way encompassed by the saw, and a lumber guide pivoted, at its forward end to the fixed structure, at the inside of the live roll way, and movable at its opposite or free end crosswise of the rollway, under the movement of the mill, in its up and down adjustment, substantially as and for the purposes set forth. 5th. The combination with a vertically adjustable band-saw mill, of a live roll way encompassed by the saw, the lumber guide pivoted at its further end, to a part of the fixed structure, at the inside of the live roll way, a hook-ended operating rod 23, secured to the free end of said lumber guide, a stud 24, and a guide keeper 25, for said rod, on the movable mill frame, with said parts so arranged as to cause the hook end of said rod to engage and disengage said stud at the proper time, under the up and down motion of the mill, for effecting the angular adjustment of said guide crosswise of the rollway, substantially as and for the purpose set forth. 6th. The combination with a vertically adjustable band-saw mill, of a live roll way encompassed by the saw, a lumber guide pivoted at its forward end to a part of the fixed structure, at the inner side of the live roll way, and movable crosswise of the rollway, at its opposite or free end, under the up and down motion of the mill, which guide is bifurcated and provided with a moss of spring material embraced by its two jaws, to afford a yielding action, substantially as described.

No. 64,516. Disinfector. (*Désinfecteur.*)

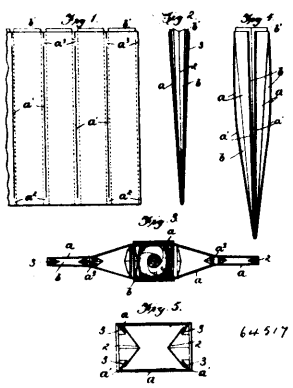


The Red Cross Hygienic Company, assignee of James Evetts, all of Chicago, Illinois, U.S.A., 24th October, 1899; 6 years. (Filed 25th May, 1899.)

Claim.—1st. In a disinfecting apparatus, the combination of a normally sealed reservoir adapted to contain liquid disinfectant, an auxiliary chamber located within and communicating with said reservoir, a wick tube leading from below the reservoir and into the upper portion of the chamber and extraneous thereof, a wick arranged in such tube and leading to the lower end of the chamber, the said chamber being closed at its upper end but open at its lower end below the level of the liquid in the reservoir, whereby air passes through the tube and into the auxiliary chamber only as the liquid is withdrawn by the wick, so that the liquid therein remains at a practically constant level, which is near the bottom of the chamber and of the reservoir regardless of the level of the liquid in the reservoir, thereby assuring a uniform feed by the wick. 2nd. In a disinfecting apparatus, the combination with a reservoir adapted to contain liquid disinfectant of an auxiliary chamber to which access of air is permitted and located within the reservoir, an avenue of communication between said reservoir and said auxiliary chamber, a wick adapted to withdraw the liquid from said auxiliary chamber to the point of application, said reservoir having holes for the admission of air to said reservoir, and means for normally maintaining said holes sealed against the passage of air, whereby the atmospheric pressure causes the liquid in said auxiliary chamber to remain at a practically constant level regardless of the height of the liquid within the reservoir, substantially as

described. 3rd. In a disinfecting apparatus, the combination with the reservoir *a*, of auxiliary chamber *c* within said reservoir and in communication therewith at the bottom, access of air being permitted to said auxiliary chamber *c*, a wick *h* adapted to withdraw liquid from said chamber *c* to the point of application, said reservoir having holes *e e* for the admission of air, and a cap *d* normally sealing said holes against the passage of air, substantially as described. 4th. A disinfecting apparatus, the combination with the reservoir *a* of the chamber *c* communicating therewith and with the external air, wick *h*, said reservoir having holes *e e* for the admission of air, cap *d* normally covering the chamber *c*, and a washer *f* carried upon said cap and normally sealing said holes *e e*, substantially as described. 5th. In a disinfecting apparatus, the combination of a normally closed reservoir adapted to contain liquid disinfectant, an auxiliary chamber located within the reservoir and communicating substantially at the bottom with the reservoir, and a wick extending from below the reservoir and into the auxiliary chamber for withdrawing the disinfectant, substantially as described. 6th. In a disinfecting apparatus, the combination of a normally closed reservoir adapted to contain liquid disinfectant, an auxiliary chamber located within the reservoir and to which air has access and whose lower end communicates with the reservoir near the bottom thereof, and a wick extending into the auxiliary chamber to its lower end and leading from a point extraneous of such chamber for withdrawing the disinfectant from the reservoir, substantially as described. 7th. In a disinfecting apparatus, the combination of a normally closed reservoir adapted to contain liquid disinfectant, an auxiliary chamber open only at its lower end and depending into the liquid, a wick tube leading outside the chamber from its upper portion, and a wick extending from the lower end of the chamber upward through the chamber and thence through the wick tube. 8th. In a disinfecting apparatus, the combination of a reservoir adapted to contain liquid disinfectant, an auxiliary chamber located therein and communicating substantially at its lower end with the reservoir, a tube leading from near the top of the chamber downward, and a wick in the chamber and tube for withdrawing the disinfectant from the reservoir. 9th. In a disinfecting apparatus, the combination of a reservoir adapted to contain liquid disinfectant, an auxiliary chamber depending therein and having communication through its lower end, an exposing surface located adjacent to the reservoir, a tube extending from near the top of the auxiliary chamber and passing downwardly through the reservoir to the exposing surface, and a wick in the auxiliary chamber and tube for conducting the disinfectant. 10th. In a disinfecting apparatus, the combination of a reservoir to contain liquid disinfectant, an auxiliary chamber communicating therewith substantially at its lower end, and a wick leading from the lower end of the chamber upward therethrough, and thence downward extraneous to the chamber and below the bottom of the reservoir.

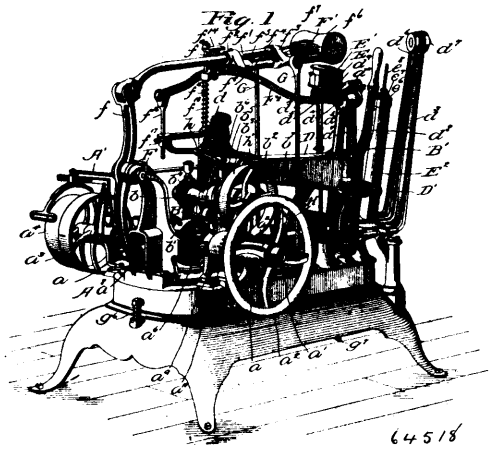
No. 64,517. Cigar Pocket. *(Poche à cigares).*



The Racine Paper Goods Co., Racine, Wisconsin, assignees of Hugh E. Shedd, Red Wing, Minnesota, U.S.A., 24th October, 1899; 6 years. (Filed 13th September, 1899).

Claim.—1st. A series of paper cigar pockets formed of a series of independently formed paper tubes, and a single backing sheet, the tubes secured side by side on the sheet and the sheet then doubled over and secured down on the tubes, so that the sheet faces both the front and rear of the tubes and closes their lower ends, both plies of the sheet cut completely through on lines between the pockets by the long parallel slits substantially as described. 2nd. A backing sheet having the parallel straight cuts completely therethrough and from one edge to the other of the sheet except for the narrow uncut portions at the folding line and at the end edges, in combination with the individually formed paper tubes secured between the opposite plies of the backing and between the cuts, substantially as described. 3rd. A series of cigar pockets or pouches, each formed of an independent paper tube, the pockets detachably connected at their upper and lower ends only, substantially as described for the purpose set forth. 4th. A series of paper pockets or pouches each formed independently and having collapsible sides, said pockets detachably connected at their lower ends and detachably connected at the front and back faces of their upper ends, the front faces of the pockets disconnected between said upper and lower ends, whereby the sides and front faces of the pockets expand independently between said points ofconnection, substantially as described. 5th. A series of ends, paper pouches or pockets having closed lower ends and open upper ends, said tubes being disconnected between their upper and lower ends and detachably connected at the front and rear faces of their upper ends, substantially as described. 6th. An elongated pouch or pocket comprising a backing sheet passing up at the front and rear of the pocket and a paper tube pasted to and between the plies of the backing sheet and closed thereby at its lower end and at its upper open end projecting a distance above the upper edges of said sheet and thereby cushioning the wrapper of the cigar from injurious contact with said backing sheet, substantially as described. 7th. A pouch or pocket formed of a tube having collapsible sides and an open upper end, the lower end of said tube compressed and doubled upon itself and the backing sheet secured to said tube and folded around and secured to said lower doubled end of the tube, substantially as described. 8th. The pocket formed of a paper tube having the inward angular side folds extending longitudinally thereof, the sides of each fold having longitudinal short supplemental tucks 3, substantially as described.

No. 64,518. Machine for Shaping the Bottoms of Shoes.
(Machine à façonner les semelles de chaussures.)



The Duplessis Pegging and Sewing Machine Co., assignee of Elouild Duplessis, all of St. Hyacinthe, Quebec, Canada, 24th October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—1st. In a machine for shaping the bottom of shoes, the combination with a suitable jack frame of a flexible shaping roller, substantially as described. 2nd. In a machine for shaping the bottom of shoes, the combination with the suitable jack frame of a flexible shaping roller, and means for varying the shape of said shaping roller, substantially as described. 3rd. In a machine for shaping the bottoms of shoes, the combination with an oscillating frame and a jack frame mounted to automatically swing therein, of a flexible shaping roller, substantially as described. 4th. In a machine for shaping the bottoms of shoes, the combination with an oscillating frame and a jack frame mounted to automatically swing therein, of a flexible shaping roller, and means for varying the shape of said shaping roller, substantially as described. 5th. In a machine for shaping the bottoms of shoes, the combination with a flexible shaping roller of an oscillating frame, and a jack frame pivotally mounted therein and adapted to automatically swing by the movement of said flexible shaping roller, substantially as described. 6th. In a machine for shaping the bottoms of shoes, the combination of a flexible shaping roller, means for varying the shape of said shaping roller, an oscillating frame, means for imparting an oscillating movement to said oscillating frame, and a jack frame pivotally mounted in said oscillating frame and adapted to be swung automatically by the movement of said flexible roller, substantially as described. 7th. In a machine for shaping the bottoms of shoes, the combination of a flexible shaping roller, means for varying the shape of said shaping roller, an oscillating frame, means for imparting an oscillating movement to said frame, means for limiting the movement to said frame in either direction, and a jack frame pivotally mounted in said oscillating frame and adapted to be swung automatically by the movement of said shaping roller, substantially as described. 8th. In a machine for shaping the bottoms of shoes, the combination of an oscillating frame, a jack frame pivotally mounted therein, a rod pivotally supported above said oscillating frame, means for imparting a horizontally reciprocating movement to said rod, parallel shafts journalled in bearings fixed upon said rod, intermeshing toothed segments fixed upon said shafts, means connected with one of said segments for rotating said shafts, and a

divided shaping roller rotatably mounted between said shafts, substantially as described. 9th. In a machine for shaping the bottoms of shoes, the combination of an oscillating frame, a jack frame pivotally mounted therein, a rod pivotally supported above said oscillating frame, means for imparting a horizontally reciprocating movement to said rod, a flexible shaping roller rotatably supported upon said rod, means for varying the shape of said shaping roller, a rod pivotally connected with the aforesaid rod, a spring connected to the lower end of said rod, a lever bar connected with one end of said spring, and a weight adjustably mounted upon said lever bar, substantially as described. 10th. In a machine for shaping the bottoms of shoes, the combination of an oscillating frame, having vertically extending arms integral therewith, friction rollers mounted upon the extremity of one of said arms and an eye formed in the extremity of the other of said arms, a jack frame having vertically extending arms, a perforated extension fixed upon one of said arms and adapted to rest and slide upon said friction rollers, and a pivot pin integral with the other of said arms and adapted to engage the eye of said oscillating frame, a last support carried by said jack frame, a flexible shaping roller mounted above said jack frame, means for varying the shape of said shaping roller, means for imparting a horizontally reciprocating movement to said shaping roller, means for oscillating said oscillating frame, and an adjustable weight connecting with said shaping roller, substantially as described.

No. 64,519. Wire Mattress Frame.

(*Cadre pour matelas de fil de fer.*)

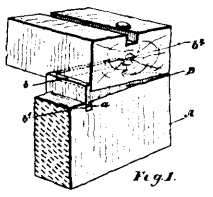


Fig. 1.

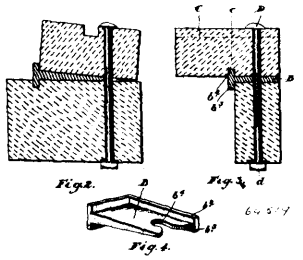


Fig. 2. Fig. 3. Fig. 4.

The Canadian Feather and Mattress Company, assignees of Alexander Martin, all of Toronto, Ontario, Canada, 24th October, 1899; 6 years. (Filed 12th September, 1899.)

Claim.—1st. The combination with the side bar and cross bar having grooves near their ends, of the intermediate plate having an end rib extending into the groove in the side bar and the side rib extending into the groove in the cross bar and means for securing the parts together, as and for the purpose specified. 2nd. The combination with the side bar and cross bar having grooves near their ends, of the intermediate plate having an end rib extending into the groove in the side bar and the side rib extending into the groove in the cross bar and a bolt extending through the top cross bar, plate and side bar, as and for the purpose specified. 3rd. The combination with the side bar and cross bar having grooves near their ends, of the intermediate plate provided with a double rib at one end, the lower rib extending into a groove in the side bar and the upper rib abutting the cross bar, and the side ribs adjacent to the end rib having the lower rib abutting the side bar and the upper rib extending into the groove in the cross bar and the bolt for securing the parts together, as and for the purpose specified. 4th. The combination with the side bars and cross bar provided with grooves near the end, of the wedge-shaped plate provided with ribs to fit the grooves, as and for the purpose specified.

No. 64,520. Drawers Support. (*Bretelles.*)

George Lewis Smith, Charles Dahlgren, and Louis N. Huffman, all of Princeton, Illinois, U.S.A., 24th October, 1899; 6 years. (Filed 9th September, 1899.)

Claim.—1st. In combination with a pair of suspenders having fastening ends, of a tape or strap secured to the suspender web between the fastening ends, and a drawer supporter adjustably connected to said tape or strap, whereby the supporter may be moved independently of the fastening ends of the suspenders. 2nd. A drawer supporter, comprising a stationary jaw, a movable jaw hinged thereto, a slide carried by the movable jaw and having a headed stud adapted to be moved into the lower portion of the stationary jaw, and a tape or strap adjustably connected to the upper portion of the said stationary jaw. 3rd. A drawer supporter, comprising a stationary jaw, having one end formed into an upwardly projecting tongue, a buckle frame movable on said jaw adjacent said tongue, a movable jaw hinged to said stationary jaw, a slide carried by the movable jaw and having a headed stud adapted to be slipped into the lower portion of the stationary jaw, and a tape or strap adjustably secured to the said buckle frame and tongue. 4th. The combination with a pair of suspenders having fastening ends, of a tape or strap secured to the lower end of the suspender web between the points of attachment of the fastening ends, a stationary jaw having an upper body laterally extended on opposite sides equally in substantial triangular form with the base uppermost and the lower portion reduced and provided with parallel sides spaced apart from each other equally and terminating in a lower curve continuous with each side, a movable jaw of elongated substantial rectangular form having the upper ends hinged to inner portions of the uppermost base of the upper laterally extended body of the stationary jaw and the opposite sides of a width apart equal to the width of the lower reduced lower part of the latter, the lower termination of the said movable jaw being closed and extended below the similar end of the movable jaw, and a slide mounted on the movable jaw and having a headed stud fixed thereto which is freely movable in the said lower reduced part of the stationary jaw.

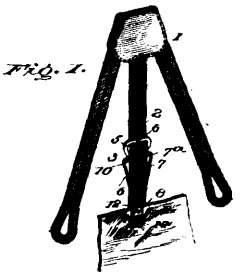


Fig. 1.

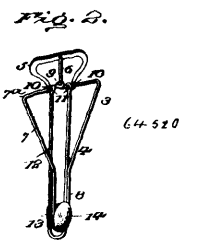
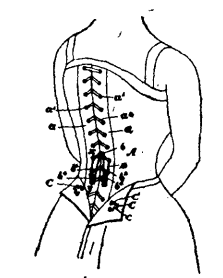


Fig. 2. 64-520

No. 64,521. Shirt Waist. (*Bande de jupes.*)



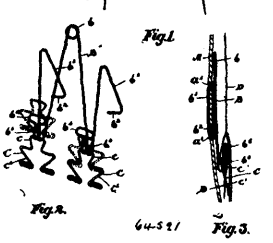


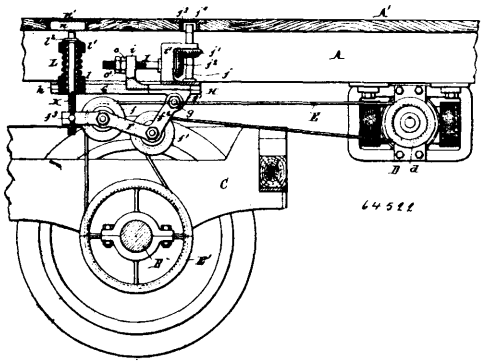
Fig. 2. 64-521 Fig. 3.

Isaac Henry Sanderson, Toronto, Ontario, Canada, 24th October, 1899; 6 years. (Filed 7th April, 1899.)

Claim.—1st. A combined shirt waist and skirt holder, comprising the W shaped wire provided with a central upper coil and the upper hooks provided with a return clinching hook designed to extend through the eyes of the corset to the inside and be clinched on the outside, as and for the purpose specified. 2nd. A combined shirt

waist and skirt holder, comprising the W shaped wire suitably fastened at the outer upper ends in the corset and having the hooks formed at the bottom points of the W provided with flaring ends and the eyes provided with dove-tail shaped narrow upper ends and the widened dove-tail shape central portions, all arranged as shown and for the purpose specified.

No. 64,522. Electric Lighting Apparatus for Railway Cars. (*Appareil d'éclairage électrique pour chars de chemin de fer.*



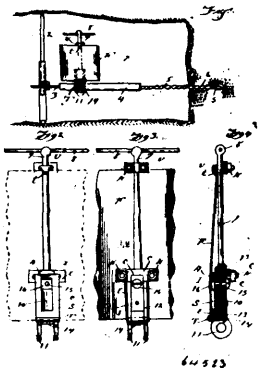
Charles M. Gould, assignee of Willard Filmore Richards, both of Buffalo, New York, U.S.A., 24th October, 1899; 6 years. (Filed 30th December, 1898.)

Claim.—1st. The combination with a railway car and its axle, of a dynamo mounted on the car, a frictional driving mechanism for driving the dynamo from said axle, an adjusting device for regulating the tension of said driving mechanism, and means independent of said adjusting device for throwing said driving mechanism out of gear for stopping the dynamo, substantially as set forth. 2nd. The combination with a railway car and its axle, of a dynamo mounted on the car, a belt whereby the dynamo is driven from said axle, a tightener pully bearing against the belt, a movable support carrying said pulley, a shifting device for said support, and an adjusting device whereby the tightener pulley can be moved independently of its support, for regulating the tension of the belt, substantially as set forth. 3rd. The combination with a railway car and its axle, of a dynamo mounted on the car on one side of said axle, a pulley support arranged on the car and capable of moving toward and from said dynamo, a tightener pulley or pulleys arranged substantially above the driving axle, carried by said support and capable of moving on the latter toward and from the driving axle and a driveing belt extending upwardly from the driving axle around said tightener pulley or pulleys and thence lengthwise of the car and around the dynamo pulley, substantially as set forth. 4th. The combination of a railway car and its axle, of a dynamo mounted on the car, a belt whereby the dynamo is driven from said axle, a slide moveable toward and from the dynamo, a vertically swinging arm or frame pivoted at one end to said slide and carrying a pulley which bears against the belt, and a yielding support which carries the opposite end of said frame, substantially as set forth. 5th. The combination with a railway car and its axle, of a dynamo mounted on the car, a belt whereby the dynamo is driven from said axle, a slide moveable toward and from the dynamo, a vertically swinging tightener frame or arm pivoted at one end to said slide and carrying a pulley which bears against said belt, and a yielding adjusting device mounted on said slide and connected with the opposite free end of said tightener frame, substantially as set forth. 6th. The combination with a railway car and its axle, of a dynamo mounted on the car, a belt whereby the dynamo is driven from said axle, a slide moveable toward and from the dynamo, a vertically swinging tightener frame or arm pivoted at one end to said slide and carrying a pulley which bears against the belt, a spring mounted on said slide and an adjusting screw carried by said spring and engaging with the opposite free end of said tightener frame, substantially as set forth. 7th. The combination with a railway car and its axle, of a dynamo mounted on the car, a belt whereby the dynamo is driven from said axle, a slide moveable toward and from the dynamo, a vertically swinging arm or frame pivoted at one end to said slide and provided at its opposite end with a swivelling nut, a pulley carried by said frame and bearing against the belt, a spring mounted on said slide, and an adjusting screw carried by said spring and engaging with said swivelling nut, substantially as set forth.

No. 64,523. Fan. (*Eventail.*)

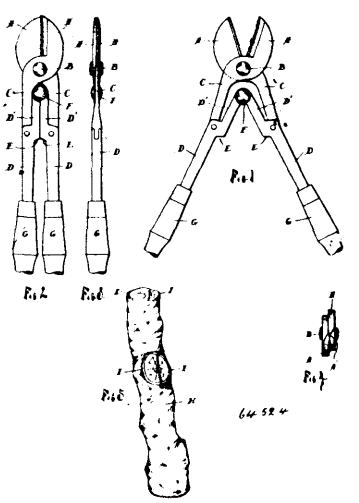
William Richard Blevins, Harriman, Tennessee, U.S.A., 24th October, 1899; 6 years. (Filed 31st August, 1899.)

Claim.—1st. The combination with a moving lever, forming part of a mining machine or the like, of a fan blade, and an attaching device therefor, comprising two members, each having a body adjustably secured to said lever, and a tongue projecting toward the other member and embracing the edge of said blade, as and for the purpose set forth. 2nd. The combination with a moving lever, forming part of a mining machine or the like, of a fan blade, and



an attaching device therefor, comprising two members, each having a clip-shaped body whose plate and nuts stand at one side of said lever, and an integral tongue carried by said body at the opposite side of the lever and projecting toward the other member, said tongues embracing the edges of the blade, as and for the purpose set forth. 3rd. The combination with a moving lever, forming part of a mining machine or the like, of a fan blade, and an attaching device therefor, comprising two members, each having a body secured to said lever by devices on one side of the latter and a tongue at the opposite side of the lever projecting toward the other member, one of said tongues being elongated on a transverse line, as and for the purpose set forth. 4th. The combination with a moving lever, forming part of a mining machine or the like, of a fan blade, and an attaching device therefor, comprising an inwardly projecting tongue near the outer end of the lever, a clip adjustably mounted on such lever, an integral extension on the clip body projecting away from said tongue, and at the inner end of the extension a transversely elongated tongue opposing that first mentioned, all as and for the purpose set forth. 5th. The combination with a ratchet drill lever having a squared inner end with side eyes, a spring pawl, and an attaching bolt therefor passing through said squared end at right angles to the axis of the eyes, of a clip surrounding the lever and having an extension lying against the edges of the shanks of said eyes and slotted for the nut of said attaching bolt, a tongue at the inner end of such extension, a second tongue on the lever near its outer end, and a fan blade held between the tongues, as and for the purpose set forth. 6th. The combination with a ratchet drill lever having a squared end, a spring pawl, and an attaching bolt therefor passing through said squared end, of a clip surrounding the lever and having an extension slotted for the nut of said attaching bolt, a tongue at the inner end of such extension, the clip plate notched for the head of said bolt, a second tongue on the lever near its outer end, and a fan blade held between the tongues, as and for the purpose set forth.

No. 64,524. Pruning Shears. (*Sécateur.*)

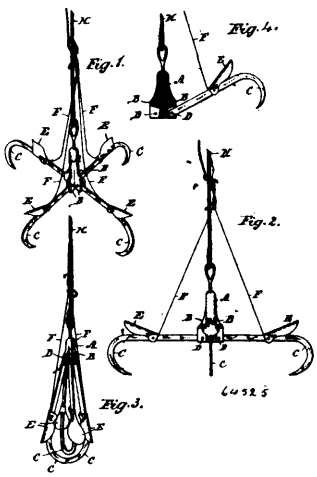


Donald Ellis Minor and Arthur Harlan Rice, Grand Rapids, assignees of Stephen Edgar O'Dell, Cedar Springs, both in Michigan, U.S.A., 24th October, 1899; 6 years. (Filed 20th July, 1899.)

Claim.—1st. In pruning shears, pivoted blades, each bevelled on both sides and, when closed, overlapping on their adjacent sides to

the extent of the bevel, substantially as described. 2nd. In pruning shears, blades having their adjacent faces in different planes, and the overlapping portions of said blades slightly bevelled, substantially as described. 3rd. In pruning shears, blades pivoted to each other and having integral blade levers, and levers pivoted to each other at their ends and directly pivoted to the ends of said blade levers at a distance from their ends and having their pivoted ends extended from the end of the blade levers toward the pivot of the blades, substantially as described. 4th. In pruning shears, blades pivoted to each other, blade levers separated at their inner sides to receive the toggle levers and moving in the same plane with each other, toggle levers between the blade levers and moving in the same plane therewith and connecting the same, and handle levers integral with the toggle joint levers, substantially as described. 5th. In pruning shears, blades pivoted to each other, blade levers integral therewith and in the same plane, toggle joint levers pivoted to the ends of the blade levers and embraced thereby and in the same plane therewith, and handle levers having offsets and shoulders and prolonging the line of the blade levers and operating the toggle joint levers, substantially as described. 6th. In pruning shears, blades pivoted to each other, blade levers in the same plane and having a space between the same, toggle joint levers pivoted to the blade levers and embraced thereby and in the same plane therewith, handle levers integral with the toggle joint levers and having offsets and shoulders near the pivots of the blade levers, said levers all arranged in the same plane, substantially as described. 7th. In pruning shears, blade levers pivotally connected and having cutting blades integral therewith and levers pivoted directly to the movable ends of said blade levers and having their shorter ends free from the blade levers and extending from the pivots in the end of the blade levers toward the pivot connecting said blade levers, and pivoted to each other at said projecting ends, substantially as described.

No. 64,525. Grappling Hook. (*Grappin.*)



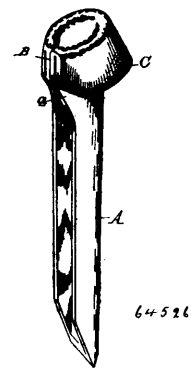
Theophilis David, Corrunna, Ontario, Canada, 24th October, 1899; 6 years. (Filed 13th August, 1898.)

Claim.—1st. In a grapple, the combination of a head, hooks pivoted to said head at angles to each other, and having pivoted spreaders, and means adapted to spread said hooks, substantially as set forth. 2nd. In a grapple, the combination of a head, hooks pivoted to said head at angles to each other, and having pivoted spreaders and spreading cords or lines adapted to spread said hooks, substantially as set forth.

No. 64,526. Spike. (*Boulon.*)

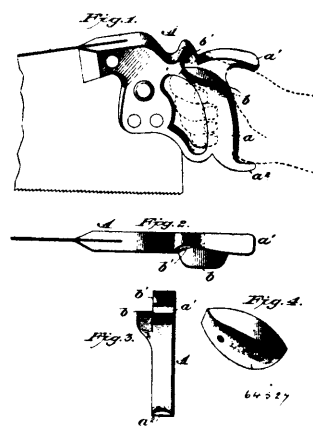
Daniel A. Daley, Detroit, Michigan, U.S.A., 24th October, 1899; 6 years. (Filed 15th November, 1897.)

Claim.—1st. A sheet metal railway spike having a hollow shank provided at its head with a turn down collar pressed into contact therewith at the sides of the shank and projecting beyond the rail face thereof to form a rail bearing. 2nd. A sheet metal railway spike having a hollow shank extending the whole length of the spike and provided at its head with a sheet metal portion folded upon the sides of the shank and extending beyond the rail face thereof. 3rd. A sheet metal railway spike having a hollow shank provided at its head with a collar, formed with an overhang by cross folding the metal blank from which the spike is formed along an arching line. 4th. The herein described blank for forming a sheet metal spike by folding between dies, the same consisting of the shank portion A having the lateral prolongation *a* and the upper prolongation or collar portion C. 5th. A railway spike formed of sheet metal with an open sided shank, and a head formed of an integral portion extending down beside the upper portion of the shank reinforcing the top of the shank, and having a portion extending laterally beyond the shank to form a rail bearing. 6th. A hollow railway spike comprising a trough-shaped shank having substantially parallel sides, an exterior reinforcement at the top forming a head, the lower



edge of the reinforcement extending from the sides of the shank to form a drawing shoulder and a lateral projection at the end forming a rail bearing. 7th. A sheet metal railway spike comprising a trough-shaped shank, a head formed by a reinforcement extending down beside the upper portion of the shank and projections for preventing the closing of the head portion of the spike. 8th. A hollow spike with a head and a stem, the shank being straight, of U-shape, the sides of the stem being substantially parallel and of sufficient width as to form efficient clamping jaws for the plug of wood between, whereby the holding efficiency of the spike is increased. 9th. In a hollow spike, the combination of a head, a straight stem formed of deep U-shape in cross section, the two sides being substantially parallel, extending throughout the driving portion, and a point formed by tapering the sides back from the edges to the back.

No. 64,527. Saw Handle. (*Manche de scie.*)



Robert F. Smith, Victor, Colorado, U.S.A., 24th October, 1899; 6 years. (Filed 8th August, 1899.)

Claim.—1st. A saw handle provided above the portion thereof which is grasped by the fingers with a laterally projecting portion which extends beyond the vertical plane of the side of the handle the upper edge of which is convex to provide a thumb rest, substantially as shown and for the purpose set forth. 2nd. A saw handle provided with a grip and finger opening in front of the same, a thumb rest which projects laterally from the upper portion of the grip to provide a convex bearing surface the handle adjacent having a recess, the horn above the laterally projecting portion being curved to join the recess, substantially as shown.

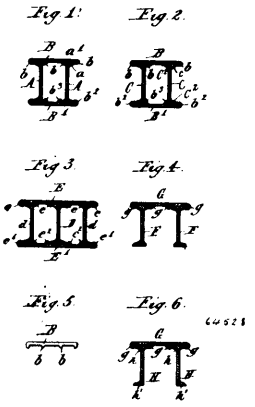
No. 64,528. Girder and Post.

(*Support pour boîtes en métal.*)

Charles M. Horton, West Superior, Wisconsin, U.S.A., 24th October, 1899; 6 years. (Filed 15th August, 1899.)

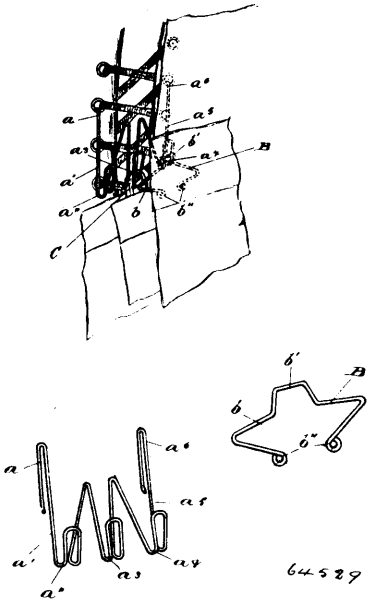
Claim.—1st. A metallic box girder, comprising beams having flanges, plates provided with flanges forming channels, the said flanges being turned over and secured upon the flanges of the beams on each side thereof to space the component beams and hold the structure firmly together, substantially as described. A metallic box beam comprising beams having flanges formed upon their edges, plates having exteriorly and interiorly arranged flanges forming channels for receiving the flanges of the beams, one of said channel plates having its exterior and interior flanges turned over upon the flanges of the said beams to space them apart, substantially as described. 3rd. A metallic box beam girder, comprising beams

provided with one or more flanges, plates for binding them together and flanges formed upon the said plates upon one of their surfaces



for forming channels, the construction being such that the flanges are turned over and secured upon the flanges of the beams for securing the said beams in separate channels, substantially as described. 4th. A metallic box girder, comprising beams having flanges upon their edges, plates for binding the beams together, ribs or flanges forming separate channels upon the inner faces of the said plates for receiving the flanges of the beams, the construction being such that when the said ribs of the channel plates are heated and turned over upon the flanges of the beams, the parts will be held firmly and rigidly together without the use of rivets or other puncturing means, substantially as described. 5th. The combination with beams, of a plate provided upon its interior face with integral exterior and interior channel, walls adapted to receive the beams with their top flanges in alternate spaces respectively, and a second plate forming the fourth side of the structure, provided upon its interior face with integral exterior and interior channel walls forming spaces, the foot flanges of the beams being set in alternate spaces thus formed, the exterior and interior channel walls of the first named plate being turned over and upon the flanges of the said beams contiguous to them respectively, the exterior channel walls of the second plate being turned upon the foot flanges of the beams, and the interior channel walls of the said second plate separating the said foot flanges of the beams, and preventing lateral movement thereof, substantially as described.

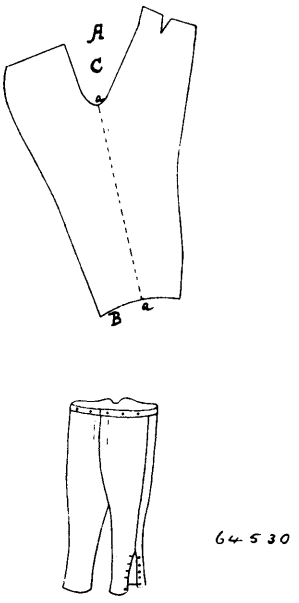
No. 64,529. Skirt Support. (*Support de jupes.*)



Samuel Penny, Owen Sound, Ontario, Canada, 24th October, 1899; 6 years. (Filed 7th June, 1899.)

Claim.—1st. A dress supporter, consisting of two skirt supporting hooks, and an underskirt supporting hook located between and integrally formed with the dress skirt supporting hooks, each dress skirt supporting hook prolonged to form a hanger terminating in a hook shaped end, and to engage the eyelet of the corset, substantially as specified. 2nd. A dress supporter, consisting of two skirt supporting hooks, and an underskirt supporting hook located between and integrally formed with the dress skirt supporting hooks, each dress skirt supporting hook prolonged to form a hanger terminating in a hook shaped end to engage the eyelets of the corset, in combination with eyes adapted to be attached to the waistband of the dress skirt having loops to engage the hooks of the supporter and eyelets, to enable them to be sewn to the waistband, substantially as specified.

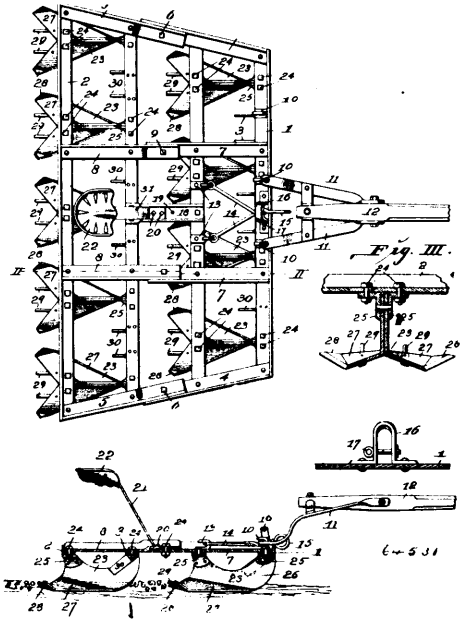
No. 64,530. Garment. (*Vêtement.*)



Helen Shaw, Calgary, Alberta, Canada, 24th October, 1899; 6 years. (Filed 13th June, 1899.)

Claim.—1st. The manufacture of trousers, pants, riding breeches or drawers for both external or underwear, without a seam on inside of leg from fork to bottom, substantially as and for the purpose hereinbefore set forth. 2nd. The right to manufacture trousers, pants, riding breeches or drawers without a seam on inside of leg, as before described, in buckskin, leather, cloth, flannel or any other materials suitable for making clothing, substantially as and for the purpose hereinbefore set forth.

No. 64,531. Weed Exterminator. (*Extirpateur.*)



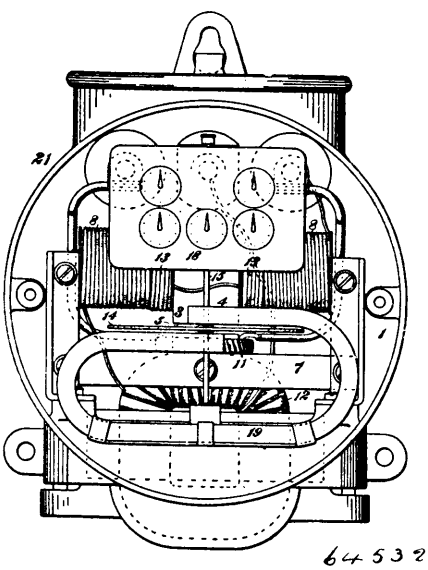
Henry Fredrich Deberting, Commerce, Missouri, U.S.A., 24th October, 1899; 6 years. (Filed 23rd August, 1899.)

Claim.—1st. In a soil pulverizer, the combination of a frame, composed of cross bars extending from side to side thereof, bars extend-

ing crosswise of said first mentioned bars, bladed cutters connected in rows to pairs of said cross bars, the cutters of one row being offset from the cutters of the other row, and breaker prongs carried by said first mentioned bars and arranged intermediate of said cutters, substantially as described. 2nd. In a soil pulverizer, the combination of a frame, composed of transvere bars arranged parallel, cutters having diverging blades and provided with two connections to pairs of said bars whereby they are rigidly attached to said frame, said blades extending diagonally rearwardly and inclined downwardly and outwardly and having lips at their rear ends, and agitator teeth carried by said blades intermediate of their rear ends, substantially as described 3rd. In a soil pulverizer, the combination of a frame composed of cross bars extending from side to side thereof, bars extending crosswise of said first mentioned bars, a bar connected to the central of said first mentioned bars and provided with a series of holes, and a set carrying post detachably and movably secured to said bar, substantially as described. 4th. In a soil pulverizer, the combination of a frame composed of crossing bars, a draft link attached to said frame, a series of hooks on said frame, and a detachable tongue having arms adapted to be connected to said hooks, substantially as and for the purpose set forth. 5th. In a soil pulverizer, the combination of a frame, composed of crossing bars, a draft link attached to said frame, a series of hooks on said frame, a detachable tongue having arms adapted to be connected to said hooks, a shackle carried by said frame and adapted to inclose said link, and a pin in said shackle adapted to confine and limit the movement of said link, substantially as described. 6th. In a soil pulverizer, the combination of a frame, cutter composed of mating sections welded together, colter portions at the forward ends of said cutters, each cutter having diverging blades extending diagonally rearwardly, and having lips at their rear ends and agitator teeth intermediate of their rear ends, and angle ears riveted to said cutter through means of which the cutters are secured to said frame, substantially as described.

No. 64,532. Electric Meter and Motor.

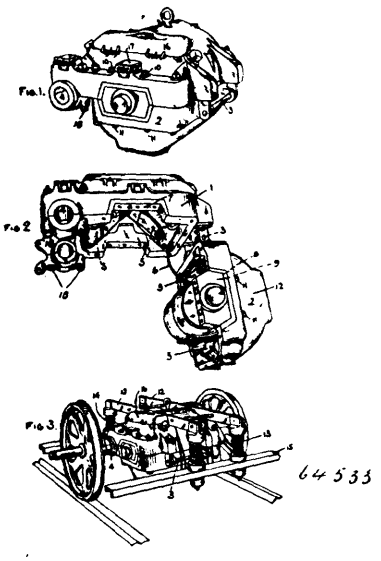
(*Electromètre et moteur.*)



The Westinghouse Electric and Manufacturing Company, assignee of Harry P. Davis, Pittsburg and Frank Conrad, Wilkinsburg, Pennsylvania, U.S.A., 24th October, 1899; 6 years. (Filed 24th July, 1899.)

Claim.—1st. In an induction alternating current motor, a primary member comprising a divided core, a coil or coils having a large number of turns, and wound to produce magnetic fluxes of opposite sign in the poles formed by the division of the core, a coil or coils having a small number of turns, and wound to produce magnetic fluxes of the same sign in said poles, and means for supplying currents to said coils or sets of coils which differ in phase, in combination with a secondary member in position to be traversed by the resultant magnetic flux or fluxes. 2nd. In a wattmeter for alternating current electric circuits, the combination with a laminated core having a transverse air gap, of a shunt connected coil or coils for producing magnetic fluxes of opposite sign in the poles adjacent to said air gap, a series connected coil or coils for producing magnetic fluxes of opposite sign in the poles adjacent to said air gap, a series connected coil or coils for producing a magnetic flux or fluxes of the same sign in said poles, a movable closed circuit conductor adjacent to said poles, means for retarding and means for registering or indicating its movement. 3rd. A meter for measuring the energy in alternating current electric circuits, comprising a core containing an air gap forming adjacent poles and having an intermediate pole, shunt connected coils for oppositely magnetizing said adjacent poles, a series connected coil or coils for magnetizing the intermediate pole, a movable closed conductor projecting between the pair of poles and the intermediate pole, means for retarding and means for registering or indicating the movement of said conductor, and means for lagging the current traversing said shunt connected coils. 4th. A meter for measuring the true energy in alternating current circuits, comprising a core having a pair of separated polar projections and a polar projection opposite the same, shunt connected coils for oppositely magnetizing said pair of projections, a series connected coil or coils for imparting magnetism of the same sign to said pair of poles, means for securing a quadrature relation between the current in said shunt connected coil or coils and the impressed electromotive force, a rotatable secondary member actuated by the shifting magnetic field thus produced, means for retarding and means for registering or indicating the movement of the same. 5th. A meter for measuring the energy in alternating current circuits comprising a core having separated poles, a shunt connected coil or coils having a large number of turns for oppositely magnetizing said poles, a series connected coil or coils having a small number of turns for alternately reinforcing and opposing the magnetism of said poles, a movable, closed conductor in inductive relation to the resultant flux produced by the currents in said coils, means for retarding and means for registering or indicating the movement of said conductor, and means for lagging the current traversing said shunt connected coils. 6th. An electrical measuring instrument comprising a laminated core having an inwardly projecting pole piece 2, at one side and a pair of inwardly projecting pole pieces 3 and 4 at the opposite side, the faces of which are substantially parallel and opposite to the face of pole piece 2, a series connected coil on pole piece 2, shunt connected coils surrounding the core and respectively adjacent to pole pieces 3 and 4, a closed circuit armature projecting between the opposing pole faces, and a damping magnet between the poles of which said armature projects, all combined and operating, substantially as described. 7th. In an alternating current wattmeter, a disc armature, and a laminated core having a pole piece located adjacent to one face of said armature, and having a pair of pole pieces located adjacent to the opposite face of the armature, in combination with a series coil of comparatively few turns at one side of the armature, and a pair of shunt coils having a large number of turns at the other side of the armature, so wound as to oppositely magnetize the pole pieces at that side, whereby the necessary resultant flux is secured and the desired relation between the shunt current and the impressed electromotive force is maintained. 8th. In an alternating current electric motor, the combination with a plurality of coils or sets of coils traversed by out-of-phase currents, of an inductively actuated armature located between said coils or sets of coils, and a core for said coils or sets of coils having a gap disposed across the normal path for the magnetic flux of one phase, and in but not across the normal path for the magnetic flux of the other phase, whereby a small portion of the first-named flux is caused to act directly upon the armature, and whereby the other flux is caused to act as a whole directly upon the armature and also to thread the coils corresponding to the other flux. 9th. In a wattmeter for alternating current circuits, a laminated core having two air gaps, substantially at right angles to each other, in combination with a closed circuit armature located partially in one of said air gaps, shunt coils constructed and arranged to produce a strong magnetic flux across the other air gap and a relatively weak flux through the armature, and a series coil arranged to produce a magnetic flux through the armature and through one or both of the shunt coils, whereby a shifting field is produced and the desired relation between the shunt current and the impressed electromotive force is maintained. 10th. An alternating current motor having a rotatable closed circuit secondary member and a primary member comprising a shunt winding at one side of the secondary member, a series winding at the other side, and a core for said windings, said core and windings being so constructed and arranged that only a portion of the shunt flux passes through the secondary member and the entire series flux passes through said member and threads all or a part of the shunt winding. 11th. The combination, in an electric meter, of a main actuating means for propelling the meter armature, and an auxiliary actuating means exercising an independent propelling force that varies as the work current varies, substantially as described. 12th. The combination, in an electric meter, of a main actuating means having an approximately constant law of operation, a retarding device having a suitable law of operation to correspond to the actuating means and an auxiliary actuating means exercising a propelling force that varies as the work current varies, as set forth. 13th. In an electric meter, the combination with a primary member having shunt and series connected coils for producing a resultant shifting magnetic field, of a rotatable secondary member located partially in said field, and means for distorting a series field so as to impart a propelling force to the secondary member that varies as the work current varies. 14th. In an electric meter, the combination with a primary member having shunt and series connected coils for producing a resultant shifting magnetic field, of a rotatable secondary member located partially in said field, and an auxiliary actuating device consisting of a segmental magnetic shield or shields located adjacent to said secondary member in such position as to distort the series field and thus impart a propelling force to the rotatable member that varies as the work current varies.

No. 64,533. Electric Railway Motor.
(*Moteur pour chemins de fer électrique.*)



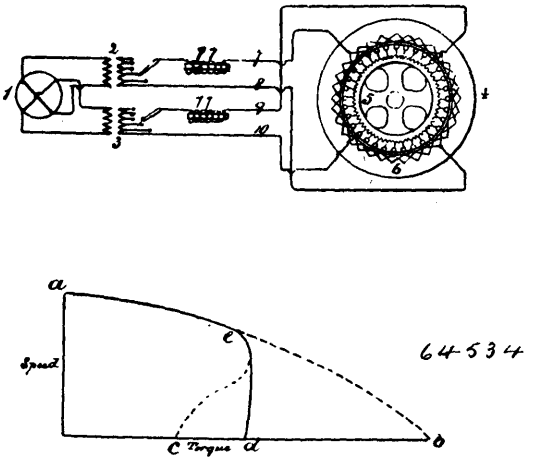
The Westinghouse Electric and Manufacturing Company, assignee of Albert Schmid, both of Pittsburg, Pennsylvania. U.S.A., 25th October, 1899; 6 years. (Filed 21st August, 1899.)

Claim.—1st. In a railway motor, the combination with an armature, of a field magnet constructed in two sections, the upper section being supported by the car truck and the lower section being hinged to and supported by the upper section and adapted to swing downward, substantially as and for the purpose set forth. 2nd. In a railway motor, the combination with an armature, of a field magnet constructed in two sections, the upper section being spring supported on the car truck and the lower section being hinged to and supported by the upper section and adapted to swing downward, substantially as and for the purpose set forth. 3rd. In an electric car, a motor having a horizontally divided field magnet, one member of which is sleeved at one end upon an axle of the car, the other member being hinged to the first named member at one end and removably fastened thereto at its other end independently of the axle bearing, substantially as described. 4th. An electric motor, having a horizontally divided field magnet, the upper portion of which is provided with an axle bearing at one end and the lower portion of which is hinged to said upper portion, independently of said axle bearing, whereby it may be swung downwardly without disturbing said bearing. 5th. In an electric car a motor sleeved at one end upon the axle of the car, suspension bars secured to said motor above its centre of gravity, springs supporting the ends of said bars, and means whereby said springs are attached to the truck, substantially as described. 6th. In a motor for electric cars, the combination with the armature, of a field magnet comprising an upper section supported by the car truck and a lower section hinged to said upper section, and means whereby the armature supported by either section when the lower section is swung downward, substantially as described. 7th. In a motor for electric cars, a field magnet surrounding the armature, and horizontally divided, the two sections of said field magnet being provided with corresponding recesses; in combination with armature bearings fitting said recesses, and means for removably fastening said armature bearings to either of the field magnet sections, substantially as described. 8th. In a motor for electric cars a field magnet surrounding the armature, and horizontally divided, the two halves of said field magnet being provided with corresponding recesses; in combination with armature bearings fitting said recesses, fastenings removable from the outside, securing said bearings to the upper half of the field magnet, and fastenings removable from the outside, for securing said bearings to the lower half of said field magnet, substantially as described.

No. 64,534. Means for Securing Constant Torque in Polyphase Motors. (*Moteur à induction de courant régulateur alternatif.*)

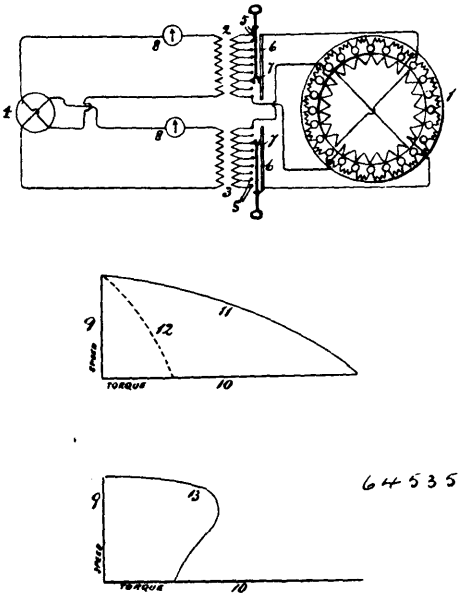
The Westinghouse Electric and Manufacturing Company, assignee of Benjamin G. Lamme, all of Pittsburg, Pennsylvania, U. S. A., 25th October, 1899; 6 years. (Filed 22nd August, 1899.)

Claim.—1st. The combination with an induction alternating current motor having a comparatively high resistance secondary winding and a low degree of magnetic leakage, of a reactive coil in each of the supply circuits the core of which becomes saturated by a predetermined amount of current whereby a substantially constant torque is secured. 2nd. The combination with an induction polyphase motor having a comparatively high resistance secondary



winding and a small magnetic leakage, of choke coils in the external circuit the cores of which become saturated by a given current whereby a substantially constant torque is secured. 3rd. The method of securing constant torque in an induction alternating current motor which consists in supplying the actuating currents through choke coils the magnetic circuits of which become saturated at a predetermined point in the increase of the quantity of current. 4th. The method of producing and maintaining constant torque in alternating current motors having rotary fields produced by out-of-phase currents, which consist in subjecting such out-of-phase currents to self induced counter electromotive forces which vary with the current up to a given point, and which vary at a materially different rate beyond that point.

No. 64,535. Means of Controlling Electric Motors.
(*Moyen de controller les moteurs électriques.*)

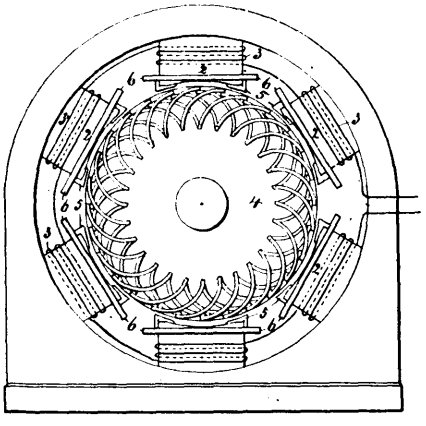


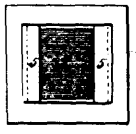
The Westinghouse Electric and Manufacturing Company, assignee of Benjamin G. Lamme, all of Pittsburg, Pennsylvania, U.S.A., 25th October, 1899; 6 years. (Filed 21st August, 1899.)

Claim.—1st. In a polyphase alternating current electric motor, the combination with the primary member, of a secondary member provided with a comparatively high resistance winding directly short circuited on itself, and means for varying the electromotive force applied to the primary member whereby the speed of the motor is varied. 2nd. A variable speed, non-synchronous motor having a comparatively large secondary resistance and a small degree of magnetic leakage between its primary and secondary members, in combination with means for varying the electromotive force applied to its primary member, whereby the speed of the motor is varied. 3rd. The combination with an induction coil having small magnetic leakage and a high resistance secondary

circuit, of means for varying the speed of the motor, consisting of a transformer or transformers for supplying current to the primary winding of the motor and means for varying the relation between the primary and secondary coils, and thereby varying the electromotive force supplied by the secondary. 4th. The combination with a polyphase induction motor having a high resistance secondary winding directly short circuited on itself, of transformers for supplying current to the primary member thereof, and means for varying the active lengths of the secondaries of such transformers, whereby the electromotive force applied to the primary of the motor is varied, in order to vary the speed of the motor.

No. 64,536. Rotary Transformers or Synchronous Motors. (*Transformateur rotatoire ou moteur synchrone.*)





64536

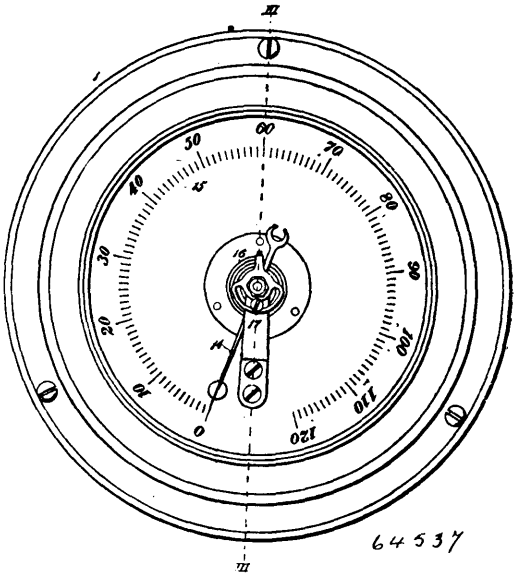
The Westinghouse Electric and Manufacturing Company, assignee of Benjamin G. Lamme, both of Pittsburg, Pennsylvania, U.S.A., 25th October, 1899; 6 years. (Filed 22nd August, 1899.)

Claim.—1st. A rotary transformer or synchronous alternating current motor, the field magnet pole pieces of which are provided with combined low resistance non-magnetic rings and end shields, for counteracting the field distortion caused by armature reaction. 2nd. In a rotary transformer or synchronous alternating current motor, the combination with an armature and field magnet, of combined low resistance rings and shields or plates applied to the inner ends of the field magnet, pole pieces for preventing disturbing effects due to armature reaction. 3rd. A rotary transformer or synchronous alternating current motor, each of the field magnet pole pieces of which is provided at its inner end with a low resistance regulating device, comprising a conducting shield or shields and a closed secondary coil or ring, formed of a single piece of metal.

No. 64,537. Alternating Current Measuring Instrument. (*Instrument à mesurer les courants alternatifs.*)

The Westinghouse Electric and Manufacturing Company, assignee of Harry P. Davis, both of Pittsburg, and Frank Conrad, of Wilkinsburg, all of the State of Pennsylvania, U.S.A., 25th October, 1899; 6 years. (Filed 6th September, 1899).

Claim.—1st. In an electrical measuring instrument, the combination with a laminated core having an air gap, of a primary actuating coil, a secondary coil, a disc armature having radii of different length, an indicating hand or pointer and a spring tending to hold said armature and pointer at the zero position. 2nd. In an electrical measuring instrument, the combination with a laminated core having an air gap, of a primary coil, a closed secondary coil, a rotatable disc armature having radii of different length and projecting into said air gap a maximum distance when in its zero position, means tending to hold the armature at the zero position, and means for indicating the degree of rotation. 3rd. In an electrical measuring instrument, the combination with a laminated core having an air gap, of a primary coil and a secondary coil adjacent to such airgap, a rotatable disc armature having a periphery in the form of one turn of a spiral and projecting into said airgap, means for indicating the degree of movement of the armature, and means tending to hold it in its zero position. 4th. In an electrical measuring instrument, the combination with a primary coil and a closed secondary coil, of a disc armature having a spiral periphery and projecting into the shifting magnetic field produced by the currents in said coils, means for indicating the degree of movement of the armature and means for



opposing such movement. 5th. In an electrical measuring instrument, the combination with a primary coil and a relatively displaced closed secondary coil, of a rotatable disc armature, means for opposing such movement, and means for adapting the instrument to differences in current frequencies. 6th. In an electrical measuring instrument, the combination with a primary coil and a relatively displaced closed secondary coil, of a rotatable disc armature in inductive relation to said coils, means for indicating the degree of movement of said armature, and a noninductive resistance coil for adapting the instrument to different frequencies. 7th. In an electrical measuring instrument, the combination with actuating coils constructed and arranged to produce a shifting magnetic field, of an armature or secondary member consisting of a disc having a periphery in the form of one turn of a spiral and projecting into said shifting field, and means for indicating the degree of movement of said armature. 8th. In an electrical measuring instrument, the combination with actuating coils constructed and arranged to produce a shifting magnetic field, and a disc armature having a spiral periphery and provided with balancing means, of means for indicating the degree of movement of the armature. 9th. In a measuring instrument for alternating electric currents, the combination with a closed circuit movable member and means for indicating the extent of its movement, of an actuating magnet and a non-inductive resistance in shunt to said magnet whereby the instrument is adapted to different frequencies of alternations. 10th. In a measuring instrument for alternating electric currents, the combination with a closed circuit movable member and means for indicating the extent of its movement against an opposing force, of an actuating magnet and a non-inductive resistance having a temperature co-efficient at least as great as that of the movable member and connected in shunt to the actuating magnet to compensate for changes in current frequency and in temperature. 11th. In an electrical measuring instrument, the combination with a laminated core having an air gap, of a primary actuating coil and one or more closed secondary coils on said core, the secondary coil or coils being laterally displaced with reference to said primary coil, a disc armature projecting into said air gap, an indicating device and means tending to hold said armature and indicating device at the zero position. 12th. In an electrical measuring instrument, the combination with a laminated core having an airgap, of a primary coil surrounding one arm of the core adjacent to the air gap, a closed secondary coil surrounding a portion of each arm of the core, a disc armature projecting into the air gap, an indicating device and means tending to hold the armature and the indicating device at the zero position.

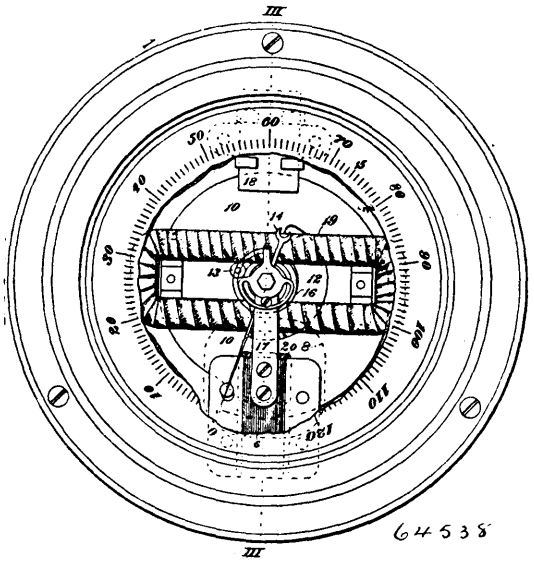
No. 64,538. Alternating Current Voltmeters.

(*Mètre voltaque pour courant alternatif.*)

The Westinghouse Electric and Manufacturing Company, assignee of Harry P. Davis, both of Pittsburg, and Frank Conrad of Wilkinsburg, all of the State of Pennsylvania, U.S.A., 25th October, 1899; 6 years. (Filed 6th September, 1899.)

Claim.—1st. In an electric measuring instrument, the combination with a closed circuit movable member and means for indicating the extent of its movement against an opposing force, of an actuating magnet and a non-inductive resistance having a low temperature co-efficient and connected in series with the main coil of the actuat-

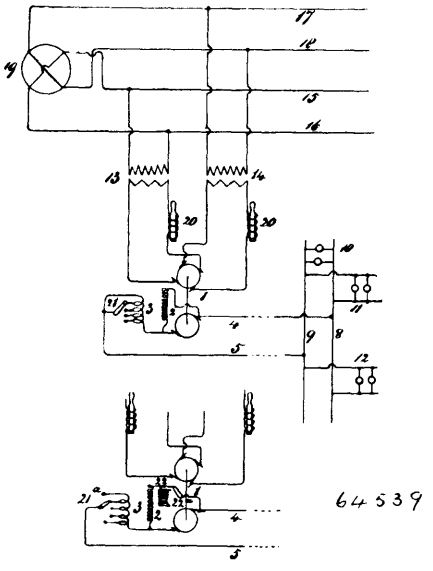
ing magnet to compensate for changes in current frequency. 2nd. In a voltmeter for alternating current circuits, the combination with



a closed circuit armature, and means for indicating the extent of its movement against an opposing force, of primary and secondary actuating coils and a non-inductive resistance having a low temperature co-efficient and connected in series with the primary actuating coil to compensate for changes in current frequency. 3rd. In a voltmeter for alternating current circuits, the combination with a closed circuit armature and means for indicating the extent of its movement against an opposing force, of primary and secondary actuating coils and a demagnetizing secondary coil having a high temperature co-efficient and compensating for changes in temperature. 4th. In an electrical measuring instrument, the combination with a closed circuit movable member, means for indicating the extent of its movement, and an actuating magnet having a primary coil, one or more secondary actuating coils and a demagnetizing coil having a high temperature co-efficient, of a non-inductive resistance having a low temperature co-efficient and connected in series with the primary actuating coil to compensate for changes in current frequency.

No. 64,539. Rotary Transformer Regulation.

(*Régulateur de transformeur rotatoire.*)

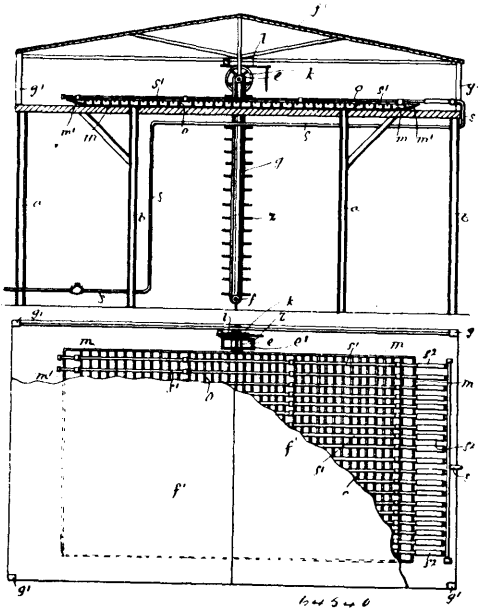


The Westinghouse Electric and Manufacturing Company, Pittsburg, Pennsylvania, U.S.A., assignee of Ralph D. Mershon, New York City, New York, U.S.A., 25th October, 1899; 6 years. (Filed 12th September, 1899.)

Claim.—1st. A system of electrical distribution comprising an alternating current circuit containing inductive resistance, and a rotary transformer provided with adjusting means variable at will, whereby the field charge may be varied in accordance with the voltage desired at the direct current terminals. 2nd. A system of electrical distribution comprising an alternating current circuit provided with inductive resistance, and a rotary transformer provided with means for varying the ampere turns of the field magnet winding or windings in order to vary the electromotive force at the direct current terminals. 3rd. A system of distribution comprising an alternating current circuit containing inductive resistance and a shunt or compound wound rotary transformer provided with a resistance in series with the shunt winding and with means for varying such resistance in order to secure the desired electromotive force at the direct current terminals of the transformer. 4th. The method of varying the electromotive force at the direct current terminals of a rotary transformer which consists in establishing an inductive counter electromotive force between the transformer and the generator and varying the number of ampere turns of the field magnet winding or windings in accordance with the direct current electromotive force desired.

No. 64,540. Ice Producing Apparatus.

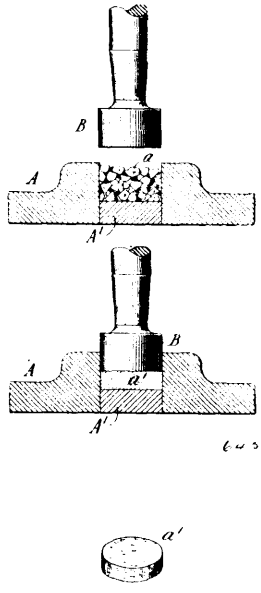
(*Appareil pour faire la glace.*)



Charles Taylor and George Sanderson, both of Montreal, Quebec, Canada, 25th October, 1899; 6 years. (Filed 17th November, 1898.)

Claim.—1st. An ice producing system consisting in subjecting a body of water to an atmosphere of low temperature augmented by a spray of compressed air, for the purpose set forth. 2nd. In ice production, a glazed flooring, an inclined water tight wall encircling said glazed flooring, a series of partitions extending longitudinal of said flooring, a series of partitions extending transversely of said flooring, and means for connecting said longitudinal and transverse partition together with a sliding connection, for the purpose set forth. 3rd. In ice production a glazed flooring, a water tight wall enclosing said glazed flooring, a series of partitions extending longitudinally of said flooring, a series of partitions extending transversely of said flooring, and means for connecting said longitudinal and transverse partitions together with a sliding connection, for the purpose set forth. 4th. In ice production, a building constructed with a flooring located near the roof thereof and arranged to provide an extensive storage space beneath it, said flooring having a glazed surface, a series of adjustable partitions extending longitudinally and transversely of said glazed flooring, and a water tight wall enclosing said glazed flooring, substantially as and for the purpose set forth. 5th. In ice production, a building constructed with a flooring located near the roof thereof and arranged to provide an extensive storage space beneath it, said flooring having a glazed surface, a series of longitudinal and transverse partitions adjustable relatively to one another, a series of clips adapted to connect said partitions together at their abutting edges, with a sliding connection, a series of air conducting tubes, an air conductor leading from a compressed air supply through the ice storage space and connected to said series of tubes, a series of air vents in said tubes communicating with and directed toward the floor of the cells formed by said partitions, an inclined water tight wall enclosing said glazed flooring, an opening in said flooring, an endless belt taking over a pair of pullies located respectively adjacent to said opening and the bottom of the building, a series of platforms carried by said belt, and means for driving said belt, substantially as described, and or the purpose set forth.

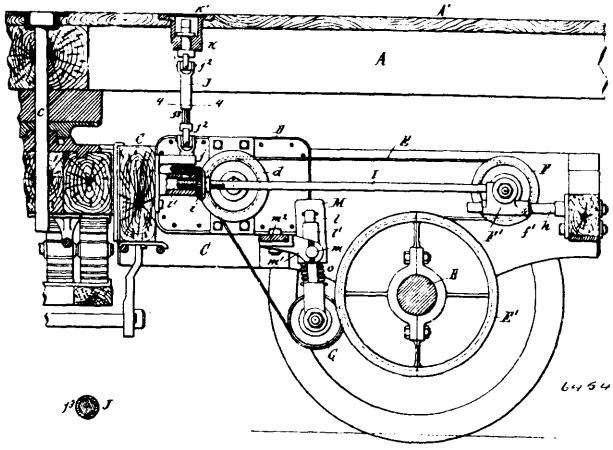
No. 64,541. Calcium Carbide Blocks and their Manufacture. (*Fabrication de blocs de calcium de carbure.*)



The Wilson Carbide Works Company of St. Catherines, Ontario, Canada, assignee of Frank Creelman, New York City, 25th October, 1899; 6 years. (Filed 12th September, 1898.)

Claim.—1st. The described process of forming blocks of calcium carbide, which consists in placing a determined quantity of the crushed or broken material between dies, and forcing said dies together with a pressure sufficient to crush the lumps and to force the powdered material into a coherent block. 2nd. The described process of forming blocks of calcium carbide, which consists in crushing the carbide and forming it into a block in the same die at one operation, and solely by pressure. 3rd. As a new article of manufacture, a block or cake of calcium carbide, the particles of which are compressed together to form a dense coherent mass devoid of cementing material.

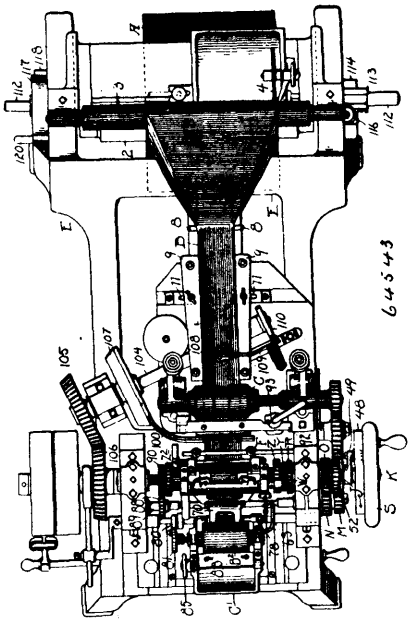
No. 64,542. Electric Lighting Apparatus for Railway Cars. (*Appareil d'éclairage pour chars de chemin de fer.*)



Charles M. Gould, New York City, assignee of Willard Fillmore Richards, Buffalo, both of New York, U.S.A., 25th October, 1899; 6 years. (Filed 8th September, 1899.)

Claim.—1st. The combination with a railway car having an axle provided with a driving pulley, of a dynamo secured to said car above said driving pulley and on one side thereof, said dynamo having a pulley, a tightener pulley arranged on the opposite side of said driving pulley and above the same, means whereby said tightener pulley can be adjusted toward and from the dynamo pulley, a spring pressed tightener pulley arranged underneath the dynamo pulley and facing the lower portion of the driving pulley, and a driving belt wrapped around the driving pulley between said tightener pulleys and running around said tightener pulleys and the dynamo pulley, substantially as set forth. 2nd. The combination with the swiveled truck of a railway car having an axle provided with a driving pulley, of a dynamo secured to said truck on the inner side of the driving pulley and above the same, said dynamo having a pulley, a tightener pulley arranged above the driving pulley and on the outer side thereof, means whereby said tightener pulley can be adjusted toward and from the dynamo pulley, a spring pressed tightener pulley facing the lower inner portion of the driving pulley, and a driving belt wrapped around the upper inner portion of the driving pulley and running around said tightener pulleys and the dynamo pulley, substantially as set forth. 3rd. The combination with the truck frame and the axle mounted therein and provided with a driving pulley, of a dynamo secured to said frame above said driving pulley and on one side thereof, said dynamo having a pulley, a tightener pulley arranged on the opposite side of said driving pulley and above the same, a sliding carriage on which said pulley is mounted, a horizontal guide for said carriage secured to the truck frame, means whereby said carriage can be adjusted on said guide, a tightener pulley arranged underneath the dynamo and facing the lower portion of the driving pulley, a vertically movable carrier for said pulley, a spring which presses said carrier downwardly, and a driving belt wrapped around the driving pulley between said tightener pulleys and running around said tightener pulleys and the dynamo pulley, substantially as set forth. 4th. The combination with the car body, the swiveled truck and the axle provided with a driving pulley, of a dynamo secured to said truck on the inner side of the driving pulley and above the same, said dynamo having a pulley, a spring pressed tightener pulley facing the lower inner portion of the driving pulley, a tightener pulley arranged above the driving pulley and on the outer side thereof, a sliding carriage on which said pulley is mounted, a horizontal guide for said carriage secured to the outer portion of the truck frame, a screw threaded adjusting rod secured at its outer end to said carriage, an actuating screw which engages with the inner threaded end of said rod, an upright operating shaft engaging at its lower end with said screw wheel and composed of telescopic, universally jointed sections extending to the car body, and a driving belt, substantially as set forth. 5th. The combination with a railway car and an axle thereof having a pulley, of a dynamo having a driving pulley, an upper tightener pulley arranged above the car axle, a swiveling carrier arranged adjacent to said axle pulley, a lower guide pulley having a yoke capable of sliding vertically on said carrier, a driving belt running around the dynamo pulley and said upper and lower pulleys and over the axle pulley, and a spring interposed between said carrier and said yoke and tending to press said lower pulley against the belt, substantially as set forth.

No. 64,543. Paper Bag Making Machine. (*Machine à faire les sacs de papier.*)

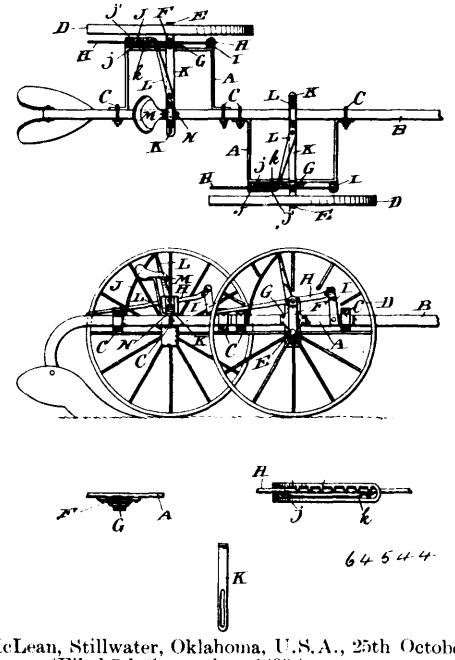


Daniel Appel, Cleveland, Ohio, U.S.A., 25th October, 1899; 6 years. (Filed 25th July, 1899.)

Claim.—1st. The tube former consisting of fixed top and bottom plates and a downwardly inclined rear portion over which the paper travels into the former, the former being of a size at its base equal to a cross section of the developed tube, vertically inclined and adjustable guide posts at the sides of the base of the former, laterally adjustable plates in the sides of the former, plates at the lower edges of the former to underfold the sides of the paper and means to draw the tube over the former, substantially as described. 2nd. The former having a cross section at its base equal to the cross section of the completed tube, the laterally adjustable plates overlapping the top and bottom plate of the former to produce the side plies and to underfold and lap the edges of the paper tube, and the inclined

adjustable uprights at the head of the former and at the ends of said laterally adjustable plates, substantially as described. 3rd. In a paper bag machine, a set of rolls and gripping fingers with parallel forming edges or surfaces carried by said rolls to engage the paper tubes at four points and develop the bag bottom, said fingers having spindles extending through said rolls, and actuating mechanism engaged with said spindles on the opposite side of the rolls from said fingers, substanially as described. 4th. In a paper bag machine, a set of oppositely located bottom forming rolls and a set of fingers on each roll with parallel edges for forming the cross ribs of the bag, and to engage the plies of the paper tube against said rolls, and spindles through said rolls for the fingers and rotarily and axially movable, in combination with means at the opposite ends of said spindle to rotate said rolls while the said fingers are in engagement, substantially as described. 5th. A set of bag bottom forming rolls, one above the other, two fingers on each of said rolls having their forward edge parallel with the forming rolls and arranged to engage the paper tube when the corners of the bag bottom are to be formed, means to oscillate said rolls simultaneously, and means to actuate said fingers consisting of rotary oscillating spindles through said rails at right angles to their axis, and mechanism at the outer extremeties of said fingers to actuate the same, substantially as described. 6th. The bottom forming rolls and the tube gripping fingers on said rolls having their forward edges parallel, spindles through said rolls to oscillate and depress said fingers against the rolls, and mechanism connected with the outer ends of said spindles to oscillate and axially move the same, and mean to oscillate the rolls and thus spread the bottom of the bag while the fingers are engaged, substantially as described. 7th. The bottom forming rolls and means to oscillate said rolls, devices on each of said rolls to engage the corners of the bag bottom and press the same against the rolls, and means to grip the edge of the bottom as the said devices are engaged to hold the corners of the bottom, substantially as described. 8th. The forming rolls and the gripping devices thereon, having parallel engaging surfaces, in combination with folding plates to fold the bottom laps of the bag, said plates arranged on the forming rolls to lie flat against the sides of the bag bottom, substantially as described. 9th. The forming rolls and the gripping fingers and plates carried by said rolls to engage and hold the bottom laps of the bag, substantially as described. 10th. The forming rolls and the fingers and the bottom folding plates supported on said rolls, and means to throw said plates into position to grip the end of the plicated tube when said fingers are in engagement, substantially as described. 11th. The oscillating forming rolls and means carried by said rolls to develop the bag bottom, said means comprising devices to engage the corners of the bottom and means to lap the bottom, substantially as described. 12th. The forming rolls and means to oscillate the same, and plates carried by said rolls to engage and lap the bottom folds, fingers to engage the corners of the bag bottom, and separate actuating mechanism for said plates and fingers, said fingers and plates supported on said rolls, substantially as described. 13th. The forming rolls and the fingers and bottom lapping plates carried thereby, and a paste applying device for the bottom arranged to operate in conjunction with said plates, substantially as described. 14th. The bottom forming rolls and the plates to lap the bottom of the bag, and a follower to tuck behind the lower of said plates, substantially as described. 15th. The bottom forming rolls, means on said rolls to determine the four corners of the bottom and develop a transverse rib in each side of the bag between said corners, plates on said rolls to fold the bottom laps, and means to paste said laps while engaged by said plates, substantially as described. 16th. A set of oscillating forming rolls, devices on said rolls to enter the plies of the paper tube and engage the tube against said rolls, a set of bottom lapping plates pivoted on said rolls and links connected with said plates to control their operations, substantially as described. 17th. In a paper bag machine, a set of oscillating forming rolls and bottom forming mechanism thereon and a set of rotating discharge rolls, one of said discharge rolls being on the same shaft as the lower oscillating roll, substantially as described. 18th. The bottom forming rolls and the bottom folding mechanism carried thereby, means to oscillate said rolls and means to oscillate said bottom folding mechanism, the discharge rolls, and means to rotate said discharge rolls continually in the same direction, said set of bottom forming and discharge rolls arranged to co-operate, substantially as described. 19th. The oscillating rolls and the bottom forming devices carried thereby, one of said rolls being in sections, the feed rolls for the paper tube and the discharge rolls for the finished bag, one of said discharge rolls located between the sections of the lower oscillating roll, substantially as described. 20th. The feed rolls of the paper tube and the bag discharging rolls holding the bottom end of the tube, in combination with means between said sets of rolls to sever the bag from the tube, and the bottom gripping mechanism arranged to feed the edge of the bottom between the discharge rolls, substantially as described. 21st. The bottom forming rolls and the discharge rolls arranged to carry the finished bag downwards between them, and the mechanism carried by the said forming rolls to feed the bag between the discharge rolls, substantially as described. 22nd. A set of oscillating forming rolls, fingers on said rolls to enter the plies of the paper tube and engage the tube against said rolls, a set of bottom lapping plates pivoted on said rolls at one edge, separate links connected with the said plates and actuating mechanism connected with said links, substantially as described. 23rd. In a paper bag machine, a pair of oscillating forming rolls and a pair of discharge rolls and mechanism to feed the bag downwards between the discharge rolls comprising a set of plates pivotally supported on the said forming rolls and a follower co-operating with said plates, substantially as described. 24th. The combination of the oscillating forming rolls, the gripping fingers thereon to engage the corners of the bag bottom, the bottom folding plates pivoted on said rolls and the link mechanism connected with said plates, and the follower secured to the upper of said rolls, substantially as described. 25th. In a machine, substantially as described, means for puncturing the paper tube to form a string hole in a bag, consisting in means to stretch the said tube, the tube former having a hole in its top, a tooth to enter said hole, an arm carrying the tooth and means to actuate said arm intermittently, substantially as described. 26th. In a machine substantially as described, a shaft to carry the paper roll having a bearing wheel and a friction bearing for said wheel, whereby a uniform tension is maintained on the paper taken from the roll, substantially as described. 27th. The paper roll shaft having a bearing wheel fixed thereto, a wooden bearing for said wheel and a pivoted support therefor, substantially as described. 28th. The paper roll shaft, a bearing wheel on said shaft and a friction bearing for said wheel, and a bearing for the opposite end of said shaft, substantially as described. 28th. In a paper bag machine, a paste receiver, a paste roll in said receiver, an adjustable paste regulating plate and adjustable cleaning shoes carried by said plate and having adjustable curved bearing surfaces, substantially as described. 30th. The oscillating bottom forming rolls and the bottom forming mechanism thereon, the lower of said rolls consisting of two sections and a set of discharge rolls for the finished bag, one of which is located between said lower forming roll sections, substantially as described. 31st. The oscillating forming rolls and the bottom forming fingers and plates pivotally supported thereon, mechanism to actuate said fingers comprising a cam shaft and cams, spindles carrying said fingers extending through said rolls and rotated by said cams, spring bearing against said spindles, and discharge rolls, substantially as described. 32nd. A paper bag machine, comprising a former to make the paper tube, a set of tube feeding rolls, a set of bottom forming rolls, fingers on said forming rolls to develop the four corners of the bag bottom and plates to lap the bottom, means to apply paste to the bottom laps, cutters to sever the bag, and rolls to carry away the finished bag, substantially as described. 33rd. In a paper bag machine, a set of fingers to develop the four corners of the bag bottom and the brace ribs between said corners, a set of plates to grip the bottom laps together when the fingers spread the bottom, means to carry and operate said fingers and means to sever the bag from the tube and means to discharge the finished bag, substantially as described. 35th. In a paper bag machine, a set of cutters to sever the paper tube transversely, and one or more cutting edges to slit the tube at an inclination to its serrated edge, and mechanism to bring the tube into cutting relation, substantially as described. 36th. In a paper bag machine, the combined tube severing and slitting cutters, in combination with a striker to force the tube into severing relation with said cutters, substantially as described.

No. 64,544. Plough. (*Charrue.*)

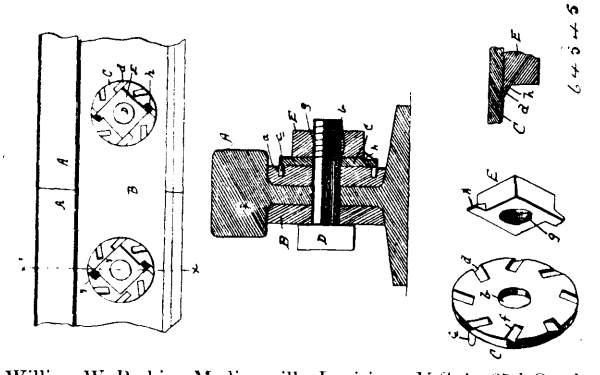


Allan McLean, Stillwater, Oklahoma, U.S.A., 25th October, 1899; 6 years. (Filed 7th September, 1899.)

Claim.—1st. A frame composed of two exactly similar parts, each part mounted on a wheel and adapted to be attached on one side of

a single beam plough in any desired position along said beam, converting said plough into a sulky plough, substantially as shown and described. 2nd. A frame composed of two exactly similar parts, each part mounted on a wheel and adapted to be attached on one side of a single beam plough in any desired position along said beam, converting said plough into a sulky plough, provided with means for adjustment at different depths in ploughing, substantially as shown and described. 3rd. A frame composed of two exactly similar parts, each part mounted on a wheel and adapted to be attached on one side of a single beam plough in any desired position along said beam, converting said plough into a sulky plough, provided with means for independent adjustment of each side, at different depths in ploughing, substantially as shown and described. 4th. A frame composed of two exactly similar parts, adapted to be attached one on each side of any single beam plough in any desired position along said beam, each part mounted on a wheel and vertically movable with reference to the axis of said wheel, substantially as shown and described. 5th. A frame composed of two exactly similar parts adapted to be attached one on each side of any single beam plough in any desired position along said beam, each part consisting of a rectangular frame open on one side, the ends on that side turned out at right angles and adapted to be fastened by clips to said beam, a wheel mounted on a spindle secured to a vertical slide, a vertibel slide adapted to receive the closed side of said frame, a curved arm secured to the rear outer corner of said frame, and extending upward and forward, said arm provided with a longitudinal slot having notches on one side, a lever pivotally mounted in the top of said slide and passing through the slot in said arm, said lever provided with a spring adapted to press said lever into said notches, a link connecting the front end of said lever and the front outer corner of said frame, a seat fastened to one end of a leaf spring and braces extending from the tops of said slide and said arm, the free ends of said braces and said spring being fastened to said beam, substantially as shown and described.

No. 64,545. Nut Lock. (*Arrête-écrou.*)



64545

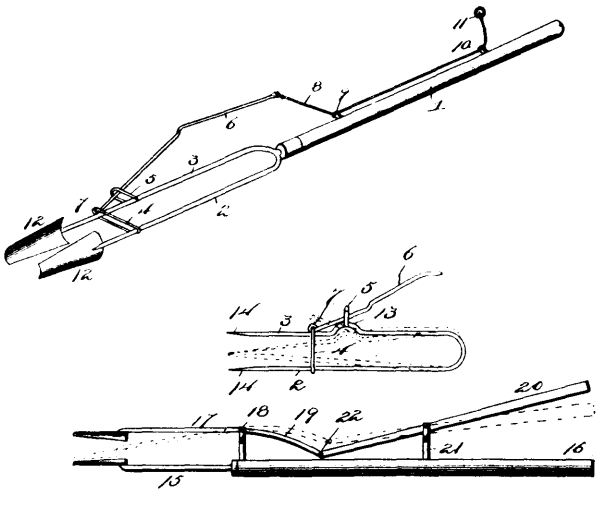
William W. Perkins, Madisonville, Louisiana, U.S.A., 25th October, 1899; 6 years. (Filed 7th September, 1899.)

Claim.—In the nut lock described, the combination of a threaded bolt, the washer surrounding the bolt and having an outer ratchet face formed by a circular series of tangentially disposed grooves *d*, therein, the said grooves extending from the edge of the washer inwardly and having inclined bases *f*, and straight walls *e*, means for fixing the washer against rotation, and the nut arranged on the bolt and having teeth *h*, at its inner side and at diagonally opposite points, the said teeth extending forwardly from the body of the nut with respect to the direction in which the nut is turned off the bolt whereby they are backed by said body, and having the square ends adapted to engage the straight walls *e*, of the grooves, in the washer when they are depressed into said grooves, substantially as specified.

No. 64,546. Weeding Tool. (*Sarcloir.*)

Joseph M. Strout, Portland, Maine, U.S.A., 25th October, 1899; 6 years. (Filed 8th September, 1899.)

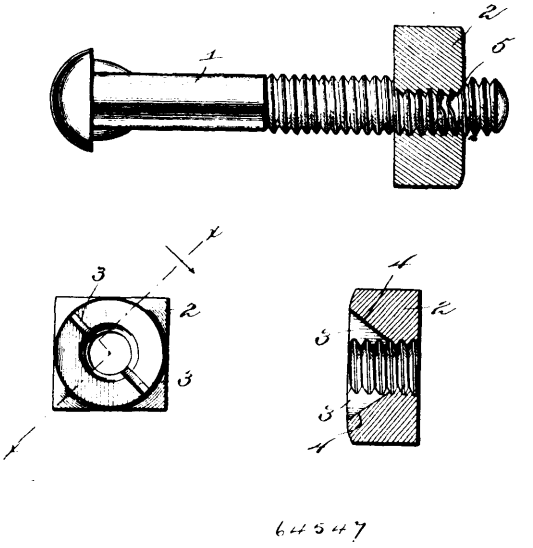
Claim.—1st. In a device of the class described, the combination with a pair of spring arms carrying blades at their free ends, of a guide in the form of a loop carried by one of the arms and embracing the other arm, and a lever connected with the loop and adapted to engage a fulcrum point on one of said arms, whereby the arms may be drawn or forced together, substantially as shown and described. 2nd. In a device of the class described, the combination of a pair of spring arms carrying blades at their free ends, of a guide in the form of a loop attached to one of the arms and embracing the other and providing a stop therefor, and a lever loosely connected to the outer end of the loop and adapted to engage a fulcrum point provided on one of said arms, whereby the arms may be drawn or forced together, substantially as specified. 3rd. In a device of the class described, the combination with a pair of spring arms carrying blades at their free ends, of a guide in the form of a loop, embracing the arms and providing a stop therefor, a lever loosely connected to one end of the loop, an approximately U-shaped strap provided upon one of said arms and embracing the lever, and a fulcrum point



64546

on the latter arm for said lever, substantially as shown and described. 4th. In a device of the class described, the combination with a pair of spring arms carrying blades at their free ends, of a guide loop provided upon one of the arms, embracing the other arm and forming a stop therefor, a lever loosely connected to the outer end of the loop, an approximately U-shaped strap provided upon one of said arms and embracing the lever, the latter being pivoted within said strap, substantially as shown and described. 5th. In a device of the class described, the combination with a pair of spring arms carrying blades at their free ends, of a guide loop provided upon one of the arms, embracing the other arm and forming a stop therefor, a lever loosely connected to the outer end of the loop, an approximately U-shaped strap provided upon one of said arms and embracing the lever, the latter being pivoted to the strap, substantially as shown and described. 6th. In a device of the class described, the combination with a pair of spring arms carrying blades at their free ends, of a guide loop provided upon one of the arms, embracing the other arm and forming a stop therefor, a lever connected to said loop and adapted to engage a fulcrum point formed on one of said arms, eyes or pulleys provided upon the handle, and a cord or other suitable means connected to the lever and passing through the eyes or pulleys, whereby the arms may be operated, substantially as shown and described.

No. 64,547. Nut Lock. (*Arrête-écrou.*)



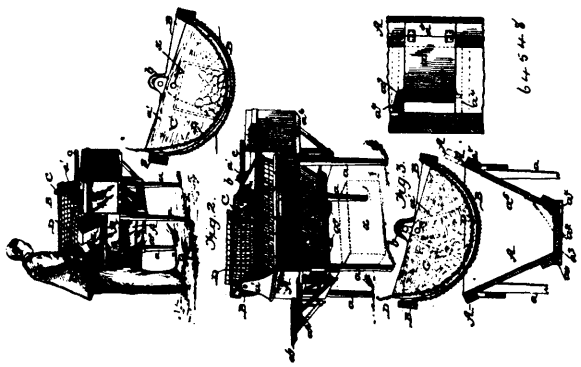
64547

Thomas B. Wall, Tunkhannock, Pennsylvania, U.S.A., 25th October, 1899; 6 years. (Filed 8th September, 1899.)

Claim.—1st. A nut lock comprising a nut having one or more inclined recesses formed in one face thereof, said recesses opening for their entire depth into the bore of the nut and extending in width only part way across the face of the nut, the recesses thus formed being adapted to receive an instrument in an approximately

longitudinal direction with respect to the bolt to bend or deflect some of the threads of the bolt, substantially as and for the purpose set forth. 2nd. A nut lock comprising a nut having one or more inclined recesses formed in one face thereof, said recesses opening for their entire depth into the bore of the nut and extending in width only part way across the face of the nut, and having an end wall inclined downward from the upper outer end of the recess to the lower end of the opening into the bore of the nut, substantially as shown and described and for the purpose set forth.

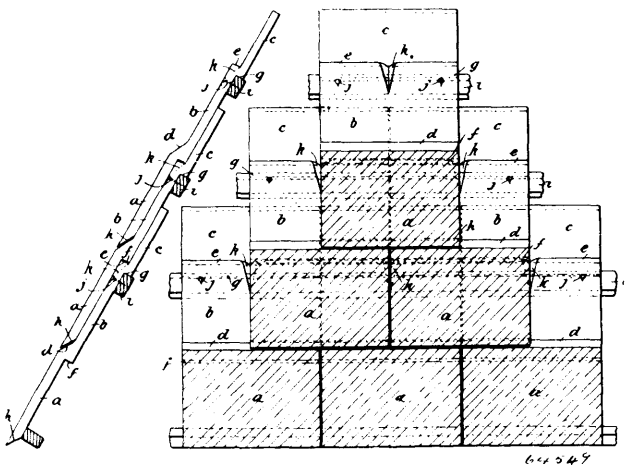
No. 64,548. Egg Separator. (*Séparatoire pour oeufs.*)



John Albert Burns, of Woodbine, Iowa, U.S.A., 25th October, 1899; 6 years. (Filed 9th September, 1899.)

Claim.—1st. In an egg separator, the combination with the pivoted rocking cradle having a reticulated bottom, of a woven wire piece attached to one edge of and made of less length than said cradle so that it is adapted to rest therein, the opposite side edge of said piece being free whereby the latter is adapted to be folded over an egg box, as shown and described for the purpose specified. 2nd. In an egg separator, the combination with the egg receptacle having a semi-circular form and open at the top of the egg holding board arranged therein and fitted transversely and adapted to slide lengthwise of said cradle, and means for guiding and holding the board in place, substantially as shown and described. 3rd. In an egg separator, the combination with the hopper and the rocking cradle having a semi-circular reticulated bottom, of the slidable egg holder having a semi-circular form and fitted in said cradle, a rod attached to said holder, and a guide for said rod which is formed at the end of the cradle, as shown and described. 4th. In an egg separator, the hopper having a discharge opening at the bottom, a sliding piece fitted to said bottom and another sliding piece fitted in the side of the hopper, such pieces being loosely connected as shown and described, whereby they are adapted to slide together and open or close said opening, as specified.

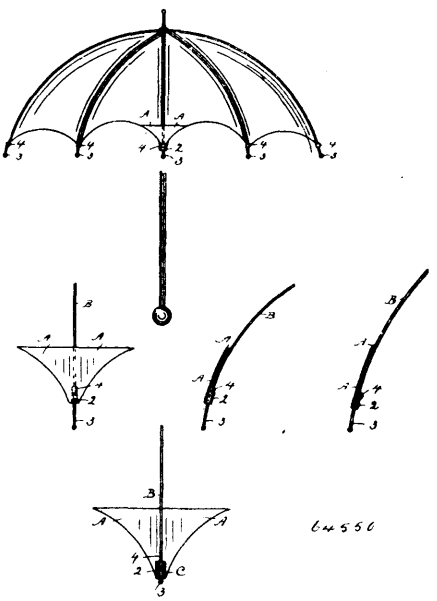
No. 64,549. Tile. (*Tuile.*)



George Viggars, Newcastle-under Lyme, Staffordshire, England, 25th October, 1899; 6 years. (Filed 7th April, 1899.)

Claim.—A tile for roofing, protective or lighting purposes, characterized by having parts thereof lying in three parallel planes set back in relation to one another by the thickness of the tile material and forming rebates both on the front and on the back of the tile, so that the lower parts or faces of a number of the tiles in situ will lie in the front rebates of the next under tiles and will all be caused to lie in one and the same plane and to present a flat or unridged external surface, and that the upper back rebates of the tiles will serve to rest on so as to be supported by the roof lath or the like, as set forth.

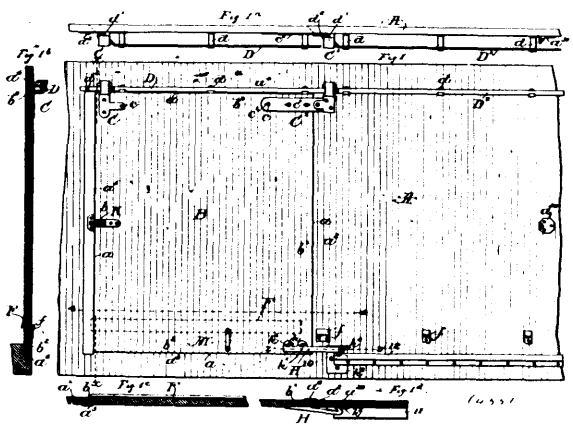
No. 64,550. Umbrella and Parasol. (*Parapluie et parasol.*)



Robert Donald Fraser, Hamilton, Ontario, Canada, 25th October, 1899; 6 years. (Filed 13th April, 1899.)

Claim.—1st. A protector for umbrella and parasol tips of the character described, consisting of a protector of suitable material and design having a lower and rear ferrule to allow the insertion of the tip end of the rib of an umbrella, and the upper flap part fastened to the fabric covering of said umbrella. 2nd. A protector for umbrella and parasol tips comprising a protector of suitable design, material and proportion, having a lower and rear ferrule for the insertion of the tip end of the rib of an umbrella, said ferrule provided with a split sleeve having end flanges, the upper said flange fitting against the bulb, or eyelet, of the said rib of the umbrella, and the upper flap part of the protector sewn, or otherwise fastened to the fabric covering of the umbrella, substantially as set forth. 3rd. A protector for umbrella and parasol tips, consisting of a protector, of suitable material and design having a lower and rear ferrule to allow the insertion of the tip end of the rib of an umbrella, or parasol, the upper end of said ferrule fitting against the bulb or eyelet of the tip end of the rib, and the upper flap part of the ferrule securely fastened to the fabric covering of the umbrella, as described.

No. 64,551. Sliding Door. (*Porte à coulisse.*)



David Manuel, Hyde Park, Massachusetts, U.S.A., 25th October, 1899; 6 years. (Filed 7th August, 1899.)

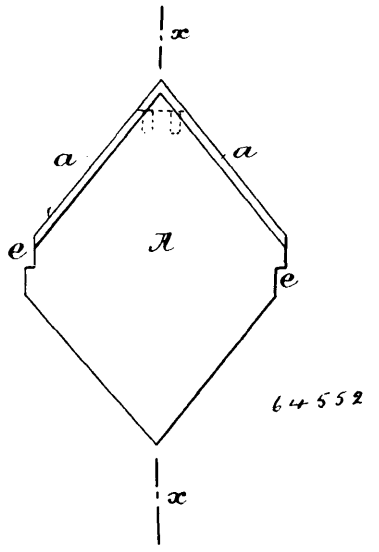
Claim.—1st. The combination with a wall having a doorway, and its sliding door, of a keeper device comprising holding means on said wall, and a hook device secured to said door near the rear of the latter, said hook device being arranged to engage said holding means automatically upon sliding, closing movement of said door, to cramp the latter inward and prevent displacement from said

doorway in a direction perpendicular to said wall. 2nd. A keeper for sliding doors, comprising an attaching portion adapted to be secured to the door adjacent its rear edge, and a hook portion adapted to project to the rear of said door with the point of said hook turned inwardly and forwardly, and arranged to operate, substantially as described. 3rd. In combination with a wall and its door, of a keeper secured to said door near the rear of the latter, and adapted to engage said wall at times, said keeper comprising an inwardly and forwardly directed hook, and means to regulate the operation of said hook. 4th. The combination with a wall having a doorway and a door adapted to slide horizontally parallel with said wall when open and to enter said doorway flush with said wall to close said doorway, of means to prevent displacement of said door during sliding movement near the rear portion of its path, said means comprising a fin or ledge, and a co-operating projection mounted one on said wall and the other on said door and arranged to engage one another to prevent displacement of said door from the path in which it slides normally, but offering no hindrance to movement of said door into flush position. 5th. The combination with a wall having a doorway, and a door arranged to slide outside of and paralled to said wall when open, and into position flush with said doorway to close the latter, of means to prevent displacement of said door when sliding in front of said wall, said means comprising a straight horizontal ledge attached to said door, and having an extended free portion, and a projection secured to said wall and also having a free portion, said free portions being arranged to overlap one another and enter into mutual engagement upon transverse movement of the door when in open sliding position, but to offer no obstacle to sliding movement of said door into flush closed position. 6th. A hanger trolley for sliding doors comprising a bearing block having downwardly extended trunnions, a roller provided with an extended axle journalled in said trunnions and presenting a convexly rounded tread to run upon a truck, and a guide member of suitable contour to fit snugly the lower surface of said bearing block and enclose said roller and axle, said guide member having an interiorly located aperture to permit passage of said roller tread. 7th. A keeper for sliding door, comprising an attaching portion h^2, adapted to be secured to the door adjacent the rear edge of the latter, a hook portion h^4, adapted to project to the rear of said door with the point of said hook turned inwardly and forwardly, and means h^3, adapted to regulate the length of said hook. 8th. The combination with the wall of a freight car having a doorway, a door arranged to slide outside of and parallel to the plane of said wall into position to uncover said doorway, and tracks for said door permitting a continuous sliding movement of said door into and out of closed position, said door being bevelled at its forward edge rearwardly and outwardly, and having a parallel bevel at its rear edge, and said doorway having an under cut bevel to co-operate with the bevel at the forward edge of the door to cause cramping of said door inward as it approaches closed position, said doorway having its rear jamb bevelled to co-operate with the bevel at the rear edge of said door. 9th. The combination with a wall having a doorway and its sliding door, of a keeper device comprising holding means on said wall, and a hook device secured to said door near the rear of the latter, said hook device being arranged to engage said holding means automatically upon sliding, closing movement of said door to cramp the latter inward and prevent displacement from said doorway in a direction perpendicular to said wall, an angle bar on and parallel with said wall to engage said hook device after its release from said holding means during opening movement of said door to prevent the lower part of said door from swinging away from said wall. 10th. The combination with a wall having a doorway, and its sliding door, of a keeper device comprising holding means on said wall, and a hook device secured to said door, near the rear of the latter, said hook device being arranged to engage said holding means automatically upon sliding, closing movement of said door, to cramp the latter inward and prevent displacement from said doorway in a direction perpendicular to said wall, a fin or ledge and a co-operating projection mounted one on said wall and the other on said door, and having an angle bar on said wall to engage said hook device at the beginning of opening movement of said door to prevent said door from sliding outward from said wall and insure engagement of said fin and its co-operating projection.

No. 64,552. Tile. (*Tuile.*)

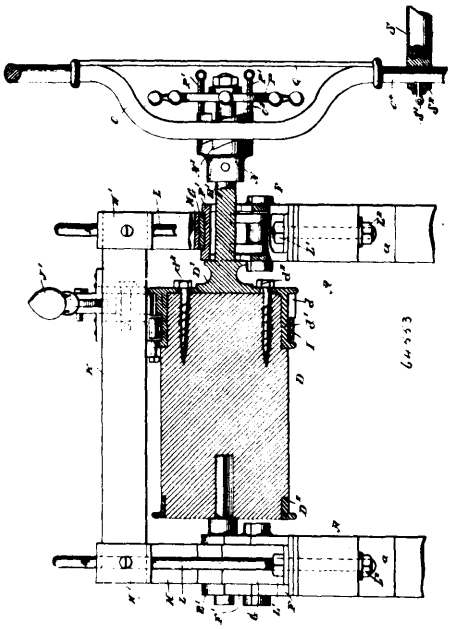
Leopold Stöger, Hausmening, Austria, 25th October, 1899; 6 years. (Filed 22nd April, 1899.)

Claim.—1st. A roofing tile constructed as herein described, the upper and lower ends of which are triangular in form, and the separate sides of the upper ends of the tile being provided with flanges *a*, and the sides of the lower end being provided with a raised portion having a groove *b* adapted to receive the flanges *a*, substantially as shown and described. 2nd. A roof tile, constructed as herein described, the upper and lower ends of which are triangular in form, and the separate sides of the upper ends of the tile being provided with flanges *a*, and the sides of the lower end being provided with a raised portion having a groove *b* adapted to receive the flanges *a*, said tile being also provided on its opposite sides with projections *c*, substantially as shown and described. 3rd. A



roof tile constructed as herein described, and composed of cement and sand.

No. 64,553. Windlass. (*Cabestan.*)

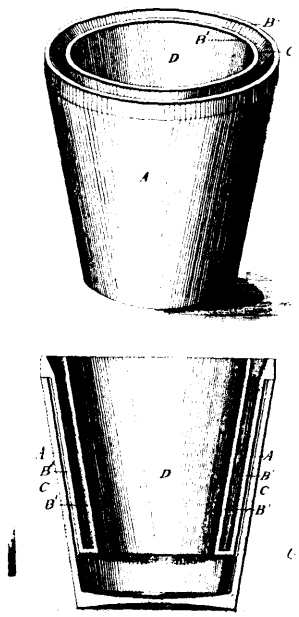


George Washington Morgan, Dawson, North-west Territory, Canada, 25th October, 1899; 6 years. (Filed 23rd May, 1899.)

Claim.—1st. A windlass, having a crank mounted loosely on its shaft and provided with a face ratchet or clutch connection with the windlass, means for normally holding the parts of said clutch out of engagement, the outer face of the crank hub having cam inclines corresponding in direction of slope with the teeth upon its inner face, and a wheel journalled upon the outer end of the shaft and having projections adapted to engage said cam inclines, substantially as described. 2nd. A windlass, having a crank loosely journalled upon its shaft, the crank and shaft being provided with face ratchets or clutches, means for normally disengaging the clutches, a clutch locking member rotated upon the shaft in a direction opposite that of hoisting to lock the two together, and adapted to free them by a sudden backward rotation of the windlass, substantially as described. 3rd. A windlass having a crank

loosely journalled upon its shaft, the crank and shaft being provided with face ratchets or clutches and the crank having cam inclines upon its outer face sloping in a similar direction to the teeth upon its inner face, means for holding the clutches disengaged, a wheel journalled on the shaft outside the crank, and set screws passing through said wheel and engaging the cam inclines, substantially as described. 4th. A windlass, having a crank loosely journalled upon its shaft, the crank and shaft being provided with face ratchets or clutches, the hubs of said clutch members being hollow, a spring in said hollow normally holding them separated, a clutch locking member rotated upon the shaft in a direction opposite that of hoisting to lock the two together, and adapted to free them by a sudden backward rotation of the windlass, substantially as described. 5th. A windlass, having a crank loosely journalled upon its shaft, the crank shaft being provided with face ratchets or clutches, the hubs of said clutch members being hollow, a spring in said hollow normally holding them separated, the crank hub having cam inclines upon its outer face sloping in a direction similar to that of the teeth upon its inner face, a wheel journalled on the shaft outside the crank, and set screws passing through said wheel and engaging the cam inclines, substantially as described. 6th. A windlass frame, comprising journal boxes formed of upper and lower parts, standards for the ends, each composed of an inverted U-shaped bar, a longitudinal bar for each side, and a brace bar having its ends bent to encircle three sides of said longitudinal bars and having holes receiving the vertical members of the standard just within the longitudinal bars, the central portion of said brace bar engaging the upper journal box, and means for binding the ends of the bar forming the standard down to a suitable support, substantially as described. 7th. A windlass frame, comprising two standards, one for each end, consisting of an inverted U-shaped rod provided with means for securing its ends to a suitable support, and a brace bar having its ends bent to form clips, each adapted to receive a frame bar and having holes located upon each side of the opening of the clip and adapted to receive a vertical member of the U-shaped bar, the centre of said brace bar bending downward to engage the upper journal box, substantially as described. 8th. A windlass frame, comprising two standards, one for each end, consisting of an inverted U-shaped rod and a brace bar having its ends bent to form clips, each adapted to receive a frame bar and having holes located upon each side of the opening of the clip and adapted to receive a vertical member of the U-shaped bar, the centre of said brace bar bending downward to engage the upper journal box, and a bar passing over the journal box and having holes in its ends receiving the vertical members of the U-shaped bar. said U-shaped bar being threaded at its ends and passing through windlass supports, and nuts thereon above and below its supports, substantially as described.

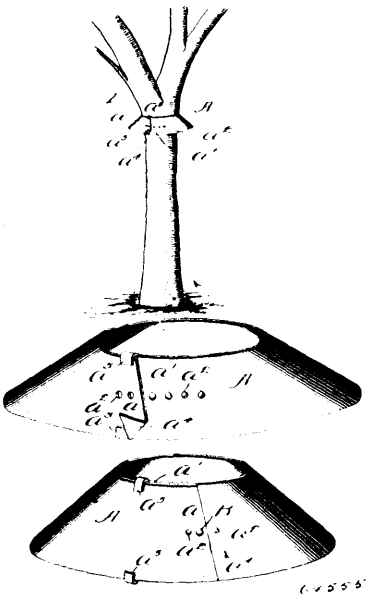
No. 64,554. Flower Pot. (*Pot à fleurs.*)



Gerhard H. Hinrichs, Davenport, Iowa, U.S.A., 25th October, 1899; 6 years. (Filed 4th July, 1899.)

Claim.—1st. A separate angular reservoir of porous material for use within a flower pot, the reservoir at least partially surrounding the earth contained in the pot.

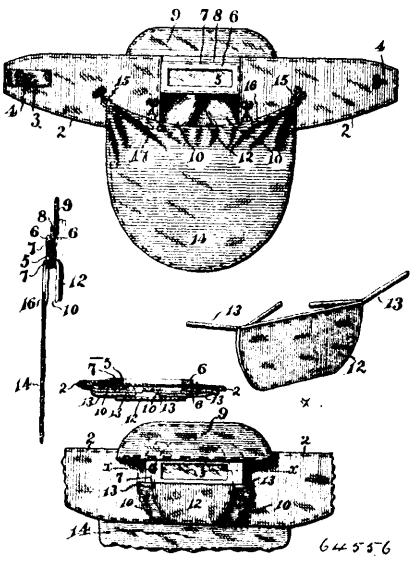
No. 64,555. Tree Protecting Device.
(*Appareil à proteger les arbres.*)



Joseph Emilio Janelle, St. Philippe de Laprairie, Quebec, Canada, 25th October, 1899; 6 years. (Filed 20th July, 1899.)

Claim.—1st. A device for protecting trees, comprising a metal adapted to be placed about the trunk of a tree, and having overlapping ends, the said ends being secured together in their adjusted position, substantially as described. 2nd. A device for protecting trees, comprising a metal plate having overlapping ends, the said plate being substantially in the form of a truncated cone, a plurality of perforations formed in each of said ends, lugs formed on the upper and lower sides of one of said ends, forming a guide-way for the other end, and a securing pin adapted to be passed through the said perforations, substantially as described. 3rd. A device for protecting trees, comprising a metal plate having overlapping ends, the said plate being substantially in the form of a truncated cone, a plurality of perforations formed in each of said ends, lugs formed on the upper and lower sides of one of said ends, forming a guide-way for the other end, the said other end having an inclined edge terminating in a point, adapted to be bent over one of the said lugs, and a securing pin adapted to be passed through said perforations, substantially as described.

No. 64,556. Garment. (*Vêtement.*)

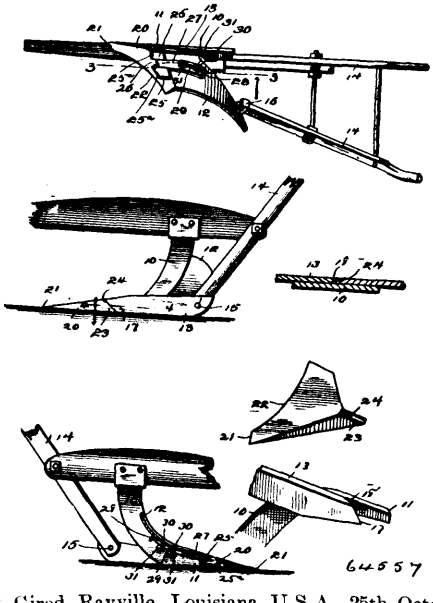


Ephraim Musselman, Celina, Ohio, U.S.A., 25th October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. In a device of the class specified, the combination with a frame having a transparent eye-piece, of side-flaps secured

to said frame, cheek and nose-pieces also secured to the frame, an apron adapted to be detachably connected to said side-flaps, and to cover the lower part of the face, and means for detachably uniting the ends of said side-flaps, substantially as described. 2nd. In the device of the class specified, the combination with a frame having a transparent eye-piece, of side-flaps, two cheek and nose-pieces secured to said frame, means for detachably uniting the ends of said flaps, an apron, and means for detachably connecting the apron to the side-flaps, substantially as described. 3rd. In a device of the class specified, the combination of a frame having a transparent eye-piece, of two cheek-pieces secured to the frame, an intermediate nose-piece flexibly connected with said cheek-pieces, a forehead covering attached to said frame, side-flaps united to the frame and also to said forehead covering, an apron adapted to cover the lower part of the face, means for detachably connecting the apron to the side-flaps, and a fastening cons sting of two parts secured respectively to the side-flaps at their adjacent ends, substantially as described. 4th. In a device of the class specified, the combination of a frame having a transparent eye-piece, of two cheek-pieces secured to the frame, an intermediate nose-piece flexibly connected with said cheek-pieces, a forehead covering attached to said frame, side-flaps united to the frame and also to said forehead covering, an apron adapted to cover the lower part of the face, means for detachably connecting the apron to the side-flaps, a fastening consisting of two parts secured respectively to the side-flaps at their adjacent ends, and a piece of flexible material stitched to said apron at the place where it fits against the face, substantially as described. 5th. In a device of the class specified, the combination with a frame having a transparent eye-piece, of side-flaps secured to said frame, cheek and nose-pieces also secured to the frame, an apron adapted to be detachably connected to said side-flaps and to cover the lower part of the face, a flexible tab on one end of one of the side-flaps, and means for detachably connecting said flexible tab with the other side-flap, substantially as described. 6th. In a device of the class described, the combination with a frame having a transparent eye-piece and opposite side-flaps adapted to fasten the device to the head of the wearer, of opposite spaced flexible cheek-pieces pendent from the frame, and a flexible nose-piece pendent from the frame, spanning the space between the cheek-pieces and located against the rear sides thereof, substantially as and for the purpose set forth. 7th. In a device of the class described, the combination with a frame, having a transparent eye-piece, and opposite side-flaps adapted to fasten the device to the head of the wearer, of opposite flexible cheek-pieces, and a flexible nose-piece, which are fastened at their upper edges to the lower edge of the frame, said pieces being in a normal upwardly folded position, whereby a tension is placed upon the pieces when folded down in use to retain the same firmly against the face, substantially as shown and described.

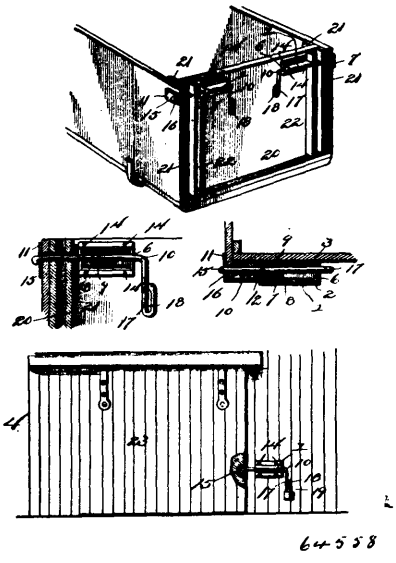
No. 64,557. Plough Point. (*Ferret de charrue.*)



Edgar F. Girod, Rayville, Louisiana, U.S.A., 25th October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. In a plough, the combination of a share provided on its rear face with the spaced lugs having their opposing edges beveled and forming a dovetailed way, a moldboard, a slotted endwise movable key curved to conform to the moldboard and fitted thereto in alignment with the dovetailed way for adjustment into engagement with the lugs, and bolts fixed to the moldboard and fitting in the slots of the key to slidably hold the latter in place, substantially as described. 2nd. The combination, in a plough, with a moldboard and a stock, of the landside provided with a sloping and beveled front extremity which laps the stock and forms therewith a seat or crotch, a share having its sole flange provided with the sloping and beveled heel which is fitted snugly to the sloping and beveled edge, of the landside, for the sole flange to lie flush with the face of said landside, and means for fastening the share to the moldboard, substantially as described. 3rd. In a plough, the combination with a moldboard, and a stock having a pointed extremity, of the landside having the inclined and beveled extremity which is arranged to overlap the stock, a share having its sole flange formed with a sloping and beveled heel and fitted to the end of the landside for the faces of the sole flange and the landside to lie flush with each other, the beveled lugs on the rear face of the share, and a key or wedge slidably confined on the moldboard and engaging with said lugs, for the purpose described, substantially as set forth.

No. 64,558. Latch. (*Loquet.*)



Solomon Glahn, Hager's Grove, Missouri, U.S.A., 25th October, 1899; 6 years. (Filed 5th September, 1899.)

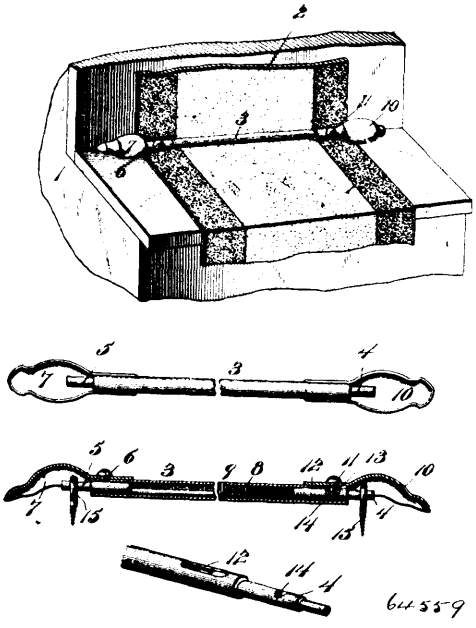
Claim.—1st. A device of the class described, comprising a casing provided with a longitudinal groove, a reciprocating bolt mounted in the casing and having a limited rotary movement to engage and disengage the keeper, and a coiled spring disposed on the bolt and connected with the same, one end of the spring being extended and arranged in the said groove, whereby it is interlocked with and is adapted to slide longitudinally of the casing, substantially as described. 2nd. A device of the class described, comprising a casing having a longitudinal groove, a reciprocating bolt provided at its engaging end with a lug and having a limited rotary movement, and a spring arranged within the casing for holding the lug in engagement with a keeper, one end of the spring being connected with the bolt and the other end being arranged in the groove, whereby it is interlocked with and is adapted to slide longitudinally of the casing, substantially of the casing, substantially as described. 3rd. A device of the class described, comprising a casing, substantially rectangular in cross-section and having one of its apexes forming a longitudinal groove, said casing being composed of two sections provided with sectional bearings, a reciprocating bolt arranged in the said bearings and capable of a limited rotary movement, and a spring connected with the bolt and having one end arranged in said groove, whereby it is interlocked with and is adapted to slide longitudinally of the casing, substantially as described. 4th. A device of the class described, comprising a casing provided with a longitudinal groove, a bolt mounted in the casing and provided at one end with a lug and having a handle at its other end with an opening, a spring disposed on the bolt and having one end connected therewith and its other end arranged in said groove, whereby it is interlocked with and is adapted to slide longitudinally of the casing, and a staple arranged to extend through the opening of the handle and adapted to receive a shackle or padlock, substantially as described.

No. 64,559. Stair Rod. (*Baguette d'escalier*).

Edwin E. Kutz, Easton, Pennsylvania, U.S.A., 25th October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. In a device of the class described, the combination with screw eyes or their equivalents, of a rod proper having a sliding spring actuated pin arranged at one end thereof and a stationary pin at the other end, and cap plates for the ends of the rod, one of said cap plates being carried by the sliding pin and

providing an operating handle therefor, substantially as set forth. 2nd. In a device of the class described, the combination with screw



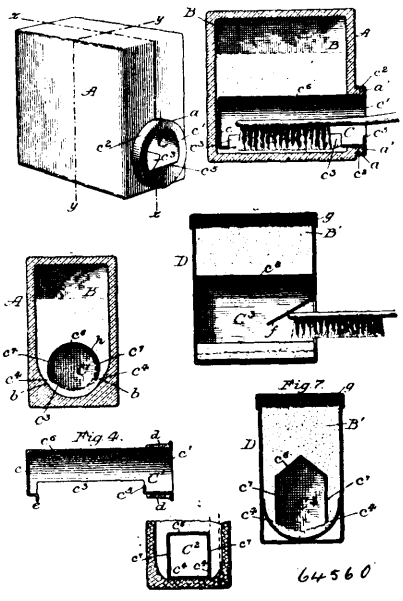
eyes or their equivalents, of a rod proper, said rod having an adjustable extremity, comprising a sliding pin mounted within one end of the rod, and a spring incased within the rod and bearing against the inner end of the sliding pin to hold the same normally in extended position, an ornamental cap plate carried by the sliding pin and secured thereto by a screw or rivet, a slot in the rod forming a guide for the latter screw, and a washer interposed between the sliding pin and the cap plate to space the same apart, substantially as and for the purpose set forth. 3rd. In a device of the class described, the combination with screw eyes or the like, of a rod proper having cap plates provided upon the ends thereof, and a sliding spring actuated pin arranged within one end of the rod, the latter end being provided with a longitudinal slot, and a screw connecting one of the cap plates to the sliding pin and entering said slot, said cap plate thereby forming an operating handle therefor, substantially as set forth. 4th. In a device of the class described, the combination with a hollow rod, of a removable pin, held stationary, provided at one end thereof, a removable and sliding spring actuated pin at the other end of the rod, and cap plates covering the pins, each cap plate being secured to its respective pin by the same fastening means that holds the pin to the rod, substantially as set forth.

No. 64,560. Tooth Powder Receptacle.

(*Receptacle pour poudre à dents.*)

William Scott Thompson, Jr., Woodside, Maryland, U.S.A., 25th October, 1899; 6 years. (Filed 6th September, 1899.)

Claim.—1st. A tooth powder receptacle provided with a brush charging chamber at the bottom thereof, an opening into said chamber through the front wall of the receptacle and a partition above said opening, and a space between said partition and one or both of the side walls of the receptacle for the passage of powder to the brush charging chamber, substantially as described. 2nd. A tooth powder receptacle provided with a brush charging chamber at the bottom thereof, an opening into said chamber through the front wall of the receptacle, and a partition above said opening provided with depending portions which together with the side walls of the receptacle form powder passages to said brush charging chamber, substantially as described. 3rd. A tooth powder receptacle provided with a brush charging chamber at the bottom thereof, an opening into said chamber through the front wall of the receptacle, and a partition above said opening having depending portions which, together with the side walls of the receptacle, form powder passages to said chamber, the said passages communicating with the charging chamber at a point above the bottom thereof, substantially as described. 4th. In a tooth powder receptacle, the combination of a powder supply chamber and a brush charging chamber having one or more openings communicating with the supply chamber, and an opening for the insertion of a tooth brush, the latter having a cover hinged at its top and adapted to be swung open by a brush on entering the chamber and close of its own weight after removal of the brush therefrom, substantially as described. 5th. A tooth powder receptacle provided with an opening in its front wall at or near the bottom thereof, and a tubular structure inserted within said opening, having an outer open end for the insertion of a tooth brush, and an opening or openings at or near the underside thereof communicating with interior of the receptacle, the sides of the tubular structure and the side walls of



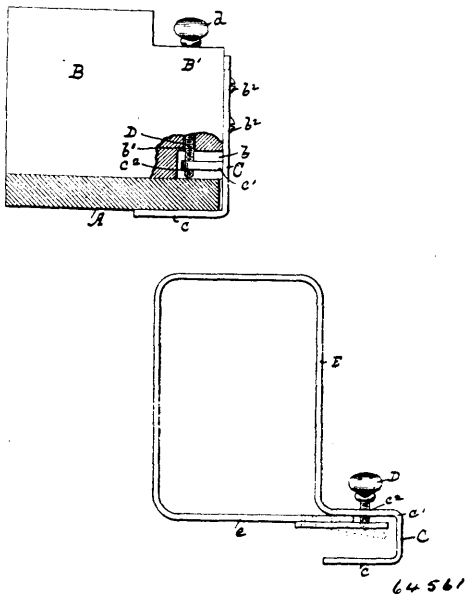
the receptacle forming powder passages leading to the opening or openings at or near the bottom of the tubular structure, substantially as described. 6th. A tooth powder receptacle provided with a brush charging chamber at the bottom thereof, an opening into said chamber through the front wall of the receptacle and a partition above said opening provided with depending portions which together with the side walls of the receptacle form powder passages to said chamber, the side walls of the receptacle being curved or inclined for direction powder beneath said portion, substantially as described. 7th. A tooth powder receptacle provided with a brush charging chamber at the bottom thereof, an opening into said chamber through the front wall of the receptacle, and a partition above said opening provided with depending portions which together with the side walls of the receptacle form powder passages to said chamber, and the bottom of the latter being curved or inclined downwardly from the sides of the chamber to the centre thereof, substantially as described. 8th. A tooth powder receptacle provided with an opening in its front wall at or near the bottom thereof, a tubular structure inserted within said opening having an open outer end for the insertion of a tooth brush, and an opening or openings at or near the bottom or underside thereof communicating with the interior of the receptacle and means for supporting said structure slightly above the bottom of the receptacle, the side walls of the tubular structure and the side walls of the receptacle forming powder passages leading to the opening or openings at or near the bottom of said tubular structure, substantially as described. 9th. A tooth powder receptacle provided with an opening in its front wall at or near the bottom thereof, and a tubular structure inserted within said opening having an open outer end and an opening or openings at or near the bottom or underside thereof communicating with the interior of the receptacle, the side walls of said structure and the side walls of the receptacle together forming powder passages communicating with the interior of the tubular structure, the latter being provided with a guard at or near the mouth or entrance thereto, substantially as described. 10th. A tooth powder receptacle having a main powder supply chamber and a brush charging chamber communicating therewith by way of one or more openings, a tube of paper or other material inserted within the brush charging chamber for temporarily closing the openings leading from the supply chamber, substantially as described.

No. 64,561. Book Support. (*Support pour livres.*)

Joel Summer Smith, New Haven, Connecticut, U.S.A., 25th October, 1899; 6 years. (Filed 9th August, 1898.)

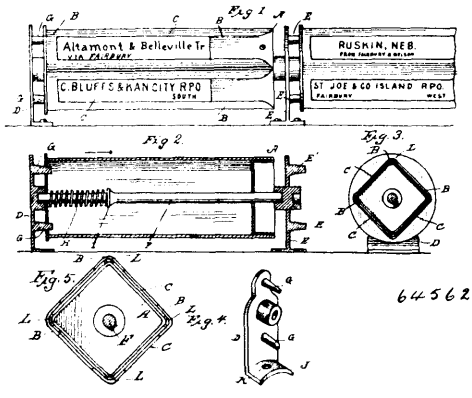
Claim.—1st. In a book support, the combination with a frame, having an arm adapted to fit against the book shelf and a second arm on the opposite side of the shelf, of a support mounted on said frame and adapted to fit on said shelf, and a set screw having a screw connection with said frame so that when properly adjusted thereon the support will be clamped to the shelf, substantially as described. 2nd. A book support formed of a narrow band or strip of sheet metal bent about on itself so that the ends thereof will be in proximity to each other, and the lateral edges of the band presented to the books, the width of the support being as great as the width of the band, together with connection between the ends of the band or strip and means for holding said support in position on

said shelf, substantially as described. 3rd. A book support formed of a narrow band or strip of sheet metal bent about on itself so that



the ends thereof will be in proximity to each other and the lateral edges of the band presented to the books, the width of the support being as great as the width of the band, and the ends of the band having an adjustable connection with each other, together with means for adjusting said connection and holding the support in position on the shelf, substantially as described. 4th. The combination with a book support formed of a band of sheet metal, of a frame to which one end of said support is rigidly secured, and means for raising and lowering the other end of said support in relation to said frame, substantially as described. 5th. The combination with a book support formed of a band of sheet metal, of a frame having an arm adapted to fit against the book shelf, one end of the support being connected to the frame, a block to which the other end of the support is attached, adapted to fit against the opposite side of the shelf, and means for raising and lowering said block, substantially as described.

No. 64,562. Mail Distributing Indicator.
(*Indicateur pour la distribution des malles.*)



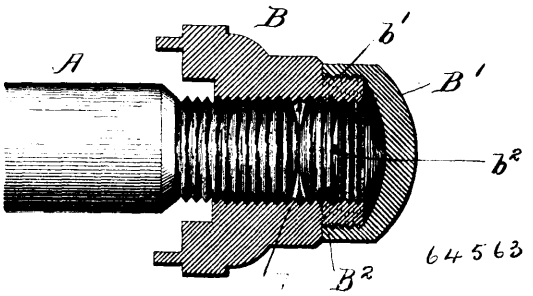
Peter Brandell, Council Bluffs, Iowa, U.S.A., 25th October 1899; 6 years. (Filed 7th September, 1899.)

Claim.—In a mail indicator, a drum polygonal in cross section, strips placed on each edge of said drum, and a strip adapted to be secured around said drum at one end thereof, said strip having tongues projecting therefrom and lying on the strips placed on the edges, each of said tongues having its sides bent inward to partially inclose the corner, producing guideways with the sides of the drum, as and for the purpose described.

No. 64,563. Axle Nut. (*Ecrou d'essieu.*)

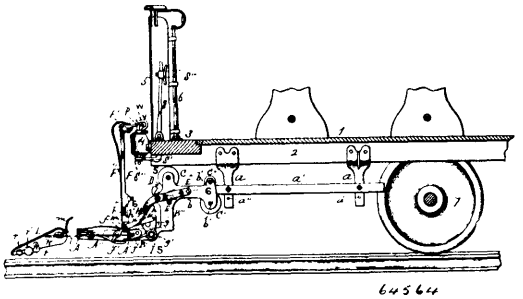
Albert H. Wattles, Montreal, Quebec, Canada, 25th October, 1899; 6 years. (Filed 7th September, 1899.)

Claim.—An axle nut constructed with a central bore extending entirely through the said nut, a cap adapted to be threaded upon the outer end thereof, and a jam nut threaded in said bore and adapted to be locked against the end of the axle, whereby the axle nut may



be held in its adjacent position upon the axle, substantially as described.

No. 64,564. Car Fender. (*Défense de chars.*)

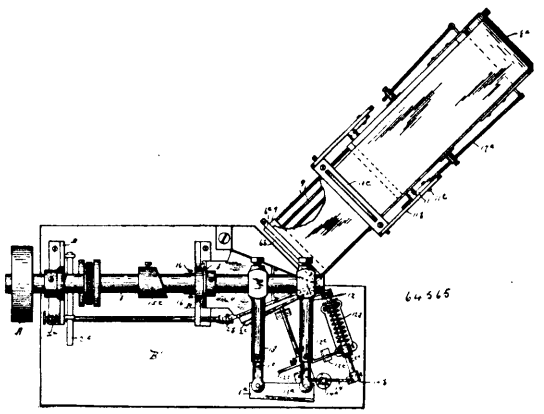


George Hipwood, Boston, Massachusetts, U.S.A., 25th October, 1899; 6 years. (Filed 7th September, 1899.)

Claim.—1st. In a fender, supports adapted to be secured to and extend down from the inner sides to the sills of a car, substantially horizontal rails sustained in a stationary position by said supports on opposite sides under the car, a fender frame, and fences or carriages as B intermediate between said supports and the fender frame provided with wheels or rollers adapted to run on the upper and lower edges of the rails, said frames or carriages extending from said rails downward and outward and provided with forwardly extending arms pivotally connected with the end bars of the fender frame, substantially as described. 2nd. In a fender, supports adapted to be secured to and extend down from the inner sides of the sills of a car, substantially horizontal rails sustained in a stationary position by said supports on opposite sides under the car, the frames or carriages running on said rails and each consisting of the horizontal portion b provided with the extensions b^1 b^{11}, the downwardly extending portions B^{111}, the outwardly extending horizontal portions B and the forwardly extending arms B^1, B^{11}, the tender frame pivotally secured to and between said arms B^1, and the rod I supported by said arms, substantially as set forth. 3rd. In a fender, supports adapted to be secured to and extend down from a car body, the rails a^1 sustained by said supports, the slides D each formed on its lower side with a recess or socket, the frames or carriages running on said rails and pivotally supporting the fender, each said frame or carriage being provided with the hole b^{111}, the springs E secured at their rear ends to the frames or carriages, bent centrally inward from said frames or carriages and provided at their forward ends with the holes E^1 extending through said holes and normally into said recesses, the main fender frame, the bunter guard pivotally secured to and swinging up from said fender frame, and the bars H pivotally secured at their forward ends to the frame of the bunter-guard, provided with slots H^1 through which the said bolts extend, and at their rear ends with the inwardly projecting lips H^{11} for engagement with the said spring, substantially as described. 4th. In a fender of the character described, carriages adapted to be supported and run on rails under the car body and provided with the downward extensions B^{111} and forwardly extending arms B^1, B^{11}, the horizotal rod or shaft I supported by said arms, the fender frame pivotally sustained between the outer ends of the arms B^1, the pawls or levers J J^1 mounted on said rod I and provided with the rearwardly extending arms or hooks J^{11}, the portions J^1 of said pawls or levers extending under the rear edge of the fender frame, the cellar I^1 rigidly secured centrally to the rod I, and the spring E extending from said collar outwardly through or into engagement with the hooks or arm J^{11} and under the arm B^{11}, substantially as an for the purpose set forth. 5th. In a fender, the substantially horizontal fender frame, the shoes L supported thereby and sliding horizontally with relation thereto, the pairs of swinging bars t pivotally secured at their forward ends to the inner surfaces of the sides of the shoes and formed at their rear ends with the upwardly extending portions t^{11}, each provided with a series of perforations,

means for attaching said rear ends to the sides of the shoes and swinging or adjusting them vertically with relation thereto, and the rollers $r\ r^1$ supported by said bars t, substantially as described. 6th. In a fender of the character described, the fender-frame, the shoes L, the rods l extending from the fender frame and pivotally supporting said shoes in front of the frame, the wings m pivotally secured to the shoes and extending upward and rearward therefrom, the frames N provided with the central openings N^{11} and with the extensions N^1 bearing against the under sides of the shoes, said frames being supported by the rods I, the springs N extending from the under sides of same frames through said openings and bearings against the under surfaces of the shoes, and the springs N^{111} extending from the under sides of said frames and with the rear ends bearing against the under sides of the wings, substantially as set forth. 7th. In a fender, comprising a substantially horizontal fender frame and a substantially vertical bunter guard hinged to and extending up from said fender frame, in combination, the bunter guard, the platform, dash board and bunter 4 of a car, the bolt P extending up through the bunter and held normally up by a spring, the hook V held rigidly in the bunter in relation with said bolt, and the lever $S\ S^1$ extending from above the platform behind the dash board down through the platform, under the dashboard and in engagement with said bolt, said bunter guard being provided with a suitable device for engaging with the bolt, substantially as and for the purpose set forth.

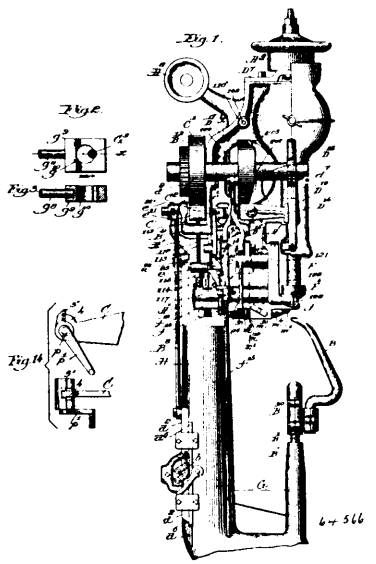
No. 64,565. Paper Folding Machine.
(*Machine à plier le papier.*)



Charles Davey and George W. Wooll, both of Detroit, Michigan, U.S.A., 26th October, 1899; 6 years. (Filed 26th January, 1899.)

Claim.—1st. In a paper folding machine, the combination of a thin pointed, presser foot arranged to engage over the paper, means for folding back over the upper surface of the foot that part of the paper which has been advanced beyond the presser foot, means for lifting, pushing forward and pressing down the after part of the paper, and a point folder arranged to fold backward under the presser foot of the point of the paper, substantially as described.. 2nd. In a paper folding machine, a point folder, comprising in combination a folding arm, means for producing an oscillating motion, and means for producing a reciprocating motion of said arm, whereby the arm is adapted to fold the paper both down and under a presser foot adapted to hold the paper, and means arranged to bring the point of the paper into proper position to engage the point folder, substantially as described 3rd. In a paper folding machine, the combination of a presser foot adapted to be used as a former over which to fold the envelope, a severing knife, and lifting bar, a swinging bar arranged to engage behind the paper and press it forward and down, a rocking folder arranged to hold and fold back the front edge of the paper, and a point folder arranged to fold down and under the point of the paper, substantially as described. 4th. In a paper folding machine, in combination with a triangular presser foot, a feeding mechanism arranged to bring the paper under the presser foot, means for folding two adjacent edges of the paper, one back and the other forward to slightly overlap the edge of the back fold, substantially as described. 5th. In a paper holding machine, in combination with a triangular foot, a feeding mechanism arranged to bring the paper under the presser foot, means for folding two adjacent edges toward and slightly by each other, and means for folding the corner of the paper to the back of the envelope, substantially as described. 6th. In a paper folding machine, in combination with a presser foot, over which the paper is folded, an expelling device arranged to push the completed bag from the presser foot, substantially as described. 7th. In a paper folding machine, in combination with a vertically movable presser foot, a horizonal movable expelling device, means for depressing and holding down the presser foot, and contemporaneously retracting and holding the expelling device, and means for ifting the presser foot and contemporaneously projecting the expel ing device, substantially as described.

No. 64,566. Machine for Inserting Metallic Fastenings.
(*Machine à insérer des attaches métalliques.*)



The McKay Shoe Machinery Company, Portland, Maine, assignee of Louis Amédée Casgrain, Winchester, Massachusetts, U.S.A., 26th October, 1899; 6 years. (Filed 7th December, 1898.)

Claim.—1st. In a machine for inserting metallic fastenings, the following instrumentsalities, viz:—an actuating lever forming part of a wire feeding mechanism, a cam to move said lever and to ensure the feeding of the wire, a switch or device, and means to operate it automatically to effect the placing of said actuating lever in a position in which it is not moved at all by said cam during its continued rotation, whereby said lever may remain wholly at rest while the feeding of the wire is to be suspended, substantially as described. 2nd. In a machine for inserting metallic fastenings, the following instrumentalities, viz:—a horn, a lever, means intermediate said lever and said horn to automatically depress the latter, a cam to move said lever, a manually controlled switch or device, and means controlled thereby to lock said lever in position out of the range of said cam while the latter continues to rotate, and the said horn is down in its position of rest, substantially as described. 3rd. In a machine for inserting metallic fastenings, the following instrumentalities, viz:—a horn, horn depressing mechanism, means to actuate the same, a manually controlled switch or device, and means actuated thereby to put said horn depressing mechanism in position to free it from the control of said actuating means and leave the horn at rest with its tip in its lowest position ready to enable the work to be removed therefrom while said actuating means continues to operate, substantially as described. 4th. In a machine for inserting metallic fastenings, the following instrumentalities, viz:—cutting mechanism to sever a wire in the production of separate fastenings, an actuating lever, devices intermediate said lever and said cutting mechanism to operate the latter when said lever is actuated, a movable finger carried by said actuating lever, a cam having suitable projections to meet said finger, a manually controlled switch or device to change the position of said finger and prevent the closing of said cutters, substantially as described. 5th. In a machine for inserting metallic fastenings, the following instrumentalities, viz:—cutting mechanism to sever a wire in the production of separate fastenings, an actuating lever, devices intermediate said lever and said cutting mechanism to operate the latter when said lever is actuated, a movable finger mounted on said actuating lever, a manually controlled switch or device to control the position of said finger, a rotatable cam having suitable projections to meet said finger, means to move said switch or device in one direction to put said finger into its inoperative position, and then to move said switch or device in the opposite direction to put said finger in its operative position, the said finger when in its inoperative position preventing any movement whetever of said actuating lever and maintaining the cutting mechanism at rest, substantially as described. 6th. In a machine of the class described, a manually controlled switch or device provided with a locking device and with a stud, a lever instrumental in lowering the horn, said lever having a locking plate or shoulder adapted to be engaged by said locking device, a lever instrumental in feeding the wire, it having an attached measuring leg, and a locking block controlled by the stud of said switch or device to put said locking block in position to suspend the movement of said measuring leg, while the said locking device engages said locking plate and holds at rest the lever instrumental in lowering the horn, substantially as described. 7th. In a machine of the class

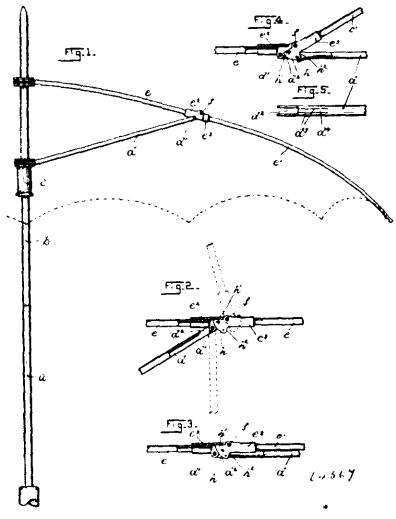
described, a manually controlled switch or device provided with a locking device, a lever instrumental in operating wire cutting mechanism, said lever having a movable finger, a lever having a locking plate engaged by said locking device and instrumental in lowering the horn, whereby by the movement of said manually controlled switch or device in one direction, the said finger may be put into its inoperative position, and the lever instrumental in depressing the horn, may be locked in its inoperative position away from its actuating cam, substantially as described. 8th. In a machine of the class described, a lever instrumental in depressing the horn, said lever having a locking plate or shoulder, a lever instrumental in operating wire cutting devices, said lever having a movable finger combined with a manually controlled switch or device shaped to move said finger on said lever and provided with a locking device to engage the locking plate or shoulder of the first named lever, and a cam to operate both said levers in one position of said switch or device, said switch or device in its other position serving to effect the suspension of operation of one or both of said levers, substantially as described. 9th. In a machine of the class described, a lever having an attached measuring leg instrumental in actuating wire cutting device, a lever instrumental in actuating wire cutting devices, a movable finger carried by the latter lever, a manually controlled switch or device to automatically move said finger, and means between said switch or device and said measuring leg to arrest its movement when the feeding of the wire is to be stopped, the movement of said switch or device in one direction suspending the movement of the lever instrumental in feeding the wire, and simultaneously therewith putting said finger in its inoperative position, substantially as described. 10th. In a machine for inserting metallic fastenings, a movable switch or device, substantially such as described, adapted to control the time of lowering the horn and the stopping of the wire feeding mechanism, combined with means such as a latch or catch actuated continuously and under the control of the operator, whereby it may be put in position to meet said switch or device and turn it in one or the other direction, substantially as described. 11th. In a machine for inserting metallic fastenings, a switch or device having lugs, and means to reciprocate said latch, and a spring connected thereto, combined with a lever carrying said spring and under the control of the operator, whereby by turning said lever said latch may be made to engage one or the other of said lugs to turn said switch or device in one or the opposite direction, substantially as described. 12th. In a machine for inserting metallic fastenings, a switch or device having lugs and provided at its lower end with a spring, a pivoted latch, means to reciprocate said latch constantly, a lever having a heel and under the control of the operator, a spring carried by said lever and connected with and adapted to move said latch in one or the other direction, combined with a plunger under the control of the spring carried upon said switch or device, substantially as described. 13th. In a machine of the class described, a horn, a horn depressing lever, a cam to operate said lever, connections between said lever and horn, a locking block having an enlarged hole and located at one side of the head of the machine, a measuring leg extended through said hole and having a nut or shoulder combined with a switch or device located at the opposite side of said head, connections between said switch or device and said block to move the same longitudinally, and place the solid part of said block under said nut or shoulder when the said measuring leg is in its highest position, to thereby lock said measuring leg out of operation, said switch or device when moved to lock the measuring leg also locking out of the range of its actuating cam the horn depressing lever, substantially as described. 14th. In a machine of the class described, a switch or device made as a lever having a plurality of lugs, a yielding spring held locking device pivotally mounted thereon, and a constantly reciprocating latch to engage and move said switch or device at the proper times, combined with a horn depressing lever having a locking plate or shoulder and adapted to be engaged by said locking device, substantially as described. 15th. In a machine for inserting metallic fastenings, the following instrumentalities, viz., a continuously rotating spindle to contain a wire to be fed therethrough and cut into separate fastenings, a shaft having a feed actuating face cam operated from said spindle, a lever having a roller or other stud and forming part of wire feeding mechanism, said feeding mechanism being adapted to grasp and feed intermittingly the said wire through said rotating spindle, a switch or device, and a continuously operating latch controlled as to its swinging movements by the operator, whereby said latch may be turned, as desired, to move said switch or device in one or the opposite directions, means controlled by said switch or device in one direction of its movement to effect the stopping of the movement of said lever forming part of the wire feeding mechanism after the insertion of the end of the wire into the stock preparatory to the formation of a fastening and in the other direction of its movement to release said lever at a time when the high part of said face cam is opposite said roller or other stud, whereby said roller or other stud may be struck and actuated at exactly the proper position of the cam surface for imparting to said lever its wire feeding movement, to thereby ensure a fastening at each operation of said lever of just the proper length for the thickness of the stock to receive said fastening, substantially as described. 16th. In a machine for inserting metallic fastenings, a lever adapted when moved to actuate wire cutting mechanism, and a movable finger carried by said lever and capable of being put into operative and inoperative positions, and a cam having projections to strike said finger when in its operative position, combined with means to put said finger in its inoperative position when it is desired that said lever be not fully actuated, substantially as described. 17th. The rotating cam having a cam projection 202, a high part 202-201, and a low part, and the lever instrumental in actuating the wire feeding mechanism, and its attached measuring leg provided with a nut or shoulder, combined with a locking block having an inclined top, and means to move said block when the wire feeding mechanism is to be stopped, where the roller or other stud of said lever may be wholly removed from the path of travel of said cam projection, 202, substantially as described. 18th. In a machine of the class described, a rotating wire carrying spindle, a stop located near said spindle and a locking device carried by said spindle, combined with and controlled by the pin of said spindle, on which is mounted the usual wire carrying roll, whereby if said pin is not fully in its operative position said locking device will meet said stop and prevent the rotation of said spindle, substantially as described. 19th. In a machine of the class described, a rotating wire carrying spindle, feeding mechanism co-operating therewith, a shaft having a cam to actuate said feeding mechanism, it including as one of its elements a lever having a roller or other stud, a treadle under the control of the operator, and means actuated thereby to impart to said lever a movement greater than can be given to it by said cam alone, whereby the roller or other stud is entirely removed from the range of its actuating cam, substantially as described. 20th. In a machine for inserting metallic fastenings, a main rotating shaft having cams, a horn, horn depressing mechanism, and wire cutting mechanism deriving their movement from said cam, means to operate said shaft, a manually controlled switch or device, the movement of which in one direction effects the lowering and stopping of the horn with the tip in its lowest position, and also stops the closing of the cutting mechanism, leaving, however, the said shaft in rotation, substantially as described. 21st. In a machine for inserting metallic fastenings, the following instrumentalities, viz: a continuously rotating spindle to contain a wire to be fed therethrough and cut into separate fastenings, a shaft having a feed actuating cam operating from said spindle, a lever having a roller or other stud and forming part of wire feeding mechanism, said feeding mechanism being adapted to grasp and feed intermittently the said wire through said rotating spindle, a switch or device, and means to move it in one and then in the opposite direction, means controlled by said switch or device in one direction of its movement to effect the stopping of the movement of said lever, forming part of the wire feeding mechanism after the insertion of the end of the wire into the stock preparatory to the formation of a fastening, and in the other direction of its movement to release said lever at a time when the high part of said face cam is opposite said roller or other stud, whereby said roller or other stud may meet and be actuated by said cam at exactly the proper portion of its face to thereby start said lever in its wire feeding movement at the proper period, and ensure a fastening at each operation of the said lever at just the proper length for the thickness of the stock to receive said fastening, substantially as described. 22nd. In a machine for inserting metallic fastenings, the following instrumentalities, viz.: a continuously rotating spindle to contain a wire to be fed therethrough and cut into separate fastenings, a shaft having a feed actuating cam operated from said spindle, a lever having a roller forming part of wire feeding mechanism, said feeding mechanism being adapted to grasp and feed intermittingly the said wire through said rotating spindle, cutting mechanism to sever the wire in lengths, and a horn and depressing mechanism, and a switch or device manually controlled and adapted in its movements in one direction to automatically completely suspend the action of the wire feeding mechanism to stop the closing of the cutting mechanism and to depress the horn, leaving it at rest with its tip in its lowest position, the main shaft of the machine continuing to operate, and in the other movement of the switch or device immediately starting the wire feeding mechanism from its normal position to thereby ensure the insertion of a full length of fastening adapted for the thickness of the stock then on the horn, and to cut said fastening from the length of wire, substantially as described. 23rd. In a machine of the class described, a rotating wire carrying spindle, a lever, a cam to move it, a measuring device co-operating with said lever, means actuated by said lever to grasp and feed the wire through the said spindle, a block having an inclined or cam face, and means to move said block at the completion of the movement of said lever by said cam, it acting through said measuring device to impart to said lever a greater movement than can be imparted to it solely by said cam, said lever being thereafter held entirely out of the range of movement of its actuating cam while the feeding movement is suspended, substantially as described.

No. 64,567. Umbrella. (*Parapluie.*)

The Worcester Umbrella Company, Worcester, Massachusetts, assignee of Clarence C. Frost, Norwich, Connecticut, U.S.A., 26th October, 1899; 6 years. (Filed 28th August, 1899.)

Claim.—1st. In a folding umbrella, in combination, a two-part hinged rib, and a stretcher pivoted thereto, the outer or free rib section being formed with a hook adapted to enter a slot in the stretcher and abut the end wall of said slot when the umbrella is closed, all substantially as specified. 2nd. In a folding umbrella,

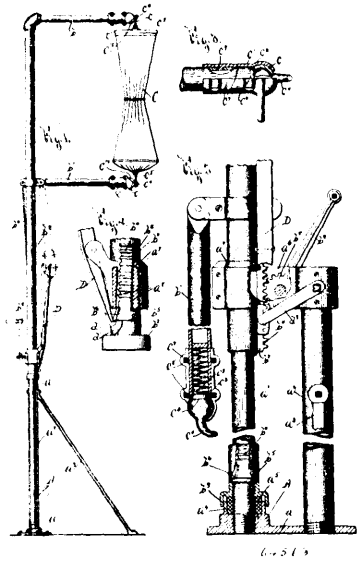
in combination, a two-part hinged rib, and a stretcher pivoted thereto, the outer rib section being formed with a hook adapted to



enter a slot in the stretcher when the umbrella is closed; the said stretcher having a spring tongue, the end of which engages the end of the rib section, all substantially as and for the purpose specified.

No. 64,568. Mail Bag Crane.

(*Grue pour sacs de malle.*)



John Hampden Hopkins, assignee of George Washington Smith, both of Rochester, New York, U.S.A., 26th October, 1899; 6 years. (Filed 5th September, 1899.)

Claim.—1st. A delivery crane, comprising a support, and a ball and socket joint having one of its parts connected to the support and its other part provided with means for supporting a bag, substantially as and for the purpose set forth. 2nd. A delivery crane comprising a support, a ball and socket joint having one of its parts connected to the support and its other part provided with means for supporting a bag, and a spring for holding said other part in its operative position, substantially as and for the purpose specified. 3rd. A delivery crane comprising a support, a ball and socket joint having one of its parts connected to the support and its other part provided with means for supporting a bag, said other part being formed with a bearing-face, a spring supported by the first part, and a friction-piece interposed between the bearing-face and the spring, substantially as and for the purpose described. 4th. A delivery crane comprising a support, a socket member secured to the support, a ball member movable in the socket member and provided with a substantially hook-shaped projecting shoulder for supporting a bag, and means for holding the ball member in its operative position, substantially as and for the purpose set forth. 5th. A delivery crane comprising a support, a socket member secured to the support, a ball member movable in the socket member and provided with means for supporting a bag, and a spring arranged in the socket member for holding the ball member in its operative position, substantially as and for the purpose specified. 6th. A delivery crane comprising a support, a socket member secured to the support, a ball member movable in the socket member and having one extremity provided with a substantially hook-shaped projecting shoulder for supporting a bag, and its opposite extremity provided with a bearing-face, a spring arranged in the socket member for holding the ball member in its operative position, and a friction piece interposed between the bearing-face and the spring, substantially as and for the purpose described. 7th. A delivery crane comprising a socket member, a support inserted within one end of the socket member, a ball member movable in the opposite end of the socket member and provided with means for supporting a bag, and a spring arranged in the support for holding the ball member in its operative position, substantially as and for the purpose set forth. 8th. A delivery crane comprising a support, a socket member secured to the support and consisting of lengthwise separable sections, a ball member movable in the socket member and provided with means for supporting a bag, and means for holding the ball member in its operative position, substantially as and for the purpose described. 9th. A delivery crane comprising a substantially upright guide member, a support movable along the guide member and provided with a stop-shoulder, means for moving the support along the guide member, a trip for engaging said stop-shoulder when the support assumes its elevated position, means for automatically forcing the trip into its operative position, and a bag-supporting means secured to the support and having a part thereof movable into engagement with the trip for forcing the same from its operative position, substantially as and for the purpose set forth. 10th. A delivery crane comprising a substantially upright guide member, a support movable along the guide member and provided with a stop-shoulder and an engaging face inclining upwardly and inwardly from the stop-shoulder, means for moving the support along the guide member and having one end provided with a stop-shoulder and an engaging face for respectively engaging the former stop-shoulder and engaging face, means for automatically forcing the trip into its operative position, and a bag-supporting means secured to the support and having a part thereof movable into engagement with the trip for forcing the same from its operative position, substantially as and for the purpose specified.

No. 64,569. Harrow. (*Herse.*)

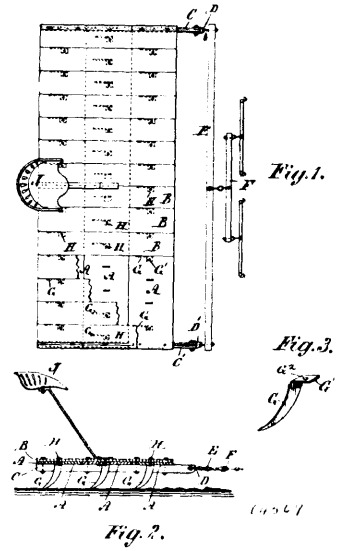


Fig. 1.

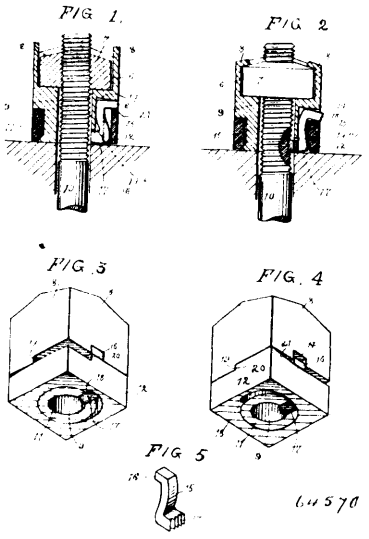
Fig. 3.

Fig. 2.

Xavier Saucier, Temiscamingue, Quebec, Canada, 26th October, 1899; 6 years. (Filed 12th September, 1899.)

Claim.—A harrow comprising an upper and a lower section of boards, secured together transversely, and provided with a draft bar at the ends, flat knives or teeth, having a curved edge front and rear and terminating in a point, and a flange at the broad end provided with a bolt hole, said knives secured to the wood sections by bolts H, as set forth.

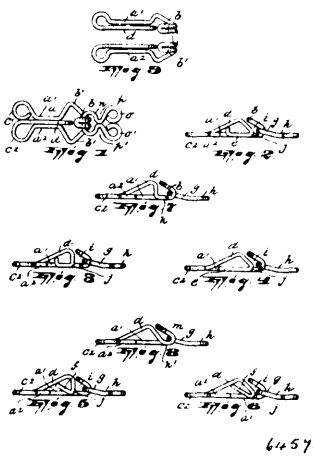
No. 64,570. Nut Lock. *(Arrête-écrou.)*



Cullen Eugene Laraway, Plaquemine, Louisiana, U.S.A., 26th October, 1899; 6 years. (Filed 12th September, 1899.)

Claim.—1st. The combination of a nut casing having a neck thereon and having a recess in the neck, a dog mounted loosely in the recess, and a locking collar mounted to turn on the neck and having an inclined surface engaging the dog to throw the same. 2nd. The combination of a nut casing, a dog mounted thereon, and a collar capable of turning loosely on the casing, the collar engaging the dog to throw the same to active and inactive positions. 3rd. The combination of a member capable of connection with a nut, a dog mounted on the member and capable of engaging a bolt to lock the nut, and a locking collar turning on said member and engaging the dog to throw the same to active and inactive positions. 4th. The combination of a nut casing having a cavity capable of receiving a nut and holding the same immovable with reference to said casing, a dog mounted loosely in the casing, and a locking collar mounted to turn on the casing and engaging the dog to throw the same into active and inactive positions. 5th. The combination of a member capable of fast connection with a nut, a dog carried by said member and capable of engaging and disengaging a bolt, and a collar mounted to turn on said member and having two inclined surfaces acting on the dog, the one serving to throw the dog to engage the nut, and the other serving to retract the dog.

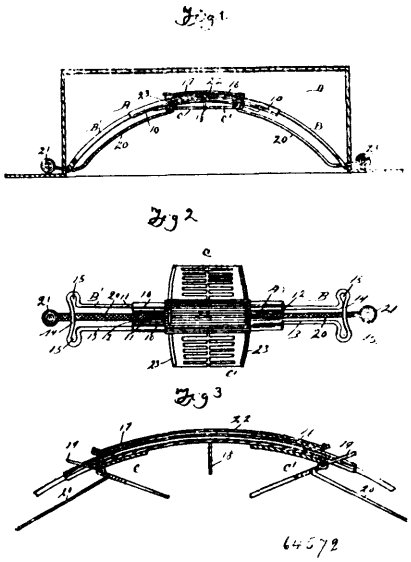
No. 64,571. Hook and Eye. *(Agrafe et porte-agrafe.)*



Edwin W. Groeschel, Jersey City, New Jersey, U.S.A., 26th October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—1st. A hook for a hook and eye, consisting of the eyelets, bill and shank, and a tongue projecting toward said bill from the eyelet end of the hook and being deflected near its free end downwardly and having its tip or extremity protected by some portion of said hook, the deflection in said tongue being gradual and the tip of the bill terminating short of said deflection and approximately in a horizontal plane therewith, substantially as described. 2nd. A hook for a hook and eye, consisting of eyelets, bill and shank, and a tongue projecting toward said bill from the eyelet end of the hook and being deflected near its free end downwardly and thence rearwardly and having its tip protected by some portion of said hook, the first deflection in said tongue being gradual and the tip of the bill terminating short of said first deflection and approximately in a horizontal plane therewith, substantially as described. 3rd. A hook for a hook and eye consisting of the eyelets, bill and shank, and a tongue projecting toward said bill from the eyelet end of the hook and being deflected near its free end downwardly and thence rearwardly and having its tip in contact, or approximate contact, with the body portion of said tongue, the first deflection in said tongue being gradual and the tip of the bill terminating short of said first deflection and approximately in a horizontal plane therewith, substantially as described. 4th. A hook for a hook and eye, consisting of the eyelets, bill and shank, the latter comprising two spaced members, and a tongue projecting toward said bill from the eyelet end of the hook and being deflected near its free end downwardly and thence forwardly and terminating between the shank members, the first deflection in said tongue being gradual and the tip of the bill terminating short of said first deflection and in a horizontal plane therewith, substantially as described. 5th. A hook or a hook and eye, consisting of the eyelets, bill and shank, the latter comprising two spaced members, and a tongue projecting toward said bill from the eyelet end of the hook and being deflected near its free end downwardly, and thence forwardly and terminating between the shank members, the first deflection in said tongue being gradual, the tip of the bill terminating short of said first deflection and in a horizontal plane therewith, and each shank member being deflected sharply outwardly near the bill, substantially as described. 6th. A hook for a hook and eye, consisting of a single piece of bent wire shaped to form two bills, two parallel shank members extending rearwardly therefrom, two eyelets, and two tongues projecting toward said bill from the eyelets and being deflected downwardly near their free ends, the deflections in said tongue being gradual and the tips of the bills terminating short of said deflections, substantially as described. 7th. An eye for a hook and eye, consisting of a single piece of wire shaped to form a closed and appreciably transversely elongated loop and eyelets adjacent said loops and produced by the extremities of the wire, said extremities being bent first divergently from the loops and thence toward each other and having their tips contacting with the body of the wire thus forming unbroken incurvations between the eyelets and the loop for the reception of auxiliary securing threads, substantially as described.

No. 64,572. Hat Fastener. *(Attache chapeau.)*

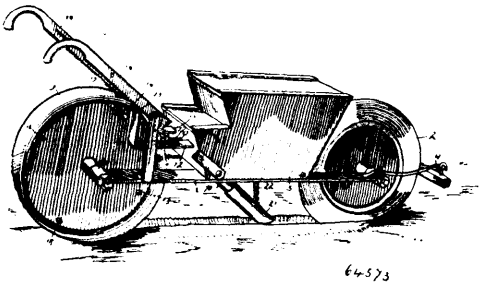


Sheldon A. Steinbarger, Augusta, Illinois, U.S.A., 26th October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—1st. A hat fastener, consisting of a frame having two collars adjustable lengthwise, combs hinged to the other ends of said collars and mounted to slide upon the said body, protections from the combs adapted for engagement with the body and serving to carry the combs in direction of the body, and means, substantially as described, for moving the combs away from the body, as and for the purpose specified. 2nd. In a hat fastener, the combination, with an adjustable body, sleeves mounted to slide upon the said body, and a spring connecting the said sleeves, of a comb pivotally

attached to each sleeve, each comb having a projection from its back adapted for engagement with the body, and devices, substantially as described, connected with the combs, the said devices projecting outside of the hat to carry the said combs away from the body of the fastener, and projections from the backs of the combs, serving to carry the combs in direction of the body, for the purpose specified. 3rd In a hat fastener, the combination of a frame, collars movable lengthwise thereon, a comb pivotally attached to each collar, a spring serving to draw the collars toward each other, and tapes attached to the combs at one side of the pivots thereof by which tapes to move the collars outwardly and throw the combs downwardly. 4th The combination of a frame, collars mounted to slide lengthwise thereon, a spring connecting the collars and serving to move them toward each other, combs mounted on the collars and having each a projection adapted to engage the frame to throw the combs upward as the collars move toward each other, and tapes attached to the combs and serving to draw the collars apart and throw the combs downward. 4th. In a hat-fastener, the combination of a frame, a collar mounted to slide thereon, a comb pivotally attached to the collar and capable of swinging to lie flat against the collar, or to extend outward therefrom, means for moving the comb against the collar, and a tape attached to the comb at one side of the pivot thereof, by which tape to draw the comb downward from the collar.

No. 64,573. Planter and Fertilizer Distributor,
(*Plantoir et distributeur de fumier.*)



64573

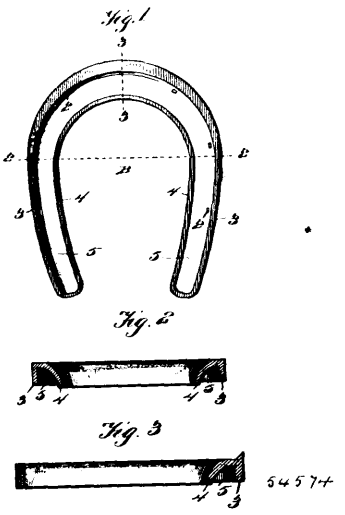
Alexander C. Noe, Pikeview, Kentucky, U.S.A., 26th October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—1st. In a combined planter and fertilizer distributor, the combination of several compartments for receiving grain and fertilizer respectively, a mixing compartment, means for simultaneously conveying a charge of grain and fertilizer from the first mentioned compartments into the mixing compartment, and a grain spout in communication with the mixing compartment for conveying the contents therefrom to the furrow, substantially as set forth. 2nd. In a combined planter and fertilizer distributor, the combination of juxtaposed compartments for receiving grain and fertilizer respectively, a mixing compartment and slides operating through the mixing compartment and the fertilizer and grain compartments for delivering a charge of grain and fertilizer from their respective compartments into the mixing compartment, substantially as set forth. 3rd. In a combined planter and fertilizer distributor, the combination of a hopper subdivided by a longitudinal partition into compartments for receiving grain and fertilizer respectively, a mixing compartment in the rear of the hopper and having communication with the fertilizer and grain compartments, a grain spout having communication with the lower portion or the mixing compartment, and connected slides operating through openings in the walls of the hopper and mixing compartment and adapted to simultaneously deliver a charge of grain and fertilizer from their respective compartments into the mixing compartment, substantially as specified. 4th. In a planter, the combination with a hopper sub-divided into compartments, a pair of slides operating in the hopper and connected to operate simultaneously and having their outer ends bent vertically and spaced apart, a spring normally tending to move the slides outwardly, and a tappet wheel operating in the space formed between the outer bent ends of the slides and adapted to have its tappets engage with the bent terminals of the slides, as and for the purpose set forth. 5th. A combined planter and fertilizer distributor, comprising a frame mounted upon a furrow opening wheel and a covering wheel, a hopper comprising a fertilizer and a grain compartment, a mixing compartment in the rear of the hopper, connecting slides operating through openings in the walls of the hopper and mixing compartment and having their rear ends coming upon opposite sides of the covering wheel, and a rod having a spring to move the slides rearwardly, and a grain spout having connection with the mixing compartment, substantially as set forth.

No. 64,574. Horse Shoe. (*Fer à cheval.*)

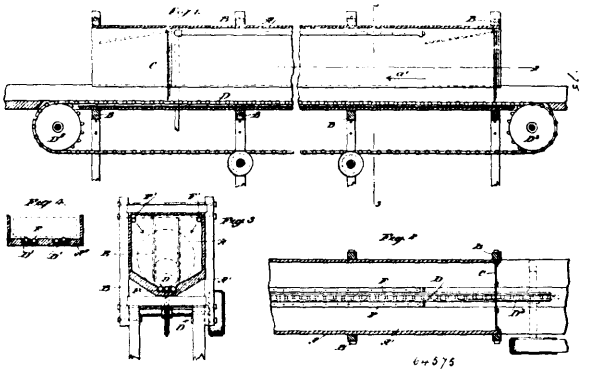
Philander H. Graves, Chicago, Illinois, U.S.A., 26th October, 1899; 6 years. (Filed 9th September, 1899.)

Claim.—1st. A horse shoe having two rims extending entirely around the same and the inner one extending below the outer one and being sloped thereby to procure elasticity in the same. 2nd. A horse shoe having two rims extending entirely around the same and joined at the rear or heel of the shoe, the inner rim extending below the outer rim and being sloped inward thereby to produce elasticity.



3rd. A horse shoe having two rims extending entirely around the same and joined at the rear or heel of the shoe and the outer rim being perpendicular and the inner rim extending below the outer rim and sloping inward and being also thinner than the outer rim.

No. 64,575. Log Thawing Apparatus.
(*Appareil à dégeler les billots.*)



Samuel Wesley Butterfield, Three Rivers, Quebec, Canada, 26th October, 1899; 6 years. (Filed 11th September, 1899.)

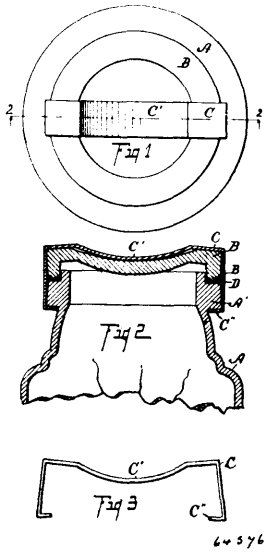
Claim.—1st. A log thawing apparatus, comprising a casing of a length and size to permit the passage of logs therethrough, a conveyor in the bottom of the casing for carrying the logs through the casing, said conveyor having its ends extending beyond the ends of the casing, appertured steam pipes in the casing for delivering jets of steam upon the logs as they pass through the casing, substantially as described. 2nd. A log thawing apparatus, comprising a casing having a recessed bottom and provided with a self closing door at each end, an endless carrier travelling in the recess in the bottom of the casing, and perforated steam pipes arranged in the recessed bottom of the casing and in the upper part thereof, substantially as described. 3rd. A log thawing apparatus, consisting of a casing having a hopper shaped bottom, the central portion of which is recessed, and provided with hinged self-closing doors at its ends, an endless carrier chain extending through the casing and having one of its runs arranged in the recess of the bottom, and perforated steam pipes arranged in the upper and lower part of the casing, the pipes in the lower part being in the recess of the bottom of said casing, substantially as herein shown and described.

No. 64,576. Fruit Jar. (*Jarre à fruits.*)

Samuel J. Dunkley, Kalamazoo, Michigan, U.S.A., 26th October, 1899; 6 years. (Filed 11th September, 1899.)

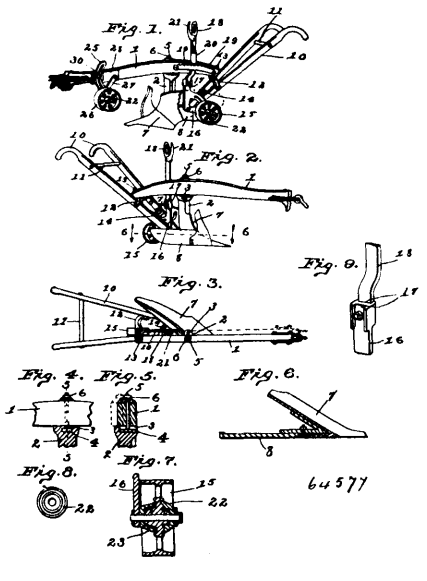
Claim.—1st. The combination of the can A, with a flange A^1 at the top with a square shoulder on its under side and a shoulder on its upper side to receive a gasket, a gasket D resting thereon, a

cover B for said can that is convex towards its centre and adapted to fit on the top of the can, and a spring fastener C, concave at the



centre with a straight portion towards each end and bended down terminating in a hook S at each end to engage under the square shouldered flange at the top of the can for the purpose specified. 2nd. The combination of a jar or can having suitable square shoulder or shoulders at the top for engagement of hooks, the can cover which is convex at the centre, with a flat portion towards the periphery and a spring convex towards its centre and folded to conform to the top of the can and terminating in hooks adapted to engage the shoulder or shoulders on the upper part of the jar or can, for the purpose specified.

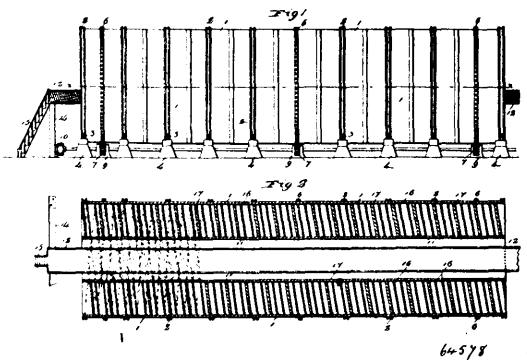
No. 64,577. Plough. *(Charrue.)*



George Baldwin, Indianapolis, Indiana, U.S.A., 26th October, 1899; 6 years. (Filed 12th September, 1899.)

Claim.—1st. In a plough having a draft beam mounted on suitable adjustable bolts at different points whereby it can be adjusted at such points so as to retain its same draft line while being moved sidewise, the combination of the mold board 7 formed straight from edge to edge upon any line parallel with its lower edge, the landside 8 having the depression near its front end, the share having the depression upon its side, and the sod cutter adapted to lie within the depressions in said landside and share, with the land wheel 26, mounted upon the pivotal brace 27, and adjusted by means of the curved slotted arm 25, working in the casting 28, and the draft wheel 15 mounted upon a pivotal casting 16 and adjusted by means of a lever 18 having a spring locking bolt 19 working in a curved rack bar 20, all substantially as shown and described. 2nd. In a plough, the combination of a draft beam mounted on suitable adjusting bolts at different points, whereby it can be adjusted at such points so as to retain its same draft line while being moved sidewise, a draft wheel carried on the plough and adjustable through a handle, said handle being adjustable to suit the adjustment of the draft beam, and a land wheel carried on the plough beam and adjustable through a slotted curved arm, substantially as shown and described. 3rd. In a plough, the draft and land wheels carried by suitable adjusting means, said wheels having hubs provided upon each side with annular grooves, the close outer cap 22 having like grooves and ribs to fit against the outer face of said hub, said wheels and caps mounted upon the loose axle and having a space between each respectively, to receive the packing, as set forth. 4th. In a plough, the landside and the share having a depression formed in each, a sod cutter fitting in said depression flush with the face of said landside and share, in combination with the mold board formed perfectly straight across from its front to its rear edge on any line parallel with its lower edge, substantially as set forth.

No. 64,578. Railway. *(Chemin de fer.)*

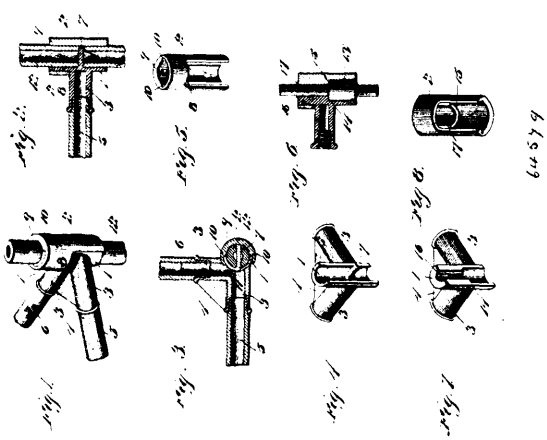


John Anderson, St. Louis, Missouri, U.S.A. 26th October, 1899; 6 years. (Filed 12th September, 1899.)

Claim.—1st. In combination with a suitable revolving body, of rails secured to the inner periphery of the same forming a track of spiral construction, throughout the entire length of said body the ends of said tracks terminating adjacent to the ends of said body, and cars adapted to be placed upon said tracks, as and for the purpose described. 2nd. In combination with a cylindrical revolving body, of rails secured to the inner periphery of the same forming a track of spiral construction throughout the entire length of said body, the ends of said tracks terminating at the ends of said body, cars adapted to be placed upon said tracks, and means for guiding said cars to the tracks located within the body, as and for the purpose described. 3rd. In combination with a cylindrical rotating body, of rails or guide ways secured to the inner periphery of the same forming a track of spiral construction throughout the entire length of the said cylindrical body, and a spiral partition located between said tracks, and running the full length of the said body, as and for the purpose described. 4th. In combination with a rotating body, of rails secured to the inner periphery of the same forming tracks of spiral construction, upon which cars are adapted to travel, and a spiral partition located between said tracks, and separating the latter, as and for the purpose described. 5th. A pleasure railway, comprising an outer cylinder, an inner cylinder centrally located within the same, rails secured to the inner periphery of said outer cylinder, and forming a track upon which cars are adapted to travel, and a partition located between the outer periphery of the inner cylinder, and the inner periphery of the outer cylinder, as and for the purpose described. 6th. A pleasure railway, comprising an outer cylinder, an inner cylinder located within the same, rails secured to the inner periphery of the outer cylinder, and forming tracks of spiral construction throughout the length of the said cylinders, a partition secured between the outer periphery of the inner cylinder, and the inner periphery of the outer cylinder forming a spiral partition throughout the entire length of the said cylinders, a bridge passing entirely through the inner cylinder, and projecting a suitable distance beyond the ends of the same, rollers carried by said bridge, and in contact with the inner cylinder, and means for supporting the ends of the bridge, as and for the purpose described. 7th. A pleasure railway, comprising an outer cylinder, rails secured to the inner periphery of the same, forming tracks upon which cars are adapted to travel, the said tracks being spirally arranged along the entire length of the cylinder, a partition wall located between said tracks, and also spirally arranged, and running the full length of the cylinder, and doors covering suitable openings formed in said partition, and on a line with one another, as and for the purpose described. 8th. A pleasure railway, comprising a revolving body, tracks or guide ways secured within the same, and spirally arranged, and cars adapted to travel upon said tracks, as and for the purpose described. 9th. A pleasure railway, comprising

a revolving body, rails secured to the inner periphery of the same forming continuous tracks or guide ways, cars adapted to be placed upon said tracks, and a partition located between said tracks, as and for the purpose described.

No. 64,579. Coupling for Iron Bedsteads.
(*Joint pour lits en fer.*)



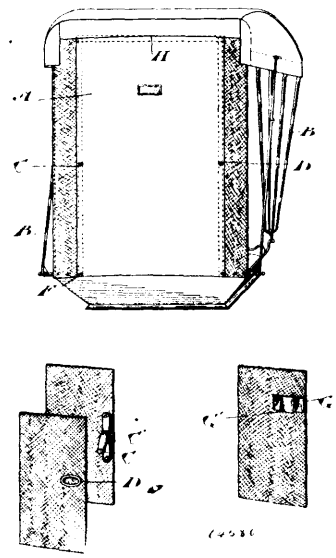
William Louis Dismukes, Nashville, Tennessee, U.S.A., 26th October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—1st. A device of the class described, comprising a semi-tubular member having means adapted to engage a post, whereby the member may be connected thereto and provided with sockets, and a tubular cap member adapted to embrace both the post and the semi-tubular member, whereby the latter is prevented from becoming disengaged from the post, substantially as shown and described. 2nd. A device of the class described, comprising a semi-tubular member having means adapted to engage a post whereby the member may be connected thereto, and a tubular cap member adapted to embrace both the post and the semi-tubular member, whereby the latter is prevented from becoming disengaged from the post, substantially as described. 3rd. A device of the class described, comprising a semi-tubular member adapted to have an engagement with a post and provided with divergent sockets having a brace web therebetween, and a tubular cap member to embrace both the post and the semi-tubular member, whereby the latter is prevented from becoming disengaged from the post, substantially as shown and described. 4th. A device of the class described, comprising a semi-tubular member having means adapted to connect the same to a post and provided with sockets, and a tubular cap member having a portion of one side thereof cut away or open longitudinally and adapted to embrace the post and the upper portion of the semi-tubular member, the transverse shoulder of the cap member formed by the cut away portion thereof being adapted to rest upon the sockets of the semi-tubular member, whereby the cap member is held upon the semi-tubular member, substantially as shown and described. 5th. A device of the class described, comprising a semi-tubular member having means adapted to engage a post and provided with sockets, and a tubular cap member adapted to embrace both the post and the semi-tubular member provided with longitudinal enlargement or filling to contract the interior of the cap and co-operate with the semi-tubular member to fit snugly the post and thereby prevent movement of the device upon the post, substantially as shown and described. 6th. In a device of the class described, the combination with a post having a lateral opening formed therein of a semi-tubular member having a pin or lug adapted to fit within the opening in the post and provided with sockets, and a tubular cap member adapted to embrace both the post and the semi-tubular member, substantially as shown and described. 7th. In a device of the class described, the combination with a post having lateral openings formed therein, of a semi-tubular member having divergent sockets projecting laterally from the convex face of the member, and a pin or lug projecting laterally from the concave face of the member in the plane of the sockets, and a tubular cap member adapted to embrace both the post and the semi-tubular member, whereby the pin or lug of the latter may be held within the opening formed with the post, substantially as shown and described.

No. 64,580. Curtain Fastener for Buggies.
(*Attache de rideau de voitures.*)

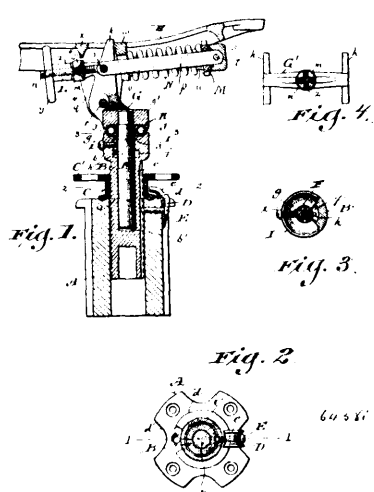
Daniel Conboy, Toronto, Ontario, Canada, 26th October, 1899; 6 years. (Filed 16th Sept., 1899.)

Claim.—1st. In a buggy top, a hook with a downwardly projecting shank and point secured to the edge of the back stay, and adapted to engage an eyelet or catch formed near the edge of the back curtain, substantially as specified. 2nd. In a buggy top, a hook C, with downwardly projecting shank C¹, secured to the back stay B, near the middle of the edge, in combination with the back curtain A, mounted on a spring roller and provided with the catch or eyelet D, formed near the middle of the edge of the back curtain, and



adapted to engage with the downwardly projecting hook C, substantially as specified. 3rd. In a buggy top, a hook C, secured to the back stay near the middle of the edge in combination with an eyelet D, formed near the middle of the edge of the back curtain, substantially as specified.

No. 64,581. Chair. (*Fauteuil.*)

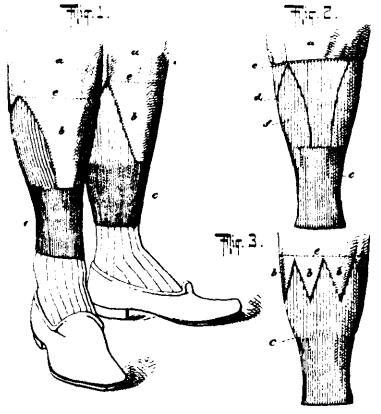


Harry Wilbur Bolens, Port Washington, Wisconsin, U.S.A., 26th October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—1st. The combination with a chair base casting of a longitudinally grooved screw spindle loose therein, a flanged nut on said spindle bearing against one end of said casting, a guard made separate from said casting but arranged therewith to overlap the nut flange, and a guard securing nut screw having the inner end engaging the spindle groove. 2nd. The combination with a chair base casting of a longitudinally grooved screw spindle splined in said casting, a nut on the spindle bearing against one end of said casting, a notched flange on the nut, and a guard in detachable connection with the aforesaid casting arranged to overlap the nut flange, the notch in the latter being of sufficient area to clear the head of the guard. 3rd. The combination with a chair base casting of a longitudinally grooved screw spindle loose therein, a spindle adjusting nut, a guard operative to secure retention of the nut in working position, and a guard securing device constituting a spindle engagable with the spindle groove. 4th. The combination

with a chair base casting of a chair spindle vertically movable therein, and having a counterbored socket, a seat standard having a depending pivot rigid therewith and provided with lugs, said pivot being supported in said socket and said lugs resting and having clearance in the counterbored part thereof, and a ball bearing comprising a pair of cups loose on said pivot with balls between them, the lower cup bearing against said lugs and the upper cup having loose fit in a counterbore in the base of said seat standard. 5th. The combination with a seat standard and a seat spider pivotally connected thereto, forming a seat support for a revoluble chair, of a spring controlled tension rod supported thereby and having a screw threaded forward portion, a brace yoke on said seat standard having a central boss in screw threaded engagement with said forward portion of said tension rod, and a tension nut on the end of said forward portion of said rod bearing against said boss, the opposing bearing surfaces of said nut and boss being formed with intermatching elevations and depressions to thereby lock said nut against automatic rotation.

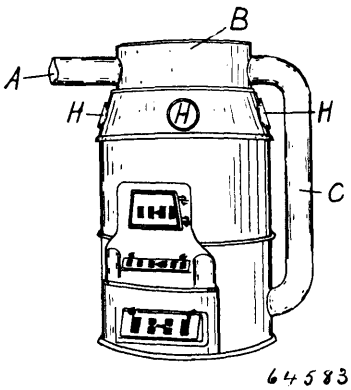
No. 64,582. Garment. (*Vêtement.*)



Jeremiah Anderson Scriven, New York City, New York, U.S.A., 26th October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—The improvement in garments, comprising a garment having tubular members provided with one or more gores at the extremities thereof, spaces adjacent to the said gores, and an elastic tubular member secured to the said gored extremity along the edges of the gores and covering the said gore or gores and filling the space or spaces adjacent to said gores.

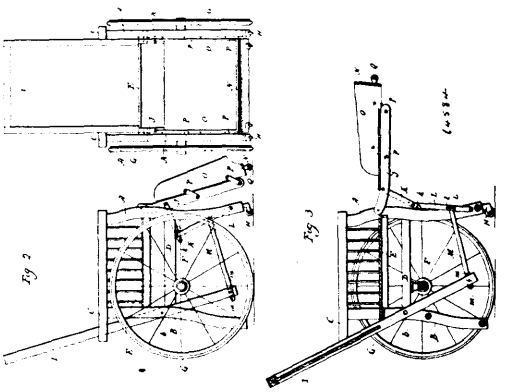
No. 64,583. Cold Air Regulator for Furnaces.
(*Régulateur d'air froid pour fournaises.*)



Edward Abbs and James Joseph Glynn, both of Toronto, Ontario, Canada, 26th October, 1899; 6 years. (Filed 14th September, 1899.)

Claim.—1st. The combination with a hot air furnace of a cold air conduct leading into a receptacle which covers the said hot air furnace, a conduct leading from said receptacle into the lower part of said hot air furnace, substantially as described. 2nd. The combination with a hot air furnace of a cold air conduct, a detachable receptacle resting on top of said hot air furnace, and means by which the cold air is admitted through the said receptacle down to the lower part of the furnace, as and for the purpose set forth.

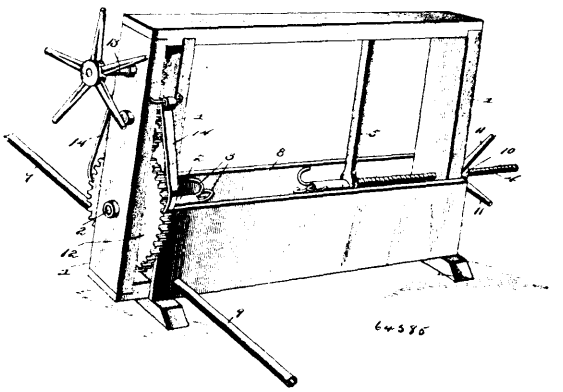
No. 64,584. Chair. (*Fauteuil.*)



Isaac Newton Dann, New Haven, Connecticut, U.S.A., 26th October, 1899; 6 years. (Filed 16th September, 1899.)

Claim.—1st. In a chair, the combination with the frame and seat thereof, a back pivotally connected with the frame and extending downwardly below the seat thereof, a foot rest pivoted adjacent to the forward end of the seat, and means for moving said rest, consisting of a link connected to the side of the foot rest near the upper end, a link connected to the frame, the ends of the said links coupled together, and a bar connected with the lower end of the back, and projecting forward into engagement with one of said links, substantially as described. 2nd. In a chair, the combination with the frame and seat thereof, of a back pivotally connected with the frame and extending downwardly below the seat thereof, a foot rest adjacent to the forward end of the seat, and means for moving the said foot rest, consisting of a link connected to the side of the foot rest near the upper end, a link connected to the forward leg near its lower end, the ends of said links coupled together, and a bar connected with the lower end of the back and projecting forward into engagement with the link pivoted to forward leg, substantially as described. 3rd. A chair, comprising a seat, an outwardly bowed forward support and a pivotally connected back, the lower end of which extends below the seat, a foot rest pivotally mounted in the frame forward of and above the seat, and having its inner end upwardly bowed, and connections between the foot rest and back, whereby the movement of the back is imparted to the foot rest, substantially as described. 4th. In a device of the character specified, the combination with the seat frame, of the bar, a jointed strut pivoted at one end to the bar and at the other end to a fixed support below the seat frame, and having a stop lug to prevent the folding of the strut in one direction, the lever, and link connections therefrom to the strut. 5th. In a device of the character specified, the combination with the seat frame, of the bar, the jointed strut pivoted to the bar and to a fixed support below the seat frame, and comprising two members, one of which is provided with a lug adapted to engage the end of the other member, the lever pivoted to the seat frame, and a link connecting the lower end of said lever with the strut.

No. 64,585. Machine for Extracting Grease from Skins.
(*Machine pour extraire la graisse des peaux.*)



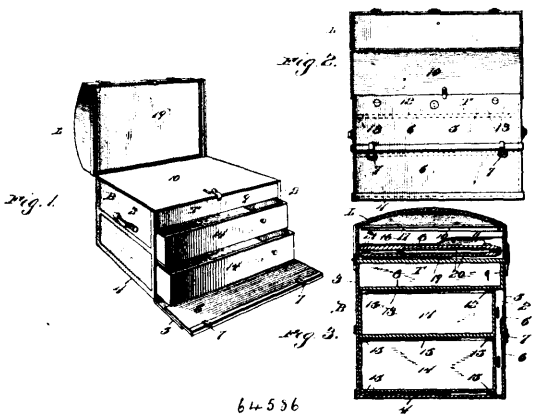
Joseph W. Rogers, Gloversville, New York, U.S.A., 26th October, 1899; 6 years. (Filed 16th September, 1899.)

Claim.—1st. An apparatus for extracting grease from skins, the same having a vat or receptacle, means for maintaining the liquid contents of said receptacle at a uniform temperature, and skin wringing devices arranged with their skin grappling members immersed in the contents of the receptacle, substantially as specified. 2nd. An apparatus of the class described, having a vat or receptacle,

steam circulating pipes arranged at the bottom of the vat, a food screw and operating devices having grappling hooks arranged within the vat, a carrier for supporting the inner end of the feed screw and mounted in suitable guides parallel with the food screw, a wringing spindle having grappling hooks arranged within the vat, and operating devices for said spindle, substantially as specified. 3rd. The herein described process of extracting animal grease, consisting in submerging the latter in a liquid, and wringing the skins while submerged, substantially as set forth.

No. 64,586. Trunk and Dressing-Case.

(*Malle et boite à toilette.*)

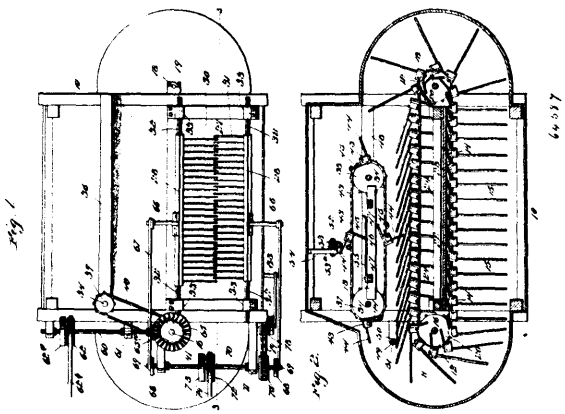


Esther P. H. Carraway, Portsmouth, Virginia, U.S.A., 26th October, 1899 ; 6 years. (Filed 16th September, 1899.)

Claim.—1st. In a device of the class specified, the combination with a body having a swing down front wall, of a lid hinged to said body, a fixed tray disposed in the upper side of the latter and having a flap, a series of drawers supported below said fixed tray, two hinged flaps, one of which is smaller than the other and is hinged to the lid interiorly thereof, and both of which are provided with mirrors, and lines of padding secured to the last-mentioned flaps and surrounding the mirrors, substantially as described. 2nd. In a device of the class specified, the combination with a body having a swing down front wall, of a lid hinged to said body, a fixed tray disposed in the upper side of the latter and having a flap, a series of drawers supported below said fixed tray, two hinged flaps, one of which is smaller than the other and is hinged to the lid interiorly thereof, and both of which are provided with mirrors, and lines of padding secured to the last-mentioned flaps and surrounding the mirrors, a lining of plush for said fixed tray and the flap thereof, and partitions dividing the lid into a series of compartments, substantially as described.

No. 64,587. Apparatus for Stripping Silk from Corn.

(*Appareil pour enlever la soie du blé d'inde.*)

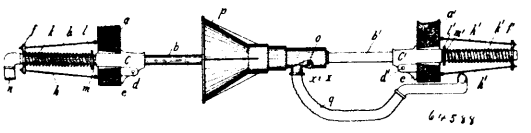


Frank S. Ulery, Garrison, Iowa, U.S.A., 26th October, 1899 ; 6 years. (Filed 16th September, 1899.)

Claim.—1st. In a corn silk gathering machine, a collector comb mechanism having a series of pivoted fingered bars, and means for holding the pivoted bars in operative positions as they traverse the space through which the corn is dropped, combined with a cleaner mechanism having fingers arranged to traverse the fingers of the collector mechanism when they are inclined to inoperative positions, substantially as described. 2nd. In a corn silk gathering machine, the combination with means for dropping corn, of an endless collector comb having a plurality of pivoted bars provided with fingers, means for holding the fingers in a plane at right angles to the path of the comb mechanism as said fingers sweep through the space below the distributor mechanism, and a fingered cleaner mechanism contiguous to the neutral side of the collector comb to sweep through the latter while the fingers thereof are in inclined positions, substantially as described. 3rd. In a corn silk gathering machine, a fingered collector mechanism comprising an endless carrier and fingers arranged in series and connected pivotally with said carrier, in combination with means above the collector mechanism to drop corn through the path pursued by the fingers, guides for holding the collector fingers at right angles to the carrier as they travel beneath the corn dropping means and also for permitting the fingers to assume inclined positions on the rear side of the collector mechanism, and an endless cleaner comb arranged to traverse the spaces between the fingers of the collector comb, substantially as described. 4th. In a corn silk gathering machine, the combination of an endless collector comb having a plurality of pivoted bars each provided with a series of fingers, means for dropping corn through the path pursued by the fingers on one side of said comb, guide plates attached to said pivoted bars, rails arranged to one side of the axis of the collector comb and holding the fingers of said comb on its working side at right angles to the path of the comb, and also permitting the fingers on the neutral side to assume inclined positions, and an endless cleaning comb having fingers which sweep through the space between the inclined fingers on the neutral side of the collector comb, substantially as described. 5th. In a corn silk gathering machine, the combination of an endless collector comb having the pivoted fingers, means for holding the pivoted fingers in right angular and inclined positions on the working and neutral sides respectively of the collector comb, an endless cleaner comb mounted for its fingers to travel in a path contiguous to and parallel with the neutral side of the cleaner comb, whereby the fingers of the cleaner comb may sweep between the fingers of the collector comb, and means for driving the cleaner in an opposite direction to the collector comb, substantially as described. 6th. In a corn silk gathering machine, the combination of an endless collector comb having the series of pivoted fingers, a cleaning comb movable in an opposite direction to the collector comb and disposed contiguous to the neutral side thereof for the cleaning fingers to traverse the collector comb, and means for holding the pivoted fingers of the collector comb in inclined positions during the travel of the cleaning fingers therethrough, substantially as described. 7th. In a corn silk gathering machine, the combination of an endless collector comb, an endless cleaner comb contiguous thereto, and a wiper disposed in the path of the fingers of the collector comb and in advance of the cleaning comb, substantially as described. 8th. In a corn silk gathering machine, an endless collector comb consisting of a series of bars provided with fingers or teeth and said bars pivotally snpported on suitable endless chains, a limiting plate attached to each pivoted bar, and guides against which the limiting plates are adapted to ride, in combination with a distributor mechanism above the path of the fingers on the working side of the collector comb, and an endless cleaner comb contiguous to the neutral side of the collector comb and adapted to co-operate therewith when the collector fingers assume inclined positions, substantially as described. 9th. In a corn silk gathering machine, the combination of an endless collector comb, an endless cleaner comb mounted to travel in a path parallel to the collector comb and having pivoted fingers arranged to traverse the collector comb on the rear side thereof, fixed and yieldable guides supported within the leads of the collector comb and disposed in the path of the pivoted fingers thereof, and a wiper supported in rear of the collector comb and in the path of its fingers, substantially as described. 10th. In a corn silk gathering machine, the combination of a collector mechanism, an endless cleaner comb in operative relation to the collector mechanism and having toothed heads provided with limiting plates, a wiper lying in the path of said heads on the cleaning comb, and a spring device arranged to ride against the limiting plates of the cleaning comb, substantially as described. 11th. In a corn silk gathering machine, the combination with a silk collector mechanism, of an endless cleaning comb in operative relation thereto and provided with limiting plates on the toothed heads thereof, and a rider rail against which the limiting plates are adapted to travel, substantially as described. 12th. A corn silk gathering machine, comprising an endless fingered collector comb, a horizontal screen frame arranged in a plane below the fingers on the working side of the collector comb, and the individually removable screens mounted in the same screen frame and abutting against each other at their inner ends, said screens being inclined reversely one to the other longitudinally of the screen frame, and each screen being inclined transversely across said screen frame, whereby the refuse collected by the screens is directed toward one side of the screen frame and discharged from the middle thereof, substantially as described. 13th. A corn silk gathering machine, comprising an endless fingered collector comb, a horizontal screen frame arranged below the fingers on the working side of the collector comb, the guides secured to the machine frame on opposite sides of the screen frame, keepers fast with the screen frame and fitted slidably to the guides, a screen carried by the screen frame and movable therewith in a path parallel to the line of travel of the collector comb, and means for giving endwise movement to the screen frame, substantially as described. 14th. In a corn silk gathering machine, the combination with an endless collector comb,

of a horizontal distributor slidably mounted above the path of the fingers on the working side of the collector comb, said distributor having two series of fingers which are inclined downwardly in reverse directions and occupy fixed relations one to the other, and means for reciprocating the distributor and its fingers bodily in a path parallel to that of the collector comb, substantially as described. 15th. In a corn silk gathering machine, the combination with a travelling collector comb, of a distributor arranged above the working side of said collector comb, a screen mechanism supported below said working side of the collector comb in the vertical plane of the distributor, and means for reciprocating the distributor and the screen mechanism in planes parallel to the path of travel of the collector comb, substantially as described. 16th. In a corn silk gathering machine, a comb mechanism having a head consisting of a core, a series of fingers fitted to said core, a pivotal shaft also fitted to the core, and a clamp for retaining the fingers and the pivotal shaft in engagement with the core, substantially as described. 17th. In a corn silk gathering machine, a comb mechanism having a head consisting of a core provided with angular grooves, a pivotal shaft, the bent fingers in said grooves of the core and a clamp which frictionally engages with the core and the shaft to confine the fingers in position thereon, substantially as described. 18th. In a corn silk gathering machine, a comb mechanism having a head comprising a core having a series of angular grooves and a longitudinal groove, a pintle rod fitted to the longitudinal groove, a series of bent fingers occupying the angular grooves, and a clamp fashioned to frictionally grip three sides of the core and confine the fingers and the pintle rod in the grooves thereof, substantially as described.

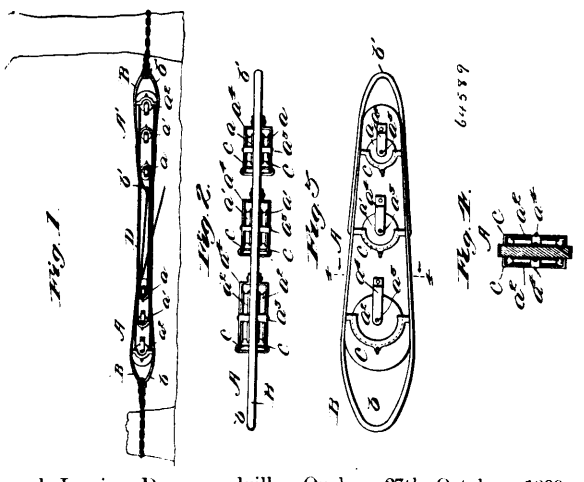
No. 64,588. Air Brake Coupler. (*Attelage de frein à air.*)



Thomas Henry Patching and Robert Hoskins Finch, both of Sydney, New South Wales, Australia, 26th October, 1899; 6 years. (Filed 16th September, 1899.)

Claim.—1st. The combination in an automatic air brake coupling of the tube *b*, the tube *r* having a nozzle piece r^1, taper lugs *s s*, horizontal guide pieces *t t*, disc *v*, cross pins *u u*, the whole being secured to the sole plate of the vehicle, and controlled by the spring *k*, the bracket *c* fitted with the knuckle joint *d*, and heel *e*, for the purposes set forth and as illustrated in the drawings. 2nd. The combination in an automatic air brake coupling of the cylinder *w* provided with the helical channels (⊜) (⊜), and having a bell shaped mouth, the cylinder w^1 having the helical opening ((▮)), the sliding piston *x* with the pipe connection x^2 set at right angles thereto, provided with a tapered rubber mouth piece *z*, the shoulder x^1, grip pieces *y y*, the bar b^1, and the spring *o*, for the purpose set forth and as illustrated in the drawings. 3rd. In an automatic air brake coupling, the combination and arrangement of a male portion such as shown in Figure 4, provided with horizontal cross pins *u u*, with the hollow cylinder such as *w*, provided with helical channels (⊜) (⊜), for the purpose herein set forth substantially as described and as illustrated.

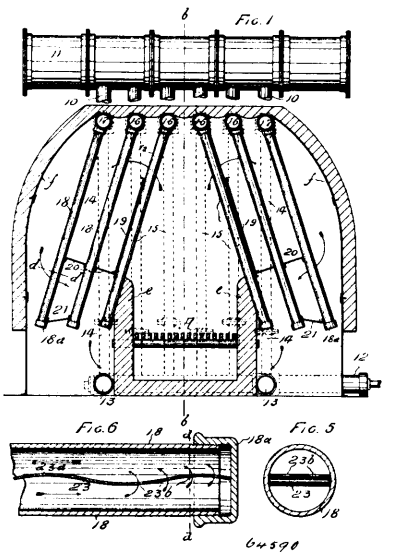
No. 64,589. Stump Extractor. (*Arrache souche.*)



Joseph Lemire, Drummondville, Quebec, 27th October, 1899; 6 years. (Filed 23 May, 1899.)

Claim.—1st. A stump extractor, comprising two frames, pulleys mounted upon each frame and an operating rope secured to one of said frames and wound about the pulleys of both frames, substantially as described. 2nd. A stump extractor, comprising two frames, a series of pulleys, graduated in size, mounted upon each frame and an operating rope secured to one of said frames and wound successively about the pulleys of both frames, substantially as described. 3rd. A stump extractor, comprising two frames, a metal strap secured to the edges of each frame and extending beyond the ends thereof, forming a loop at each end of said frame, a series of pulleys, graduated in size, mounted upon each frame, an operating rope secured to the loop of one of said frames and wound successively about the pulleys of both frames, and means, substantially as described, for attaching the frames to a fixed support and to the stumps to be extracted, substantially as described. 4th. A stump extractor, comprising two frames, a series of pulleys mounted upon each side of each of said frames and an operating rope secured to one of said frames and wound about the said pulleys, substantially as described.

No. 64,590. Steam Generator. (*Générateur à vapeur.*)



Gordon Henry Hardie and Nicholas Thompson, both of Vancouver, British Columbia, Canada, 27th October, 1899; 6 years. (Filed 17th April, 1899.)

Claim.—1st. In a steam generator having vertically disposed support pipes 10 and 14 connected at the bottom by pipes 12 and 13, and at the top by piper 16 and 17, and a main steam reservoir 11 communicating with and arranged over the said pipe 10, in combination with a furnace grate A having its sides *e* projected upwards, down pipes 18 communicating with the header pipes 16 and 17 and diverging downwards on each side of the furnace grate, the lower ends or which are protected from the heat of the furnace by means of their position and the arrangement of baffles 19, 20 and 21, substantially as and for the purposes specified. 2nd. In a steam generator having a frame comprised of tubes 10, 12, 13, 14, 16 and 17, placed approximately vertical and horizontal, the said tubes providing a means for water circulation, in combination with down pipes 18 communicating with the tubes 16 and 17, having their lower ends extending approximately on a horizontal plane with a furnace grate A and diverging on opposite sides thereof, of baffles arranged between such down pipes for directing the heated gases there round, and towards the depending ends thereof, as and for the purposes set forth. 3rd. In a steam generator, in combination, tubes 10, 12, 13, 14, 15, 16 and 17, arranged in the form of a frame, the same to provide ample circulation for the water, a furnace grate arranged in said frame, of down pipes 18 diverging outwards and having their lower ends beneath the intense heating area of the furnace, of diaphragms in such pipes composed of crimpled detachable strips 23 having apertures 23*b* in their lower ends, substantially as specified. 4th. In a steam generator having a means for supporting a plurality of down pipes suspended over a furnace grate, said pipes diverging outwards on each side of the furnace grate, and their lower ends protected from the intense heat of the furnace, and means for causing a constant circulation in the said down pipes, substantially as and for the purposes specified. 5th. In a steam generator having down pipes diverging from their support over the furnace on each side thereof, in combination with crimpled diaphragms passing flatways to the heat of the furnace through said down pipes, apertures in lower ends of said diaphragms, to allow the water to circulate, and of baffles arranged between the said pipes to cause the heat to circulate above the lower ends of the same, as and for the the purposes set forth.

No. 64,591. Engine. (*Machine à vapeur.*)

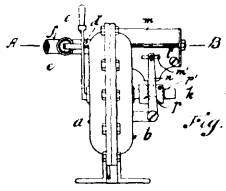


Fig. 1.

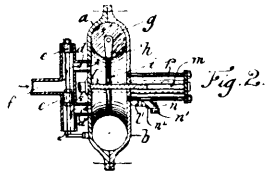


Fig. 2.

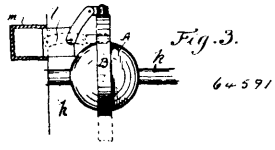


Fig. 3.

James Woodley and Abraham Shibko, both of Newport Road, Roath, Cardiff, Glanmorgan, Wales, 27th October, 1899; 6 years. (Filed 5th June, 1899.)

Claim.—1st. The construction and arrangement of annular clyinder or piston race and piston working therein, said piston being attached to a disc fixed upon the main shaft within the cylinder in the manner hereinbefore described, in combination with a slide worked by a cam from main shaft or otherwise directing the flow of steam or other power employed upon the face of the piston, substantially as hereinbefore set forth. 2nd. The cylinder *a b*, with annular piston race *c* inlet and exhaust *d d*, controlling valve *e e*, or its equivalent, piston *g*, brackets *h*, disc *i*, shaft *k*, slide *l*, slide casing *m*, pivoted lever *n*, roller *o*, and cam *p*, or equivalent mechanism, constructed, combined, arranged, and operating substantially as and for the purposes herein set forth.

No. 64,592. Telphone Receiver Holder.
(*Porte récepteur de téléphone.*)

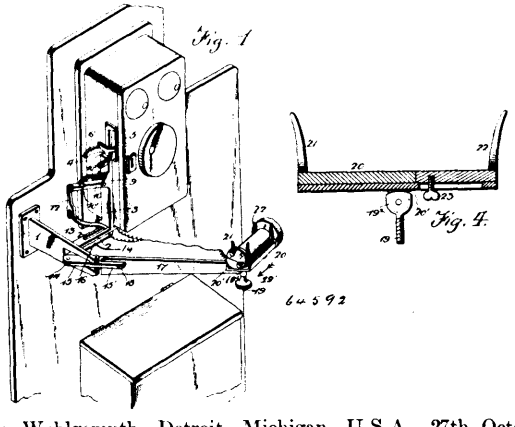


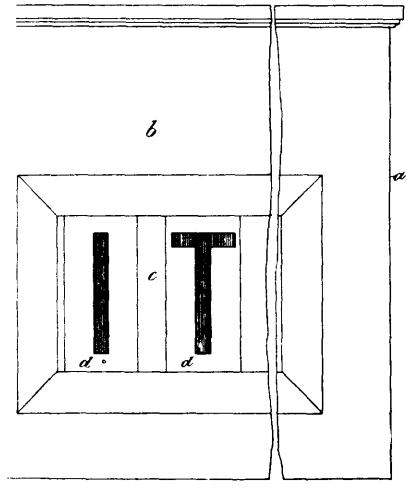
Fig. 1

Fig. 4.

Moses Wohlgemuth, Detroit, Michigan, U.S.A., 27th October, 1899; 6 years. (Filed 10th July, 1899.)

Claim.—1st. The combination with the bracket 1, the standard 3 fixed thereto, the bar 4 and yoke 5 having a sliding engagement with said standard, the lever 10 fulcrumed in said standard and having its inner end co-acting with said bar, the lever 13 fulcrumed in the bottom of the standard and having its upper end operatively connected to the outer end of said lever 10, the lever 15, the rod 14 connecting said levers 13 and 15, and the carrier arm 17 pivoted in said lever 15, substantially as and for the purpose set forth. 3rd. In combination, the bracket 1 formed with the integral arm 2, and standard 3, the spring actuated bar 4, the yoke 5 having a sliding engagement with said standard, the lever 10 fulcrumed in the standard and having its inner end operatively connected to said bar. the lever 13, the spring 16 connecting the lever 13 and bracket 1, the lever 15 operatively connected to said lever 13, and the arm 17 adjustably fulcrumed in the outer end of said lever 15, substantially as set forth. 3rd. In combination, the bracket 1, the standard 3, the bar 4 and yoke 5 mounted in said standard, the lever 10 fulcrumed in said standard and formed with the notch 10^1, and having its inner end co-acting with the bar 4, and the pawl 10^2 fulcrumed in the standard and having its free end projecting into the path of said notched end of said lever, substantially as and for the purpose set forth.

No. 64,593. Advertising Apparatus.
(*Appareil d'annonce.*)



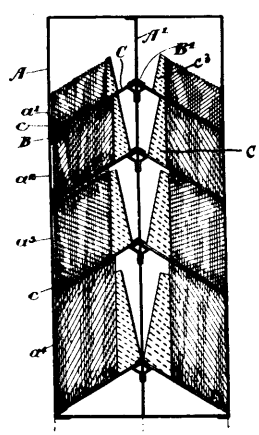
John Alexander Kennedy McGregor, Acton, Middlesex, England, 27th October, 1899; 6 years. (Filed 19th June, 1899.)

Claim.—1st. In an apparatus of the character described, the combination of a series of independent parallel strips or carriers movable longitudinally, independent actuating mechanism adapted to move each strip longitudinally and independently of the other strips, variable controlling mechanism operating each actuating mechanism to move said strip simultaneously and to variable predetermined distances, and driving means, substantially as described. 2nd. In an apparatus of the character described, the combination of a series of independent parallel strips or carriers arranged approximately in the same plane and provided with characters for exhibition, means for yieldingly and separately holding each of said strips in one direction, actuating mechanism adapted to move each strip longitudinally and independently of the other strips, controlling mechanism for simultaneously operating all the actuating mechanism and determining the extent of movement thereof, and driving means, substantially as described. 3rd. In an apparatus of the character described, the combination of a case having an opening, a series of independent parallel longitudinally movable carriers or strips arranged to move lengthways behind said opening and each provided with a longitudinal series of representations arranged to be separately displayed behind said opening, whereby various combinations of the representations of the carriers can be displayed, independent operating mechanism adapted to move said strips longitudinally and independently of each other through variable and predetermined distances, controlling mechanism adapted to simultaneously actuate the operating mechanism of the several carriers or strips to variable extents, and driving means for said controlling mechanism, substantially as described. 4th. In an apparatus of the character described, a number of pairs of drums arranged with the axes of each pair parallel and one above the other, a series of independent and parallel longitudinally movable strips each wound on a pair of said drums, lever and rotary mechanisms for moving each strip independently of the others through various distances, and controlling and actuating means therefor adapted to move said strips simultaneously and to different extents, substantially as described. 5th. In an apparatus of the character described, a series of independent and parallel longitudinal strips or carriers, independent supports for the several strips or carriers, independent sets of actuating means adapted to move said strips or carriers independently and longitudinally and thereby form the desired combinations of characters, and series of fingers or projections of various lengths to operate said actuating means to periodically move each strip independently through various and predetermined distances, substantially as described. 6th. In an apparatus of the character described, a series of independent longitudinally movable parallel carriers or strips, each strip having characters to be separately displayed, independent supports for the several strips or carriers, independent operating mechanism for each strip, series of controlling and actuating means, one for each operating mechanism constructed and arranged to move

the operating mechanism together at intervals and to variable distances, and driving means, substantially as described. 7th. In an apparatus of the character described, a series of independent longitudinally movable strips or carriers, each having operating means independent of the operating means for the other strips, independent sets of long and short movable projections or fingers for moving said operating means and consequently said carriers variable distances, a set of said projections being provided for each operating means, and mechanism for simultaneously driving the several sets of projections, substantially as described. 8th. In an apparatus of the character described, the combination of a series of independent and parallel longitudinally movable strips or carriers, portions of which are displayed at intervals, independent supports for said strips or carriers, and sets of movable projections arranged to move said strips independently of each other through variable and predetermined distances, each set of projections comprising projections of various lengths acting on a particular strip and arranged to move the strip periodically and to hold the same inactive for a short period after each movement, and mechanism for moving all of said sets of projections simultaneously, substantially as described. 9th. In an apparatus of the character described, the combination of a series of independent elements each comprising a loaded drum and a winding drum arranged a distance apart and parallel to one another, a strip or carrier on said drums, a lever mechanism to unwind the strip from the loaded drum against the load acting thereon and arranged to release the strip periodically so that it can be rewound on the loaded drum, and sets of projections of various lengths successively acting on said lever mechanism to move the same various predetermined distances and hold the same a short time at each movement, and driving means for simultaneously operating the sets of projections corresponding to all the elements, substantially as described. 10th. In an apparatus of the character described, the combination with a plurality of longitudinally movable strips or carriers arranged parallel to and independent of one another and each provided with a succession of characters to form part of the words or other devices to be exhibited, and means for intermittently moving said strips or carriers longitudinally to variable extents in opposite directions, of an alignment device common to all the strips or carriers and adapted to come into operation after each operation thereof and ensure that the several characters brought into position for exhibition shall finally occupy the desired relative positions to one another. 11th. In an apparatus of the character described, the combination with a plurality of longitudinally movable strips or carriers arranged parallel to one another and each provided with a succession of characters to form part of the words or other devices to be exhibited, and means for intermittently moving said strips or carriers longitudinally to variable extents, of an alignment bar arranged transversely to said strips or carriers and provided with fingers or projections adapted to enter holes therein, and means for operating said alignment bar and fingers at the required times, substantially as described. 12th. In an apparatus of the character described, the combination with a plurality of longitudinally movable strips or carriers arranged parallel to one another and each provided with a succession of characters to form part of the words or other devices to be exhibited, and with holes between the characters, and means for intermittently moving said strips or carriers longitudinally to variable extents, of alignment mechanism comprising a bar arranged transversely across said strips and provided with fingers each adapted by partial rotation of the bar carrying it to enter a hole in the corresponding strip, a toothed segment for operating said bar or bars, and means for intermittently operating said segment, substantially as described. 13th. In an apparatus of the character described, the combination with a plurality of longitudinally movable strips or carriers arranged parallel to one another and each provided with a succession of characters to form part of the words or other devices to be exhibted, and means for intermittently moving said strips or carriers longitudinally to variable extents, of an alignment bar arranged transversely to said strips or carriers and composed of a number of sections of which there is one for each strip, the several sections being provided with fingers or projections adapted to enter holes or spaces in the strips and being adapted to be detachably connected together to form a single continuous alignment bar with fingers, and means for operating the said bar at the required times, substantially as described. 14th. An apparatus of the character described, comprising a case having an opening therein, a series of parallel frames or holders adapted to be separately inserted within and removed from said case and each provided with a pair of drums arranged one above the other, a longitudinal strip mounted on said drums, an actuating mechanism for rotating said drums in one direction, means for rotating said drums in the reverse direction, and a section of an alignment bar adapted to engage said strip after it has been moved longitudinally by said actuating mechanism, series of controlling means, one for each actuating mechanism, constructed and arranged to move all of said actuating mechanisms simultaneously at intervals and through variable distances, means for coupling the various sections of the alignment bar together, and driving means, substantially as described. 15th. Apparatus of the character described, comprising a case having a longitudinal opening at its front side, a plurality of removable frames or holders arranged side by side in said case, a pair of upper and lower drums mounted in each of said frames or holders and one of which is a weighted or loaded drum, a plurality of independent longitudinally movable strips arranged side by side and each connected at its ends to one of said pairs of drums and provided with a succession of characters to form part of the words or devices to be exhibted, actuating mechanism mounted on each frame or holder for operating the corresponding set of drums and strip or carrier, a rotary body arranged transversely behind said frames or holders and provided with a plurality of annular series of cam-like projections of variable length adapted to successively operate said actuating mechanism, to variable extents, an alignment bar extending transversely to said strips and provided with fingers each adapted to enter a hole brought opposite to it in the corresponding strip, and means for intermittently operating said rotary body and alignment bar and fingers, substantially as described. 16th. In apparatus of the character described, the combination of a plurality of movable strips or carriers having a series of characters for separate exhibition, separating mechanism for each strip or carrier, a driving shaft common to all the actuating mechanisms, means for intermittently rotating said shaft, and a series of variable controlling mechanism for operating said actuating mechanisms simultaneously, each controlling mechanism comprising a notched disc fixed upon said shaft, an annular series of cam-like projections having their inner end engaged in the notches in said disc, and notched plates adjustably fixed to opposite sides of the first-mentioned disc for normally holding the projection in place therein in a readily detachable manner, substantially as described. 17th. Apparatus of the kind specified in the proceding claims wherein each of the removable frames carrying a pair of rollers with letter strip is arranged to abut against a stop fixed within the casing and the frame is provided with a bracket carrying a bearing adapted to be placed around a grooved collar on the driving shaft, the said bearing being provided with a movable cap or part that can be easily opened out to admit of the bearing being placed against and partly around the collar and can then be closed upon and around the collar and secured to the bearing, so that the said frame can be easily removed and afterwards replaced and secured in correct working position without loss of time and accurate adjustment. 18th. Apparatus of the kind herein described wherein the casing of the apparatus is provided with transverse fixed guides between which the removable frames carrying the rollers and other parts can be slid, and also with a removable front, side and top that are hinged together and the former of which is also hinged to the bottom of the casing, so that the casing can be readily opened out to admit of access being readily gained to all parts of the mechanism therein.

No. 64,594. Paper Bag and String Holder.

(*Sac de papier et porte-ficelle.*)



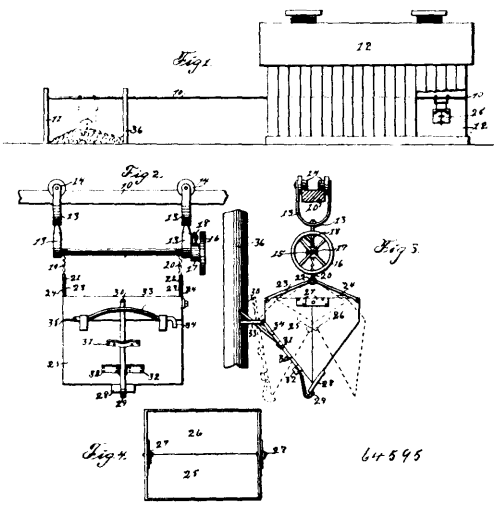
64594

Willis Gaylord Draper, Rockland, Ontario, Canada, 27th October, 1899; 6 years. (Filed 4th January, 1899.)

Claim.—1st. A bag holder, comprising a casing having an open end, a series of side openings corresponding in size to the end of the bag, a series of obliquely arranged shelves suitably supported within the casing and—weights designed to feed the bags forward, as and for the purpose specified. 2nd. A bag and string holder comprising a casing having a series of perpendicularly arranged openings, a series of shelves supported obliquely within the casing provided with side and end flanges, cut away portions in said side flanges corresponding in size to their respective openings, weights to feed the bags forward towards said openings and a receptacle for string formed within the casing, as and for the purpose specified. 3rd. A bag and string holder, comprising a casing having end and side openings therein, a series of obliquely arranged shelves supported therein, a tubular receptacle, a guide loop supported centrally over same, the guide loops e, e^1, e^2, e^3, and e^4, a weight designed to take in the slack and through which the string passes, as and for the purpose specified. 4th. A bag and string holder, comprising a casing

open at one end and having a series of perpendicularly arranged openings, corresponding in size to the ends of the bag, a series of oblique shelves perpendicularly arranged, weights to feed the bags down to said openings, a string receptacle formed within the casing, a series of guide loops for the string to pass through, a weight running in a guide way and through which the string passes interposed between and beneath the guide loops, and means for keeping a tension on the string between the weight and the receptacle, as and for the purpose specified. 5th. A bag and string holder, comprising a casing suitably divided, a tubular receptacle therein, a guide loop supported over the same, a tension weight and loops e and e^1, and means for taking in the slack, as and for the purpose specified.

No. 64,595. Manure Carrier. (*Transport à engrais.*)



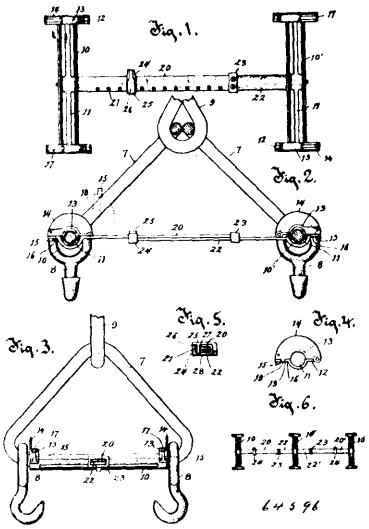
David B. Cherry, Knoxville, Iowa, U.S.A., 27th October, 1899; 6 years. (Filed 16th March, 1899.)

Claim.—1st. A manure carrier, comprising a track, hangers depending from said track, which hangers are each formed in two sections swiveled together, a shaft rotatably mounted in said hangers, chains secured to and adapted to be wound upon said shaft, a receptacle secured to the opposite ends of said chains, manually operated devices for rotating said shaft, comprising a hand wheel on one end of said shaft, pawl and ratchet mechanism interposed between said shaft and said hangers whereby the shaft is held against reverse rotation, and means for dumping the contents of said receptacle comprising tripable lock mechanism on the receptacle and a post arranged adjacent to the line of travel of the receptacle to engage the same. 2nd. A manure carrier, comprising a track, hangers depending from said track and swiveled at their centers, and a receptacle is formed in two sections hinged together and is provided with a hopper bottom, and means for locking said sections together comprising a hook 29 on one of said sections, a plate 28 on the other of said sections arranged to be engaged by the hook 29, a lever 30 carrying said hook, the upper end of which lever is bent laterally from the receptacle, in combination with a post arranged adjacent to the path of travel of the receptacle and a bail 33 inclosing the upper outer projecting end of the lever 30 and arranged to be engaged and oscillated by the said port to approximate the lever to the receptacle and release the hook from the plate 28, as set forth. 3rd. A manure carrier, comprising a track, hangers arranged to travel upon said track, a receptacle formed in two sections hinged together and suspended from said hangers, an interlocking hook and plate arranged normally to engage and retain the sections of the receptacle in close relations, a lever carrying said hook, a ball pivoted to the receptacle and embracing said lever, an arm 34 on said bail arranged to limit the downward movement thereof, an arm 33 on said bail arranged to limit the upward movement thereof, and a post set adjacent to the line of travel of the receptacle on the track so as to engage and move the bail upwardly whereby the lever is approximated to the receptacle and the interlocking hook and plate disengaged.

No. 64,596. Hoisting and Lowering Device. (*Ascenseur.*)

Hugh R. Patriarche, Milwaukee, Wisconsin, U.S.A., 27th October, 1899; 6 years. (Filed 10th April, 1899.)

Claim.—1st. In a hoisting and lowering device, the combination of an arm adapted to be placed over a barrel, receptacle or other article to be elevated or lowered, said arm provided at opposite ends with hinged straps adapted when turned down to form complete eyes, means for releasably holding each hinged strap in closed



position, a sling passing through the eyes of the arm and extending longitudinally of said arm, and hooks freely carried by the sling and unconnected with the arm. 2nd. In a hoisting and lowering device, the combination of an arm adapted to be placed over a barrel, receptacle or other article to be elevated or lowered, said arm provided at opposite ends with hinged straps adapted when turned down to form complete eyes, a spring pressed latch pivoted to the unhinged end of the strap and adapted to engage and to be disengaged from a slotted catch projecting from the arm, a sling passing through the eyes of the arm and extending longitudinally of said arm, and hooks freely carried by the sling and unconnected with the arm. 3rd. In a hoisting and lowering device, the combination of arms adapted to be placed over the barrel, receptacle or other article to be elevated or lowered, each arm provided at opposite ends with hinged straps adapted when turned down to form complete eyes, means for releasably holding each hinged strap in closed position, slings, each sling passing through the eyes of an arm and extending longitudinally thereof, and hooks freely carried by the slings and unconnected therewith. 4th. The combination with an arm for a hoisting and lowering device, said arm provided at opposite ends with hinged straps adapted when turned down to form complete eyes, of means for releasably holding each hinged strap in closed position. 5th. The combination with an arm for a hoisting and lowering device, said arm provided at opposite ends with hinged straps adapted when turned down to form complete eyes, of a spring pressed latch pivoted to the unhinged end of the strap and adapted to engage and to be disengaged from a slotted catch extending from the arm. 6th. A frame for a hoisting and lowering device, comprising arms and a transverse connecting member, said arms adapted to be placed over the barrels, receptacles or articles to be elevated or lowered, and said transverse connecting member consisting of two overlapping parts extending respectively from the respective arms, one of said parts provided with a series of slots or openings, collars carried by each part of the connecting member and loosely surrounding the other part of said connecting member, and a latch carried by one of the collars and adapted to work through an opening in said collar and to engage any of the series of slots or openings in the part beneath the same. 7th. A frame for a hoisting and lowering device, comprising end arms, an intermediate arm, and transverse connecting members, said arms adapted to be placed over the barrels, receptacles or articles to be elevated or lowered, and said transverse connecting members consisting of bars extending from opposite sides of the intermediate arm, and a bar extending inwardly from each end arm, the respective inwardly extending bars of the end arms lapping the respective bars of the intermediate arm, and means for retaining said lapping bars in adjusted position. 8th. An arm for a hoisting and lowering device, said arm provided at opposite ends with eyes, each eyed portion provided with an inwardly extending plate, forming a guard.

No. 64,597 Conveyor. (*Transport.*)

Neils Christian Schouboe, Copenhagen, Denmark, 27th October, 1899; 6 years. (Filed 19th April, 1899.)

Claim.—1st. Automatic and continuously operating apparatus for transporting or conveying building and other materials, comprising in combination, a continuously operating hoist of the endless chain

type, a lower railway running with a descending gradiant from the descending side of the hoist past the charging places and back to

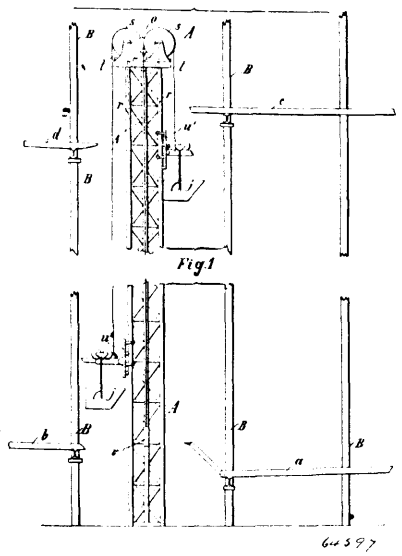


Fig 1

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the ascending side of the hoist, an upper railway running with a descending gradient from the ascending side of the hoist past the discharging places and back to the descending side of the hoist, skips, or the like, adapted to run on said upper and lower railways and hoist carriages adapted to receive said skips and to be coupled to and uncoupled from the chain of the hoist as required, constructed and arranged, substantially as hereinbefore described. 2nd. Conveying or transporting apparatus of the kind specified in claim 1, in which the filled skips after running on to the ascending hoist carriage u^1 couple the latter to the continuously moving hoisting chain r and are thereby hoisted up to the end c of the upper railway with simultaneously, operation of a pawl such as q^1 for the purpose of preventing the hoist carriage u^1 from falling back, the hoist carriage u^1 is uncoupled from the hoisting chain, so that the crab such as g which carries the skips is then pushed off the hoist carriage on to the railway c, on which it runs past the respective discharging places, and finally leaving the end d of the upper railway runs upon a descending empty hoist carriage w^2 and descends together with the latter to the lower railway, where a stop such as 1^2 stops the carriage u^2, automatically releases the skip and allows the latter to run back automatically to the starting place, constructed and arranged substantially as hereinbefore described. 3rd. In conveying or transporting apparatus of the kind specified in claim 2, counterbalancing the hoist carriages in such a manner that the carriage which effects the hoisting of the filled skips, has, when empty, a tendency to fall, whilst the carriage u^2 which is arranged diametrically opposite thereto has a tendency to decend when loaded with the empty skip, constructed and arranged substantially as hereinbefore described. 4th. In conveying or transporting apparatus of the kind specified in claims 1 and 2, the combination of a spring pressed rod g^1 arranged on the pivoted part c^1 and resting with one end upon a rotary arm n^1 provided on the railway a, a slotted link k^1 connected to the other end of the rod g^1 and a pivoted lever m^1 engaging with one end in the slot in the link k^1, the free arm of said lever m^1 being adapted to be rotated by a stop f^1 on the hoist carriages u^1 according to the direction of the motion of the latter, for the purpose of causing the pivoted part c^1 either to remain in its raised position or to move down into its normal position, where it is locked, constructed and arranged substantially as hereinbefore described. 5th. In conveying or transporting apparatus of the kind specified in claim 2, the provision of a depression c^1 in the carrying arm a^1 into which a wheel of the hoisted crab enters after the pawl d has been moved, for the purpose of securing the crab with the skip in this position from running off, constructed and arranged substantially as described. 6th. In conveying or transporting apparatus of the kind specified in claims 1 and 2, a lever rotatably mounted on the hoist carriage u^2 for limiting the upward movement of the hoist carriage u^2, the arrangement being such that a stop e^2 provided on the arm of the lever c^2, engages one end of the railway, whilst the other arm of the lever c^2 bears against a stop f^2 on the hoist framing and thus forms a connecting track from the railway to the hoist carriage, constructed and arranged, substantially as hereinbefore described. 7th. In conveying or transporting apparatus of the kind hereinbefore referred to, mechanism for preventing the crab from prematurely running off the railway d, comprising a bent lever g^2 one arm of which is situated across the railway d so as to bar the same when the hoist carriage u^2 has not yet attained the level of the said railway, but which is automatically raised by the hoist carriage u^2 to open or unbar the railway d when the hoist carriage u^2 has reached the level of the said railway, constructed and arranged substantially as hereinbefore described. 8th. In conveying or transporting apparatus of the kind specified in claims 1 and 2, a lever x^1 which is pivoted on the pivoted part c^1 of the railway c, and which is rotated on the passage of the hoist carriage u^1 and then forms an inclined plane or track between the arm a^1 of the hoist carriage u^1 and the railway c, which allows the crab to run safely and with acceleration on to the railway c, constructed and arranged substantially as hereinbefore described.

No. 64,598. Harvest Loading Machine.

(*Machine à charger les produits agricoles.*)

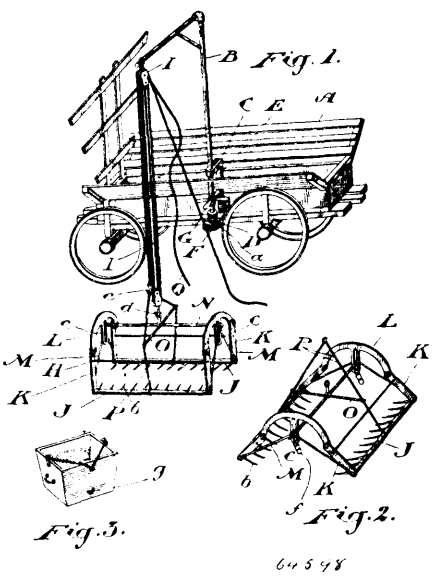


Fig. 3. Fig. 2.

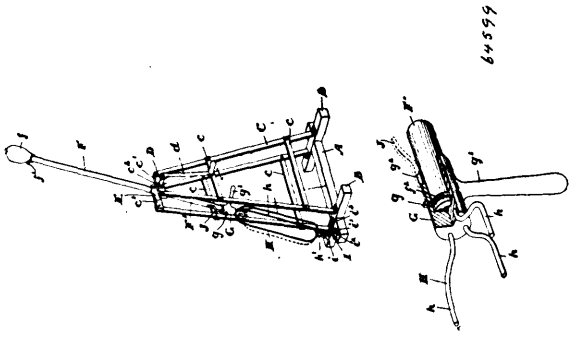
6459 8

Robert Stephen Selby, Toronto, Ontario, Canada, 27th October, 1899; 6 years. (Filed 4th May, 1899.)

Claim.—1st. A crane supported in bearings upon a farm wagon, in combination with a grappling device adapted to clutch a shock of grain or release it, and a block and tackle connected to the crane and the said grappling device, substantially as and for the purpose specified. 2nd. A crane supported in bearings upon a farm wagon, a series of spokes connected to the standard of the crane, and a clamping set screw in one of the bearings, in combination with a grappling device adapted to clutch a shock of grain or release it, and a block and tackle connected to the crane and the said grappling device, substantially as and for the purpose specified. 3rd. A crane supported in bearings upon a farm wagon, in combination with a grappling device adapted to clutch a shock of grain or release it, according as the points of support are shifted, in combination with a block and tackle connected to the crane adapted to lift the device and close it, and a cord passing over a block connected to the crane which is adapted when pulled upon to take the weight of the said device and open it, substantially as and for the purpose specified. 4th. A grappling device for shocks of grain comprising two bars provided with inwardly projecting teeth, and pivotally connected arms secured to the ends of the said bars, in combination with mechanism to which the lifting device may be connected and which tends to draw the said bars towards one another, and tripping mechanism the draft of which tends to permit the said bars to swing outwardly, substantially as and for the purpose specified. 5th. A grappling device for shocks of grain, comprising two bars provided with inwardly projecting teeth, and pivotally connected arms secured to the ends of the said bars, in combination with links pivoted upon each of the said arms below their pivotal connection and also pivoted upon a bar parallel to the aforesaid bars, a spreader secured transversely to the latter bar and cords secured to the aforesaid bars passing through eyes upon the said spreader, substantially as and for the purpose specified. 6th. A grappling device for shocks of grain, comprising two bars provided with inwardly projecting teeth, arms secured to the ends of the said bars, intermediate bars to which the said bars are pivoted, in combination with links pivoted upon each of the said arms below their pivotal connection and also pivoted upon a bar parallel to the aforesaid bars, a spreader secured transversely to the latter bar and cords secured to the aforesaid bars passing through eyes upon the said spreader, substantially as and for the purpose specified. 7th. A grappling device for shocks of grain, comprising two bars provided with inwardly projecting teeth, arms secured to the ends of the said bars, intermediate bars to which the said arms are pivoted, and slotted guides formed on or secured to the said intermediate bars, in combination with a bar extending through the said slots, a spreader secured transversely to

the said bar, links pivoted upon each of the said arms below its pivot and also upon the said bar, and cords secured to the first mentioned bars and extending through eyes upon the said spreader, substantially as and for the purpose specified. 8th. A crane supported in bearings upon a farm wagon, in combination with a load lifting device, a block and tackle connected to the said device and to the crane and a trip line adapted to trip the said device and passing over a block connected to the crane, substantially as and for the purpose specified. 9th. A grappling device for shocks of grain, comprising two bars provided with inwardly projecting teeth and pivotally connected arms secured to the ends of the said bars, in combination with mechanism to which the lifting device may be connected and which tends to draw the said bars towards one another, and tripping mechanism, the draft of which tends to permit the said bars to swing outwardly, and means for retaining the bars in their outwardly swung position when desired, substantially as and for the purpose specified. 10th. A grappling device for shocks of grain, comprising two bars provided with inwardly projecting teeth, arms secured to the ends of the said bars, intermediate bars to which the said arms are pivoted, and slotted guides formed on or secured to the said intermediate bars, in combination with a bar extending through the said slots, a spreader secured transversely to the said bar, links pivoted upon each of the said arms below its pivot and also upon the said bar, and cords secured to the first mentioned bars and extending through eyes upon the said spreader, and means for retaining the bars in their outwardly swung position when desired, substantially as and for the purpose specified.

No. 64,599. Bag Loader. (*Appareil à charger les sacs.*)



Thomas Foster, Humber, Ontario, Canada, 27th October, 1899; 6 years. (Filed 16th May, 1899.)

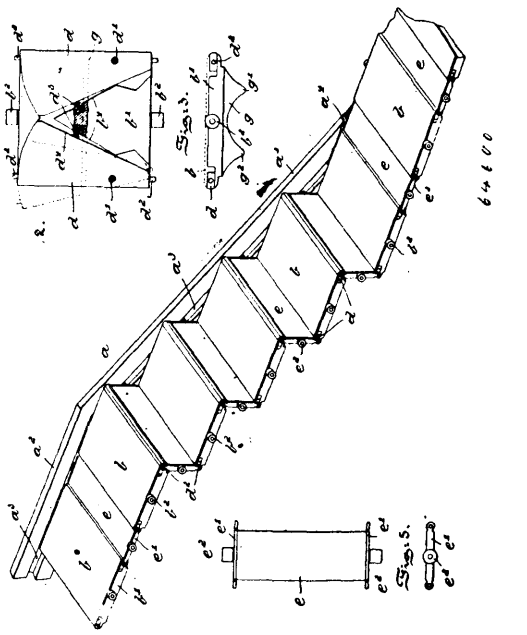
Claim.—1st. A bag loader, comprising a suitable base frame and standards connected to the same, an axle journalled in the standards, a double arm secured centrally on the axle and having at one end a bag holder or receptacle and at the opposite end a counter balancing weight, and a crank handle for turning the shaft, as and for the purpose specified. 2nd. The combination with the supporting frame and axle, of the double arm secured on the axle, the adjustable counter balance weight at one end thereof, the bag receptacle at the opposite end having a socket and a set screw extending through the socket into an annular groove in one end of the arm, and the handle for the socket, as and for the purpose specified. 3rd. The combination with the supporting frame and axle, of the double arm secured on the axle, the adjustable counter balance weight at one end thereof, the bag receptacle at the opposite end having a socket and a set screw extending through the socket into an annular groove in one end of the arm, the handle for the socket and the hold fast spring extending into the notch in the socket and secured to one end of the double arm, as and for the purpose specified. 4th. The combination with the supporting frame and axle, of the double arm secured on the axle, the adjustable counter balance weight at one end thereof, the bag receptacle at the opposite end, the loop at the extreme outer end of the bag receptacle, the pivoted hook and treadle and the spring connecting the hook to the frame, as and for the purpose specified.

No. 64,600. Moving Stairways or Elevators.

(*Escalier mobile ou élevateur.*)

Leamon Griffith Souder, Philadelphia, Pennsylvania, U.S.A., 27th October, 1899; 6 years. (Filed 1st June, 1899.)

Claim.—1st. A moving stairway or elevator, comprising a continuous set of treads and risers adapted to travel upwards and downwards in an inclined direction at right angles to each other, said treads and risers being pivotally connected to each other in such manner that they may both assume a position in the same horizontal plane when a landing is reached, substantially as and for the purposes described. 2nd. A moving stairway or elevator, comprising a continuous set of treads and risers adapted to travel upwards and downwards in an inclined way at right angles to each other, said treads and risers being so pivotally connected together that they may both assume a position in the same horizontal plane when a landing is reached and said risers being so arranged that they may oscillate upon said treads when the treads and risers are turned in a horizontal plane, substantially as and for the purposes described. 3rd. A moving stairway or elevator, comprising a step consisting of



a tread plate, a base secured to said plate, two wings pivotally secured to said base below the tread plate and adapted to oscillate on said base, and a riser pivotally secured at one edge to one of said wings and at its other edge to a similar wing of an adjacent step, substantially as and for the purposes described. 4th. A moving stairway or elevator, having horizontal and inclined portions, a band constructed at all points throughout its length for the support of a load, and combined with means for causing flexure of the band at predetermined intervals throughout the length of the inclined portion to form carrying sections for the load, substantially as and for the purposes described. 5th. A moving stairway or elevator, comprising an endless belt conveying mechanism having horizontal and inclined ways, a series of sections hinged one to another, means on the horizontal ways for keeping the surfaces of all the sections in alignment, and means on the inclined ways for keeping alternate sections horizontal, substantially as and for the purposes described. 6th. A moving stairway or elevator, comprising a chain of successive links pivoted together and forming a continuous surface and means for changing the angle of certain of the links in respect to alternate links, whereby the chain can form either a travelling horizontal platform or steps, substantially as and for the purposes described. 7th. A moving stairway or elevator having horizontal and inclined portions, a band constructed at all points throughout its length for the support of a load combined with means for causing flexure of the band to form carrying sections for the load throughout the length of the inclined portions, with means for causing flexure of the band into substantially horizontal sections at the horizontal portions and with means for causing the sections to oscillate upon each other when flexed into horizontal form, substantially as and for the purposes described. 8th. A moving stairway or elevator, comprising an endless belt conveying mechanism having horizontal and inclined ways, a series of sections hinged one to the other, means on the inclined ways for keeping alternate sections horizontal, means on the horizontal ways for keeping the surfaces of all the sections in alignment, and means on the horizontal ways for causing the aligned sections to oscillate upon each other in a horizontal plane, substantially as and for the purposes described.

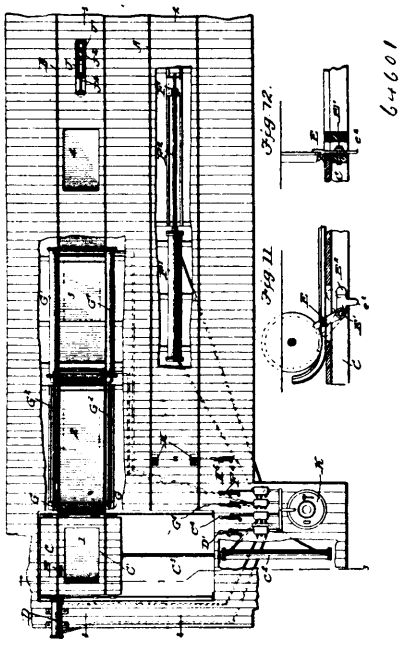
No. 64,601. Apparatus for Removing Coal.

(*Appareil pour transporter le charbon.*)

William Henry Wall, Nanaimo, British Columbia, Canada, 27th October, 1899; 6 years. (Filed 19th June 1899.)

Claim.—1st. In an apparatus substantially as described, the combination of the supply track, the dumping track, the carriage for transferring the cars from the supply to the dumping track, the cylinder and piston for moving the said carriage, the dogs for moving the cars along the supply and discharge tracks, the cylinders and pistons for operating said dogs and means for controlling the supply of pressure to the several said cylinders, substantially as set forth. 2nd. In an apparatus substantially as described, the combination of a tilting dog, a cross head to which said dog is pivoted, guides for said cross head and the cylinder and piston for operating the cross head, substantially as set forth. 3rd. In an apparatus substantially as described, the combination with the track and the cars thereon, of the tilting dog having a broad lower stop edge, an upright edge for operative engagement with the car, and an inclined

edge arranged for engagement by the car whereby to tilt the dog, substantially as set forth. 4th. In an apparatus substantially as



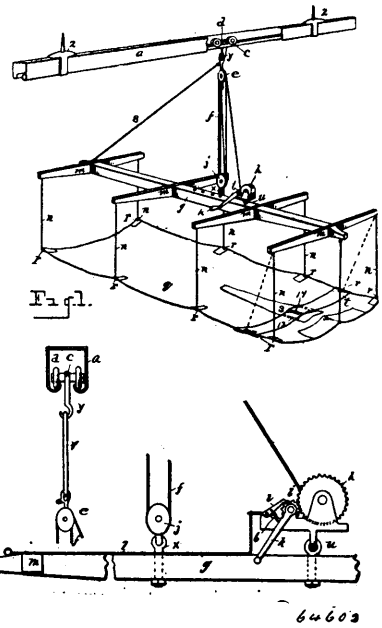
described, the combination of the two tracks, the carriage for transferring the cars from one track to the other, a catch for securing the car on said carriage and means for automatically releasing the said catch, substantially as set forth. 5th. In an apparatus substantially as described, the combination with the track of the safety stop consisting of the arms movable to a position to engage a car moving on the track, the toggle connecting said arms and means for operating the toggle whereby the said arms may be adjusted to and held out of position for engagement by the car, substantially as set forth. 6th. In an apparatus substantially as described, the gate lifter whereby to close the drop gates of the cars, such lifter consisting of a frame provided between its ends with a roller, a weight and a connection between said weight and frame whereby it may operate said frame, substantially as set forth. 7th. An apparatus substantially as described, comprising the frame or platform having the supply and dumping tracks and having openings at intervals along the dumping track, and provided with a series of chutes lying below said dumping track, the carriage for transferring the cars from the supply track to the dumping track, the tilting gripping dogs for moving the cars along the said tracks, the cylinders and pistons for operating said dogs, and the valves and operating means for controlling the passage of pressure to such cylinders, substantially as set forth.

No. 64,602. Lifting Device for Invalids.

(*Appariel portatif pour invalides.*)

Charles B. Ulrich, Duluth, Minnesota, U.S.A., 27th October, 1899; 6 years. (Filed 3rd July, 1899.)

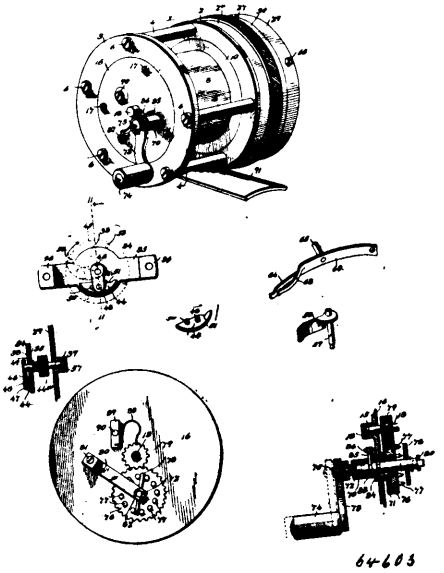
Claim.—1st. In a lifting device, the combination of a track, a carriage to travel thereon, a lifting bar, a series of cross arms engaged therewith, depending devices connected with the outer ends of the carriage with the outer ends of the cross arms, a canvas or blanket engaged with said devices, a rope or cable engaged with said carriage, a windlass having a swivelled engagement with said lifting bar and connected with said rope, a spring block adjacent to the swivelled engagement of the windlass with the lifting bar to hold the windlass in normal position, and gear to operate said windlass, substantially as described. 2nd. In a lifting device, the combination of a lifting bar, a series of cross arms engaged therewith, provided with depending devices, a movable crane provided with an adjustable and swinging arm, a track carried by said swinging arm, a carriage travelling upon said track, a pulley connected with said carriage, a rope or cable connected with said pulley, and a windlass engaged with said bar and with said rope or cable, substantially as set forth. 3rd. In combination, a track provided with a carriage to travel thereon, a pulley connected with said carriage, a lifting bar provided with a pulley, a windlass, a rope passing over said pulleys and windlass, means to rotate said windlass to raise and lower the lifting bar, depending cords suspended from the extremities of the cross arms, and passing from extremity to extremity of the cross arms, a canvas or blanket provided with an elongated slit toward one end thereof, connected with said cords, a movable re-enforcing strip engaged with the portions of the canvas or blanket at each side the slit therein, and with cords, an adjustable depending cord suspended from the lower end of the lifting bar to engage with the lower end of the canvas or blanket intermediate its lateral edges, substantially as described. 4th. In combination, a track, a carriage to travel there-



upon, a lifting bar, means connecting said carriage with said lifting bar, depending cords connected with the cross arms, a canvas or blanket engagable with said cords, and a fan provided with an arm having a rocking connection upon one of said cross arms and provided with a depending weighted arm, whereby the swinging of the lifting bar will rock the fan, substantially as described. 5th. In a lifting device, a track, a lifting bar, means to raise and lower the lifting bar and to move it longitudinally upon said track, the lifting bar arranged to be tilted laterally and longitudinally, the lifting bar provided with cross arms, and a canvas or blanket suspended from the extremities of the cross arms, one of the cross arms provided with a rocking fan, and a canvas or blanket formed with an elongated slit toward one end thereof, substantially as described.

No. 64,603. Fishing Rod Reel.

(*Dividoir pour lignes à pêcher.*)

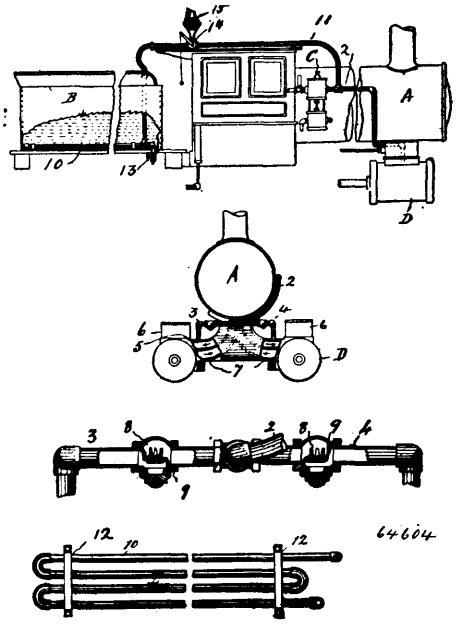


Duncan McLochland Quarles, jr., Clarkville, Tennessee, U.S.A., 27th October, 1899; 6 years. (Filed 18th August, 1899.)

Claim.—1st. In a fishing reel, the combination with a housing, a mainspring actuated drum and a line spool arbor, of gearing between the spring actuated drum and the housing, and a centrifugal clutch having its driving member carried by one of the gears and its driven members attached to the line spool arbor, substantially as described. 2nd. In a fishing reel, the combination with a line spool arbor and

a spring controlled drum, of a train of gearing having a fixed member, a compound gear, and an arbor carrying a rotary gear, a centrifugal clutch with one member mounted on the line spool arbor and its other member attached to the arbor of the train of gearing, and a detent device adapted to engage with one member of the train of gearing, substantially as described. 3rd. In a fishing reel, the combination with a line spool arbor, and a train of gearing having an arbor, 37, in alignment with said line spool arbor, of an automatic clutch having its driven member fast with the line-spool arbor and provided with a series of circumferential pins or studs, and its driving member connected with the arbor 39, and adapted to be thrown outwardly to engage with one or the other of said pins or studs, substantially as described. 4th. In a fishing reel, the combination with a reel-housing, a rotatable spring controlled drum and a line spool having its arbor extended into said drum, of a train or gearing, one member of which is fixed to the housing and another member is carried by an arbor 39, supported within the drum, a bridge plate attached to the drum and provided with a disc bearing, a driven clutch member attached to the line spool arbor and provided with clutch pins or studs, an arm rigid with the arbor, 49, and a centrally pivoted driving clutch member carried by the arm and adapted to engage with one of the pins on the driven clutch member, substantially as described. 5th. In a fishing reel, a bridge plate provided with said plate and bearing, and provided with a gear-pinion and with a clutch arm, a driving clutch member pivoted centrally to the clutch arm and confined loosely between the latter and the disc bearing, and a spring acting against said arbor, in combination with a line-spool arbor carrying a driven clutch member, a spring actuated drum, and gearing, substantially as described. 6th. In a fishing reel, a spring controlled drum provided with a fixed spindle, compound gear, loosely mounted thereon and a friction disc supported by the compound gear shaft and normally engaging with the compound gear, in combination with a line spool arbor, a spring-actuated drum, a reel housing, and fixed and rotable gears mounted respectively on the reel housing and a rotable drum, substantially as described. 7th. In a fishing reel, the combination with a housing, of a fixed bushing thereon, a line spool mounted at one end in the housing and having its other end provided with a spindle which extends through the bushing, a spring, a spring actuated drum, and a clutch controlled train of gearing between the drum and the line spool arbor, substantially as described. 8th. In a fishing reel, the combination with a housing, a mainspring and a drum carrying a train of gearing, and a clutch mechanism, or a line spool arbor poised within the reel housing for free rotation therein and provided with an extended spindle on which is mounted a driven member of said clutch mechanism, and a manually operative multiplying gearing embodying clutch mechanism by which it may be thrown into and out of mesh with the line spool, substantially as described. 9th. In a fishing reel, the combination with a reel housing, of a fixed bushing, a line spool supported at one end within the housing and provided at its opposite end with a spindle which is mounted for free rotation in the bushing and to have endwise thrust against the same, a spring actuated drum connected to said housing, a spring attached at one end of the bushing and at its other end to the drum, a train of gearing one member mounted on the bushing and its remaining members supported within the said drum, and a clutch mechanism between the line spool arbor and one of the gears, substantially as described. 10th. In a fishing reel, reel housing, a bushing fixed to said housing, a spring actuated drum operatively fitted to the housing and rotatably supported on the bushing, and a line spool having its spindle supported rotatably in the bushing, in combination with a train of gearing, a mainspring and a clutch mechanism, substantially as described. 11th. In a fishing reel, a reel housing and a bushing secured rigidly thereto and having a shouldered bearing and a threaded tenon, in combination with a line spool having its spindle extended through the bushing, a main spring attached to the bushing, a spring actuated drum fitted to the shouldered bearing of the bushing, a train of gearing, one member of which is fixed to the threaded tenon of the bushing to confine the spring actuated drum against displacement, and a clutch mechanism, substantially as described. 12th. In a fishing reel, the combination with a spring actuated drum and a train of gearing, of a pivoted detent for engaging with one of the train of gears, and a forked spring carrying a push pin and having two arms which are arranged to engage with the detent on opposite sides thereof, substantially as described. 13th. In a fishing reel, a centrifugal clutch mechanism substantially as described, comprising a revoluble disc having a series of studs or pins, and another member mounted loosely in the bridge plate concentric with the axis of the revoluble disc and lying normally within the path of said studs or pins, the loose clutch member being moved centrifugally to engage with one of the studs or pins, substantially as described. 14th. In a fishing reel, a clutch mechanism, substantially as described, comprising a revoluble disc or plate having a series of studs or pins, an arbor mounted concentric to the axis of the disc and carrying an arm, and another clutch member pivoted centrally to the arm to lie normally in the path of the studs or pins and arranged to be thrown by centrifugal force into engagement with one stud or pin, substantially as described. 15th. In a fishing reel, the combination with a housing and a line spool of a slidable and rotary crank shaft provided with annular grooves and with a radial clutch pin, a gear mounted on the housing independent of said shaft and provided with clutch pins or studs with which the radial pin of the shaft may engage, a spring acting against the shaft, a locking device mounted on the housing for engagement with the shaft, and a gear pinion on the line spool arbor, substantially as described. 16th. In a fishing reel, the combination with a line spool arbor, a rotable drum, and a fixed gear, of a shaft carrying a gear, a friction-controlled gear normally fast with said shaft and adapted to slip thereon under undue resistance, and clutch devices between the line spool arbor and the friction controlled gear, substantially as described. 17th. In a fishing reel, the combination with a line spool arbor, a rotable drum, and a fixed gear, of a spindle carried by said drum, a tubular shaft having a gear which meshes with the fixed gear, a loose gear on the tubular shaft and engaging with the gear to make the same normally fast with the tubular shaft, and clutch mechanism between friction-controlled gear and the line spool arbor, substantially as described.

No. 64,604. Lubricator and Feed Water Heater for Locomotives. (*Graisseur et alimentateur d'eau chaude pour locomotives.*)



Ira F. Wallace Altoona, Wisconsin, and William L. Kellogg, St. Paul, Minnesota, U.S.A., 27th October, 1899; 6 years. (Filed 10th January, 1899.)

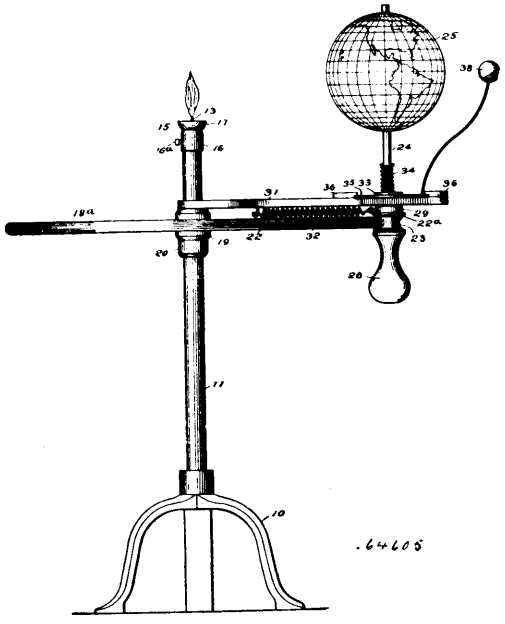
Claim.—1st. In a locomotive, the combination with the water tank, and the air pump of the air brake system, a heating apparatus arranged in the water tank, a conduit connecting the exhaust port of said air brake with said heating apparatus, and an exhaust valve arranged in said conduit intermediate of said pump and heating apparatus. 2nd. In a locomotive, the combination with the air pump engine of the air brake system, the steam chest and live steam ports, and the water tank, of the conduits connecting the exhaust port of said engine with said steam chest or live steam ports, and said water tank, and the automatically controlled valves for said conduits by means of which the exhaust from said engine is conducted to the steam chests or live steam ports when live steam is shut off therefrom and conducted to the water tank to heat the feed water when live steam is being admitted to the steam chests. 3rd. In a locomotive, the combination with the auxiliary engine of the air brake system, the steam chests or live steam ports and water tank, means automatically controlled by the pressure of live steam in the steam chests or live steam ports for conducting the exhaust steam from said engine to the water tank, and permitting such exhaust to pass into said steam chests or live steam ports when the live steam is cut off therefrom. 4th. In a locomotive, the combination with the engine of the air brake system, the live steam ports and water tank, of the condenser arranged in said water tank, the pipes connecting the exhaust ports of said engine with the live steam ports, and said condenser, and the valves in the pipes leading to the steam ports adapted to be closed by the back pressure of live steam, whereby, when the live steam is cut off from said live steam ports the exhaust from said engine will enter the same, and when live steam is admitted to said ports the exhaust from said engine is forced into said chamber.

No. 64,605. Tellurian. (*Tellurien.*)

Josephine A. Mitchell and Frank Arthur Reynolds, both of Lewiston, Maine, U.S.A., 27th October, 1899; 6 years. (Filed 17th April, 1899.)

Claim.—1st. In a tellurian, a stationary support, means representing the sun mounted on said support, a stationary toothless rail form-

ing a track carried by the support, an arm held to and rotatable around the support, said arm having one end thereof slotted, a rotat-

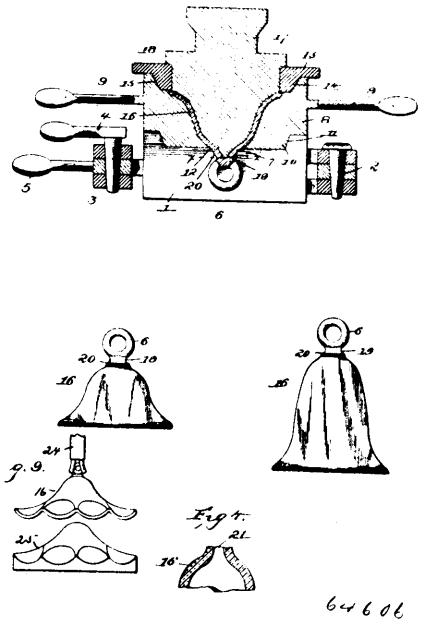


able shaft carrying a globe movable lengthwise on the arm, a pulley secured to the shaft and normally held against the track to impart rotary movement to the shaft, and an independently movable body carrying a representation of the moon held on the arm and movable around the shaft, substantially as described. 2nd. In a tellurian, a stationary support, means representing the sun mounted on said support, an elliptical stationary toothless rail forming a track carried by the support, and arm held to and rotatable around the support, a yieldingly held slide carried by said arm, a shaft carrying a globe rotatable in the slide, and a pulley secured to the shaft and normally held against the track to impart rotary movement to said shaft, substantially as described. 3rd. In a tellurian, a vertical stationary support, means representing the sun mounted on said support, an elliptical stationary toothless rail forming a track carried by the support, an arm held to and rotatable around the support, a yieldingly held slide carried by said arm, a shaft carrying a globe rotatable in the slide, a pulley secured to the shaft and normally held against the track to impart rotary movements to said shaft, and an independently rotatable ring carrying a representation of the moon held on the frame and movable around the shaft, substantially as described. 4th. In a tellurian, a stationary support, means representing the sun mounted on said support, a stationary toothless rail forming a track carried by the support, an arm held to and rotatable around the support, said arm having one end thereof slotted, a slide yieldingly held in the slotted end of said arm a shaft carrying a globe rotatable in the slide and adapted to be moved at various angles, means for rotating the shaft in the slide, and an independently movable body carrying a representation of the moon held in the arm and movable a round the shaft, substantially as described. 5th. In a tellurian, a vertical stationary support, means representing the sun mounted on said support, and elliptical toothless rail forming a track carried by the support, an arm held to and around the support, said arm having one end thereof slotted, a slide yieldingly held in said arm, a shaft carrying a globe rotatable in the slide and adapted to be moved at various angles, a pulley secured to the shaft, a spring normally holding the pulley in frictional engagement with the track to impart rotary movement to said shaft, and an independently movable ring carrying a representation of the moon held on the arm and movable around the shaft, substantially as described. 6th. In a device of the character described, the combination with a rotatable shaft and means for rotating said shaft, of a movable slide in which the shaft is journalled, said slide comprising two members, and a spring arranged on the shaft and normally pressing the members of the slide together, substantially as described. 7th. In a device of the character described, the combination with a suitable supported track, of a rotatable shaft, means for rotating said shaft, a handle arranged at one end of the shaft, a rotatable arm, a slide having a loose member movable in said arm, and a spring arranged on the shaft and normally pressing the loose member of the slide against the upper surface of the arm, substantially as described.

No. 64,606. Smoke Shade. (*Réflecteur pour la fumée.*)

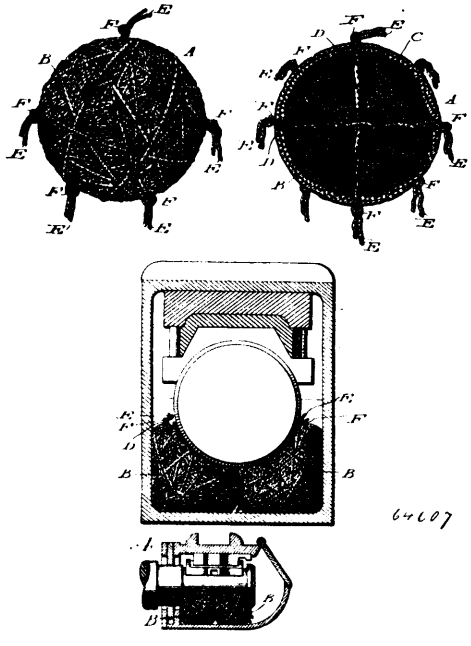
Theodore Creighton, Dunkirk, Indiana, U.S.A., 27th October, 1899; 6 years. (Filed 19th May, 1899.)

Claim—A smoke bell, shade or other similar article, consisting of a body portion, a projection extending from the top thereof, a depression or recess located at the point of junction between the body portion and the projection, and the body portion being thick-



ened just below the said depression or recess, the inner surface of the article entering the plain of said recess or depression.

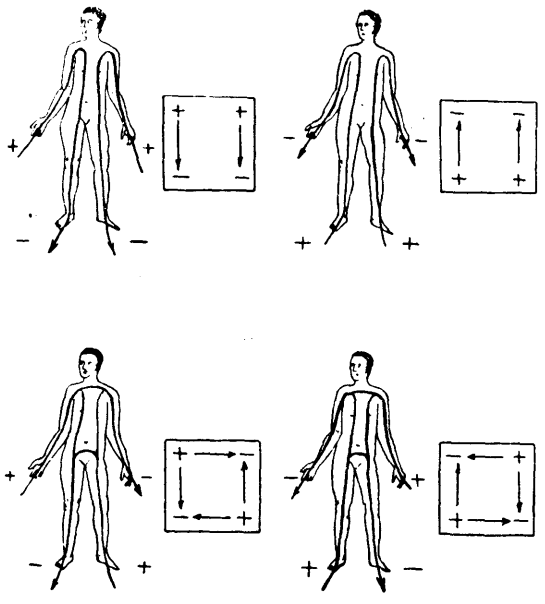
No. 64,607. Journal Packing. (*Garniture de tourillon.*)



John Milton Hagy, Philadelphia, Pennsylvania, U.S.A., 27th October, 1899; 6 years. (Filed 1st April, 1899.)

Claim.—1st. A packing consisting of a pliable body primarily spherical, the same being formed of a core, a jacket wound thereover, and a piece of lubricant supplying material passed through said body and having its ends exposed on the surface thereof. 2nd. A body formed of a core of waste, a jacket thereon wound thereover and a piece of lubricant supplying material passed through said body and having its ends exposed on the surface thereof. 3rd. A body formed of a core, a jacket of yarn thereon, and a piece of lubricant supplying material passed through said body with its ends exposed outside of said body, and stops on said piece near said ends for controlling the position of the piece within the body. 4th. A packing for the purpose stated, consisting of a wad of absorptive material, and a piece of yarn in said wad with its ends exposed on ts surface of the wad, the end portions of said piece having knots thereon for securing purposes.

No. 64,608. Electric Bath. (*Bain électrique.*)



64668

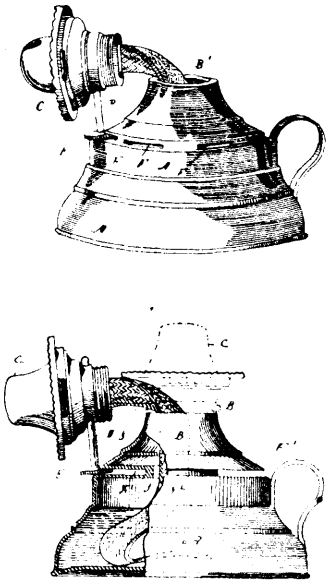
Carl Emil Schnee, Karlsbad, Austria, 27th October, 1899; 6 years. (Filed 13th January, 1899.)

Claim.—1st. Electric four-tub bath with four absolutely separated tubs of non-conducting material, preferably porcelain, each of which receives one limb and which can be connected in different combinations combined with an adjustable bathing chair, substantially as described and for the purpose set forth. 2nd. Electric four-tub bath with four absolutely separated tubs of non-conducting material, preferably porcelain, each of which receives one limb and which can be connected in different combinations combined with an adjustable bathing chair, the arm rest of which carries plates which receive the arm tubs, the said arm tubs being capable of being elevated and lowered, of being horizontally removed and turned in the horizontal plane, substantially as described and for the purpose set forth. 3rd. Electric four tub bath with four absolutely separated tubs of non-conducting material, preferably porcelain, each of which receives one limb, and which can be connected in different combinations, combined with an adjustable bathing chair, the seat plate of which can be elevated and lowered, and removed in front, substantially as and for the purpose set forth. 4th. Electric four-tub bath with four absolutely separated tubs of non-conducting material preferably porcelain, each of which receives one limb and which can be connected in different combinations, combined with an adjustable bathing chair, the seat and the back support of which is covered with an insulating covering, substantially as described and for the purpose set forth. 5th. Electric four-tub bath with four absolutely separated tubs of non-conducting material, preferably porcelain, each of which receives one limb and which can be connected in different combinations combined with an adjustable bathing chair, the arm rest of which carries plates which receive the arm tubs, the said arm tubs being capable of being elevated and lowered, of being horizontally removed and turned in the horizontal plane, presenting the following characteristics: each arm rest consists of three plates showing a plan view corresponding to the tub form, the lowest plate f, f^1, being carried by two racks e, held in position by a pivotally mounted bar c, the lowest plate f, f^1, carrying two bars g, g^1, guiding the middle plates h, h^1, with corresponding grooves, while to the latter the third plate k, k^1, is attached by means of pivots i, i^1, substantially as described and for the purpose set forth. 6th. Electric four tub bath with four absolutely separated tubs of non-conducting material, preferably porcelain, each of which receives one limb, and which can be connected in different combinations, combined with an adjustable bathing chair, the arm rest of which carries plates which receive the arm tubs, the said arm tubs capable of being elevated and lowered, of being horizontally removed and turned in the horizontal plane, presenting the following characteristics: dovetailed bars q, provided on the underside of the seat plate d, fit in corresponding dovetailed grooves secured in the bars p, p^1, of the seat frame, the latter carrying on each corner a rack l, which can be held in position by means of bars o, with sharpened ends fitting with the gaps of the rack teeth, substantially as described and for the purpose set forth.

No. 64,609. Lamp. (*Lampe.*)

Willard P. Stedman, Bristol, Connecticut, U.S.A., 27th October, 1899; 6 years. (Filed 11th March, 1899.)

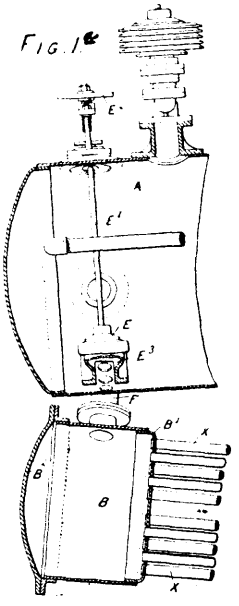
Claim.—1st. A lamp constructed as to its body part with means to receive the button attached to the shaft of the burner when the burner has been detached from the lamp so as to hold the burner in a position in filling, substantially as described. 2nd. A lamp com-



64669

prising in its construction an annular space adapted to receive the button of the burner so that the burner may be maintained in a position away from the neck or opening in the lamp for convenience in filling the same, substantially as described.

No. 64,610. Water Tube Boiler. (*Chaudière sectionnelle.*)

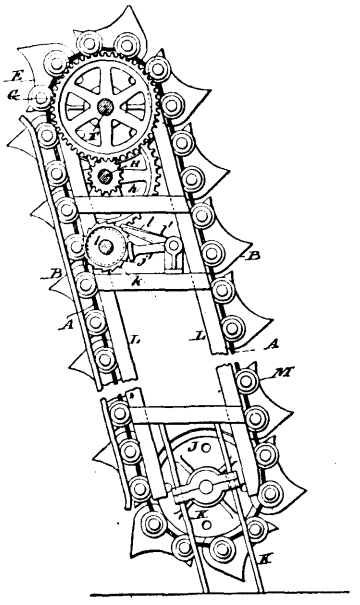


64610

William Penman, Strathclyde Street, Glasgow, Scotland, 27th October, 1899; 6 years. (Filed 10th July, 1899.)

Claim.—1st. A water tube boiler having a steam drum and water tube sections beneath said drum, connections between the drum and tubes and valves in said drum adapted to close communication at both ends between the drum and tubes and means exterior to the drum to operate said valve, all arranged above the fire, substantially as described. 2nd. A water tube boiler having a steam drum, two or more sets of water tubes constituting water tube sections, chambers in which said tubes terminate, tubes connecting the chambers with the steam drum and valves in the steam drum adapted to close communication between the drum and any set of water tubes, substantially as described.. 3rd. A water tube boiler having a steam drum water tubes, chambers in which such tubes terminate, tubes connecting the chambers with the steam drum, valves in the steam drum adapted to close communication between the connecting tubes and drum, a circulating tube and valve in the latter, substantially as set forth.

No. 64,611. Elevator and Conveyor.
(*Elevateur et transport.*)

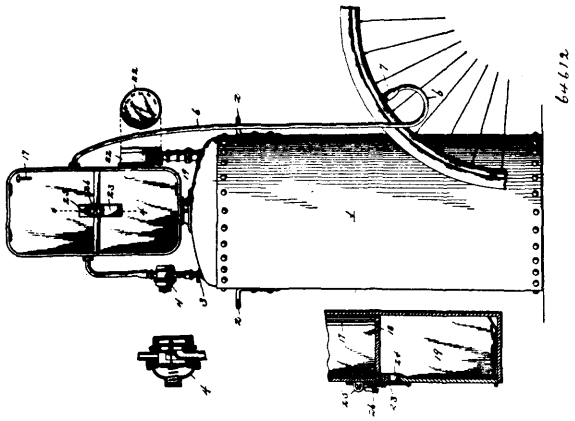


64611

Thomas Alva Edison, Llewellyn Park, New Jersey, U.S A., 27th October, 1899; 6 years. (Filed 12th April, 1899.)

Claim.—1st. An elevator or conveyor composed of two or more endless wire ropes, a number of clamps secured to said ropes and working on the peripheries of smooth faced driving wheels, and elevator or conveyor buckets or flights carried by some or all of said clamps, substantially as set forth. 2nd. An elevator or conveyor composed of two or more endless wire ropes, a number of clamps secured to said ropes and working on the peripheries of smooth faced driving wheels, elevator or conveyor buckets or flights carried by some or all of said clamps, and means for tightening said ropes, substantially as set forth. 3rd. An elevator or conveyor provided with two or more sets of endless wire ropes between which the buckets are supported, a number of clamps secured to said ropes and having convexed bearing surfaces, and smooth faced pulleys over which said ropes run and with the peripheries of which the said clamps engage, substantially as set forth. 4th A scraper and bucket conveyor provided with two or more sets of endless wire ropes, a number of clamps secured to said ropes, smooth faced pulleys for driving said clamps, and buckets having openings in their bottoms, substantially as set forth.

No. 64,612. Cycle Inflator. (*Appareil à gonfler les cycles.*)

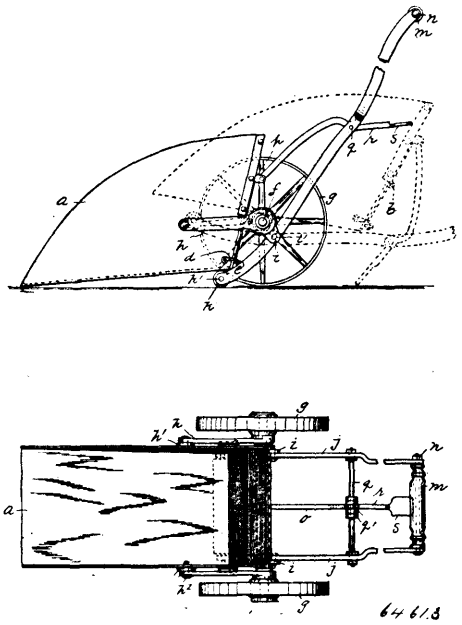


64612

Melvin D. Compton, East Orange, New Jersey, U.S.A., 27th October, 1899; 6 years. (Filed 4th March, 1899.)

Claim.—1st In a fluid vending apparatus, having a motor for opening and closing the valve, the combination with such motor, of a coin operated lever to trip the motor into and out of active operation, a rocker arm, and a cam connected with the motor for throwing the lever back to normal position to stop the motor, substantially as described. 2nd. In a fluid vending apparatus having a motor for operating the discharge valve, the combination with said motor, of a coin operated lever having a weight adapted to swing on opposite sides of the vertical plane, a rocker arm for controlling the movement of said lever, and means for operating the rocker arm, substantially as described.

No. 64,613. Street Sweeping Cart. (*Balayeuse de rue.*)



64613

Fred W. Wentworth, Hawthorne, New Jersey, U.S.A., 28th October, 1899; 6 years. (Filed 29th August, 1899.)

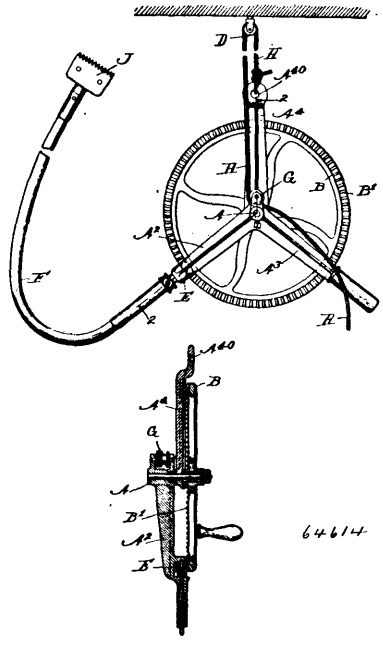
Claim.—1st. The combination of an axle, wheels journalled on said axle, levers carried by said axle, a receptacle pivotally supported by said levers, and other levers operatively connected to said axle and having a handle at one end, substantially as described. 2nd. The combination of an axle, wheels journalled on said axle, levers carried by said axle, a receptacle pivotally supported by said levers, and other levers operatively connected to said axle adapted to engage the receptacle at their lower ends and having a handle at their upper ends, substantially as described. 3rd. The combination of an axle, wheels journalled on said axle, levers carried by said axle, a receptacle pivotally supported by said levers, and other levers operatively connected to said axle and projecting beneath and adapted to engage the receptacle at their lower ends and having a handle at their upper ends, substantially as described. 4th. The combination of an axle, wheels journalled on said axle, levers carried by said axle, a scoop pivotally supported on said levers, arms mounted on said axle, other levers pivotally connected to said arms projecting beneath and adapted to engage the scoop at their lower ends and having a handle at their upper ends, substantially as described. 5th. The combination of an axle, wheels journalled on said axle, levers carried by said axle, a scoop provided with a gate at its rear end and pivotally supported by said levers, arms mounted on said axle, other levers pivotally connected to said arms projecting beneath and adapted to engage the scoop at their lower ends, and having a handle at their upper ends, a roller mounted on the lower ends of said last named levers, and a connecting rod pivotally secured to the scoop and last named levers, and provided with an extension adapted as a foot treadle, substantially as described.

No. 64,614. Mechanism for Operating Animal Shears.
(*Mécanisme de tondeuse.*)

John Kirwin Stewart, Chicago, Illinois, U.S.A., 28th October, 1899; 6 years. (Filed 30th April, 1898.)

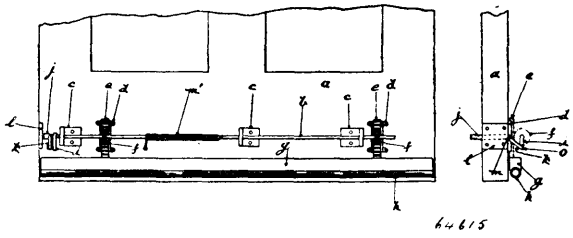
Claim.—1st. In an application for the purpose described, the combination of a frame or spider and means for suspending it flexibly, the frame having a rigid handle for controlling its position, a driving and a driven wheel mounted on the frame, and a flexible tool actuating shaft actuated by the driven wheel, all operating substantially as set forth. 2nd. In an appliance for the purpose described, a frame and a cable by which the same is suspended, such cable being attached to the frame at two points and intermediately adapted to extend over a suitable support, a slip-and-grip device on the frame at one of said points of attachment adapted to permit the adjustment of such attachment, a driving and a driven wheel journalled in said frame, and suitable connection from the driven wheel for operating the tool. 3rd. In an appliance for the purpose described, in combination with the spider or frame having two arms radiating from a central hub, a driving wheel journalled at the hub, one of said arms having means for suspending the frame, and the other extending in a position to

serve as a directing handle, said frame having also a third arm provided with bearings for a pinion, such pinion journalled in said



rm actuated by the centrally journalled wheel, and a flexible shaft connected to and actuated by said pinion and adapted to carry the tool at the remote end. 4th. In an appliance for the purpose described, in combination with the frame, consisting of a hub having two radial arms, a driving wheel journalled at the hub, a pinion journalled on one of said arms and driven by the driving wheel, a flexible shaft connected to and driven by the pinion, the other of said arms being adapted to serve as a directing handle for the frame, a third arm pivoted about the hub, and a suspending cable attached to such pivoted arm at a point remote from the centre, the frame being provided with another point of attachment for the cable near the centre. 5th. In an appliance for the purpose described, in combination with the frame consisting of a hub having two rigid arms, a drive wheel journalled at the hub centre, a pinion journalled on one of the arms and driven by the drive wheel, a flexible shaft connected to and driven by the pinion, the other rigid arm being adapted to serve as a directing handle for the frame, a third arm pivoted about the hub centre, and a suspending cable attached to said arm at a point remote from the centre, the frame being provided with another point of attachment for the cable near the hub centre, the attachment of one of said points being made by a slip-and-grip device adapted to engage and release the cable. 6th. In an appliance for the purpose described, in combination with the frame consisting of a hub having two rigid arms, a drive wheel journalled at the hub centre, a pinion journalled on one of the arms and driven by the drive wheel, a flexible shaft connected to and driven by the pinion, the other rigid arm being adapted to serve as a directing handle for the frame, a third arm pivoted about the hub centre, and a suspending cable attached to such pivoted arm at a point remote from the centre, and a slip-and-grip device on the frame for engaging the cable, and a second point of attachment near the centre on the side opposite that from which the rigid arms project.

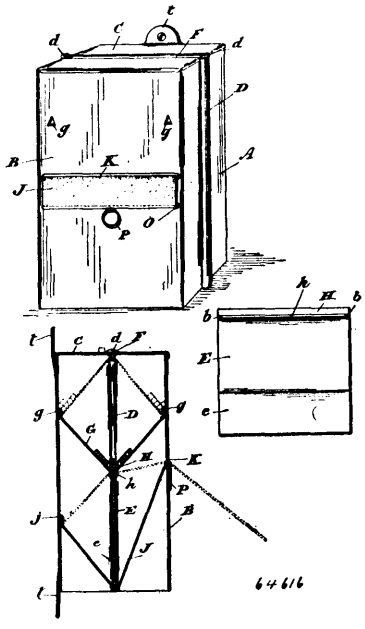
No. 64,615. Draught Excluder. (*Bourrelet de porte.*)



Philip Capon, New Cross, Kent, England, 28th October, 1899; 6 years. (Filed 6th March, 1899.)

Claim.– In draught excluders of the class herein described, a bar carrying a tube of rubber or such like suitable material and being operated through the medium of racks to which the said bar is attached, the rod or bar carrying toothed wheels, supported upon suitable bearings, said toothed wheels engaging in the rack aforesaid, a pushpiece adapted to operate the crank upon said bar carrying the toothed wheels for the purpose of causing same to rotate when required and so bringing the hollow tube of rubber or other substance into contact with the desired surface, a controlling spring so arranged as to return the rod or bar to its initial position when the pushpiece is not in contact with the operating surface, substantially as described and illustrated herein, and for the purpose set forth.

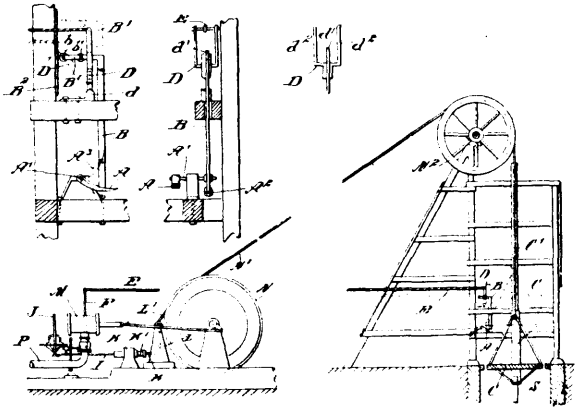
No. 64,616. Match Box. (*Boîte à allumette.*)



David John Archer, Toronto, Ontario, Canada, 28th October, 1899; 6 years. (Filed 23rd January, 1899.)

Claim.—1st. A match-box comprising an open ended frame provided with side guide ways, a match ejecter vertically operating therein, a slot at the top of the box through which the matches are ejected, and means for operating the said match ejector, as set forth and for the purpose specified. 2nd. In a match box the combination with the side grooves and top slot F, of a vertically moving match ejector, a strip G, yielding between its fixed ends, at upper end of said ejector, and means for operating the said ejector, as set forth and for the purpose specified. 3rd. In a device of the class described in combination with the said grooves, slot F, match ejector E, yielding strip G, and slot K, of operating strip J, secured at its lower end and free at its upper end, and extending through the said slot K, as set forth and for the purpose specified. 4th. The combination with the side guides D, top slot E, and strip G, of the weighted ejector E, V-shaped top H, slot *h*, and operating strip J, all arranged as set forth and described.

No. 64,617. Hoist Stop. (*Arrête ascenseur.*)

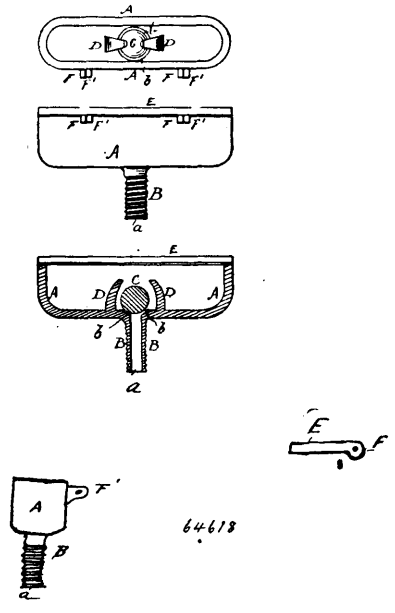


Francis Henry Kohlbraker and Norris Williams, both of Shamokin, Pennsylvania, U.S.A., 28th October, 1899; 6 years. (Filed 13th March, 1899.)

Claim.—1st. An automatic stop for hoisting cages, comprising a a pivoted lever projecting into the path of the cage, a releasing bar

mounted to reciprocate and actuated by the said lever, a valve closing mechanism, and a restraining lever connected with said valve closing and normally engaged by the releasing bar, substantially as described. 2nd. A hoist operated valve closing mechanism, comprising a restraining lever having one end formed as a yoke, and also having a central arm extending in the same direction between the arms of the yoke, a releasing bar engaging said central arm, a valve closing mechanism controlled by the restraining lever, and a member connected with the releasing bar and engageable by the hoist in its rise, substantially as described. 3rd. A hoist operated valve closing or stop mechanism comprising a restraining lever having one end formed as a yoke and also having a central arm extending in the same direction between the arms of the yoke, a releasing bar having a pulley or roller attached thereto, and engaging the restraining lever to hold the same, and a member connected to the releasing bar and engagable by the hoist in its rise, to raise the releasing bar and free the restraining lever, substantially as described. 4th. An automatic stop for hoisting engines, comprising a power operated brake, a weighted valve operating lever connected with and operating the valves of the hoisting engine and said brake, a tripping lever normally holding the valve operating lever out of action, a lever in the path of the hoist, and connections from said lever to the tripping lever, whereby said tripping lever is actuated to release the valve operating lever, substantially as described. 5th. An automatic stop mechanism for a hoisting apparatus, comprising a power brake, an engine having a throttle valve, a shaft having arms oppositely connected with the throttle valve and the power brake, a weighted lever and a supporting arm connected to said shaft, a lever engaging said supporting arm, an operating lever in the path of the hoist, a weighted arm connected with said supporting arm, and connections between said operating lever and said weighted arm, for releasing said weighted arm and thereby to release the supporting arm, substantially as described.

No. 64,618. Valve Rod Oiler.
(*Graisseur pour bielles de soupape.*)



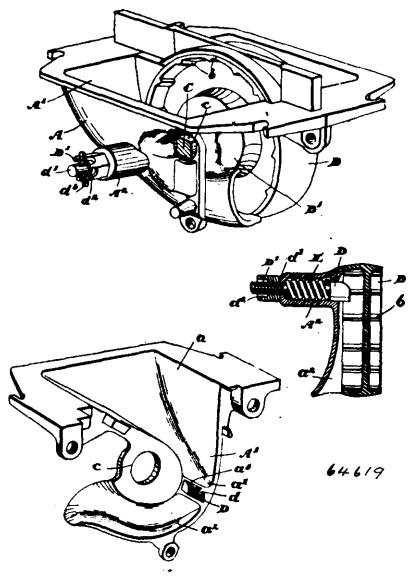
Richard Thompson and Archibald Grant, both of London, Ontario, Canada, 28th October, 1899; 6 years. (Filed 21st October, 1898.)

Claim.—In an automatic oiler for steam and other engines, the metallic ball D, in combination with a trough A, and retained in position by guards D, so as to alternately cut off and admit the oil from trough through channel *a*, to the valve rod or other rod, substantially as heretofore shown and described and for the purpose specified.

No. 64,619. Seeding Machine. (*Semoir.*)

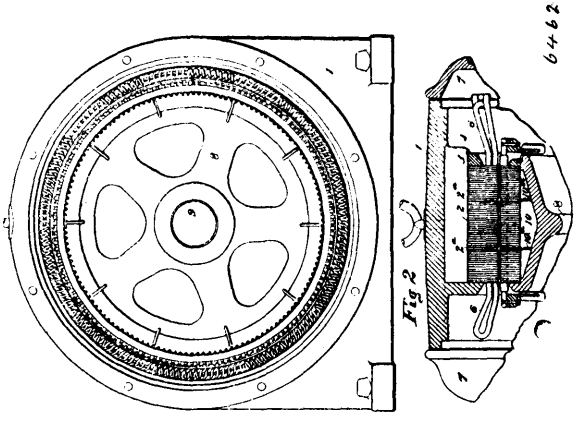
The Massey Harris Company, Limited, assignee of Charles McLeod, all of Toronto, Ontario, Canada, 28th October, 1899; 6 years. (Filed 18th September, 1899.)

Claim.—1st. In a seeding machine, the combination with the feed run and grain wheel, of a yieldingly held gate located intermediately of the length of the feed run, as and for the purpose specified. 2nd. In a seeding machine, the combination with the feed run and grain wheel, of a gate extending through a slot in the narrowest part of the feed run and projecting into the feed run, and a suitable spring for yieldingly holding the gate in position in the feed run, as and for the purpose specified. 3rd. In a seeding machine, the combination with the feed run and grain wheel, of a gate extending through a slot in the narrowest part of the feed run and projecting into the feed



run and provided with a stem extending into a hollow boss in the casing of the feed run, and a spring for normally pressing the gate into the feed run as and for the purpose specified. 4th. In a seeding machine, the combination with the feed run and grain wheel, of a gate extending through a slot in the narrowest part of the feed run and projecting into the feed run and provided with a stem extending into a hollow boss in the casing of the feed run, a spiral spring extending between the end of the boss and the gate and nut on the threaded end of the stem provided with end notches and a cotter pin extending through the treaded end of the pin or stem and the notches of the nut as and for the purpose specified. 5th. In a seeding machine, the combination with the feed run and grain wheel, of a yieldingly held gate located in the narrowest part of the feed run and means for adjusting the gate, as and for the purpose specified. 6th. In a seeding machine, the combination with the feed run and grain wheel, of a yieldingly held gate located in the narrowest part of the feed run, and provided with a rounded upper end as and for the purpose specified. 7th. A feed run comprising a casing having a broad mouth at the upper end and a narrow central portion and a flaring arc-shaped discharge end for the feed run, as and for the pupose specified. 8th. A feed run comprising a casing having a broad mouth at the upper end and a narrow central portion and a flaring arc-shaped discharge end for the run, and a gate situated in the narrowest part of the run, as and for the purpose specified. 9th. The combination with the feed run, of the grain wheel and axle, and the disc located adjacent to the wheel and substantially on the same arc as the arc of the feed run, as and for the purpose specified.

No. 64,620. Electric Motor. (*Moteur électrique.*)

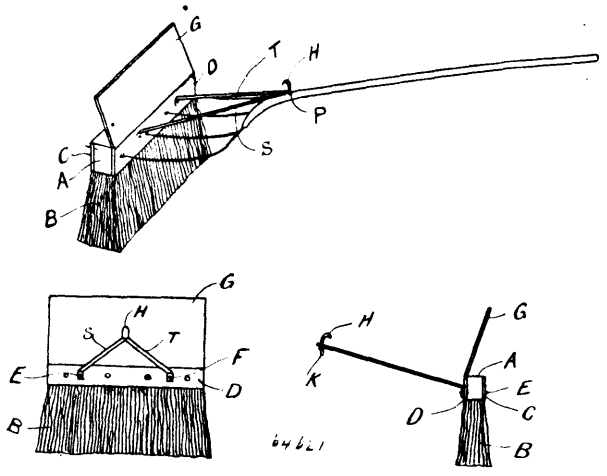


The Westinghouse Electric and Manufacturing Company, assignee of Benjamin G. Lamme, all of Pittsburg, Pennsylvania, U.S.A., 28th October, 1899; 6 years. (Filed 22nd August, 1899.)

Claim.—1st. In an alternating currentinduction motor, a secondary member comprising a spider, a laminated, slotted core, bar conductors

located in the core slots and projecting beyond the ends of the same, and resistance rings provided with ventilating and centering blades which are bolted to the inner sides of the projecting ends of the bar conductors, and have shoulders bearing against the adjacent portion of the spider. 2nd. In an induction alternating current motor, a secondary member comprising a spider, a laminated core provided with slots, bar conductors located in said slots and projecting beyond the ends of the same, and resistance rings fastened to the inner sides of the projecting ends of the conductor bars by means of bolts, nuts and spring washers, and provided with ventilating blades some of which have shoulders engaging the adjacent portion of the spider. 3rd. In an alternating current induction motor, a secondary member comprising a spider, a laminated core mounted thereon and provided with slots, bar conductors located in said slots and projecting beyond the ends of the same, and resistance rings bolted to the inner sides of the ends of the conductor bars and having an inwardly projecting plate provided with ventilating blades some of which have shoulders engaging the adjacent portions of the spider.

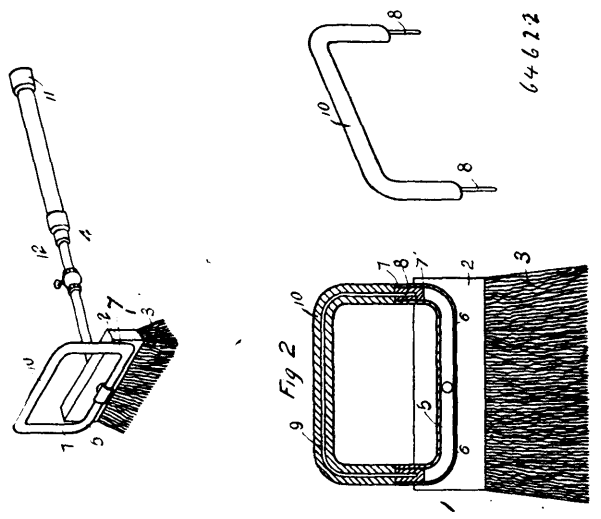
No. 64,621. Stable Fork, Scraper and Sweeper.
(*Fourche, grattoir et balai.*)



Walter Oliver Jarrett, Woodbridge, Ontario, Canada, 28th October, 1899; 6 years. (Filed 23rd February, 1899.)

Claim.—The herein described combined brush and scraper, consisting of the body portion A, bristles B, plates C and D, and the scraper G, having suitable holes through which protrude the prongs of the fork, and having the two pieces of spring steel S T, provided with the hook H and projection P at the outer ends of the said pieces of spring steel, in combination with a fork, substantially as described.

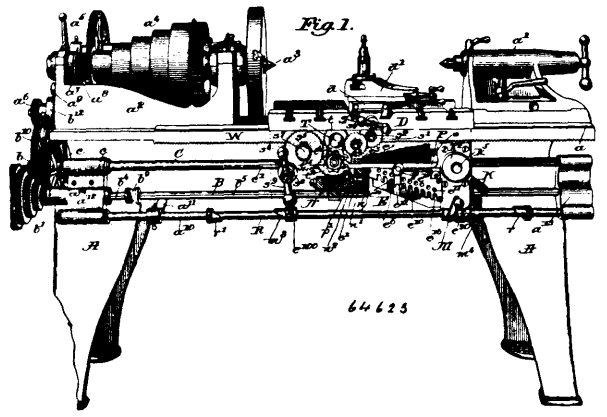
No. 64,622. Window Washer. (*Laveuse de fenêtre.*)



Peter Sweeney, Toronto, Ontario, Canada, 28th October, 1899; 6 years. (Filed 4th March, 1899.)

Claim.—The combination with a brush of a spray tube provided with plugs in its upturned ends, a tubular drier of frictional material, and a spring wire extending through the drier and projecting from its opposite ends, said wire designed to be inserted in the plugs in the upturned ends of the spray tube, substantially as hereinbefore specified.

No. 64,623. Lathe. (*Tour.*)



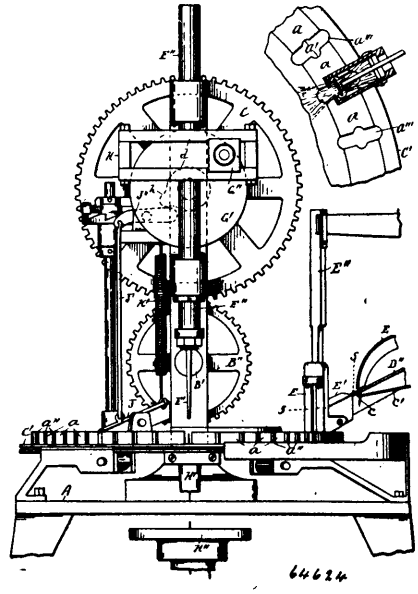
The Draper Machine Tool Company, assignee of Benjamin Alfred Wheeler, all of Worcester, Massachusetts, U.S.A., 28th October, 1899; 6 years. (Filed 7th April, 1899.)

Claim.—1st. In a lathe, a travelling tool carrier, a lead screw and power feed mechanism adapted respectively to actuate said carrier, each independently of the other, and devices, under the control of the operator at the tool carrier, to regulate the rate of longitudinal feed of said tool carrier by said power feed mechanism, substantially as described. 2nd. In a lathe, a travelling tool carrier, its apron, a lead screw and power feed mechanism adapted respectively to actuate said carrier, each independently of the other, and means movable with said tool carrier and continually under the control of the operator at said apron, to regulate the rate of travel of said tool carrier and apron, when actuated by said power feed mechanism, substantially as described. 3rd. In a lathe, a travelling tool carrier, actuating mechanism therefor, including power feed mechanism and a lead screw adapted to operate independently of each other, and devices under the control of the operator at the tool carrier, to regulate the rate of actuation of said tool carrier by said power feed mechanism and lead screw respectively, substantially as described. 4th. In a lathe, an apron, a lead screw, power feed mechanism and variable speed mechanism movable with, and to permit the actuation of said apron by said lead screw and power feed mechanism respectively, at different rates of speed, substantially as described. 5th. In a lathe, a travelling tool carrier, actuating means therefor, including power feed mechanism and variable speed mechanism, and means, under the control of the operator at the tool carrier to regulate the speed transmitted to the latter through said mechanism, substantially as described. 6th. In a lathe, a travelling tool carrier, actuating means therefor, including power cross and longitudinal feed mechanism and variable speed mechanism carried by said tool carrier, and a selector device to govern the speed transmitted by said variable speed mechanism and power cross and longitudinal feed mechanism to the tool carrier substantially as described. 7th. In a lathe, the bed, a rotatable lead screw extended in parallelism with said bed, a tool carrier adapted to traverse said bed and screw longitudinally, and means movable with said carrier and operative during traversing movement of the same to rotate said lead screw. 8th. In a lathe, a rotatable lead screw, an apron adapted to be actuated by rotation of said screw to traverse longitudinally, variable speed mechanism carried by said apron, and means to permit rotation of said lead screw at times by said mechanism, substantially as described. 9th. In a lathe, a rotatable lead screw, an apron adapted to traverse said lead screw longitudinally, variable speed mechanism carried by said apron and adapted to be operatively connected with said lead screw at times to rotate the same and cause the apron to traverse, and a selector device for said variable speed mechanism, substantially as described. 10th. In a lathe, a rotatable shaft or screw, an apron adapted to traverse said shaft longitudinally, a plurality of different sized gears surrounding said shaft co-axially, movable with said apron, and adapted respectively to be connected operatively with said shaft to rotate the same at times, substantially as described. 11th. In an apparatus of the class described, a rotatable lead screw, a stack of gears surrounding said screw co-axially and normally free to rotate independently thereof, an intermediate member adapted when rotated to rotate said lead screw, and means to govern actuation of said intermediate member by said gears, substantially as described. 12th. In an apparatus of the class described, a lead screw, a stack of connected, vari-sized gears surrounding said shaft co-axially, a clutch member adapted when actuated to operate said screw, a co-operating clutch member adapted to be driven by said stack, and means to operate said clutch, substantially as described. 13th. In an apparatus of the class described, the frame, a lead screw rotatably

mounted in suitable bearings on said frame, and an apron free to travel on the frame lengthwise of the screw, a quill mounted in suitable bearings on said apron and provided with a stack of vari-sized gears, said quill being of suitable internal diameter to receive said lead screw and permit free relative axial movement between screw and quill during travel of the apron lengthwise of said screw, an annular clutch member co-axially arranged with respect to said screw and connected rotatively therewith, but capable of free axial movement with said apron, a co-operating clutch member connected with said stack, and means to operate said clutch, substantially as described. 14th. In an apparatus of the class described, a rotatable lead screw, an apron having a device adapted to be operatively connected with said lead screw, to permit the apron to be fed thereby, and means mounted on said apron, to engage and rotate said lead screw to feed said apron, said means being arranged in close juxtaposition to said device, substantially as described. 15th. In a lathe, a rotatable lead screw, an actuating shaft, an apron arranged to traverse said screw and shaft longitudinally, and means carried by said apron to connect said screw and shaft operatively, at times, substantially as described. 16th .In a lathe, a rotatable lead screw, an actuating shaft, an apron arranged to be actuated by said screw, and means carried by said apron to permit rotation of said screw by said shaft, at different rates of speed, substantially as described. 17th. In a lathe, a rotatable lead screw, an actuating shaft, an apron dapted to traverse said screw and shaft longitudinally, and means to permit actuation of said apron by said actuating shaft both by rotation of said lead screw, and independently thereof, substantially as described. 18th. In an apparatus of the class described, an actuating shaft, an apron adapted to traverse said shaft longitudinally, a lead screw actuated from said shaft through the medium of the means movable with said apron and adapted to actuate said apron, means to permit actuation of said apron by said shaft independently of said lead screw, and interlocking devices to prevent concurrent operation by said shaft of said lead screw and said independent means, substantially as described. 19th. In a lathe, a lead screw, an apron adapted to be actuated by said lead screw and also by independent actuating means controlling devices to govern respectively the actuation of said apron by said lead screw and by said independent actuating means, and interlocking devices intermediate said controlling devices to prevent concurrent operation by said shaft of said lead screw and said independent means, substantially as described. 20th. A controller of the class described, comprising a disc, provided with a suitable handle and having slots to serve as actuating means for nut members, said disc being also provided with a projection to receive and co-operate with a slotted portion of an interlocking lever to actuate said lever directly, substantially as described. 21st. In a lathe, a lead screw, an apron adapted to be fed thereby and provided with power feed mechanism, an open-and-shut nut for said lead screw, and a nut controller, a clutch device for said power feed mechanism, and an interlocking lever or link connecting said nut mechanism and clutch, to permit the said clutch to be governed and operated by movement of said nut controller, substantially as described. 22nd. In a lathe, an apron, power feed mechanism and variable speed mechanism, both movable with said apron and adapted to be connected operatively at times to permit actuation of said power feed mechanism at different rates of speed, substantially as described. 23rd. In a lathe, an apron, and power feed mechanism carried thereby, including a worm, variable speed mechanism also carried by said apron and adapted to be connected operatively with said worm at times to permit actuation of said power feed mechanism at different rates of speed, substantially as described. 24th. In a lathe, an apron, variable speed mechanism and power feed mechanism carried thereby, a clutch intermediate said mechanisms, and a controller for said clutch, and an actuating shaft connected operatively with said variable speed mechanism, substantially as described. 25th. In a lathe, a rotatable lead screw, an apron, variable speed mechanism carried thereby and adapted to rotate said lead screw at times, and actuating mechanism connected operatively with said variable speed mechanism, and including co-operating cones of auxiliary multiple speed gears, any co-operating pair of which may be made effective by the operator at will, substantially as described. 26th. In a lathe, an apron, a shaft, gears and independent separating rings thereon, a feathered spline carried thereby, and a handle for said spline, said handle being extended toward and arranged to move near the path of said apron, all constructed and arranged to operate in the manner and for the purpose set forth. 27th. In an apparatus of the class described, a rotatable lead screw, an apron having a device adapted to be operatively connected with said lead screw, to permit the apron to be fed thereby, actuating mechanism for said lead screw, movable with said apron, and means intermediate said device, and mechanism to insure concurrent operation of the same, substantially as described. 28th. In a lathe, an apron, an actuating shaft, a rotatable lead screw, and power feed mechanism, actuated respectively from said shaft, and adapted respectively to actuate said apron, and interlocking means to prevent concurrent actuation of said apron by said lead screw and power feed mechan ism, substantially as described. 29th. In an apparatus of the class described, a tool carrier, an actuating shaft, a rotatable lead screw, and power feed mechanism, actuated respectively by said shaft, and adapted respectively to actuate said tool carrier, controlling means for said power feed mechanism, and interlocking devices co-operating with said controlling means, to prevent concurrent actuation of said apron by said lead screw and power feed mechanism, substantially as described. 30th. In an apparatus of the class described, a rotatable lead screw, an apron having a device adapted to be connected operatively with said lead screw to permit said apron to be fed by rotation thereof, actuating mechanism movable with said apron, to rotate said lead screw, and means to control the actuation of said lead screw by said mechanism, substantialy as described.

No. 64,624. Brush Making Machine.

(*Machine à faire les brosses.*)

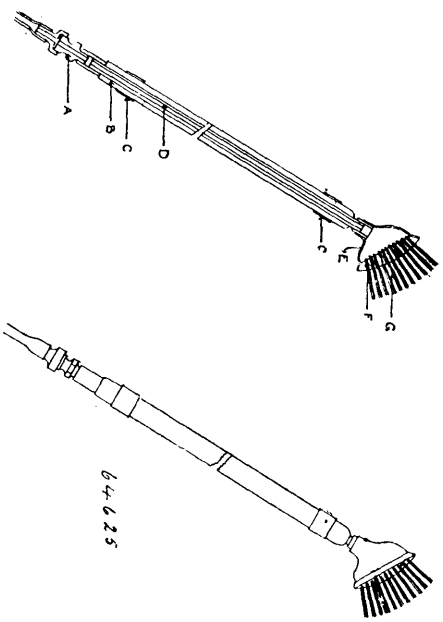


William H. Gates, Detroit, Michigan, U.S.A., 28th October, 1899; 6 years. (Filed 15th May, 1899.)

Claim.—1st. In a brush machine, the combination with the main frame, of the travelling carriage adapted to convey the stock from which the brush tufts are formed, means for applying staples to said stock in the carriage, the reciprocatory plunger operating in the path of said carriage and adapted to engage the stock carried thereby and force said stock into the brush block, and means for operating said plunger. 2nd. In a brush machine, the combination with the main frame, of the movable carriage having divisions therein for the reception of stock, means for retaining the brush stock within said divisions of the carriage, means for feeding staples to the stock in the carriage, the reciprocating plunger operaing in the path of said carriage adapted to engage the stock carried thereby and force it into the brush block, means for operating said plunger, and means for imparting an intermittent motion to said carriage. 3rd. In a brush machine, the combination with the main frame, of a movable carriage carrying blocks upon its upper face a suitable distance apart, forming divisions for the reception of the brush stock, apertures through said carriage between said dividing blocks, means for feeding staples to the stock on the carriage, the reciprocating plunger adapted to pass through the apertures in the carriage between said blocks and to carry the stock therewith into the brush block below said carriage, and means for operating said plunger. 4th. In a brush machine, the combination with the main frame, of the travelling carriage having divisions thereon for the reception of stock and apertures therethrough between said divisions, means for feeding staples to the divisions of stock in the carriage, a reciprocatory plunger and means for operating it, said plunger adapted to engage the stock and staple and force them through the apertures of said carriage and into a brush block supported below said carriage. 5th. In a brush machine, the combination with the main frame, of the movable carriage having divisions therein for the reception of the brush stock, apertures through said carriage between said divisions, spring retaining arms for confining the brush stock within said divisions, curved guides for engaging the opposite ends of the stock in the carriage to maintain it in proper position, means for feeding staples astride of the divisions of stock in the carriage, a reciprocatory plunger adapted to pass through the apertures in the carriage and to carry therewith the staple and brush stock lying in said divisions and force said stock into the brush block supported below said carriage, and means for operating said plunger. 6th. In a brush machine, the combination with the main frame, of the circular carriage adapted to rotate about its own axis, said carriage having brush stock retaining divisions therein and apertures therethrough between said divisions, curved spring arms lying on each side of said divisions to retain the stock therein, curved guides concentric with said carriage for ending said stock, means for feeding staples astride of the divisions of stock in the carriage, a reciprocatory plunger adapted to pass through the apertures in the carriage

and carry the stock and staple therewith into the brush block below, means for operating said plunger, means for imparting an intermittent motion to said carriage, means for locking said carriage against motion, and means for releasing said carriage to permit it to move. 7th. In a brush machine, the combination with the main frame, of the circular carriage carrying divisions for the reception of the brush stock, gear teeth upon the inner circle of said carriage, a vertical shaft carrying a pinion engaging said gear teeth, a circular rack fixed upon said vertical shaft, a rotary collar upon said shaft having a pawl engaging said rack, an arm projecting from said collar, a slide engaging said arm, a pivoted dog engaging said slide, a shaft carrying a projecting lug adapted to engage said dog whereby by the rotation of said last named shaft an intermittent motion is imparted to said carriage. 8th. In a brush machine, the combination with the main frame, of the movable carriage having dividing blocks upon its surface a suitable distance apart forming spaces for the retention of the brush stock, means for imparting an intermittent motion of said carriage, a pivoted arm, one end of which is adapted to enter between the blocks of said carriage, a spring attached to the opposite end of said arm, and means for intermittently actuating said arm to raise the end thereof from between the blocks of said carriage.

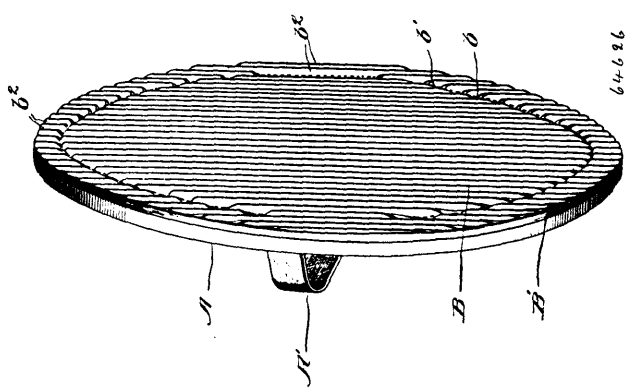
No. 64,625. Water or Vapor Brush.
(*Brosse à eau ou vapeur.*)



Henry Cooley, Victoria, British Columbia, Canada, 28th October, 1899; 8 years. (Filed 28th March, 1899.)

Claim.—The combination of hose, hollow handle and hollow back (or the combination of hose with hollow back) by which the water or vapour passes to the back of brush and thence through perforations on the surface operated upon.

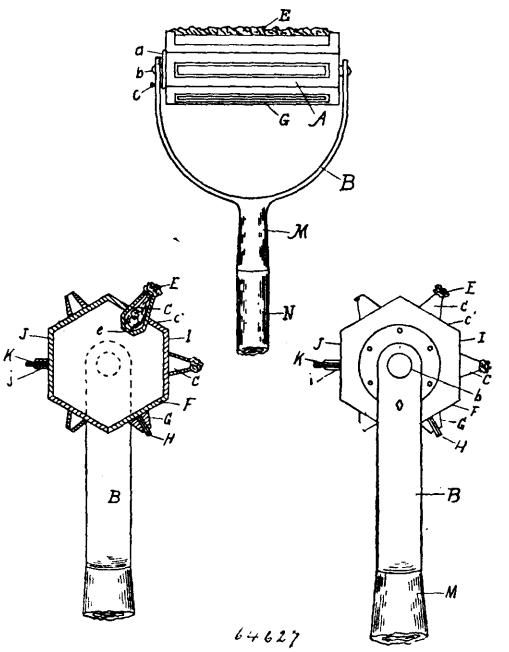
No. 64,626. Horse Brush. (*Brosse à cheval.*)



Honoré Marcotte, Quebec, Quebec, Canada, 28th October, 1899; 6 years. (Filed 10th May, 1899.)

Claim.—1st. A brush for cleaning horses, comprising a suitable back and a facing of elastic material, substantially as described. 2nd. A brush for cleaning horses, comprising a flexible back and a rubber facing secured thereto, substantially as described. 3rd. A brush for cleaning horses, comprising a flexible back and a rubber facing secured thereto, said facing having a corrugated surface, substantially as described. 4th. A brush for cleaning horses, comprising a flexible back, and a rubber facing secured thereto by a line of stitching arranged in a groove coinciding with the edge of the brush, and having a corrugated surface, substantially as described.

No. 64,627. Window Washer. (*Laveuse de fenêtre.*)



Joseph Daoust, assignee of Robert Harty Dunn, all of Toronto, Ontario, Canada, 28th October, 1899; 6 years. (Filed 25th August, 1898.)

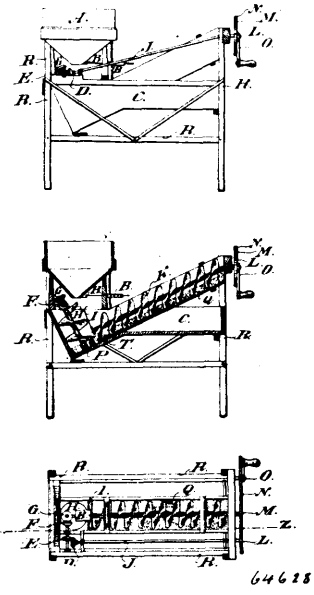
Claim.—1st. In a window washing and cleaning device, the combination of a cylindrical reservoir, having a plurality of surfaces, of a sponge receptacle extending through one of said surfaces into the interior of the said cylinder, provided with a series of openings in the bottom thereof, absorbent cotton within said receptacle adjacent to said openings, a sponge above said absorbent cotton and adapted to protrude beyond the opening at the outer end of said receptacle, a yoke or fork between the ends of which said cylinder is journalled, and means for securing said cylinder in its adjusted position, substantially as described. 2nd. In a window washer and cleaner, the combination of a reservoir, means for supporting said receptacle, whereby a long or short handle may be secured thereto, a sponge receptacle arranged to extend through the wall of said reservoir within, provided with perforations at the bottom thereof, absorbent cotton within said receptacle adjacent to the openings, and a sponge above said cotton and arranged to protrude beyond said receptacle, substantially as described. 3rd. In a window cleaner and washer, the combination of a reservoir having a plurality of sides, a fork or yoke between the ends of which the said reservoir is journalled, a perforated plate upon one end of said reservoir, a bolt adapted to pass through one arm of said fork and to engage with the perforations in said plate, whereby the cylinder is secured in its adjusted position, a sponge receptacle arranged to pass through one of the sides of said cylinder and to extend within the reservoir, where it terminates with a series of openings, absorbent cotton within said receptacle adjacent to said openings, a sponge above said absorbent cotton adapted to extend beyond said receptacle, a series of holders upon the remaining sides of said cylinder adapted to support dryers, cleaners and polishers, and means whereby a long or short handle may be secured to said fork, substantially as described.

No. 64,628. Grain Pickling Machine.
(*Machine à cuillir le grain.*)

Arthur Shepherd, Rothwell, Manitoba, Canada, 28th October, 1899; 6 years. (Filed 24th February, 1899.)

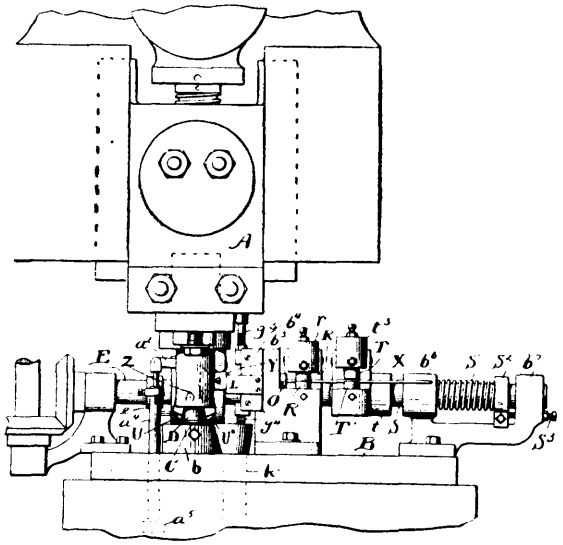
Claim.—In combination, a reservoir for holding a pickling solution, a hopper for holding grain, a submerging and mixing

shaft, a sweeper to convey the grain within reach of a spiral flanged shaft, which conveys the grain over a strainer, whereby the grain



is drained to a suitable receptacle without, all substantially as set forth.

No. 64,629. Ball Making Machine.
(*Machine à faire les boules.*)



Rollin Henry White, Cleveland, Ohio, U.S.A., 28th October, 1899; 6 years. (Filed 1st May, 1899.)

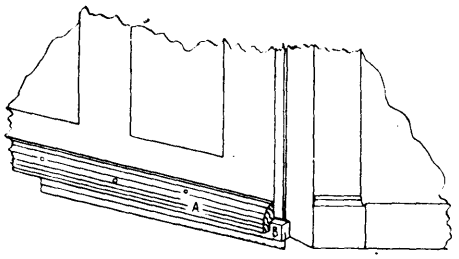
Claim.—1st. In a machine for making balls, the combination of a fixed die, a reciprocating plunger, a die secured thereto, a wire cut off mechanism, consisting of a fixed shearing block, a reciprocating shearing plate having a hole adapted to receive the wire, a spring for raising said plate, and a striker pin secured to said plate in the path of the plunger, with mechanism for feeding the wire periodically into the hole in the said shearing plate and thereby pushing out the cut-off blank, and a movable pair of jaws which grasp said blank as it is pushed out of said hole and carry and deliver it to the dies, substantially as specified. 2nd. In a machine for making balls, the combination of a wire feed, a fixed shearing block, a reciprocating shearing plate, a fixed die, and a reciprocating die whose movement is at right angles to the wire being fed, with a rock shaft the axis of which is at right angles to the wire and path of the reciprocating die, operating mechanism therefor, a pair of spring closing jaws mounted on said rock shaft, and wedges for opening said jaws when they are in line with the wire and with the dies, substantially as specified. 3rd. In a machine for making balls, the mechanism for conveying the cut-off blanks to the dies, consisting of a rock shaft, a pair of jaw levers carried by said rock shaft and lying substantially at right angles to its axis, jaws secured to said levers at substantially right angles thereto, said jaws having between them a blank holding recess which is at substantially right angles to the axis of the shaft, a spring for closing the jaws, and means for opening the jaws at both ends of their path, whereby they may grasp a blank and deliver it to the dies, substantially as specified. 4th. In a machine for making balls, the combination of a rock shaft, the arm w fast to said shaft, and having a pin w^1, the jaw levers pivoted to said shaft, the jaws secured thereto, the crank arm fast on said rock shaft, and a cam engaging with said crank arm with a horizontally movable wedge and its operating mechani m, a vertically movable wedge and its operating mechanism, and studs on the jaw levers with which the last named wedge engages, substantially as specified. 5th. In a machine for making balls, the combination of a fixed die, a reciprocating die, wire feeding mechanism, and a wire cut off, with an oscillating pair of jaws adapted to grasp the blank after it leaves the wire cut off and to carry and deliver it to the discs, ejectors for freeing the balls from the discs, whereby said balls may be grasped by said jaws, means for opening and closing the jaws, and a funnel into which the jaws drop the finished balls, substantially as specified. 6th. In a machine for making balls, the combination of a fixed die, a reciprocating die, a wire cut off mechanism consisting of a fixed shearing block and a reciprocating shearing plate having a hole which when the plate is in its normal position is in line with the wire, with mechanism for periodically feeding the wire into said hole and thereby pushing out the cut off blank, a rock shaft, a pair of jaw levers pivotally mounted thereon and lying substantially at right angles to its axis, jaws on the outer ends of said levers lying substantially at right angles thereto, said jaws having between them a blank holding recess, and mechanism for oscillating said rock shaft whereby the jaws are moved backward and forward between the position where said recess is in line with the wire being fed forward, and the position where said recess is in line with the dies, substantially as and for the purpose specified. 7th. In a machine for making balls, the combination of a fixed and reciprocating die, a wire feeding and cutting off mechanism, with a rock shaft, an arm w fast to said shaft and having a pin w^1, a pair of spring closed jaw levers pivoted to said shaft and lying on opposite sides of said pin, jaws secured to said levers, mechanism for oscillating said rock shaft, a horizontal, movable wedge and its operating mechanism adapted to open said jaws when they are at one end of the path, and a vertically movable wedge and its operating mechanism adapted to open said jaws when they are at the other end of their path, substantially as specified. 8th. In a machine for making balls, wire feeding mechanism, consisting of the combination of a pair of jaws having no movement lengthwise of the wire, a shaft, and a cam secured thereto which engages with and operates the movable jaw, with a spring retracted rod, and a crosshead secured thereto having a bifurcated rear end, a cam on said shaft lying between the forks of said rear end and having a tongue and groove connection with the shaft, a jaw fixed to the crosshead, a movable jaw lever pivoted to the crosshead and engaging with said cam, and a cam secured to the shaft engaging with said crosshead, substantially as specified. 9th. In a machine for making balls, the combination of a fixed die, a reciprocating die, wire feeding mechanism, a fixed shearing plate, and a reciprocating shearing plate, and a reciprocating shearing plate having a hole in which the end of the wire is pushed by the wire feeding mechanism, and the cut off blank is held until pushed out by the wire during the next wire feeding operation, with a rock shaft, a pair of jaws mounted thereon and having between them blank holding recess which is at right angles to the axis of the a shaft, and mechanism for oscillating said shaft whereby the jaws are moved backward and forward between a position where said recess is in line with the dies and a position where said recess is in line with the wire, whereby the cut off blank is fed into said recess and then carried and delivered to the dies, substantially as specified.

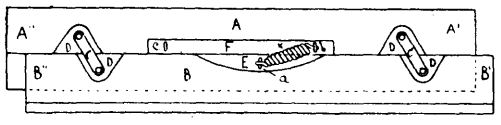
No. 64,630. Weather Strip. (*Bourrelet de portes.*)

George Walker Mitchell, Guelph, Ontario, Canada, 28th October, 1899; 6 years. (Filed 21st February, 1899.)

Claim.—1st. The automatic weather strip for the bottom of doors, consisting of a strip of wood moulded to suitable shape, secured by screws to the bottom of the door, with a rabett or recess at the back in which a movable slat carrying a weather proof strip slides, between it and the bottom of the door, suitable recesses being cut in both the fixed moulding and the movable slat for the reception of a coil spring, and for two or more metal straps which hold the two parts adjustably together in parallel position to each other, the coiled spring one end of which is permanently secured to the centre of the movable slat having a hook at its free end to attach the same

to staples at either end of a suitable oblong recess in the fixed strip of wood moulding, so that when hooked on to one or the other of

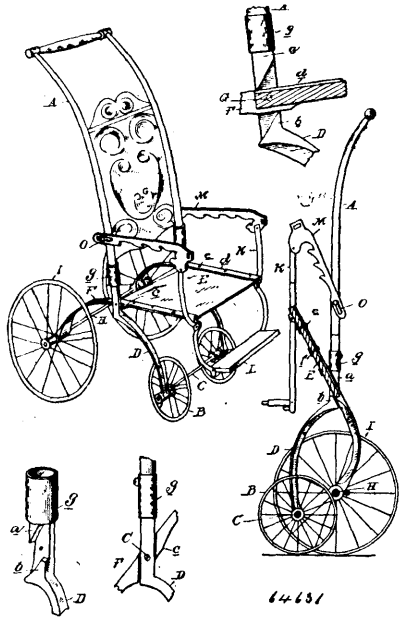




64-630

these staples the spring will throw the movable slat over to one end or the other, thus causing either end to project as may be required for right or left hand doors, as and for the purpose herein described and illustrated in the drawing.

No. 64,631. Perambulator. *(Voiture d'enfant.)*

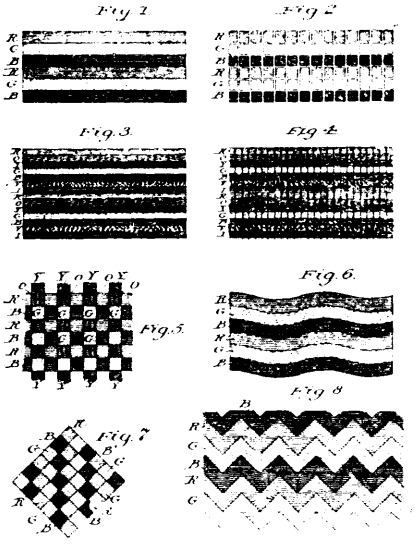


64631

William H. English, Detroit, Michigan, U.S.A., 28th October, 1899; 6 years. (Filed 12th April, 1899.)

Claim.—1st. A perambulator, comprising a handle frame, wheels at the lower end thereof, a seat frame formed of bars pivoted to the handle frame, and extending rearwardly and forwardly therefrom, wheels connected to the rear ends thereof, the seat connecting the forwardly extending portions thereof, and a stop to limit the spreading movement of the handle and seat frame. 2nd. A perambulator, comprising a handle frame having the forwardly extending lower portion, wheels at the lower ends thereof, a seat frame formed of bars pivoted to the handle, said bars extending rearwardly and downwardly from the pivotal point, a wheeled axle to which the rear ends thereof are connected, a seat connecting the bars forward of the pivotal point and a stop to limit the pivotal movement between the handle and seat frame. 3rd. In a perambulator, the combination of the front and rear wheels, and the handle frame, a seat frame connected respectively thereto and pivoted together, of lugs *a b* on the handle bars adapted to contact the seat bars upon opposite sides of the pivotal point, substantially as and for the purpose described. 4th. In a perambulator, the combination of the handle frame A formed in two sections, the sockets *g* connecting the two sections, the forwardly extending section *d* in the lower section, the wheels supporting the lower end of the handle bars and the seat frame, substantially as described, pivoted to the handle bars and connected to the rear wheels. 5th. In a perambulator, the combination of the wheeled handle bars, of the rear wheels, seat bars F connected to the rear axle thereof and extending upwardly and forwardly therefrom, a pivotal connection between the seat bars and the handle bars and flanges *d* on the side bars, the seat E, the edge of which extends under the flanges and means for securing the seat to the flanges.

No. 64,632. Art of Producing Coloured Pictures by the Aid of Photography. (*Art de produire des images colorées à l'aide de photographie.*



64-632

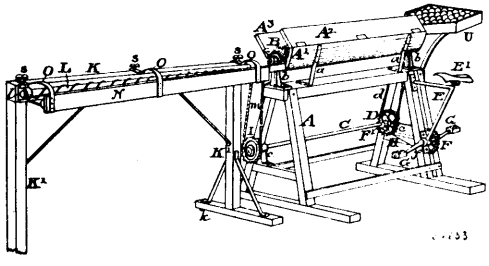
The International Color Photo Company, Jersey City, New Jersey, assignee of Clarence R. Chamberlain, Chicago, Illinois, U.S.A., 28th October, 1899; 6 years. (Filed 15th October, 1898.)

Claim.—A transparent screen for use in taking and viewing a photograph bearing a pattern symmetrical as to a plane in the primary, or approximately primary colors used, and in such dyes or pigments as have suitable selective light absorption properties, substantially as described. 2nd. A screen or plate for photographic purposes provided with differently coloured substances arranged according to regularly recurring patterns, as dots, lines, figures, of such colors and proportions as to cause each to absorb such colours as are transmitted by each and all the others, substantially as described. 3rd. A screen or plate for photographic purposes provided with differently coloured substances arranged according to regularly recurring patterns, as dots, lines, figures, of such colors and proportions as to cause each to absorb such colors as are transmitted by each and all the others and transmit colours in inverse ratio to the actinic action of the colours on the sensitive photographic plate, substantially as described. 4th. A screen or plate for photographic purposes having on its surface red, green and blue coloured particles arranged according to regularly recurring patterns, as dots, lines, figures, symmetrical as to a plane, substantially as described. 5th. A screen or plate for photographic purposes having on its surface differently coloured substances corresponding to complementary colors of the spectrum, as red and green, blue and yellow, arranged according to regularly recurring patterns, as dots, lines, figures, symmetrical as to a plane, substantially as described. 6th. A white or light coloured material, as paper, bearing a pattern symmetrical as to a plane in the primary, or approximately primary, colours used, and in such dyes or pigments as have suitable selective light absorption properties, substantially as described. 7th. A white or light coloured material, as paper, provided with coloured substances arranged according to regular recurring patterns, as dots, lines, figures, of such colours and proportions as to cause each to absorb such colors as are transmitted by each and all the others, substantially as described. 8th. A white or light coloured material, as paper, provided with red, green and blue coloured substances arranged according to regularly recurring patterns, as dots, lines, figures, symmetrical as to a plane, such colours being of such kinds and in such portions as to present to the eye a white or neutral tint, substantially as described. 9th. A white or light coloured material, as paper, provided with red, green and blue coloured substances arranged according to regularly recurring patterns, as dots, lines, figures, in regular recurring alternate order and symmetrical as to a plane, such colors being of such kinds and in such proportions as to

present to the eye a white or light coloured neutral tint, the patterns being covered with a photographic sensitive material, substantially as described. 10th. A white or light coloured material, as paper, provided with different coloured substances corresponding to the complementary colours of the spectrum, as red and green, blue and yellow, arranged according to regular recurring patterns, as dots, lines, figures, in regularly recurring alternate order and symmetrical as to a plane, such colours being of such kinds and in such proportions as to present to the eye a white or light coloure l neutral tint, the patterns being covered with a photographic sensitive material, substantially as described. 11th. The process of making coloured pictures, which consists in making a photographic negative in regular patrons, as dots, lines, figures, by the action of red, green and blue coloured lights upon the sensitive plate in such patterns, then making therefrom a corresponding half tone plate, printing type or surface, then printing from such printing surface upon material prepared to correspond in colours and to register in form and dimensions with the patterns of coloured lights acting upon the negative and with the patterns upon the printing surface, whereby the colours corresponding to those that do not act upon the negative will be obscured or covered, while such proportion of coloured patterns as corresponds to the action of coloured lights upon the negative sensitized plate will be left visible, substantially as described. 12th. The process of making coloured pictures, which consists in printing upon a material prepared to correspond in colours and register in form and dimensions with the patterns of red, green and blue coloured lights acting upon a negative, whereby the colours corresponding to those that do not act upon the negative will be obscured or covered, while such proportion of colored patterns as corresponds to the action of the coloured lights upon the negative sensitized plate will be left visible, substantially as described. 13th. The process of making coloured pictures, which consists in covering or obscuring by means of a positive picture the colours upon a material prepared to correspond in colour and to register in form and dimensions with the patterns of red, green and blue coloured lights acting upon a negative whereby the colours corresponding to those that do not act upon the negative will be obscured or covered, while such proportion of the covered patterns as correspond to the action of coloured lights upon the negative sensitized plate will be left visible, substantially as described.

No. 64,633. Fruit Grading and Cleaning Machine.

(*Machine à assortir et nettoyer le grain.*)



Walter Percival Rice, Cleveland, Ohio, U.S.A., 28th October, 1899; 6 years. (Filed 18th February, 1899.)

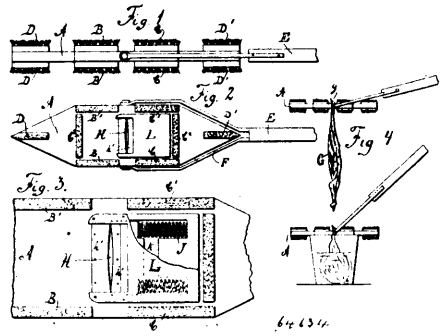
Claim.—1st. In a machine for cleaning and grading fruit, a trestle frame A, a rotary brush B journalled in bearings *b b*, standing on the trestle, a stationary brush A^1 having inclined leaf A^2, and legs *a a*, supported on the trestle at one side of the brush B, a driving shaft C journalled in bearings *c c* attached to the trestle frame below the brushes, a wheel D mounted on shaft C, a belt or chain *d*, connecting wheel D with pinion M on the journal of the rotary brush B, a seat frame E attached to the trestle frame, a saddle E^1 supported on said frame E, a treadle shaft *f* journalled in the bearings at the lower end of the frame E, cranks G G and wheel F on said shaft *f*, a pinion F^1 on shaft C, a belt or chain H connecting wheel F with the pinion F^1, the construction and combination being adapted to operate substantially in the manner and for the purpose set forth. 2nd. In a machine for cleaning and grading fruit, the combination with the brushes and operating mechanism, of a grading or assorting device consisting of a frame comprising a rail K and legs or post K^1, a spiral conveyor L, journalled on one side of the rail K, an adjustable guide board N, brackets O O attached to the board N, and supported on the rail by thumb screws *s s s*, a pinion M on the end of the conveyor, a belt or chain *m*, connecting the wheel I, on the driving shaft C, with the said pinion M, the arrangement being such that the grader has simultaneous operation with the brushes, substantially as described.

No. 64,634. Floor Cleaning Apparatus.

(*Appareil à nettoyer les planchers.*)

Lars Enghtsen, Christiana, Norway, 28th October, 1899; 6 years. (Filed 18th February, 1899.)

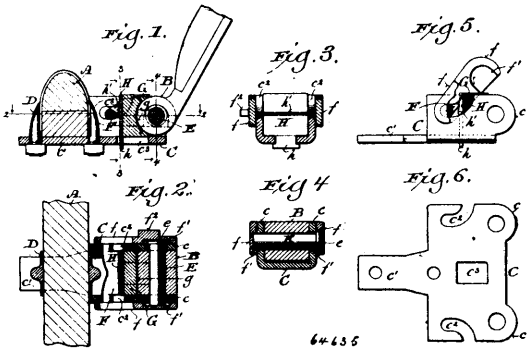
Claim.—1st. An improved floor washing apparatus consisting of a board pointed in both ends and provided on both sides with brushes, preferably of stiff material, the board further provided with a forked handle pivotally secured to the middle of said board so as allow the latter to turn freely in the said fork, the board finally provided in



the middle with an opening, the jaws of which are kept pressing against each other by an elastic force, for the purpose of, firstly, holding a cloth introduced into said opening, and, secondly, to press out any superfluous water contained in the said cloth by pulling the said cloth through said opening after having soaked the said cloth in water, substantially as described and shown. 2nd. In washing apparatus as mentioned in claim 1, the arrangement that the opening in the middle of the brush for the cloth is somewhat widened in the middle for the purpose of gathering the cloth during the passing through the opening and thereby effect the pressing out of the water in the most complete manner, substantially as shown and described.

No. 64,635. Shaft or Pole Couplings.

(*Joint de timon ou limonière.*)

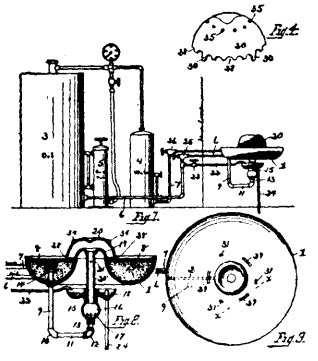


Orin C. Davis, William R. Thorsen and Henry W. Leonard, all of Manistee, Michigan, U.S.A., 30th October, 1899; 6 years. (Filed 10th July, 1899.)

Claim.—1st. In a shaft or pole coupling for vehicles the combination with a pair of ears, a shaft or pole eye, a coupling pin having a headed end and loosely fitted in the holes of said ears and eye, and a spring for taking up play between the parts of the coupling, of a cam having bearings in said ears behind and parallel with the coupling pin and provided with an arm adapted, when turned forward and downward, to force the cam against the spring and to press the latter against the eye and recessed to pass over and engage with the headed end of the coupling pin and thus retain the latter in place and arrest and hold the cam in compressing position, substantially as and for the purpose set forth. 2nd. In a shaft or pole coupling, the combination with a shaft or pole eye, a pair of perforated ears, a coupling pin for connecting them and a spring for taking up play between the parts of the coupling, of a cam having cylindrical journals which are held and adapted to turn in said ears behind and parallel with the coupling pin and provided at its ends with arms which are recessed to pass over and engage with the protruding ends of the coupling pin, said arms serving to retain the pin in place, to force the cam into and out of operative position for compressing the spring, and to hold the cam in operative position, substantially as and for the purpose set forth. 3rd. In a shaft or pole coupling the combination of a pair of transversely perforated ears having downwardly and rearwardly inclined recesses formed through their upper edges behind and parallel with the holes for the coupling pin, a shaft or pole eye, a pin for connecting said eve with said ears, a spring for taking up play in the coupling a cam having journals adapted to turn in the recesses in said ears and provided with arms which are formed integrally therewith and are adapted to turn down approximately parallel with said ears to compress said springs against the back of said eye and by engagement with the ends of the pin to retain it in place and to arrest and hold the cam in compressing position, substantially as and for the purpose set forth. 4th. In a shaft or pole coupling the combination of a shackle

having a pair of transversely perforated ears connected together by a bottom piece having a slot or opening therein between said ears, a shaft or pole eye, a coupling pin for connecting said eye with said ears, cam journalled in said ears behind and parallel with the coupling pin, arubber spring inserted between said cam bar and eye, and a bearing plate interposed between the back of the rubber and said cam, and notched to engage with the edges of the opening in the bottom of the shackle, substantially as and for the purpose set forth. 5th. In a shaft or pole coupling, the combination of a shackle having a pair of ears, a shaft or pole eye, a coupling pin for connecting the eye with said ears, a cam journaled in said ears, a rubber spring between the eye and cam, and a plate interposed between the rubber and the cam formed on the back with a rib or projection for holding the cam in engagement therewith, substantially as and for the purposes set forth. 6th. In a shaft or pole coupling, the combination of a shackle having two transversely perforated ears formed integrally with a clip yoke and a slot in the bottom between the ears, a shaft or pole eye, a coupling pin for connecting said eye with said ears, a cam loosely journaled in recesses which open through the upper edges of said ears, and formed integrally with flat arms which fit close to and correspond in shape with the outer sides of said ears and are recessed to pass over and engage with the ends of said pin, one of said arms being formed with an ear or flange for turning the cam into and out of operative position, a rubber spring between the eye and cam, and a bearing plate interposed between the rubber and cam, and notched to engage the edges of the slot in the shackle, substantially as and for the purpose set forth.

No. 64,636. Hydrocarbon Burner.
(Bruleur à hydrocarbon))

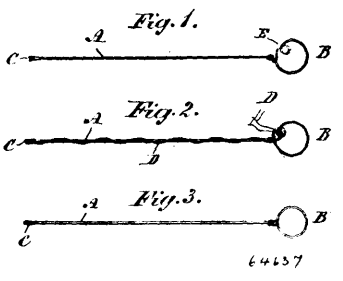


64636

Daniel Webster Bowman, Toledo, and Edwin Ruthven Kinney, Norwalk, Ohio, U.S.A., 30th October, 1899; 6 years. (Filed 29th June, 1899.)

Claim.—1st. In a hydrocarbon burner, an annular generator having a filling of sand or gravel, an oil pipe leading thereto, an oil pipe connecting the generator and a burner, said burner comprising a plate or cup, the outer edge of which rests upon the inner edge of the generator, and a plate or cup of greater dimensions resting upon the generator, said second plate or cup having a series of orifices in its outer edge, and means for moving the upper cup or plate vertically to increase or diminish the space between the cups or plates and the edge of the movable cup or plate and the generator whereby the conditions of the burner remain the same for either a large or small fire. 2nd. In a hydro-carbon burner, a generator, an oil pipe leading therein, a gas pipe leading therefrom to the burner, the upper section of said burner being provided with lugs which comide with the stepped recesses in the generator, by which the upper section of the burner is adjusted vertically.

No. 64,637. Tobacco Pipe and Revolver Tube Cleaner.
(Nettoyeur de pipes, tubes et pistolets.)

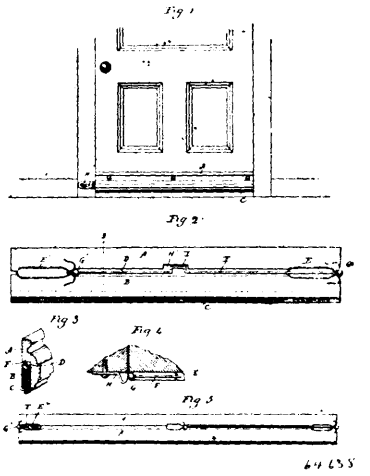


64637

William T. Smyth, Acton, Ontario, Canada, 30th October, 1899; 6 years. (Filed 12th June 1899.)

Claim.—1st. A pipe or tube cleaner, consisting of a wire or rod A, provided with a suitable handle B, at one end and having at the other end a nick or eye C, adapted to receive and hold a thread, twine or strip of textile material D, for manipulation as set forth. 2nd. A pipe or tube cleaner comprising a wire or rod A, provided with a suitable handle B, at one end, and a nick or eye C, at the other end, and a thread, twine or strip of textile fabric D, inserted in said nick or eye and extending to the handle, said wire or rod and the thread twine or strip of fabric adapted to be thrust into the pipe or tube and rotated therein by movement of the handle rotatively, whereby the thread, twine or fabric will be spirally wound, and when withdrawn remove the obstruction.

No. 64,638. Weather Strip. *(Bourrelet de portes.)*

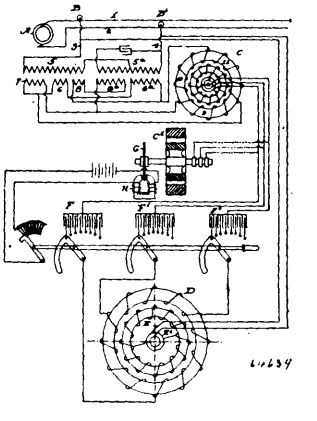


64638

Barney Murphy, New Haven, Connecticut, U.S.A., 30th October, 1899; 6 years. (Filed 26th May, 1899.)

Claim.—1st. In a weather strip, the combination with a door strip and a movable strip, the two strips being connected together by U shaped springs the tendency of which is to lift the movable strip and means for separating the members of the springs whereby the movable strip is forced downwards, substantially as described. 2nd. In a weather strip, the combination with a door strip and a movable strip, of U shaped springs connecting the strips together, and tending to lift the movable strip, and a transverse rod provided at opposite ends with surfaces adapted to separate the meeting faces of the springs, and force the movable strip downward, substantially as described. 3rd. In a weather strip, the combination, with a door strip, and movable strip, of U shaped springs bent to form meeting faces, and adapted at their ends for engagement with the two strips, whereby the strips are connected together, and a transverse rod arranged between the strips, and provided with enlarged surfaces adapted to be forced between the meeting faces of the springs, the enlarged surfaces at one end of the rod being ajustable thereon, substantially as described.

No. 64,639. Electric Motor. *(Moteur électrique.)*



64639

Charles Schenck Bradley, Avon, New York, U.S.A., 30th October, 1899; 6 years. (Filed 12th November, 1898.)

Claim.—1st. The method of converting electrical energy into mechanical motion consisting in c nverting a single phase alternating current into polyphase currents, varying the rate of said currents, charging a rotary magnetic field therewith, and charging a

co-operating independently movable motor element within said field with the single phase currents. 2nd. The method of converting electrical energy into mechanical motion consisting in converting a single phase alternating current into polyphase currents, charging a rotary magnetic field therewith, neutralizing the inductance by a suitable capacity, and charging the co-operating motor element with said field with the single phase current. 3rd. An alternating current motor having on one element a single phase winding, a rotary field winding on its co-operating element, a phasing transformer for supplying the latter with polyphase currents from a single phase circuit, and condensers in the polyphase circuits. 4th. The method of varying the speed of an alternating current motor, consisting in supplying one of its elements with a single phase alternating current, supplying polyphase currents to create a rotary magnetic field in the co-operating element, and varying the capacity inductance product of the polyphase circuits and its rate of alternation. 5th. An alternating current motor having a winding on one element for connection with a single phase supply circuit, a polyphase winding on its co-operating element, and an independent motor generator supplying the latter with polyphase currents. 6th. An alternating current motor having on one element a winding for connection with a single phase supply circuit, a polyphase winding on its co-operating element, and a variable speed generator for supplying the latter with polyphase currents of variable rates. 7th. The combination of an alternating current motor having on one of its elements a rotary field winding, a phasing transformer for converting single phase into polyphase currents, a motor generator driven thereby, the armature of said generator connecting with the rotary field winding at a plurality of points to set up polyphase currents therein, a single phase winding on its co-operating element supplied by a source of single phase currents, and means for varying the slip of the generator armature.

No. 64,640. Ceiling and Wall. (*Plafond et mur.*)

FIG. I.

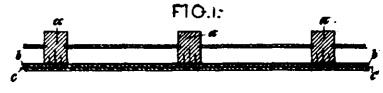
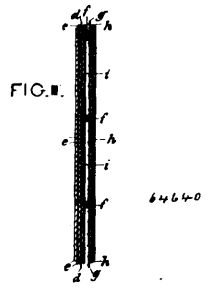


FIG. I.

FIG. II.



August Rincklake, Munster, Westphalia, Germany, 30th October, 1899; 6 years. (Filed 23rd June, 1899.)

Claim.—In ceilings and walls, the combination of a close fabric and a net parallel to one another, and a plaster on that face of said close fabric which is adjacent to the net ada ted to bind the net and close fabric in the form of a stiff plate adapted to be subsequently further plastered.

No. 64,641. Perambulator. (*Voiture d'enfant.*)

Isaac Newton Dann, New Haven, Connecticut, U.S.A., 30th October, 1899; 6 years. (Filed 16th June, 1899.)

Claim.—1st. In a go-cart, the combination with a frame mounted between two wheels and supported above the axle of said cart, and having a stationary seat and rearwardly projecting handle, of a back pivotally connected to said frame at the rear end of said seat, substantially midway between the ends of the sides of said frame, and in substantially a direct line above the said axle, a foot rest pivotally connected to the frame at the front end of said seat, intermediate connections between said back and foot rest for causing them to move in unison, and means, as a rod and clamping hub, for locking said back and foot rest at any angle to said seat, substantially as described. 2nd. In a go-cart, the combination with the axle and wheels, of a body supported above the said axle substantially midway of its length, intermediate springs between the said axle and body, the said body comprising a stationary seat, side frames projecting substantially the same distance to the front and rear of said axle, rearwardly projecting handles forming part of the side frame, a tilting back pivoted to the said body in substantially direct line above the said axle, a foot-rest and lever connections between said back and foot rest, substantially as described. 3rd. In a go-cart, the combination with the stationary seat, pivotally supported back and foot rest, and means for communicating the

Fig 2

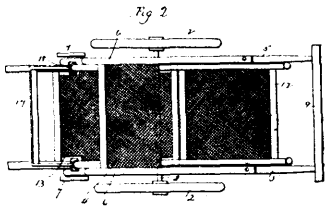
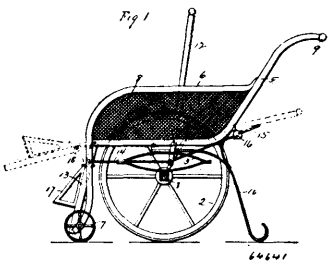


Fig 1



motion of one of said latter parts to the other, of a foot board, as 17, adjustably mounted upon said foot rest, and means, as the links 18 and series of teeth on the foot rest, for securing said footboard at different heights upon the foot rest, substantially as described. 4th. In a go-cart the combination with the frame and the back and foot rest pivotally supported upon said frame, of the clamping hub 16 on said frame, and the rod 15 projecting rearwardly from said back and adapted for a sliding movement through said clamping hub, substantially as described. 5th. In a child's go-cart, the combination with the two wheels and their axle, of the frame supported upon the said axle and having two side bodies, each of which is composed of a single rail 5 forming the bottom boundary thereof and bent upwardly and rearwardly to form a handle, a single rail 6 forming the upper boundary of said side body, secured to said rail 5 above the level of seat and extending in a plane substantially parallel therewith nearly to the front end of the vehicle where it is curved downwardly nearly to the floor line and carrying a wheel 7 at its front end, and suitable intermediate filling material between said rails, substantially as described.

No. 64,642. Furnace Fuel Feeding Device.
(*Appareil à alimenter les fournaises.*)

Fig 1

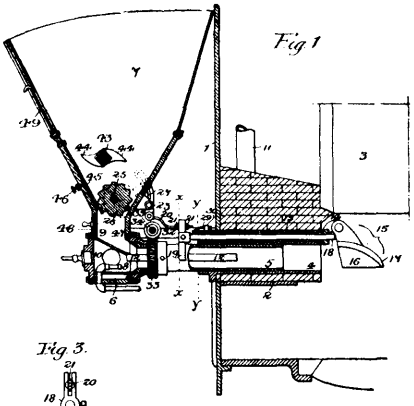


Fig 3.

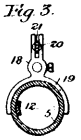


Fig 4.

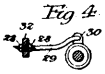


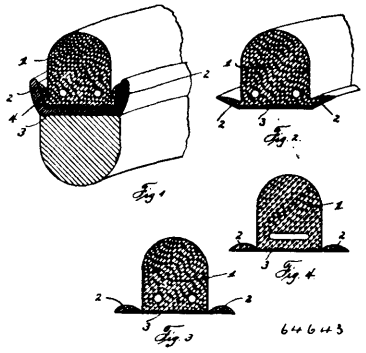
Fig 5.

Joseph Davies, Bridgeport, Pennsylvania, U.S.A., 30th October, 1899; 6 years. (Filed 17th June, 1899.)

Claim.—1st. The combination of means for projecting a mass of fuel into a fire box, with a duplex distributor having downwardly and outwardly flaring portions on each side of a central line whereby a lateral as well as a longitudinal distribution of the fuel will be

effected, substantially as specified. 2nd. The combination of means for projecting a mass of fuel into a fire box, with a distributor mounted in the path of said projected mass of fuel, and provision for swinging said distributor laterally so as to vary its relation to said moving mass of fuel, and means for imparting longitudinal vibration to said distributor, substantially as specified. 3rd. The combination of means for projecting a mass of fuel into a fire box, a distributor located in the path of said moving mass of fuel, a hanger carrying said distributor, a bearing for said hanger, and means for swinging said hanger in the bearing, substantially as specified. 4th. The combination of means for projecting a mass of fuel into a fire box, a distributor located in the path of said moving mass of fuel, a hanger for said distributor, a bearing in which said hanger is mounted so as to be capable of swinging or turning, a rod passing through said hanger and acting upon the distributor so as to effect vibration of the same, and means for imparting reciprocating motion to said rod, substantially as specified. 5th. The combination of means for projecting a mass of fuel into a fire box, a swinging distributor located in the path of said moving mass of fuel, a rod acting on said distributor, a yoke connected to said rod, an operating rod having a longitudinal adjustment in respect to said yoke, and means for imparting reciprocating motion to said operating rod, substantially as specified. 6th. The combination of means for projecting a mass of fuel into a fire box, a swinging distributor interposed in the path of said moving mass of fuel, a rod for imparting swinging movement to said distributor, and mechanism for reciprocating said rod, one of the elements of said mechanism being a slotted lever whereby the extent of reciprocating movement of the rod can be regulated, substantially as specified. 7th. The combination in a fuel feeding device for furnaces, of a feed tube, means for rotating the same, an air blast and fuel supply chamber communicating with said tube, and a scraper located on the inside of the rotating tube and serving to prevent accumulations of fuel thereon, substantially as specified. 8th. The combination in fuel feeding device for furnaces, of means for projecting fuel into the fire box, a fuel hopper, a grinding device in the lower portion of the same, and a toothed breaker rotating in the hopper above said grinding device, whereby large lumps of fuel are cracked or broken by said breaker before they are subjected to the action of the grinding device, substantially as specified.

No. 64,643. Tire. (*Bandage.*)



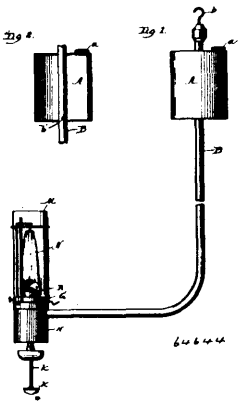
Joseph Arthur Burrows, Akron, Ohio, U.S A., 30th October, 1899; 6 years. (Filed 19th June, 1899.)

Claim.—1st. A wheel having a channelled rim provided with an elastic tire body having lateral wings compressed by and between the side flanges of the channel and the sides of the tire body. 2nd. A wheel having a channelled rim provided with an elastic tire body having lateral wings elastically and movably connected therewith, said wings standing between the sides of the tire body and tending by their own elasticity to cling to the side flanges of the channel. 3rd. A wheel having a channelled rim provided with an elastic tire body and lateral elastic wings interposed between the sides of the tire proper and the side flanges of the channel to afford an elastic cushion against which the exposed sides of the tire body proper may expand and come into contact when compressed. 4th. A wheel having a channelled rim provided with an elastic tire body and a lateral elastic wing interposed between the sides of the tire proper and the adjacent flange of the channel to afford an elastic cushion against which the exposed side of the tire body proper may expand when compressed. 5th. The combination with a rubber tire having lateral wings, of a metallic channel adapted to receive such tire and its wings, the sides of the outer portion of the tire entering the inner sides of the flanges and partially filling the space between the flanges and sides of the tire.

No. 64,644. Vapour Burner. (*Bruleur à vapeur.*)

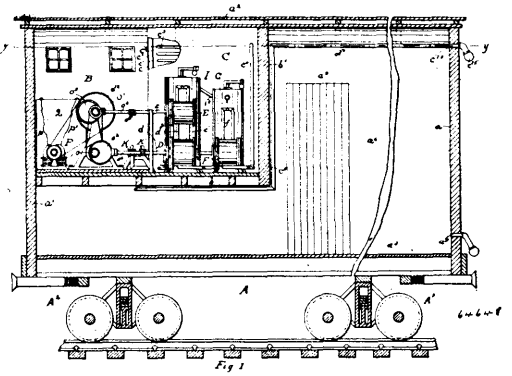
Clarence Ross Gillett, Chicago, Illinois, U.S.A., 30th October, 1899; 6 years. (Filed 19th June, 1899.)

Claim.—1st. A burner of the character described, the combination with a burner tip, of a surrounding wall provided with a channel extending in curvalinear course within said wall, said channel having terminals connecting respectively with the delivery pipe and with the burner tip. 2nd. In a burner of the character described,



the combination with a burner tip, of a surrounding wall provided with a channel extending around said wall, said channel consisting of a bent tube embedded in said surrounding wall and having its terminals connecting respectively with the delivery pipe and with the burner tip. 3rd. In a burner of the character described, the combination with a burner tip, of a surrounding wall provided with a channel extending in curvalinear course around said wall, said channel consisting of a bent tube embedded in said surrounding wall and having its terminals connecting respectively with the delivery pipe and with the burner tip.

No. 64,645. Refrigerating Car. (*Char réfrigerant.*)

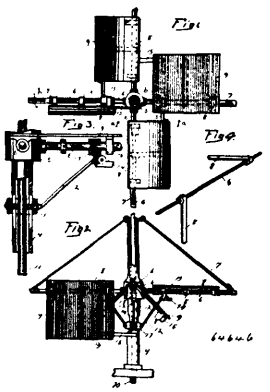


Edwin Crane Nichols, Topeka, Kansas, U.S.A., 30th October, 1899; 6 years. (Filed 22nd June, 1899.)

Claim.—1st. In an air purifying and refrigerating system, a refrigerator and a tank, having separate water circulating and air cooling chambers, and a passage for the air from the refrigerator to said air cooling chamber in said tank, a water suction and forcing apparatus and separate conductors connected with said apparatus and the water circulating chamber in said tank, and a cold air generating apparatus, a conductor leading from the air cooling chamber in said tank to the said cold air generating apparatus, and a separate conductor leading from said apparatus to said refrigerator through the air cooling chamber in said tank. 2nd. In a refrigerating car, a refrigerating chamber and a tank, having separate water circulating and air cooling chambers and a passage for the air from the refrigerator to said air cooling chamber in said tank, a water suction and forcing apparatus and separate conductors connected with said apparatus and the water circulating chamber in said tank, an air compressor and a conductor of air cooling chamber of said tank and said compressor, an air expanding engine and a conductor of compressed air connected with said engine and said compressor, a coil of pipe for the cold air within the air cooling chamber of said tank connected with said refrigerating chamber of said tank, and a conductor of cold air connected with the said coil in said air cooling chamber, and also with the said air expanding engine, as and for the purpose described. 3rd. In an air purifying and refrigerating system, a refrigerator and a tank having separate water circulating and air cooling chambers and a passage for the air from the refrigerator to said air cooling chamber in said tank, an air compressor and an air cooling receiver for cooling the compressed air ejected from the compressor, and a water suction and forcing apparatus, having separate conductors connected with the water circulating chamber in said tank and also with the air cooling receiver and a separate conductor connected with said air cooling receiver and the water circulating chamber in said tank, an air expanding engine, a con-

ductor of compressed air connected with said air compressor and said engine, a coil of pipe for the cold air within the air cooling chamber of said tank connected with said refrigerating chamber, and a conductor of cold air connected with the said coil of pipe and the air expanding engine, as and for the purpose described. 4th. In an air purifying and refrigerating system, a refrigerator and a tank having separate water circulating and air cooling chambers, and a passage for the air from the refrigerator to said air cooling chamber in said tank, an air cooling receiver having separate upper and lower chambers for the expansion of the compressed air, and an intermediate water chamber and pipes in said chamber connected with both of said air chambers, a water suction and forcing apparatus, and a conductor connected with said apparatus and the water chamber in said receiver, and separate conductors connected with said apparatus, and also with the water chamber in said air cooling receiver and said water circulating tank, a duplex air compressor and separate conductors of compressed air, one of which is connected with one of said compressors and with the air cooling chamber in said tank, and the other connected with the other compressor, and also with the air expanding chamber in the lower part of said receiver, an air expanding engine and separate conductors of compressed air connected with the upper air expanding chamber in said air cooling receiver, and also with the coil of pipe in the air cooling chamber in said tank, for the purpose described. 5th. In an air purifying and refrigerating system, a refrigerator and a tank having separate water circulating and air cooling chambers and a passage for the air from the refrigerator to said air cooling chamber in said tank, a coil of pipe for cold air within said air cooling chamber in said tank connected with said refrigerator, an air cooling receiver having separate upper and lower air expanding chambers, and an intermediate water chamber and pipes extending from one air chamber of said air cooling receiver to the other, a water suction and forcing apparatus and separate conductors, one of which is connected with the water circulating chamber in said tank, and the other with the water chamber in said air cooling receiver, an air expanding engine and separate conductors connected with said engine, one of which is connected with the coil of pipes in said air cooling chamber of said tank, and the other with the upper air ccoling chamber of said air cooling receiver, and separate air compressors having separate pipes conducting the air from one compressor to the other, and a conductor of recompressed air connected with one of said compressors and with the lower air expanding chamber in the air cooling receiver, and a separate conductor connected with the air cooling chamber in said tank, and also with the other air compressor, and means for operating both compressors at different degrees of speed, as set forth.

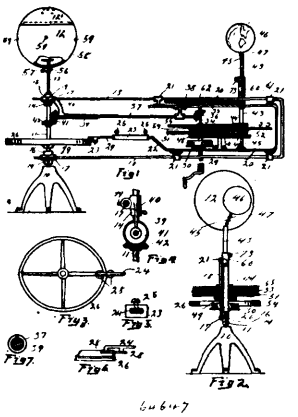
No. 64,646. Motor Wheel. (*Moteur.*)



Almer N. Blazer, Mescalero, New Mexico, U.S.A., 30th October, 1899; 6 years. (Filed 24th June, 1899.)

Claim.—1st. The combination of a hollow shaft, two angularly disposed shafts carried horizontally by the hollow shaft, two blades pivoted to each shaft, an arm adjacent to each blade, the arms being fixed to the shafts and serving to limit the movement of the blades, an arm carried by each blade, a finger sliding on each of said angularly disposed shafts, and means for moving the fingers in and out to engage and disengage the respective arms on the blades. 2nd. The combination of a hollow shaft, a rod sliding through the hollow shaft, a collar sliding on the hollow shaft and connected with the rod, two angularly disposed shafts carried horizontally on the hollow shaft, a finger sliding on each of said angularly disposed shafts and connected with the roller, a blade pivoted to the outer portion of each angularly disposed shaft, an arm carried by each blade and respectively co-acting with the fingers and arm fixed to said outer portions of each of said shafts and serving to limit the movements of the blades. 3rd. The combination of a shaft, a blade pivoted to the shaft, a sliding finger capable of engaging with the blade, and means for supporting the finger to hold the blade. 4th. The combination of a shaft, a blade pivoted on the shaft, an arm fixed to the shaft and limiting the movement of the blade, an arm fixed to the blade, and a sliding finger capable of being engaged by the arm on the blade, whereby to hold the blade raised.

No. 64,647. Planetarium. (*Planétaire.*)



Needham W. Hurst, Thomaston, and Thomas O. Linch, Flovilla, both in Georgia, U.S.A., 30th October, 1899; 6 years. (Filed 28th June 1899.)

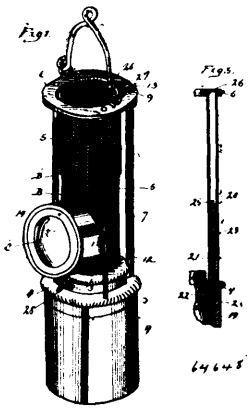
Claim.—1st. In an educational planetary system, a central pivot, a cam mounted on said pivot, a rotatable frame adjustably mounted on said pivot, means for moving said frame around said pivot, a supplementary frame movably mounted on said rotatable frame, and an adjustable arm carried by said supplementary frame and engaging with said cam to move the supplementary frame relatively to the rotatable frame as the said rotatable frame moves around the central pivot. 2nd. In an educational planetary system, a central pivot supporting a solar centre, sleeves rotatably mounted thereon, a supplementary frame secured by its free ends to said sleeves, so as to be movable longitudinally through same, a planet-carrying frame, an elliptical guiding cam on said central pivot, and an extensible arm projecting from said planet-carrying frame, and adapted to engage and follow said cam. 3rd. In an educational planetary system, a central pivot, a cam mounted on said pivot, a rotatable frame adjustably mounted on said pivot, a supplementary frame movably mounted in said rotatable frame, an adjustable arm carried by said supplementary frame and engaging with said cam, a gear fixed on said shaft, a motor carried by said supplementary frame, a telescoping rod driven by said motor, and a gear carried by said rod and engaging with said gear fixed on said central pivot. 4th. In an educational planetary system, a central pivot, a U-shaped frame revolubly mounted on said central pivot, a smaller supplementary frame carrying slides movable longitudinally of said first-named frame, a cam on said pivot and an arm connecting said smaller frame with said cam, a motor mounted in said smaller frame, a shaft geared thereto and to the central pivot, another shaft carrying a model of a subordinate planet, and means for operatively connecting said last named shaft and said motor. 5th. In an educational planetary system, a central pivot, a cam mounted on said central pivot, a rotatable frame adjustably mounted on said pivot, means for moving said rotatable frame around said pivot, a supplementary frame movably mounted in said rotatable frame, an adjustable arm carried by said supplementary frame and engaging with said cam, a support mounted on said supplementary frame, means for rotating said support, a track or guide leading around said support, a carriage mounted on said track, and means for moving said carriage on said track.

No. 64,648. Miner's Lamp. (*Lampe de mineurs.*)

Henry J. Richards, Wilkesbarre, Pennsylvania, U.S.A., 30th October, 1899; 6 years. (Filed 28th June, 1899.)

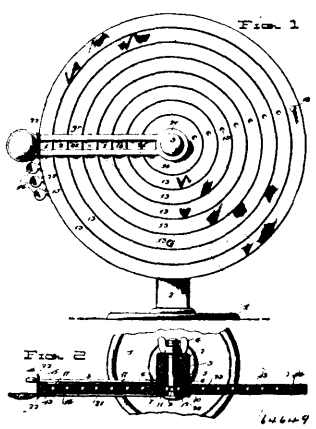
Claim.—1st. In a safety lamp, the combination with the oil cup and the gauze tube, of the ring 3 to which the tube is connected, said ring being provided with a notch 12, the ring 4 between the ring 3 and the oil cup, the tube engaging the notch 12 and resting on the ring 4 and the locking rod within the tube, said rod having a threaded portion engaging the ring 4 and an extension engaging a socket in the oil cup, substantially as described. 2nd. In a safety lamp, the combination with the oil cup and gauze tube, of the rings 4 and 6, the intermediate tube and the rod within the tube having a threaded connection with the ring 4, the upper end of said rod being wholly within the tube and adapted to be engaged by a key, substantially as described. 3rd. In a safety lamp, the combination with the oil cup and the gauze tube, of the rings 4 and 6, the intermediate tube, and the rod within the tube having a threaded connection with the tube and with the ring 4 and engaging a socket in the oil cup, substantially as described. 4th. In a safety lamp, the combination of the oil cup and the gauze tube, of a reflector

within the tube, a chimney supported on the reflector, and a plate over the chimney adapted to disperse the heated products of com-



bustion, substantially as described. 5th. In a safety lamp, the combination of the oil cup and the gauze tube, bars having their lower ends connected to the oil cup and extending up and around the gauze tube, and a lens secured to said bars and adjustable thereon, substantially as described.

No. 64,649. Synthetical Educational Appliance.
(*Appareil synthélique d'éducation.*)



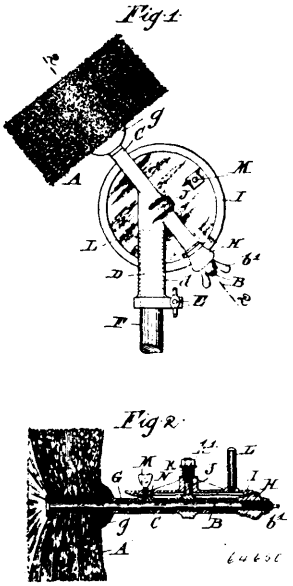
James Oliver Osman, Norcatur, Kansas, U.S.A., 30th October, 1899; 6 years. (Filed 3rd July, 1899.)

Claim.—1st. In a device of the character indicated, a series of independent concentric annuli mounted in the same plane, means for independently moving each annulus, and a series of spring actuated brake fingers engaging said annuli, substantially as and for the purpose set forth. 2nd. In a device of the character described, a series of independent concentric annuli mounted in the same plane, means for independently moving each annulus in either direction to bring the characters on one annulus into alignment with the corresponding characters on the other annuli, and a series of spring actuated brake fingers engaging said annuli, substantially as and for the purpose set forth. 3rd. In a device of the character indicated, a standard, a transverse bolt mounted therein, a series of independent concentric annuli mounted on said bolt, a visual indicator fixed to said bolt and extending across the aligned faces of said annuli, and a guard hook fixed to the rear face of the indicator and extending inwardly across the rear face of the external annulus, substantially as and for the purpose set forth.

No. 64,650. Mop. (*Guipon.*)

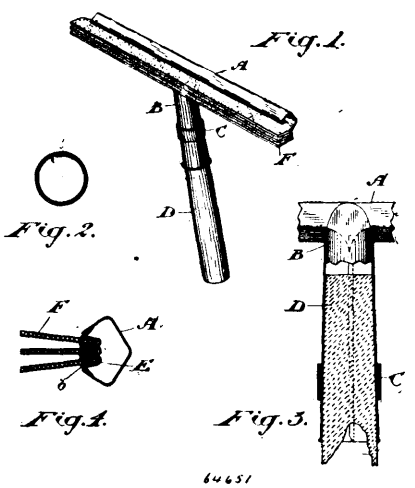
William Dabb, Starcross, Oxford Road, Cloydon, Victoria, 30th October, 1899; 6 years. (Filed 22nd July, 1899.)

Claim.—1st. A mop for household and other purposes having a rotatable head mounted in bearings upon a clamp or socket adapted to be secured upon a handle, substantially as and for the purposes herein described and explained. 2nd. In a mop for household and other purposes, having a rotatable head, the combination of a sleeve as G, rotating in bearings such as C, and driven by frictional or other gear from a small hand wheel with a spindle, as B, passing through said sleeve and carrying the head of the mop, substantially as and for the purpose herein described and explained. 3rd. In a mop for household and other purposes, having a rotatable head, the combination of a tapering sleeve, as G, rotated by means of a hand wheel in bearings with a spindle, as B, carrying the mop head and a bevel pinion cast or secured upon the end of said tapering sleeve



nearest said mop head, substantially as and for the purposes herein described and explained, and as illustrated in Figure 7 of the accompanying drawings.

No. 64,651. Window Cleaner. (*Nettoyeur de fenêtre.*)



Charles Boeckh, Toronto, Ontario, Canada, 30th October, 1899; 6 years. (Filed 21st August, 1899.)

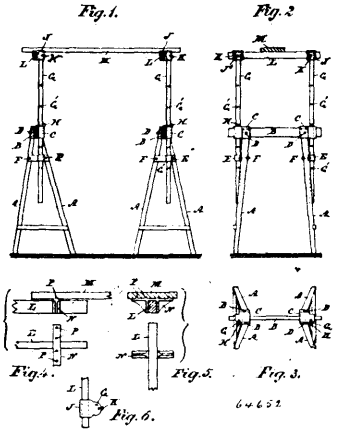
Claim.—1st. In a window cleaner, a grooved head in combination with three rubber strips inserted in the said grooves, the grooves being so formed and located that the outer edge of the rubber strips are not in contact with one another, substantially as and for the purpose specified. 2nd. In a window cleaner, a hollow sheet metal head having its front side formed with corrugations forming grooves in combination with rubber strips inserted in the grooves, substantially as and for the purpose specified. 3rd. In a window cleaner, a hollow sheet metal head having its front side formed with corrugations forming grooves with contracted necks in combination with rubber strips inserted in the grooves, substan ially as and for the purpose specified. 4th. In a window cleaner, a head provided with a divided expansible socket and a ring embracing the said socket, substantially as and for the purpose specified. 5th. In a window cleaner, a head provided with a tapered divided socket with edges overlapping at the line of division and a ring embracing the said socket, substantially as and for the purpose specified.

No. 64,652. Scaffold Support. (*Support d'échafaud.*)

Thomas Milne, Sandon, British Columbia, Canada, 30th October, 1899; 6 years. (Filed 13th September, 1899.)

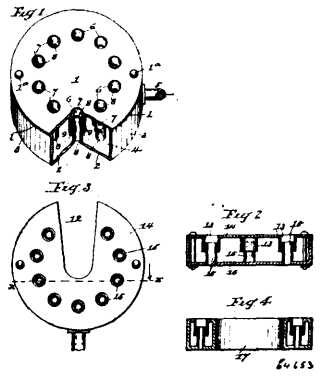
Claim.—1st. The combination with the legs A A, beam B, and scaffold poles G G, of the malleable iron castings C C, connecting said legs, beams and poles removably, as set forth. 2nd. The com

bination with the legs A A, beam B, and connecting castings C C, having a vertical hole, of the scaffold poles G entering said hole,



and a malleable iron casting E, secured to said legs, having a hole adapted to receive said pole and hold it rigidly, as set forth. 3rd. The combination with the scaffold poles G, and beam L, of the castings J, connecting said poles and beam separably, as set forth. 4th. The combination with the beam L and floor or plank M, of the malleable iron casting E, adapted to straddle said beam and having points or prongs P, to enter said floor or plank, as set forth 5th. In a trestle and scaffold, the malleable iron castings C C, having vertical pockets to receive the legs of the trestle, a horizontal tubular socket to receive the scaffold pole G, as set forth.

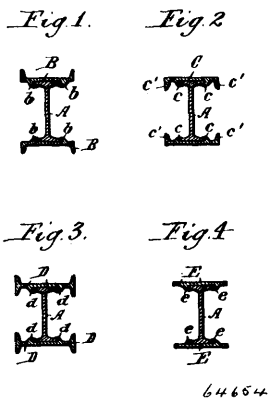
No. 63,653. Gas Burner. (*Bruleur à gaz.*)



Adam Heller, Baltimore, Maryland, U.S.A., 30th October, 1899; 6 years. (Filed 16th March, 1-99.)

Claim.—1st. In a gas burner, the combination with the casing forming a gas chamber, and having holes in its top and bottom, of the tubes depending from the top holes, and the tubes projecting from the bottom holes into the said depending tubes, to leave a gas passage or space from said chamber between the telescoping portions of the tubes. 2nd. In a gas burner the combination with a casing forming a gas chamber, and having holes in its top and bottom, of the tubes depending from the top holes and terminating in the chamber above the bottom holes, and the tubes projecting from the bottom holes and terminating in the depending tubes so as to leave a gas passage from the chamber between the tubes and a combustion space in the depending tubes. 3rd. In a gas burner, the combination with a casing forming a gas chamber of the open tubes depending from the top of the casing and terminating in said chamber, and the open tubes projecting from the bottom of the casing and terminating in the said depending tubes to leave a gas passage and a combustion space.

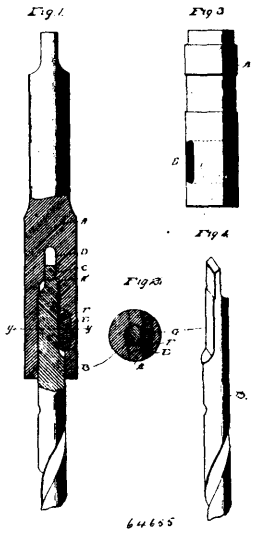
No. 64,654. Beams, Girders and Posts.
(*Poutre, traverse et poteau.*)



Charles M. Horton, West Superior, Wisconsin, U.S.A., 30th October, 1899; 6 years. (Filed 20th September, 1899.)

Claim.—A structural beam or post, comprising an integral I beam and one or more channel plates or beams having channel walls for receiving the flanges of the I beam and securing the parts rigidly together, substantially as described.

No. 64,655. Drill and Socket. (*Forêt et douille.*)



George F. Leonard, Pittsburg, Pennsylvania, U.S.A., 30th October, 1899; 6 years. (Filed 20th September, 1899.)

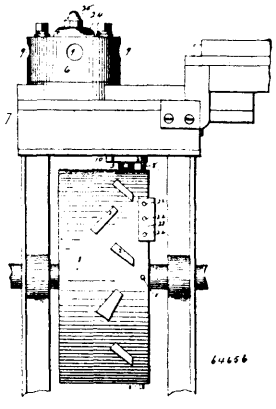
Claim.—1st. The combination with a socket having a bore circular in cross section, the socket being formed with a transverse slot intermediate the ends of the circular bore, one side of the slot being coincident with the bore, and a key fixed in the slot and having a flat surface which interrupts the circular contour of the bore, of a drill having a circular shank formed with a longitudinal flat extending to a point beneath the transverse key when in position in the socket bore, substantially as shown and described. 2nd. The combination with a socket having a circular longitudinal bore terminating in transverse slot D having flat sides, the socket being formed beneath slot D with transverse slot E at one side of the longitudinal centre of the socket but coincident with one side of the socket bore, the key F secured in slot E, of the drill having tang C at the extremity of its shank to enter slot D, the drill shank being flattened downward from its extremity on one side to pass key F but flatly engaging the same so as to relieve the drill shank and tang C thereof of torsional strain, substantially as shown and described.

No. 64,656. Lathe. (*Tour.*)

Joseph Peter Lavigne, New Haven, Connecticut, U.S.A., 30th October, 1899; 6 years. (Filed 17th April, 1899.)

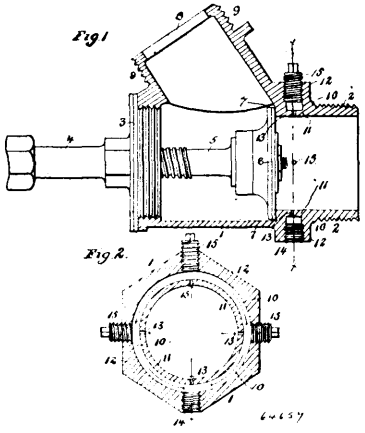
Claim.—1st. In a turret lathe, the combination with the turret thereof, of a slide upon which the turret is mounted, a slide holder in which the slide is mounted, a star wheel located below the slide holder and connected with the turret, and a cam drum co-acting

with the star wheel for imparting intermittent rotary movement to the turret when the slide is at rest. 2nd. In a turret lathe, the



combination with the turret thereof, of a slide upon which the turret is mounted, a slide holder in which the slide is mounted, a sleeve passing through the turret, means for coupling the upper end of the sleeve with the upper face of the turret, a star wheel located below the slide holder, means for connecting the star wheel with the lower end of the said sleeve, and means for intermittently actuating the said star wheel and hence the turret at a time when the slide is at rest. 3rd. In a turret lathe, the combination with the turret thereof, of a slide upon which the turret is mounted and by which it is moved back and forth, a slide holder in which the slide is mounted, a sleeve passing through the turret, means for coupling the sleeve with a turret, a driven pinion located at the lower end of the said sleeve, a driving pinion meshing into the said driven pinion, a star wheel located below the said slide holder and connected with the said driving pinion, and means co-acting with the said star wheel for imparting intermittent rotary movement thereto and hence to the turret at a time when the slide is at rest. 4th. In a turret lathe, the combination with the turret thereof, of a slide, a turret stud mounted in the slide and formed at its upper end with a bevel upon which the turret rotates with respect to the stud, a sleeve passing upward through the said stud, means for coupling the upper end of the sleeve with the turret, a driven pinion located at the lower end of the said sleeve, a driving pinion meshing into the said driven pinion, a star wheel connected with the said driving pinion, and means for imparting intermittent actuation to the said star wheel. 5th. In a turret lathe, the combination with the turret thereof, of a slide and a slide holder, a sleeve passing upward through the turret and coupled therewith, a driven pinion located at the lower end of the said sleeve, a driving pinion meshing into the said driven pinion, and located at the upper end of a sleeve which extends downward through the said slide holder, a star wheel located at the lower end of the sleeve last mentioned and therefore below the said slide holder, and means for actuating the star wheel in intermittent rotation when the slide is at rest. 6th. In a turret lathe, the combination with the turret thereof, of a slide upon which the turret is mounted and by which it is moved back and forth, a slide holder in which the slide is mounted, a turret stud mounted in the slide and adapted for the rotation of the turret upon it, a sleeve passing upward through the said stud and turret, and adapted to have slight vertical movement independently thereof, means for actuating the said sleeve in intermittent rotation within the stud which is fixed, an independently formed coupling disc secured to the upper end of the sleeve, means for loosely coupling the said disc with the turret to permit the disc to move vertically with the said sleeve without being uncoupled from the turret, a clamping rod extending upward through the sleeve, means for connecting the upper end of the rod with the upper face of the turret at points outside of the said coupling disc, and means connected with the lower end of the rod which projects downward through the sleeve for drawing the rod downward so as to clamp the turret in its working position. 7th. In a turret lathe, the combination with the turret thereof, of a slide upon which the turret is mounted, a clamping rod passing upward through the turret, means for connecting the upper end of the said rod with the turret, a clamping cam pivotally connected with the lower end of the said rod from which it depends so as to swing in a vertical plane, and cams or surfaces for co-acting with the said clamping cam which is brought into engagement with them as the turret is moved back and forth with the slide. 8th. In a turret lathe, the combination with the turret thereof, of a slide upon which the turret is mounted, a clamping rod extending upward through the turret, means for connecting the upper end of the rod with the turret, a pivotal clamping cam suspended from the lower end of the said clamping rod, a hardened washer rotating with the turret and located directly above the upper end of the said cam which bears against it, and surfaces for co-acting with the said cam as the slide moves back and forth, whereby the cam acts to draw the rod downward and automatically clamp the turret in its operating positions. 9th. In a turret lathe, the combination with the turret thereof, of a slide upon which the turret is mounted, a slide holder, a turret stud mounted in the said slide and adapted for the rotation of the turret upon it, a sleeve passing upward through the said stud and turret, means for coupling the upper end of the sleeve with the turret, a driven pinion located at the lower end of the said sleeve, means for imparting intermittent rotary motion to the said pinion and hence the sleeve and turret, a clamping rod passing upward through the said sleeve, means for connecting the upper end of the said rod with the turret which is rotated under the said means, and automatic mechanism connected with the lower end of the clamping rod for intermittently drawing the same downward so as to bring the clamping instrumentalities at its upper end into co-action with the turret for frictionally clamping the same in its operating positions.

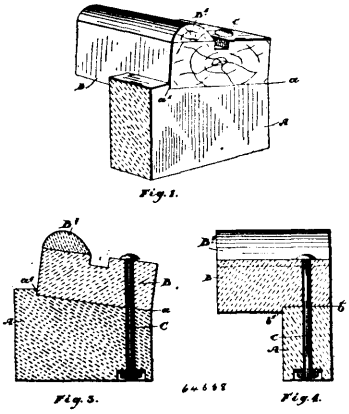
No. 64,657. Valve. (*Soupape.*)



Henry H. Wheeler, East St. Louis, Illinois, U.S.A., 30th October, 1899; 6 years (Filed 23rd August, 1899.)

Claim.—1st. A valve, comprising a suitable casing, an annular valve seat formed in the same, a valve or piston co-operating with said seat, an annular chamber surrounding the casing, and located adjacent to the valve seat, said chamber forming inner and outer walls, the said inner smooth wall being provided with small circumferentially arranged ports, whereby the annular chamber is in communication with the interior of the valve casing, the outer wall being provided with large screw threaded openings, and screw threaded plugs adapted to be screwed into each of said screw threaded openings, one of which plugs may be removed for the passage of water located within the annular chamber, whereby the valve may be placed in any suitable position for the proper drainage of water contained in the annular, chamber, substantially as described.

No. 64,658. Wire Mattress Frame.
(*Cadre pour sommiers élastique.*)

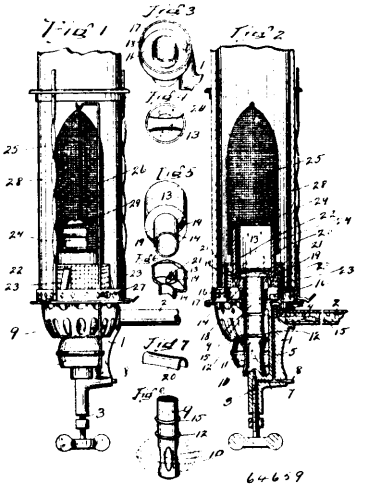


John B. Smith and Sons, assignee of William Ross Hunter, all of Toronto, Ontario, Canada, 31st October, 1899; 6 years. (Filed 21st September, 1899.)

Claim.—1st. The combination with the side bar having an upper cross cut or check formed with a shoulder at the inside of the cross bar provided with an under cross cut or check having a shoulder, both shoulders being substantially at right angles and the shoulder on the side bar arranged to abut the side of the cross bar above the cross cut or check and the shoulder on the cross bar being arranged

to abut the side of the side bar contiguous to the cross cut or check thereof and suitable means for fastening the parts together, as and for the purpose specified. 2nd. The combination with the side bar having an upper cross cut or check formed with a shoulder at the inside, of the cross bar provided with an under cross cut or check having a shoulder, both shoulders being substantially at right angles and the shoulder on the side bar arranged to abut the side of the cross bar above the cross cut or check, and the shoulder on the cross bar being arranged to abut the side of the side bar contiguous to the cross cut or check thereof and a bolt for fastening the parts together, as and for the purpose specified. 3rd. The combination with the side bar having an upper cross cut or check formed with a shoulder at the inside, of the cross bar provided with an under cross cut or check having a shoulder, both shoulders being substantially at right angles and the shoulders on the side bar arranged to abut the side of the cross bar above the cross cut or check and the shoulder on the cross bar being arranged to abut the side of the side bar contiguous to the cross cut or check thereof, the cross cut or check on the side bar being preferably inclined from the shoulder to the outer end, and means for fastening the parts together, as and for the purpose specified.

No. 64,659. Vapor Burner. (*Bruleur à vapeur.*)



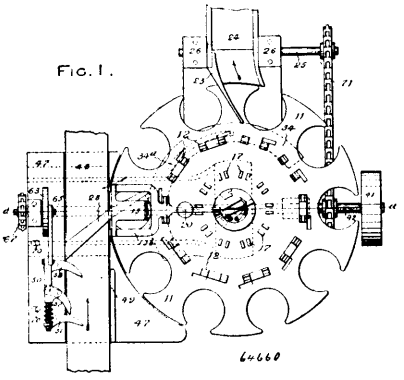
Clearmont V. Best, Jay G. Best and Lewis M. Bachtel, all of Canton, Ohio, U.S.A., 31st October, 1899; 6 years. (Filed 8th March, 1899.)

Claim.—1st. The combination of a body provided with a supply pipe, passages leading from the supply pipe to the lower portion of the mixing tube, a mixing tube provided with air passages, a cylinder head located directly above the mixing tube and provided with a deflector, subjets located below the deflector and leading from under the deflector to the outside of the mixing tube, substantially as and for the purpose specified. 2nd. In an incandescent vapor-burner, the combination of a body, a mixing tube, and means for conveying fuel thereto, a cylinder or head located directly above the mixing tube and provided with a deflecting plate, subjets opening into the cylinder head below the deflecting plate, a perforated screen or band located around the subjets, and a heating plate located below the subjets, substantially as and for the purpose specified. 3rd. The combination of a body and a supply pipe, a mixing tube provided with air passages, and the beads 12 and 15, the shield 11 located around the mixing tube, the cylinder or head 13 provided with the reduced portion 14, subjets located at the bottom or lower portion of the cylinder 13, and a deflector located in the lower portion of the cylinder and covering the inner openings of the subjets, substantially as and for the purpose specified.

No. 64,660. Weight Sorting Machine.
(*Machine à assortir par pesanteur.*)

John Kellington, Terra Nova, and Daniel J. Munn, New Westminster, both in British Columbia, Canada, 31st October, 1899; 6 years. (Filed 22nd February, 1899.)

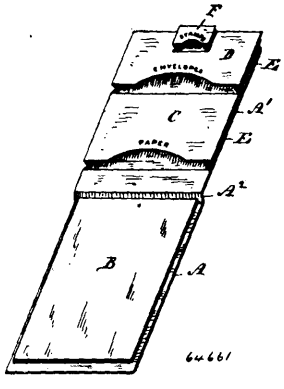
Claim.—1st. In a weight sorting machine, having a suitable frame 10, with a spindle 10^b thereon, a rotatable table 11 mounted on said spindle, balances arranged at regular intervals around the said table, such balances being susceptible of depositing the uniform weights at one point of delivery, and all light weights at another point of delivery, substantially as specified. 2nd. In a rotatable weight sorting machine, having a table arranged to turn on a suitable frame, standards 12 fixed at intervals at an even radii round such table, balance beams 13 arranged on said standards, the inner ends of which engage a fixed cam on a spindle passing through the centre of the table, forks on the outer ends of said beams, frames 15 suspended by the outer ends of said forks, horizontal supports 16 on the frame 15, bars 18 communicating between the inner sides of the frames 15, and brackets near the centre of the



table, and means for adjusting the balances so that weights not having the required specific gravity will be delivered at a different point as rejected weights, as the table is passed around. 3rd. In a machine for the purposes set forth, having a suitable frame and a table rotatably mounted thereon, and means for imparting movement thereto, in combination with balances arranged radially at an even radii round such table, locking mechanism for securing the balances against any lateral strain at certain points as the table moves around, a fixed cam above the centre of the table, beams communicating with an uneven track on said cam, which track will control the vertical movement of the balances when a package or cam below the required weight is passed around, as specified. 4th. In a machine for weighing and sorting cans having a rotatable table mounted on a suitable frame and means for imparting movement thereto, standards secured at regular intervals and at an even radii from the centre of the said table, balances fixed on said standards, and means for adjusting said balances for weighing cans of various weights at each adjustment, in combination with a fixed cam above the centre of the table, and approximately on a horizontal plane with the tops of the balances, a track of uneven plane for supporting the inner ends of the beams connecting with the balances, and a dividing plate on such track for manipulating the balances so that the weights carried thereon will be sorted or delivered at different points, according to their respective weights. 5th. In a machine for the purposes described, having a rotatable table mounted on a suitable frame, and means for turning the same, in combination with balances suspended on radial balance beams, which beams are supported by standards, of a cam having a cam truck of uneven plane for engaging the inner ends of the balance beams, a division piece 21^b in said track, and means for preventing the ends of the said beams from dead-centreing on the point of the division piece, such means consisting of a guide bar 35, pivoted at one end and its opposite end projected over the said track on a horizontal plane with the point of the division piece, a spring for holding said bar forward, and means of rotating it when it is pressed back by one of the beam ends, substantially as and for the purposes specified. 6th. In a machine for weighing and sorting cans or other packages of a like nature, a fixed hub or spindle in the centre of a rotatable table, a cam having a track of uneven plane fixed to such spindle, said track being divided on one side by a dividing piece 21 *b*, and a flap 27 hinged to such dividing piece at the point of convergence of the two tracks, as and for the purposes specified. 7th. In a machine of the class described, in combination with a rotatable table 11 mounted on a suitable frame, balances arranged radially around such table, and balance beams converging towards the centre of said table, a fixed spindle on which the table rotates, a cam fixed on said spindle having a track designed to depress and raise the inner ends of the beams at specific points as they are passed round, when lighter than the required weights are carried, as specified. 8th. In a machine for sorting cans or packages by their specific gravity, having a suitable frame, and a rotatable table having openings around its outer sides arranged to turn on said frame in combination with balances for receiving the cans or packages to be sorted poised over the said openings in the table, and means for raising and depressing the said balances as the table is rotated, according to the weight of the packages carried, and for delivering the said cans at specific points according to their weights, substantially as and for the purpose set forth. 9th. In a machine of the class described, having a rotatable table, and balances mounted thereon, means for introducing cans to said balances at one side of the machine, and for delivering them therefrom at two points, according to the specific gravity of the cans, and a means for locking the balances at the points of introduction and delivery respectively, such means consisting of slidable bars 28 having spurs 28*a* engaging one side of the balance frames, levers 30 engaging the opposite ends of said bars, arms 30*a* on said levers, and means of raising the levers whereby the balance frames will be embraced by the spurs 28*a* on one side and the arms 30*a* on the other. 10th. In a machine for the purpose described, in combination with a rotatable table, balances arranged

thereon, said balances supported by balance beams 13, resting on standards 12*a*, of means for preventing lateral movement of the pivots of the balances, consisting of holders 32 and 33 connecting the balance beam 13 with its supports 12*a* and connecting the balance frame with its supports 13*b* respectively, as and for the purpose set forth. 11th. In combination with a weight sorting device, having a rotatable table 11, with balances arranged at intervals thereon, means for spacing and passing cans to such balances, consisting of a feed belt 48, passing over a table, reciprocating fingers 51 and 53 pivoted to the front side of a frame 50, and a finger 52 pivoted to said frame, at a point to the rear of the pivots of the fingers 51 and 53, a bar 57 connecting the fingers 51 and 53 movably and fixedly in alinment with the pivot of the finger 52, a slidable block 58 on the bar 57 and connecting with the finger 52 in alignment with the fixed pivots of the fingers 51 and 53, a spring 59*a* interposed between the block 58 and the connection with the finger 51, and means for oscillating the bar 57 back and forth once for each balance on the table 11, as specified. 12th. A spacing mechanism for cans, consisting of fingers 51 and 53 pivoted at some distance from their rear ends to the forward side of a frame 50, a finger 52 pivoted near its rear end to said frame, a slidable bar 57 connecting the rear ends of the fingers 51 and 52, movably and fixedly respectively, a slidable block 58 on a reduced part of the bar 57, a slot 58*a* therein, a pin 59 passing through such slot and into the finger 52 at a point in alignment with the pivots of the fingers 51 and 53, a coil spring 59*a* occupying the remainder of the reduced part of the bar 57, the opposite ends of which bear against the slidable block 58, and an eye 61, which is fixed to the rear end of the finger 51, a pin 60 passed through the said bar for holding the eye thereon, and a connecting rod 64 communicating between the slidable bar 57 and a cam wheel 63 and means for imparting movement to said wheel, substantially as and for the purposes set forth. 13th. A can feed mechanism, having a frame 50 with reciprocating fingers projecting over the front side thereof, in combination with a belt for carrying the cans forward, and a guide 28 for pushing the cans from the belt, of a connecting rod 64 communicating with the fingers, and a cam wheel 63 having a groove of uneven radii and a stud on the said connecting rod lying in the said groove, and means for imparting movement to the cam wheel whereby the fingers will be thrust over the belt in the path of the cans, as specified.

No. 64,661. Portfolio. (*Porte-feuille.*)



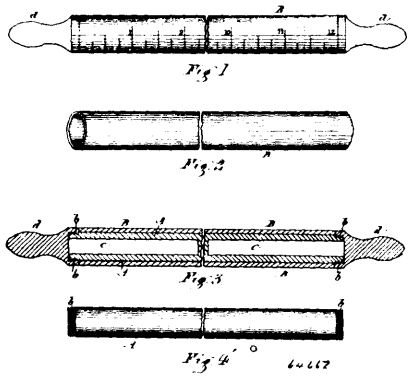
Alphonse M. Moore, Ottawa, Ontario, Canada, 31st October, 1899; 6 years. (Filed 18th April, 1899.)

Claim.—A portfolio, comprising two covers and a backing connecting the covers to open endwise, blotter pages secured to said backing and pockets inside one of the covers adapted to contain writing paper and envelopes, the bellows forming the side pieces of said pockets made of one piece of textile material, the inside of the other cover blank or printed with advertising or descriptive matter, as set forth.

No. 64,662. Ruler. (*Règle.*)

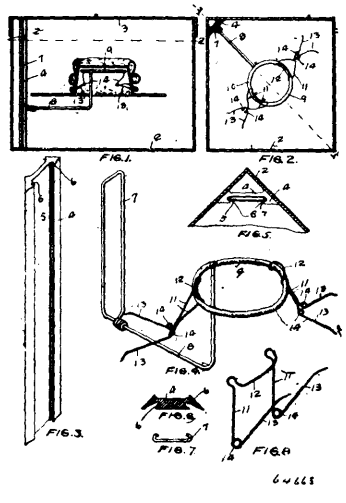
William John Ballentine, Hamilton, Ontario, Canada, 31st October, 1899; 6 years. (Filed 19th April, 1899.)

Claim.—A combined ruler, blotter and measure consisting of a cylinder formed with interior compartments, the cylinder covered with an ink absorbing material, and handles attached to the cylinder and the outer side of the absorbing material divided into



inches and parts of the same, substantially as and for the purpose specified.

No. 64,663. Hat Box. (*Boîte à chapeau.*)

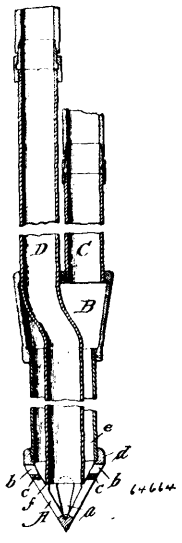


Thomas Canty, Minneapolis, Minnesota, U.S.A., 31st October, 1899; 6 years. (Filed 6th June, 1899.)

Claim.—1st. The combination, with a box of rectangular or other polygonal form, of a vertical slideway secured to the walls of the box near the corner thereof, whereby said slideway forms, with the corner portions of the walls of the box, a vertical triangular bracing column, and an adjustable hat holder supported upon said slideway, for the purpose set forth. 2nd. The combination, with a box of rectangular, triangular, or other polygonal form, having its walls formed of thin material, of a slideway formed of rigid material and secured to the inner surfaces of the walls of the box near a corner thereof, whereby said slideway forms, with the corner portions of the walls of the box, a triangular bracing column for said box, substantially as described. 3rd. The combination, with a box of rectangular, triangular or other polygonal form, having its walls formed of thin material, of a vertical slideway 4 having its slide walls arranged in planes at right angles to each other and secured to inner surfaces of the side walls of the box near a corner thereof, said slideway being provided with a grooved inner surface adapted to receive a hat support, substantially as described. 4th. The combination, with the box and the vertical grooved slideway secured thereto, of the hat support having a vertical rectangular slide capable of expansion and concentration and adapted to fit and be moved upon said slideway, for the purpose set forth. 5th. The combination, with a suitable box and a hat support arranged therein, said hat support being adapted to fit within the crown of a hat, of hat fasteners arranged upon said hat support and adapted to engage the inner surface of the crown, for the purpose set forth. 6th. The combination, with a hat support adapted to fit within the crown of a hat, of removable and adjustable hat fasteners arranged upon said hat support and adapted to engage the inner surface of the crown of a hat and hold the same in position. 7th. The combination, with a hat support provided with a ring adapted to fit within a crown of a hat, of a series of hat fasteners secured upon said ring and adapted to engage the inner surface of the crown of a hat, and hold the hat in position upon said ring, substantially as described. 8th. The combination, with a hat support adapted to fit within the crown of

a hat, of hat fasteners provided with spring pins adapted to engage the inner surface of the crown of a hat and hold the same in position upon said holder. 9th. The combination, with a hat support provided with a ring adapted to fit within the crown of a hat, and a textile covering secured upon said ring, for the purpose set forth.

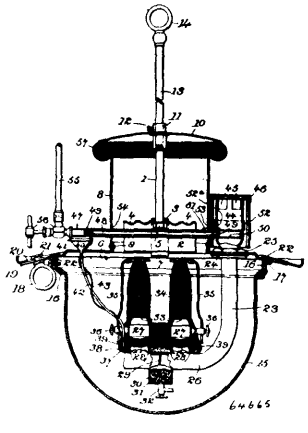
No. 64,664. Hydraulic Ground Testing Device.
(*Machine d'épreuve hydraulique.*)



Ralph Howard Pinkham, Wakefield, Massachusets, U.S.A., 31st October, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. A testing device, consisting of a shoe of conical shape having two sets of openings, one set being arranged above the other and independent pipes leading to each set, substantially as described. 2nd. In a testing machine, a shoe of conical shape having a series of elongated openings in its lower part and a series of lateral openings in its upper part, and independendent pipes in connection with said openings, substantially as described. 3rd. In a testing device, a shoe of conical shape having a series of opening in its lower part, a ledge formed in the interior, an exit pipe supported by said ledge, a series of laterally extending openings in the upper part of the shoe and a supply pipe surrounding the exit pipe and communicating with the lateral openings, substantially as described. 4th. In a testing device, a head B, a shoe, a pipe between the head and shoe, an inlet pipe communicating with the head and discharging into the same and an exit pipe passing through the head to the shoe, substantially as described. 5th. In a testing device, a head B, a shoe, a pipe communicating with the head and discharging into the same and an exit pipe passing through the head to the shoe, substantially as described.

No. 64,665. Vapour Burner. (*Bruleur à vapeur.*)

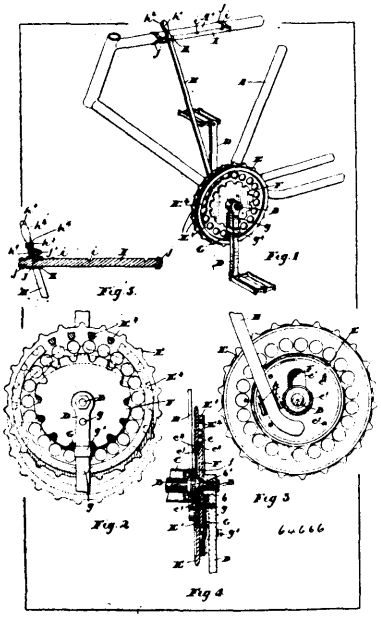


Arthur Kitson, Philadelphia, Pennsylvania, U.S.A., 31st October, 1899; 6 years. (Filed 29th December, 1898.)

Claim.—1st. In a vapour burning lamp the combination of the incandescent mantle therefor, the enclosing air tight casing having only an outlet for the gases of combustion, and the mixing tube which extends from the exterior of the casing and connects to the burner, substantially as described. 2nd. In a vapour burning apparatus, the combination of the burner, the enclosing casing, the alcohol cup adjacent to said burner, and the wick of absorbent, incombustible substance extending from the alcohol cup to and through the enclosing casing, substantially as described. 3rd. In a vapour burning apparatus, the combination of the burner, the enclosing casing, the alcohol cup adjacent to said burner, and the wick of absorbent, incombustible substance extending from the alcohol cup to and through the enclosing casing, together with the feeding funnel mounted on the exterior of the enclosing casing, and connected by a tube with the alcohol cup, in which feeding funnel the outer end of the above described wick is placed, substantially as described. 4th. In a vapour burning lamp, the combination of the vapour burner, the incandescent mantle therefor, the enclosing air tight casing having an outlet for the gases of combustion, the mixing tube extending from the exterior of the casing, and connecting with the burner, the feeding funnel mounted on the exterior of the casing and connected by a tube with the alcohol cup, and the wick of absorbent incombustible material extending from the feeding funnel to the alcohol cup, substantially as described. 5th. In a vapour burning lamp, the combination of the vapour burner, mantles therefor, the enclosing casing, the chimney, the smoke bell, and the outwardly curved wire gauze extending from the upper end of the chimney and upwardly to the smoke bell, substantially as described. 6th. In a vapour burner, the removable gauze thimble in combination with the burner tube in which it is placed. 7th. In a vapour burning lamp, the combination of the burner, the mixing tube, the oil pocket below the point of connection between mixing tube and burner, and a mass of absorbent material in said pocket, substantially as described. 8th. In a vapour burning lamp, the combination of the burner, the mixing tube, the oil pocket below the point of connection between mixing tube, the oil pocket below the point of connection between mixing tube and burner, and a mass of absorbent material in said pocket, said oil pocket having an outlet from the bottom, substantially as described. 9th. In a vapour burning lamp, the combination of the burner, the mixing tube, the oil pocket below the point of connection between mixing tube and burner, and a mass of absorbent material in said pocket, said oil pocket having an outlet from the bottom, together with the removable gauze thimble in the burner tube, substantially as described. 10th. In a vapour burning apparatus, the combination of the double burner, the mixing tube extending along and connecting with each burner tube, and the baffle plate located in said mixing tube between said burner tubes, substantially as shown and described. 11th. In a vapor burning apparatus, the combination of the double burner, the mixing tube extending along and connecting with each burner tube, and the baffle plate located in said mixing tube between said burner tubes, together with the oil pocket in said mixing tube under said baffle plate, and a mass of absorbent material in said pocket, substantially as described. 12th. In a vapor burning apparatus, the combination of the mixing tube, the vaporizing tube extending into the same at an angle thereto, and provided with a recess on its exterior adjacent to said mixing tube, and a ring adapted to slip over the mixing tube and engage said recess on the vaporizing tube, substantially as described. 13th. In a vapor burning apparatus, the combination of the supporting frame, the mixing tube, the vaporizing tube extending into the mixing tube and loosely supported in the supporting frame, and means for holding said vaporizing tube in a fixed relation to the mixing tube, substantially as described. 14th. The combination in a vapor burning lamp of the supporting frame, the mixing tube and the vaporizing tube, all of said parts interlocking but devoid of permanent fastening, substantially as described. 15th. The combination in a vapor burning lamp of the supporting frame and a removable vaporizing tube provided with a longitudinally extending feather which engages a slot in the supporting frame, substantially as described. 16th. The combination in a vapor burning lamp of the supporting frame and a removable vaporizing tube provided with a feather which engages a slot in the supporting frame, said vaporizing tube being provided with a discharge opening on one side whereby the feather serves to fix the direction of the jet discharged from said opening, substantially as described. 17th. The combination in a vapor burning lamp of the reflector, chimney and heat shield riveted together to form a supporting frame, the vaporizing tube extending across the base of the chimney under the heat shield, and the hanging rod attached to said heat shield, substantially as described. 18th. The combination of the vaporizing tube, the enclosing heat shield having a series of perforations in its upper portion and a coating of reflecting material on its under surface, substantially as described. 19th. The method of burning hydrocarbon vapor which consists in the following steps: First, vaporizing the hydrocarbon by heat; second, mixing the vapor with a necessary quantity of air to support combustion prior to such combustion; third, burning the mixture in the air-tight casing having only an outlet for the discharge of the gases of combustion, substantially as described. 20th. As an article of manufacture, a vaporizing tube for a vapor burning apparatus, closed at the discharge end and having a discharge opening in its side, and consisting of a re-entrant portion of the wall of the tube conical in shape and perforated at the apex, substantially as described. 21st. As an article of manufacture, a vaporizing tube for vapor burning apparatus which has a discharge opening that flares outwardly only, substantially as described. 22nd. The combination of the vaporizing tube and the internal filler of a diameter slightly less than

the internal diameter of the tube, said filler being closed to the passage of gas therethrough, substantially as described. 23rd. The combination of the vaporizing tube and the internal filler of a diameter slightly less than the internal diameter of the tube, together with the gauze strainers located in each end of the tube, substantially as described. 24th. As a filler for a vaporizing tube, a tube of less length and diameter, plugged, and having its ends split and expanded, substantially as described. 25th. In a vapor burning apparatus, the combination of the vaporizing tube exposed to the direct heat of the burner, the oil supply tube, and the needle valve controlling the passage of oil from the supply tube to the vaporizing tube, and adapted to discharge the oil into the vaporizing tube in the form of a fine jet or spray, substantially as described. 26th. In combination with a gas fixture, a vapor burning apparatus mounted on said fixture and arranged to be operated independently by gas or vapor, substantially as described. 27th. In a vapour burning apparatus the combination of the vaporizing tube, the oil supply tube, and the needle valve controlling the passage of oil from the supply tube to the vaporizing tube, and adapted to discharge the oil into the vaporizing tube in the form of a fine jet or spray, together with the wire gauze within the vaporizing tube on which said jet or spray impinges, substantially as described. 28th. In a vapor burning apparatus the combination of the vaporizing tube, the oil supply tube, and the needle valve controlling the passage of oil from the supply tube to the vaporizing tube in the form of a fine jet or spray, together with the wire gauze within the vaporizing tube, on which said jet or spray impinges, and filler located in the tube beyond said gauze, substantially as described. 29th. In a vapour burning apparatus, the combination of the vapor burner and connections, the vaporizing tube within the heating zone thereof, the mixing tube into which the vaporizing tube discharges, and the muffler formed wholly or in part of non-resonant material placed over the air inlet to said mixing tube, substantially as described. 30th. The combination of a vapor burning apparatus of an air and vapor mixing tube formed wholly or in part of non-resonant materials, substantially as described. 31st. The combination of the feeding funnel, the loose plunger normally closing the discharge orifice of said funnel, and the spring clip on the funnel which holds said plunger in such normal position of closing, substantially as described. 32nd. In a vapor burning apparatus the combination of the vapor burner and connections, the incandescent mantle therefor, the vaporizing tube above said mantle, the alcohol cup beside the burner, and the gauze shield which surrounds said cup and concentrates the flame on the mantle and vaporing tubes, substantially as described. 33rd. In a vapor burning lamp the combination of the vapor burner, the vaporizing chamber and electrical means for vaporing oil for the purpose of starting the lamp into action, substantially as described. 34th. The combination of a vapor burning lamp and an electric circuit, a portion of the electric circuit forming a portion of the vaporizing apparatus of the lamp, substantially as described. 35th. The combination of a vapor burning lamp and an electric circuit, a portion of the electric circuit forming a portion of the vaporizing apparatus of the lamp, said portion of the vaporizing apparatus so included in the circuit being sufficiently insulated from the rest of the lamp to compel the entire current to pass through the electrical conductor which forms said portion of the vaporizing apparatus, substantially as described. 36th. The combination with the fireback of refractory material of the burner tube adjacent to the lower part of the fireback, and the vaporizing tube located above the burner tube and also adjacent to the fireback, substantially as described. 37th. The combination with the fireback of refractory material of the burner tube provided with a series of perforations in its upper side adjacent to the lower part of the fireback, and the vaporizing tube located above the burner tube and also adjacent to the fireback, substantially as described. 38th. The combination with the fireback of refractory material of the burner tube provided with a series of perforations in its upper side adjacent to the lower part of the fireback, and the vaporizing tube located above the burner tube and also adjacent to the fireback, together with an alcohol trough extending along the side of the burner tube, substantially as described. 39th. The combination of the fireback, the vaporizing tube adjacent to the fireback, the mixing tube into which the vaporizing tube discharges, the burner tube provided with a line of perforation in its upper side adjacent to the lower part of the fireback, and into which burner tube the mixing tube discharges, and the gauze diaphragm in said burner tube near the end to which the mixing tube is connected, substantially as described. 40th. The combination of the stove body having an open front, a fireback set in said stove body and inclined forwardly, a vaporizing tube in front of and adjacent to said fireback, the burner tube adjacent to and in front of the lower part of said fireback, and the connections between said tubes, substantially as described. 41st. The combination of the stove body having an open front, a fireback set in said stove body and inclined forwardly, a vaporizing tube in front of and adjacent to said fireback, the burner tube adjacent to and in front of the lower part of said fireback, and the connections between said tubes, together with a diaphragm extending from the bottom of the fireback to the front of the stove body, substantially as described. 42nd, The combination of the stove body having an open front, a fireback set in said stove body and inclined forwardly, a vaporizing tube in front of and adjacent to said fireback, the burner tube adjacent to and in front of the lower part of said fireback, and the connections between said tubes, together with a diaphragm extending from the bottom of the fireback to the front of the stove body, a discharge opening in the upper part of the back of the stove body, and an opening in the bottom of said stove body, substantially as described.

No. 64,666. Bicycle Gear. (*Engrenage de bicycles.*)



Abige Dexter, Fenelon Falls, Ontario, Canada, 31st October, 1899; 6 years. (Filed 25th March, 1899.)

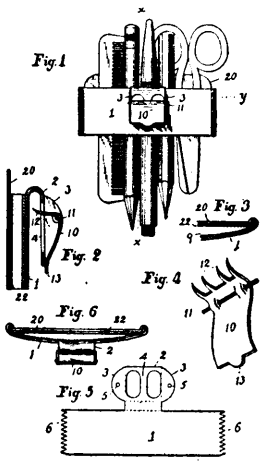
Claim.—1st. The combination with the pedal crank axle and pedal crank and the divided ring located on the pedal crank axle and provided with slots and the sprocket ring having the internal gear attached to or forming part of same and supported on ball bearings on the divided ring, of the gear wheel secured on the axle within the gear ring, the spring arm secured to the pedal crank and gear wheel and means for vertically adjusting the sprocket ring, so as to bring the gear ring into or out of engagement with the spring arm and the gear wheel into engagement with the gear ring as and for the purpose specified. 2nd. The combination with the pedal crank axle and pedal crank and the divided ring located on the pedal crank axle and provided with slots and the sprocket ring having the internal gear attached to or forming part of same and supported on ball bearings on the divided ring, of the gear wheel secured on the axle within the gear ring, the spring arm secured to the pedal crank and gear wheel, the loop forming part of the spring arm encompassing the pedal crank and designed to be pressed inwardly so as to bring the end of the arm opposite the space between the teeth of the gear ring, and means for raising the gear ring so as to bring it into engagement with the spring arm, as and for the purpose specified. 3rd. The combination with the pedal crank axle and pedal crank and the divided ring located on the pedal crank axle and provided with slots and the sprocket ring having the internal gear attached to or forming part of same and supported on ball bearings on the divided ring, of the gear wheel secured on the axle within the gear ring, the spring arm secured to the pedal crank and gear wheel, the arm attached to the divided ring and means for limiting the upward movement of the arm and yet permit of its swinging, so as to depress the sprocket ring, as and for the purpose specified. 4th. The combination with the pedal crank axle and pedal crank and the divided ring located on the pedal crank axle and provided with slots and the sprocket ring having the internal gear attached to or forming part of same and supported on ball bearing on a divided ring, of the gear wheel secured on the axle within the gear ring, the spring arm secured to the pedal crank and gear wheel, the arm attached to the divided ring, the bar secured on the upper reach of the bicycle provided with notches, the sleeve on the bar provided with a plunger bolt, the lever engaging with the slotted upper end of the plunger bolt and suitably pivoted on the handle end of the arm, as and for the purpose specified. 5th. The combination with the pedal axle and crank thereof, of the sprocket wheel or ring having an internal gear ring and the gear wheel secured to the axle and means for adjusting the sprocket wheel for bringing the gear ring into mesh with the gear wheel, as and for the purpose specified.

No. 64,667. Pen and Pencil Holder.

(*Porte-plume et crayon.*)

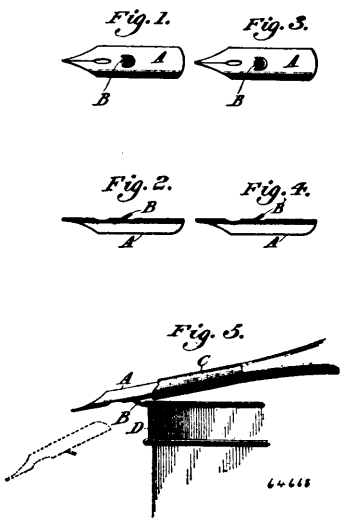
Roland Albert Nichols and Charles Elbridge Hildreth, both of Worcester, Massachusetts, U.S.A., 31st October, 1899; 6 years. (Filed 5th April, 1899.)

Claim.—1st. In a pencil holder, the combination of a spring bow formed from resilient sheet metal, means for securing the same in



place, and a flexible backing, the ends of said bow and backing being secured together and the backing thereby held taut, substantially as set forth. 2nd. In a pencil holder, the combination of a spring bow having a jaw or hook at its upper edge for engaging a pocket edge, and the flexible backing terminally held by said bow and adapted by the tensional strain given thereto by the latter to tightly clasp and retain whatever small articles are placed therein, substantially as set forth. 3rd. The combination, with a holder, of the jaw rigidly connected therewith and adapted to come in front of the pocket into which the holder is inserted, said jaw being formed with the wings and the bridge, and the clamp pivoted between said wings and formed with the spurs, the edge of said clamp at the base of said spurs being adapted to displace said bridge and thereby lock the clamp when its spurs have been pressed into the pocket edge, substantially as set forth. 4th. The combination with the sheet metal spring bow having the serrations at its terminal edges, of the flexible backing terminally held by the engagement therewith of said serrations which are bent over into the same, substantially as set forth.

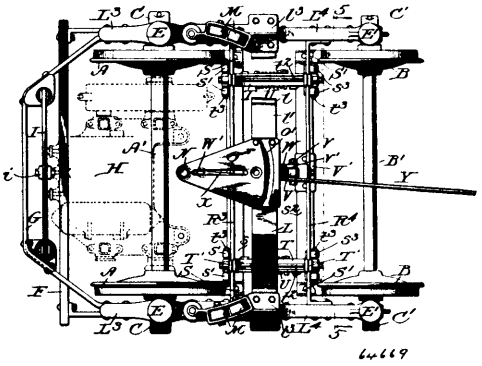
No. 64,668. Pen. (*Plume.*)



George Malpass, Philadelphia, Pennsylvania, U.S.A., 31st October, 1899; 6 years. (Filed 25th February, 1899.)

Claim.—1st. A pen provided with an outwardly projecting lip at an acute angle to the body. 2nd. A pen provided with an outwardly projecting lip on the back thereof at an acute angle to the body. 3rd. A pen provided with an outwardly projecting lip integral therewith, the angle of said lip being acute. 4th. A pen provided with a rearwardly extending lip projecting beyond the face of the body thereof, the outer edge of said lip facing the rear of the body. 5th. A pen having a lip which is integral with the same and turned up therefrom at an acute angle, presenting the exposed edge sa id lip rearward.

No. 64,669. Car Truck. (*Châssis de chars.*)



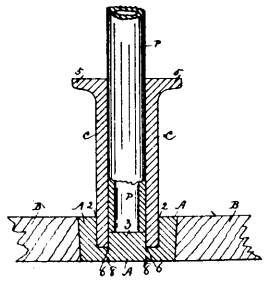
William Sebastian Groff Baker, Fulton Junction, Baltimore, Maryland, U.S.A., 31st October, 1899; 6 years. (Filed 19th September, 1899.)

Claim.—1st. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster placed midway between the axles and having a centre bearing for the car body for supporting a portion of the weight of that end of the car body under which the truck is placed, and supports for the car body located between the bolster and the motor end of the truck for supporting the remaining part of the weight of that end of the car body under which the truck is placed. 2nd. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster placed midway between the axles and having a centre bearing for the car body for supporting a portion of the weight of that end of the car body under which the truck is placed, arms projecting from the bolster towards the motor end of the truck, and devices carried by said arms for supporting the remaining portion of the weight of that end of the car body under which the truck is placed. 3rd. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster between the axles, a center bearing for the car body for supporting a portion of the weight of that end of the car body under which the truck is placed, arms projecting from the bolster towards the motor end of the truck, devices carried by the arms for in part supporting the car body, and springs carried by the truck frame and supporting the outer ends of the arms. 4th. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster located between the axles with a centre bearing for the car body, arms projecting from the bolster toward the motor end of the truck, and rollers carried by the arms on which the car body rests. 5th. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster located between the axles with a centre bearing for the car body, and adjustable supports for the car body located between the bolster and the motor end of the truck. 6th. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster located between the axles and having a centre bearing for the car body, arms projecting from the bolster towards the motor end of the truck, and adjustable rollers carried by the arms and located between the bolster and the motor end of the truck. 7th. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster located midway between the axles, springs interposed between the truck frame and the opposite ends of the bolsters, arms projecting from the bolster towards the motor end of the truck, and devices carried by the arms located between the bolster and the motor end of the truck for in part supporting the car body. 8th. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster located between the axles, springs interposed between the truck frame and the bolster, arms projecting from the bolster towards the motor end of the truck, springs interposed between the outer ends of the arms and the truck frame, and devices carried by the arms located between the bolster and the motor end of the truck for in part supporting the car body. 9th. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster located between the axles, a pivotal connection between the car body and the bolster located closer to the driving axle than to the bolster, a bearing centrally located on the bolster for in part supporting the car body, and supports for the car body located between the bolster and the motor end of the truck. 10th. The combination of two pair of wheels and axles, a car body, a truck frame, a bolster located midway between the axles, a pivotal connection between the bolster and the car body located closer to the driving axle than to the bolster, arms projecting from the bolster towards the motor end of the truck, springs for supporting the outer ends of the arms, and devices located between the bolster and the motor end of the truck for in part supporting the car body. 11th. The combination of the wheels, axles, and axle boxes, a car body, a truck frame pivotally connected with the car body, said truck frame having three points of support for the car body, each bearing an equal part of the load of that end of the car body under which the truck is placed, one point of support being located approximately in the longitudinal central line of the truck, and the other two points of support being located at one side

of such central line, and at such angles therefrom that a greater portion of the load will rest upon one pair of wheels than on the others. 12th. The combination of the wheels, axles and axle boxes, the truck frame, a brake shoe for a driving wheel, a brake shoe for an idle wheel, a lever pivotally connected at its upper end with the truck frame and at its lower end connected with the brake shoe of the idle wheel, an operating lever pivotally connected at its lower end with the brake shoe of the driving wheel, a link connected with the operating lever and also connected with the lever to which the brake shoe of the idle wheel is connected. 13th. The combination of the wheels, axles and axle boxes, brake shoes for the driving wheels and the idle wheels, brake beams connecting opposite brake shoes, a lever pivotally connected at its upper end with the truck frame, and pivotally connected at its lower end with the brake beam of the idle wheels, an operating lever pivotally connected at its lower end to the brake beam of the driving wheels, and a link connecting the operating lever with the lever to which the brake beam of the idle wheels is connected. 14th. The combination of the wheels, axles and axle boxes, brake shoes for the wheels, brake beams connecting opposite shoes, a lever pivotally connected at its upper end with the truck frame and pivotally connected at its lower end with the brake beam of the idle wheels, an operating lever pivotally connected at its lower end with the brake beam of the lever to which the brake beam of the idle wheels is connected between its upper pivotal connection with the truck frame and its lower pivotal connection with the brake beam of the idle wheels, and also pivotally connected with the operating lever between its lower pivot and its upper end. 15th. The combination of the truck frame, a driving wheel, an idle wheel, brake shoes for the driving wheel and the idle wheel, a lever pivotally connected at its upper end to the truck frame and at its lower end pivotally connected with the brake shoe of the idle wheel, an operating lever pivotally connected at its lower end with the brake shoe of the driving wheel, and a link connected to the operating lever just above its lower pivotal connection with the brake shoe and to the first-mentioned lever between its upper pivotal connection with the truck frame and its lower pivotal connection with the brake shoe. 16th. The combination of a car body, a truck frame, the wheels, axles and axle boxes, the brake shoes, a transverse bolster located between the wheels, a swivel connection between the bolster and the car body, a lever pivoted to the truck frame at its upper end and at its lower end pivotally connected to the brake shoes of the small wheels, the brake operating lever, the lower end of which is pivotally connected with the brake shoes of the drivers, and the upper end of which is arranged close to the swivel connection between the car body and the bolster, and a link connected with the first-mentioned lever and with the brake operating lever just above its lower pivot. 17th. The combination of the car body, the truck frame, the wheels and axles, a transverse bolster located between the wheels and axles and supported on the truck frame, a swivel plate secured to the bolster and having a longitudinal slot therein, a swivel casting secured to the car body, a swivel bolt connecting the swivel plate with the swivel casting, brake shoes for the wheels and a brake operating lever connected with the brake shoes and having its upper end extending into or through the slot in the swivel casting. 18th. The combination of the car body, the wheels, axles and axle boxes, the truck frame supported on the axle boxes, a transverse bolster arranged between the front and rear wheels but closer to the drivers than to the idle wheels, a swivel connection between the car body and the bolster, brake shoes, brake beams connecting the shoes, a brake operating lever, the upper end of which is arranged close to the swivel connection between the car body and the bolster, and connections between said lever and the brake beams. 19th. The combination of a car body, the wheels, axles and axle boxes, a truck brake, brake shoes, brake beams connecting the shoes, an operating lever and connections between the operating lever and the brake beams for applying greater power to the brake beam of the drivers than to the brake beam of the idle wheels. 20th. The combination of the wheels axles and axle boxes, a truck frame, a motor applied to the driving axle, brake shoes for the wheels, a lever pivotally connected at its upper end to the truck frame, and at its lower end connected with the brake beam of the idle wheels, an operating lever pivotally connected at its lower end with the brake beam of the driving wheels, and a link connected to the operating lever, and also connected to the first mentioned lever between its upper pivoted end and the end connected to the brake beam of the idle wheels. 21st. The combination with the side frames, of a truck, of a transverse bolster, the downwardly projecting posts secured to the opposite ends thereof, the roller brackets mounted on the opposite ends of the bolster, the car body, curved grooved chafe plates secured thereto in which the rollers ride, a segmental swivel plate secured to the bolster, and a swivel casting secured to the car body and connected by a swivel bolt with the segmental plate. 22nd. The combination of the car body, the car truck frame, the transverse bolster mounted thereon, a segmental plate attached to the bolster, a segmental casting attached to the car body and having at its front end a hub for the swivel bolt, a bolt extending through the hub and through an opening in the front end of the segmental swivel plate, in the swivel casting, and a block on said casting extending into a curved groove in the swivel plate. 23rd. The combination of the truck frame, the car body, the bolster supported on the truck frame, the segmental platesecured to the bolster and having a headed stud projecting therefrom, and a segmental casting secured to the car body and provided with a curved slot into which the headed stud projects. 24th. The car truck, substantially as herein shown and described.

No. 64,670. Barrel Bung. (*Bondon pour barils.*)

Fig. I



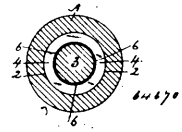


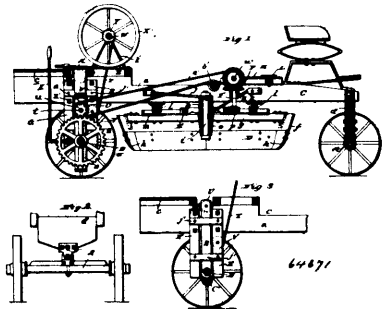
Fig. II.

George Smyth, Hamilton, Ontario, Canada, 31st October, 1899; 6 years. (Filed 21st September, 1899.)

Claim.—1st. A barrel bung of the character described, consisting of a bung, an annular recess or socket in said bung, a raised circular core in the centre of said recess, and an annular channel between said core and the wall of said recess, as described. 2nd. A barrel bung of the character described, consisting of a bung, an annular recess or socket in said bung, a circular core raised above the base of said recess and in the centre thereof, an annular channel between said core and the wall of said recess, and an annular cut or severance in the base of the channel and at the root of the core, as described. 3rd. A barrel bung of the character described, consisting of a bung, an annular recess or socket in said bung, a raised circular core in the centre of said recess, an annular channel between said raised core and the wall of said recess, an annular cut or severance in the base of the channel and at the root of the core, and a central annular cut or severance in the lower face of the bung, in circular line with the core, as described.

No. 64,671. Road Grader and Ditcher.

(*Appareil à niveler et fossoyer les routes*)



George F. Earhart, Lafayette, Oregon, U.S.A., 31st October, 1899; 6 years. (Filed 21st September, 1899.)

Claim.—1st. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame connected to the forward axle so as to be susceptable of lateral inclination and having depending guides at one of its sides disposed at opposite sides of the rear axle, a support resting on the rear axle and arranged between the guides, a cable connected at one end with the main frame and taking over a pulley on the support and under a pulley on one of the guides of the main frame, a device on the main frame for taking up and paying out said cable, and suitable means for holding said device against casual movement, substantially as specified. 2nd. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame connected to the forward axle so as to be susceptible of lateral inclination and having depending guides at its opposite sides disposed at opposite sides of the rear axle, supports resting on the rear axle and arranged between the guides, cables connected at one end with the main frame and taking over pulleys on the supports and under pulleys on certain of the guides, devices on the main frame for taking up and paying out said

cables, and suitable means for holding said devices against casual movement, substantially as specified. 3rd. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame connected to the forward axle so as to be susceptible of lateral inclination and having depending guides at its opposite sides disposed at opposite sides of the rear axle, supports resting on the rear axle and arranged between the guides, cables connected at one end with the main frame and taking over pulleys on the supports and under pulleys on certain of the guides, hand wheels mounted on the main frame and provided with drums to which the cables are connected and upon which they are designed to be wound, and resilient bars connected at one end to the main frame and provided with brake shoes which they normally press against the peripheries of hand wheels, substantially as specified. 4th. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame connected to the forward axle so as to be susceptable of both endwise and lateral inclination, a circular mold connected and moveable with the main frame, said mould being disposed below and parallel to the frame, and adjustaqle supports for the frame arranged on the rear axle and at opposite sides of the longitudinal centre of the frame, substantially as specified. 6th. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame adjustably supported on the rear axle and connected to the front axle so as to be susceptible of endwise and lateral inclination, a circular rotary mould carried by and movable with the main frame, and driving connections between the rear axle and the mould for rotating the latter by the former, substantially as specified. 6th. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame adjustably supported on the rear axle and connected to the front axle so as to be susceptible of endwise and lateral inclination, a circular, rotary mould carried by and movable with the main frame, and reversible gearing between the rear axle and the mould for rotating the latter in either direction by the former, substantially as specified. 7th. In a machine for the purpose described, the combination of a rear, a foward axle, a main frame adjustably supported on the rear axle and connected to the front axle so as to be susceptable of endwise and lateral inclination, a circular, rotary mould carried by and movable with the main frame, reversible gearing between the rear axle and the mould for rotating the latter in either direction by the former, and suitable means for interrupting the gearing and causing the mold to dwell, substantially as specified. 8th. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame adjustably supported on the rear axle and connected to the front axle so as to be susceptible of endwise and lateral inclination, a circular, rotary mould carried by and movable with the main frame and provided with a gear wheel, an upright shaft journalled in the main frame and having a pinion in mesh with said gear wheel and also having a mitre gear, an endwise movable shaft journalled in the main frame and having mitre gears adapted to alternately mesh with the miter gears of the upright shaft, gearing intermediate of the rear axle and the endwise movable shaft, and means for adjusting said endwise movable shaft, substantially as specified. 9th. In a machine for the purpose described, the combination of a rear axle, a forward axle, a main frame adjustably supported on the rear axle and connected to the front axle so as to be susceptible of endwise and lateral inclination, a circular, rotary carried by and movable with the main frame and provided with a gear wheel, an upright shaft journalled in the main frame and having a pinion in mesh with said gear wheel and also having a miter gear, an endwise movable shaft journaled in the main frame and having miter gears adapted to alternately mesh with the miter gear of the upright shaft, gearing intermediate of the rear axle and the endwise movable shaft, stops arranged on the main frame adjacent to the ends of the endwise movable shaft, a lever L fulcrumed on the main frame, wedges connected to said lever L and movable between the stops and ends of the endwise movable shaft, and a hand lever fulcrumed on the main frame and connected with the lever L, substantially as specified, 10th. In a machine for the purpose described, the combination of a main frame, a circular, rotary mould connected with the main frame and having a circular track at its upper side, and anti-friction rollers connected to the main frame and engaging the circular track of the mould, substantially as specified. 11th. In a machine for the purpose described, the combination of a main frame, a circular, rotary mold comprising a central hub, a rim, spokes interposed between the hub and rim, a circular track arranged at the upper side of the spokes, anti-friction rollers connected to the main frame and bearing on the circular track, a bolt connecting the hub of the mold and a cross bar of the frame, and braces connected to the said bolt above and below the cross bar of the frame and also connected to the frame, substantially as specified. 12th. In a machine for the purpose described, the combination of forward and rear axles, a main frame adjustably supported on said axles, and a circular, rotary mold disposed below and parallel to the main frame and connected and movable with said frame, substantially as specified. 13th. In a machine for the purpose described, the combination of a main frame, a circular, rotary mold arranged below and parallel to the main frame and connected with said frame, and anti-friction rollers interposed between the mould and frame, substantially as specified. 14th. In a machine for the purpose described, the combination of forward and rear axles, a main frame supported thereon, and a circular, rotary mould arranged below and parallel to the main frame and connected with said frame, the said mold comprising a rim and cutting blades detachably connected to and depending from the rim, substantially as specified.

No. 64,672. Can Top. (*Couvercle de bidons.*)

FIG 2

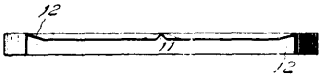


FIG 3

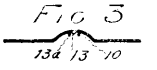
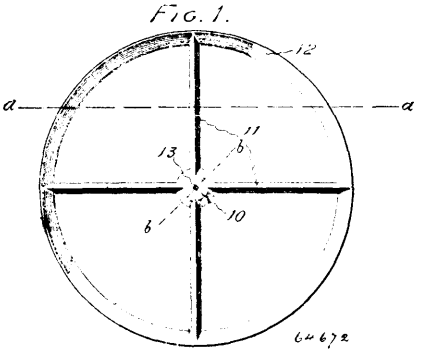


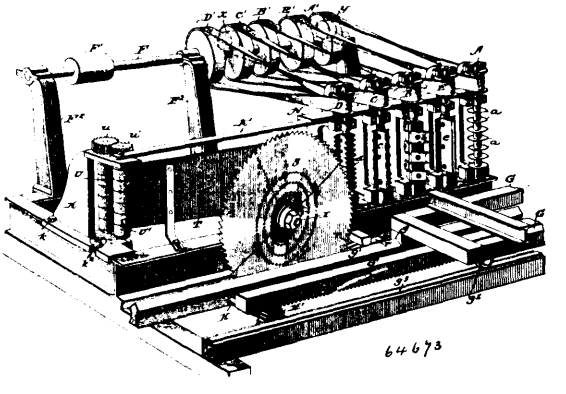
FIG. 1.



David Hennessey, New Westminster, British Columbia, 31st October, 1899; 6 years. (Filed 13th September, 1899.)

Claim.—1st. In an article of manufacture, a can top or cover having a raised portion 10 at its centre, with an aperture therein having an irregular downwardly projecting wall, and raised ribs radiating from the raised portion to the outer rim forming grooves 11, and the outer rim, the raised ribs and the raised centre being on an even plane for the purposes specified. 2nd. In an article of manufacture, consisting of a cap or cover of a can to contain solids and liquids, having a raised central portion with an aperture therein, and ribs forming grooves on its under sides radiating from such raised portion to the outer rim thereof, substantially for the purposes specified.

No. 64,673. Hoop Making Machine.
(*Machine à faire les cercles.*)

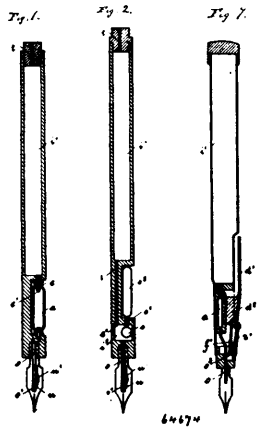


James Fowley, Cobden, Illinois, U.S.A., 31st October, 1899; 6 years. (Filed 2nd September, 1899.)

Claim.—1st. A hoop machine having a log carriage, a vertical sliding saw, and in front of it a series of vertical cutter hands, two of said cutter heads being made laterally adjustable, one of them having V shaped cutting edges to point the hoops and the other having a straight edge cutter to lap plane the other ends on the log before being sliced off by the saw, substantially as described. 2nd. In a hoop machine, the combination with the vertical or sliding saw, of a series of five vertical cutter heads arranged in front of the saw, one set A B C having relatively stationary bearings and provided with horizontal saws and moulding cutter blades to form the hoops on the log, and the other set D and E having respectively blades with V shaped edges and plain blades, and means for giving them an automatic motion to and from the log to form pointed ends and bevel faces on the opposite ends of the log, substantially as and for

the purpose described. 3rd. In a hoop machine, the combination with the vertical or slicing saw, of a series of vertical cutter head arranged in front of the saw, one set having relatively stationary bearings and provided with horizontal saws and moulding cutter blades to form the hoops on the log, a cutter head with straight edge cutter arranged in movable bearings, a cutter head with V shaded hoop pointing cutting edges also arranged in movable bearings, means for advancing them, and a log carriage having devices at one end to operate upon one of those cutter heads to point the hoops, and means at the other end to operate upon the other cutter head to lap plane the ends, substantially as and for the purpose described. 4th. In a hoop machine the combination with a vertical or slicing saw, of a series of vertical cutter heads arranged in front of the slicing saw, the first having a series of horizontal saws and being relatively stationary, the second being a straight edge lap planer and being automatically adjustible in and out, the third and fourth having moulding cutters and relatively stationary, and the fifth having V shaped pointing cutting edges and adjustable in and out, a series of pulleys on the tops of said shafts, a horizontal drive shaft with corresponding pulleys and bolts connecting them to the cutter head pulleys, and a log carriage with means for automatically adjusting the lap planer and pointing cutter head, substantially as shown and described. 5th. In a hoop machine, the combination of of a vertical slicing saw, a series of vertical cutter heads arranged in front thereof, two of them being automatically adjustable and provided respectively with a straight cutting edge, and V shaped cutting edges, sliding frames carrying the same, horizontally slide rods attached to the lower part of said frames and carrying at their outer end double cans $o\ o^1$ and $p\ p^1$ respectively, and a log carriage having one bearing fitting between the case $o\ o^1$ and operating one slide rod, and another bearing at its other end fitting between the other cans $p\ p^1$ and operating the other slide rode, said bearings being at opposite ends of the carriage and in different planes, substantially as and for the purpose described. 6th. In a hoop machine, the combination with the slicing saws, of the hoop guide plate T, the drawing rolls U U^1 geared together as described, and the frame K carrying the drawing rolls pivoted at the back end and provided with a stay brace K^1 and a binding screw k^2, substantially as and for the purpose described.

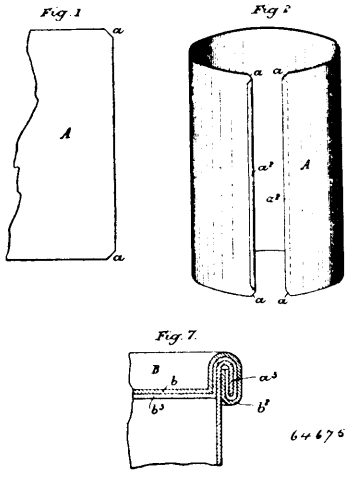
No. 64,674. Fountain Pen. (*Plume fontaine.*)



Edward Reisert, Hennef-Seig, Rhine, Prussia, 31st October, 1899 6 years. (Filed 7th November, 1898.)

Claim.—1st. In a fountain pen, the combination with the reservoir for the ink and with the pen proper, of an elastic chamber intercalated between said reservoir and pen, the chamber being connected with the reservoir by means of a tube having a valve e^1, and with the pen proper by means of a tube o, having a lateral aperture o^1, a spring u^1 being arranged for opening and closing the aperture o^1, as and for the purpose hereinbefore set forth. 2nd. In a fountain pen, the combination with the reservoir for the ink and with the pen proper, of an elastic chamber intercalated between said reservoir and pen, the chamber being connected with the reservoir by means of a tube e, having a lateral aperture e^2 before said chamber, having an inner elastic projection a^1 for opening and closing the said aperture, and connected with the pen proper by means of a tube o, having a lateral aperture o^1, a spring u^1 being arranged for opening and closing the aperture o^1, as and for the purpose hereinbefore set forth 3rd. In a fountain pen, the combination with the reservoir for the ink and the pen proper of a rigid chamber i^2 intercalated between the pen proper and the reservoir, said chamber being connected with the pen reservoir by a tube e, having a return valve e^1, and connected with the pen by means of a tube o, having a delivery valve uu^1, and with a hollow india-rubber body s partly located in said chamber i^2, as and for the purpose hereinbefore set forth. 4th. In a fountain pen, the combination with the reservoir for the ink and the pen proper of a rigid chamber i^2 intercalated between said pen and the reservoir, and with a hollow india-rubber body partly located in said chamber, and a part s^3 fastened inside said body and forming a closing valve for the channel e connecting the ink reservoir and the chamber i^2, and with an elastic body x surrounding the tube o for conducting the ink from the chamber i^2 to the pen, said pipe o having a lateral aperture o^2 for introducing the ink into the body x, and with a delivery valve u for conveying the ink into the pen, substantially as and for the purpose set forth. 5th. In a fountain pen, the combination with the reservoir for the ink and the pen proper, of a rigid chamber i^2 intercalated between said pen, and with a hollow elastic body partly located in said chamber and forming a closing valve for the channel, and with a clamp z to close the tube o, and adapted to open the same when the ink is forced into said tube, a sand for the purpose set forth. 6th. In a fountain pen, the combination with the reservoir for the ink and the pen proper, of an elastic body having a channel to conduct the ink from the reservoir to the chamber a, and of channel o for introducing the ink from the chamber a into the pen, and with a lever d for closing the channel and of forcing the ink into the channel, and with a clamp z for closing the channel o and opening the same by pressure against the chamber a, as and for the purpose set forth. 7th. In a fountain pen, the combination with the reservoir for the ink and the pen proper, of an elastic chamber intercalated between said reservoir and pen, a lever d^1 adapted to be pressed against the said elastic chamber, a second lever or arm of a lever adapted to be withdrawn by lever d^1, and a spring z^1 for pressing the said second lever or arm of a lever against the hose o at o^3, as and for the purpose set forth. 8th. In a fountain pen, the combination with the reservoir for the ink and the pen proper, of an elastic chamber intercalated between said reservoir and pen, the chamber forming part of the hose o and being arranged on the side of the holder, as and for the purpose set forth. 9th. In a fountain pen, the combination with the reservoir for the ink and the pen proper, of an elastic chamber intercalated between said reservoir and pen, the chamber forming part of the hose o and being arranged on the side of the holder, a hose branch o^4 reaching into the reservoir, a lever d^3 for compressing the chamber, and elastic rings $t\ t^1$ for temporarily shutting the chamber at the top or at the bottom respectively, as and for the purpose set forth. 10th. In a fountain pen, the combination with the reservoir for the ink and the pen proper, of an elastic chamber intercalated between said reservoir and pen, the chamber forming part of the hose o and being arranged on the side of the holder, the mouth o^5 reaching into the reservoir, a double armed lever d^4, the one arm of which is adapted to compress the chamber, and elastic rings $t\ t^1$ for temporarily shutting the chamber at the bottom or at the top respectively, as and for the purpose set forth. 11th. In a fountain pen, the combination with the reservoir for the ink and the pen proper, of an elastic chamber intercalated between said reservoir and pen, and a pressing piece d^5 extending along the chamber and having projecting ends $t^2\ t^3$ for temporarily shutting the chamber at the bottom or at the top respectively, as and for the purpose set forth.

No. 64,675. Tin Can. (*Boite de fer blanc.*)

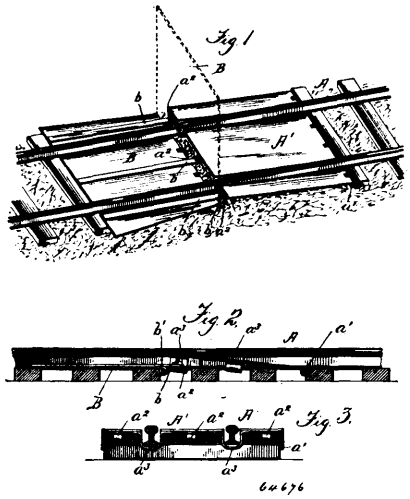


Archibald White Maconochie, London, England, 31st October, 1899; 6 years. (Filed 16th September, 1899.)

Claim.—1st. A tin for enclosing preserved provisions or foods or the like, having a body part which is made by removing the corners from a plate, and bending the edges which are to meet and engaging these bent edges together and pressing them, substantially as hereinbefore described. 2nd. A tin for enclosing preserved provisions or foods or the like, having the ends made from tin plate to which is cemented paper, linen or the like, so that the said paper linen or the like covers the internal surfaces of the ends and also extends between the flanges at the joints, substantially as hereinbefore described. 3rd. A tin for enclosing preserved provisions or foods or

the like, having a body part which is made by removing the corners from a plate and bending the edges which are to meet and engaging these bent edges together and pressing them, and having ends made from tin plate, to which is cemented paper linen or the like, so that the said paper, linen or the like covers the internal surfaces of the ends and also extends between the flanges at the joints which joints are formed by spinning or rolling, or otherwise engaging together flanges on the body part and on the ends, all substantially as hereinbefore described.

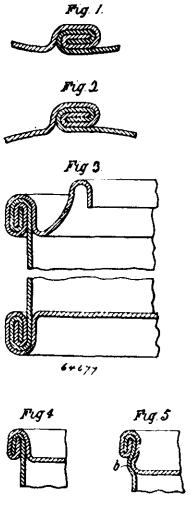
No. 64,676. Cattle Guard. (*Garde-bétail.*)



Henry James Bickle, Gladstone, Manitoba, Canada, 31st October, 1899; 6 years. (Filed 20th September, 1899.)

Claim.—1st. A cattle guard for railroad crossings, comprising a pivoted platform, and a guard adapted to be raised by the downward movement of said platform, substantially as described. 2nd. A cattle guard for railroad crossings, comprising a platform pivoted at one end beneath the track rails, and a guard pivoted at one end beneath the track rails, the pivoted end of said guard extending beneath the free end of said platform, whereby the free end of said guard is adapted to be elevated by the downward movement of the free end of said platform, substantially as described. 3rd. A cattle guard for railroad crossings, comprising a platform pivoted at one end beneath the track rails, and having downwardly projecting lugs at its free end, and a guard pivoted at one end beneath the track rails, and having extensions at its pivoted end passing beneath the lugs of the said platform and normally sustaining the free end of said platform in an elevated position, substantially as described.

No. 64,677. Can Seam. (*Suture de boites.*)

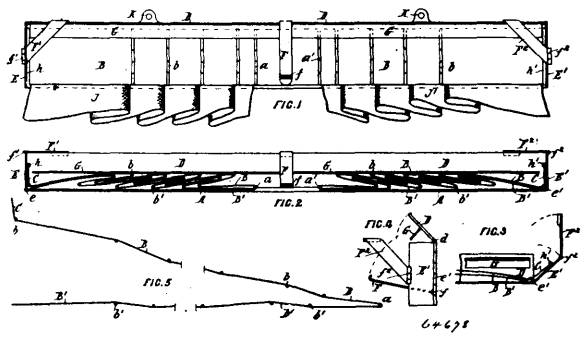


Ernest Featherstone Griffin, Woodside Park, North Finchley, and Walter Edward Higgs, 27 Crowndale Road, Camden Town, London, both in England, 31st October, 1899; 6 years. (Filed 20th September, 1899.)

NOTE.—Subdivision of application for patent No. 84,311, filed January 11th, 1899.

Claim.—1st. A tight joint for a sheet metal can, box or other vessel, in which the two united parts have each three folds embracing each other, substantially as described. 2nd. A joint made as hereinbefore described with an outwardly projecting bead immediately beneath the folded parts.

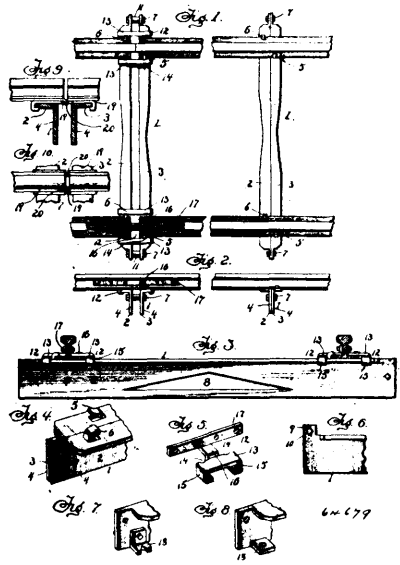
No. 64,678. Cornice and Curtain Holder.
(*Cornice et porte rideau.*)



Oscar Bernhard, Hellstrom, Sydney, Cumberland, New South Wales, Australia, 31st October, 1899; 6 years. (Filed 18th September, 1899.)

Claim.—1st. In combination, a cornice frame, with or without a hinged top and ends, two articulated folding slips, between which the curtain is placed, and a retaining flange or batten for retaining in the folded position the pleated slips and curtain, as specified. 2nd. A suitably ornamented front plate, which is provided with a hinged top and ends, two articulated or jointed slips hinged to the rear side of the front plate and so arranged that they can be folded into pleats, means for securing the free ends of the jointed slips, means for securing and retaining in the folded position the folded slips, and means for securing all the hinged or articulated parts of the appliance firmly together, as and for the purpose set forth. 3rd. The general arrangement, construction and combination of parts in the combined cornice and curtain hanger, as and for the several purposes specified.

No. 64,679. Railway Tie. (*Traverse de chemin de fer.*)

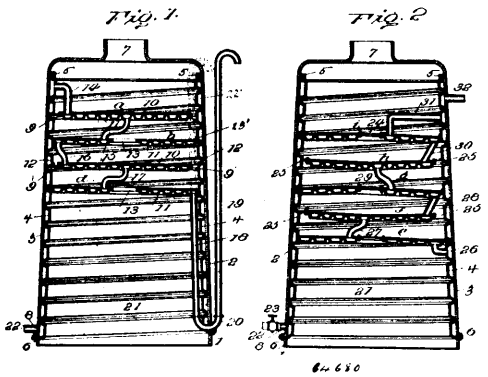


Francis A. Clarkson, Duluth, Minnesota, U.S.A., 31st October, 1899; 6 years. (Filed 19th September, 1899.)

Claim.—1st. A railway tie consisting of angle iron bars placed side by side having their horizontal flanges uppermost and their vertical flanges adapted to engage the ground, lugs provided on said horizontal flanges for engaging the flanges of the rails, and a chair for securing the rails to the said tie, substantially as described. 2nd. A railway tie consisting of angle bars having horizontal flanges and vertical body portions, the horizontal flanges being uppermost and the vertical body portions being spaced apart and secured at their ends, a washer interposed between the ends of the angle bars, lugs stamped out of the material constituting the horizontal flanges for engaging the flanges of the rails, and a chair or fastening formed with a horizontal portion and a fish plate, the construction being such that the chair or fastening will engage the ends of the angle bars and the rails, substantially as described. 3rd. A railway tie

consisting of angle bars having horizontal flanges and vertical body portions, the horizontal flanges being uppermost and their vertical body portions adapted to engage the ground, lugs or projections formed on the ends of the angle bars and provided with apertures, said lugs being elevated above the plane of the tie, means on the said horizontal flanges for engaging the flanges of the rails, and a chair or fastening comprising a horizontal portion formed with downwardly and inwardly turned ends and with a fish plate provided with apertures, the construction being such that the chair or fastening can be readily removed for repair, substantially as described. 4th. In combination with an angle iron tie, of means for preventing the creeping of the rails thereon, comprising a plate placed between the rails at their joints, and adapted to engage the angle iron bars of the tie, said plate being provided with notches, and projections cut from and integral with the flanges of the rails, said projections being adapted to enter the notches on the said plate, substantially as described. 5th. In combination with an angle iron tie, of means for preventing the creeping of the rails thereon, comprising a plate placed beneath the rails and having its ends turned downwardly and inwardly to engage the edges of the angle iron bars of the tie, said plate being provided with notches on opposite sides thereof, and lugs or projections stamped from the flanges of the rails, which lugs are adapted to enter the notches of the said underlying plate, the construction being such that the rails cannot be moved longitudinally, substantially as described.

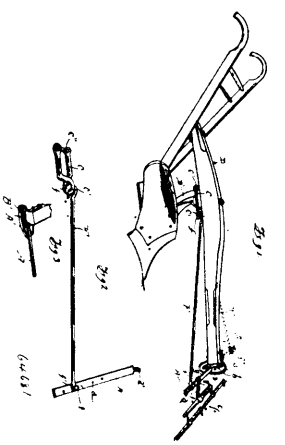
No. 64,680. Water Heater. (*Chauffeur d'eau.*)



Thomas Pattison, San Louis, Obispo, California, U.S.A., 31st October, 1899; 6 years. (Filed 20th September, 1899.)

Claim.—1st. In a water heater, the combination with the vertical water heating section, forming the wall of the combustion chamber, of two series of horizontal water heating sections, the sections of one series alternating with those of the other series, said sections being so formed and arranged as to cause the products of combustion to pass through the sections of one of the horizontal series, and between the sides of the other horizontal series and the said vertical sections, all of the sections being in communication with one another, a valve controlled inlet and a hot water outlet, the draw off pipe of said outlet being at substantially the highest point of the heater. 2nd. In a water heater, the combination with the spirally passaged vertical water heating section, having a water inlet at its lowest point, of two series of spirally passaged horizontal water heating sections, the sections of one series alternating with those of the other series, said sections being so formed and arranged as to cause the products of combustion to pass through the sections of one of the horizontal series and around and over the outer edge of the other horizontal series, all of the sections being in communication with one another, and a hot water outlet, the draw off pipe of which being at substantially the highest point of the heater. 3rd. In a water heater, the combination with the vertical water heating section, forming the wall of the combustion chamber, having a water inlet at its lowest point and a hot water outlet at substantially its highest point, of two series of horizontal water heating sections, the sections of one series having convexo concave heating surfaces and the other series having concavo convex heating surfaces, arranged alternately with each other, said sections being so formed and arranged as to cause the products of combustion to pass through the sections of one of the horizontal series and around and over the outer edges of the other horizontal series, all of the sections being in communication with the vertical section at a point where the water will be caused to divide, a part flowing through the horizontal sections and the vertical section at a point where it is joined by the other part flowing up through said vertical section, a valve controlled inlet and a hot water outlet, the draw off pipe of which being at substantially the highest point of the heater. 5th. In a water heater, the combination with the spirally passaged vertical water heating section, having a water inlet at its lowest point and a hot water outlet at substantially the highest point thereof, of two series of spirally passaged horizontal water heating sections, the sections of one series having convexo concave heating surfaces, and the other series having concavo convex heating surfaces, arranged alternately with each other, said sections being so formed and arranged as to cause the products of combustion to pass through the sections of one of the horizontal series and around and over the outer periphery of the other horizontal series, all of the sections being in communication with one another, a communication between the lower horizontal section and the vertical section, whereby the inflowing water is caused to divide, one part flowing through the horizontal sections and the other part through the vertical sections, both parts uniting at the upper portion of said vertical section, and a draw off pipe at substantially the highest point of the heater. 6th. In a water heater, the combination with the vertical water heating section, forming the wall of the combustion chamber, of two series of horizontal water heating sections, the sections of one series having convexo concave heating surfaces and the other series having concavo convex heating surfaces, arranged alternately with each other, said sections being so formed and arranged as to cause the products of combustion to pass through the sections of one of the horizontal series and around and over the outer periphery of the other horizontal series, all of the sections being in communication with one another, a communication between the lower horizontal section and the vertical section, whereby the inflowing water is caused to divide, one part flowing through the horizontal sections and the other part through the vertical sections, both parts uniting at the upper portion of said vertical section, and a draw off pipe at substantially the highest point of the heater. 7th. In a water heater, the combination with a spirally passaged vertical water heating section and two or more spirally passaged horizontal water heating sections, all of the horizontal sections being in communication with one another, a communication between the lower horizontal section and the vertical section, whereby the inflowing water is caused to divide, one part flowing through the horizontal sections and the other part through the vertical section, and a draw off pipe for all of the sections, substantially as specified.

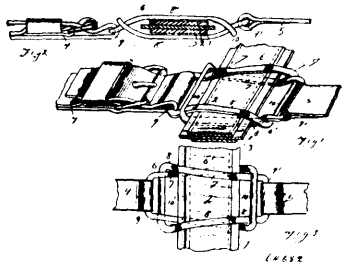
No. 64,681. Plough Draft or Grade.
(*Tirage ou gradation pour charrues.*)



William Sherman McClarren, Redlands, California, U.S.A., 31st October, 1899; 6 years. (Filed 20th September, 1899.)

Claim.—1st. A draft appliance for ploughs comprising a spreader bar provided with holes for a clevis pin, and provided at one end with a hook adapted to hook into the pin holes of a plough clevis, a draft rod adapted at one end to be attached to the standard of a plough and at its other end to be secured to the draft bar. 2nd. A draft appliance for ploughs, comprising a draft bar provided with a series of holes for a clevis pin and having at one end an upwardly projecting hook to hook into the pin holes of a plough clevis, a clamp clevis adapted to fit upon the standard of a plough, and a draft rod adapted at one end to be secured to the clamp clevis, and at its other end to be attached to a draft bar. 3rd. In a draft appliance for ploughs, the spreader bar set forth provided with clevis pin holes, and having at one end an upwardly projecting hook adapted to hook into the pin holes of a plough clevis, and a draft rod connecting the outer end of the spreader bar with the plough beam.

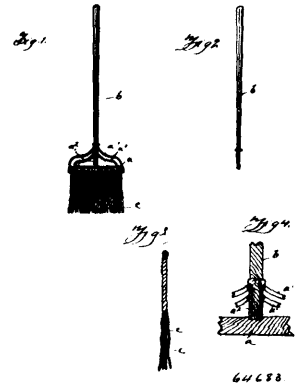
No. 64,682. Trace Clasp. (*Crochet pour traits.*)



Isaac Whealdon, Plainview, Oregon, U.S.A., 31st October, 1899; 6 years. (Filed 20th September, 1899.)

Claim.—1st. The combination with the back-band and link 6, of the belly-band and the co-acting link 6^7, and the trace adjustably secured between said links, substantially as shown and described.

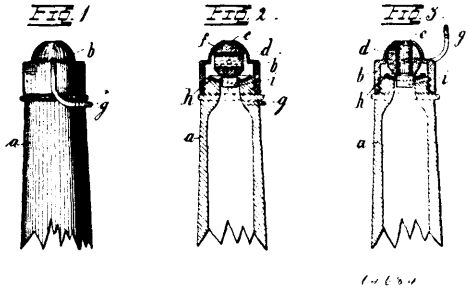
No. 64,683. Brush and Broom. (*Brosse et balai.*)



Dryden B. Forward, Alturas, California, U.S.A., 31st October, 1899; 6 years. (Filed 20th September, 1899.)

Claim.—1st. A brush, the bristles of which are formed in groups, each group being formed of a plurality of strands of wire bent double at an intermediate point, the portion of the wires adjacent to the band being twisted spirally and the ends of the wires being free.

No. 64,684. Bottle Stopper. (*Bouchon de bouteille.*)



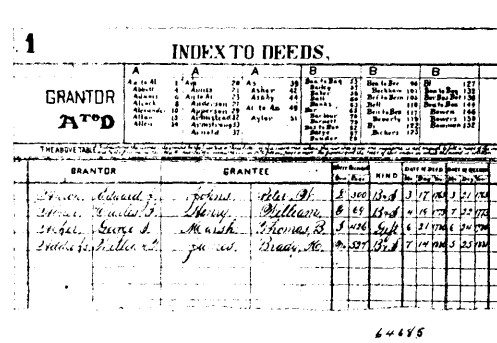
Xavier Bromberger, Münchberg, Hof, Bavaria, German Empire, 31st October, 1899; 6 years. (Filed 18th September, 1899.)

Claim.—1st. A stopper for bottles, comprising a perforated ball-valve *f*, provided with a rigid hand lever *g*, said valve lying inside a capsule *b* screwed onto the neck of the bottle, whereby the operation of the said hand lever causes the perforation or channel *d* in the ball-valve to assure a vertical or a cross position relatively to the bottle mouth, the bottle being thus respectively opened or closed, substantially as described.

No. 64,685. Index. (*Index.*)

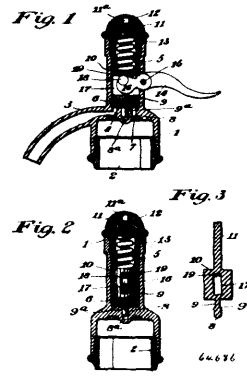
Warren Endoxus Coons, Culpeper, Virginia, U.S.A., 31st October, 1899; 6 years. (Filed 8th May, 1899.)

Claim.—1st. An index for names that consists of parts of names with means to indicate where the names are to be found, and full names, with means to indicate where such are to be found, full names of the same initial being in groups and parts of names being placed contiguous to a group of full names of the same initial letters, said parts being those of the first and last names of a group of names, and having letters, after the initial letter, which, in alphabetical order include the letters of like positions in said group of full names,



and said group of full names and parts of names being on the same page, substantially as and for the purpose specified. 2nd. An index book having on each record receiving page, a table formed of parts of names, with means to indicate where the names are to be found, and full names with means to indicate where such are to be found, the parts of names and full names being grouped together according to their initial letters, said parts of names of such group being those of the first and last of a group of names, and having letters after the initial letter, which, in alphabetical order, include the letters of like position in the full names of a group, substantially as and for the purpose described. 3rd. An index book having at the top of each record receiving page a table formed by parts of names, with means to indicate where the names are to be found, and full names, with means to indicate where such are to be found, the parts of names and full names being arranged in columns and grouped according to their initial letters, said parts of names of a group being those of the first and last of a group of names, and having letters after the initial letter, which in alphabetical order, include the letters of like position in the full names of a group, substantially as and for the purpose set forth.

No. 64,686. Siphon Bottle Head. (*Tête de siphon.*)

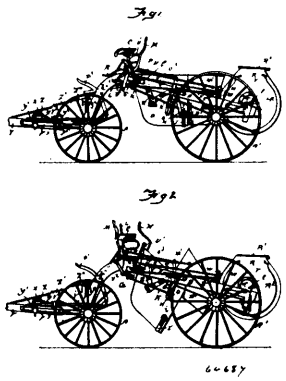


Alvin Welling and Louis Fritz, both of Covington, Kentucky, U.S.A., 31st October, 1899; 6 years. (Filed 25th March, 1899.)

Claim.—1st. In a siphon head, the combination of a casing having a valve chamber, a valve stem therein having a body portion and an axial extension above the same, a valve held by the valve stem, guides at bottom and top of the casing to receive the valve stem and extension, respectively, and means to move said valve stem, substantially as set forth. 2nd. In a siphon head, the combination of a casing having a valve chamber, a valve stem having a reduced portion forming a shoulder at the lower part of the stem, a valve held on said reduced portion above the shoulder, a body portion and an axial extension for the valve stem above the valve, said casing having at top and bottom sockets to receive the extension and valve stem, respectively, and means to move the valve stem, substantially as set forth. 3rd. In a siphon head, the combination of a casing having a valve chamber open at its upper end and formed in its lower part with a socket, a cap screwing in the open upper end of the valve chamber and formed with a socket aligned with the socket at the lower part thereof, a valve held on said stem, a body portion and an axial extension playing in the socket in the cap, a spring coiled on said extension and means to move the valve stem, substantially as set forth. 4th. In a siphon head, the combination of a casing having a valve chamber, a valve stem therein having a body formed with a longitudinal slot, a valve on the stem, a lever pivoted on the casing and having its arm engaged in said slot of the valve stem body and an anti-friction device carried by the lever arm in engagement with said slotted body, substantially as set forth. 5th.

In a siphon head, the combination of a casing having a valve chamber, a valve stem therein having a body formed with a longitudinal slot, a valve on the stem, a lever pivoted on the casing and having an arm engaged in said slot and formed with a socket, and an antifriction roller mounted to turn in said socket and held against dislodgment therefrom, substantially as set forth.

No. 64,687. Waggon for Refuse. (*Wagon pour tripailles.*)



Joseph B. Mowry, Manfield, Ohio, U.S.A., 31st October, 1899; 6 years. (Filed 22nd June, 1899.)

Claim.—1st. In a waggon of the character described, the combination of a wheeled supporting frame, two receptacles connected to said frame, and means extending to and adapted to be operated from the driver's seat for adjusting either of said receptacles, independently of any movement of the other, substantially as set forth. 2nd. In a refuse or garbage waggon, the combination of a wheeled supporting frame, a receptacle consisting of two mutually engaging sections, independantly pivoted to the supporting frame, means under the control of the driver for locking said sections against movement relative to the supporting frame, and means under the control of the driver, for positively adjusting either of said sections about its pivot connection with the frame when the locking means are in an inactive position, independantly of any movement of the other section, substantially as set forth. 3rd. In a dumping waggon, the combination of a wheeled supporting frame, having two longitudinally extending bars, B, a hopper-like body, consisting of two independently movable sections each arranged between and pivoted to said bars, the rear open end of the forward section being adapted to receive the forward, open, end of the rear section, when said sections are in a substantially horizontal position, a pivoted lock hook mounted on the supporting frame and adapted to engage with and maintain the forward section in such substantially horizontal position, means adjacent to the driver's seat for disengaging said hook from the body section, and means extending to points adjacent to driver's seat for positively tilting the said body sections about their pivots, to separate the adjacent open ends thereof, substantially as set forth. 4th. In a dumping waggon, the combination o fa wheeled supporting frame having two longitudinally extending bars, B, a hopper-like body arranged between said bars, plates or hangers secured to opposite walls of said body and each having one end pivoted to one of said frame bars, B, and its other end bent outwardly to extend over the upper side of said bar, and means for positively locking the body to the supporting frame and preventing movement thereof about its pivots, substantially as set forth. 5th In a dumping waggon, the combination with a wheeled supporting frame, having two longitudinally extending bars, a hopper-like body arranged to fit between said bars, hangers connected at an intermediate point of their length to the sides of said body, each hanger having two upwardly extending arms, one of which is pivoted to the adjacent side frame bar, B, and supports the body therefrom, and the other arm having a stop adapted to engage with said frame bar when the body is in position to receive or carry a load, and means for rocking said body about its pivots, substantially as set forth. 6th. In a dumping wagon, the combination of a wheeled supporting frame, a body consisting of two sections, each open at one end, independently fitted to the supporting frame, the open end of one of said sections being adapted to receive the open end of the other section and form a single hopper-like receptacle, lock hooks mounted on the supporting frame and adapted to engage with suitable projections on the outer body section, a rock shaft, a lever on said shaft accessible from the driver's seat, and rods connecting said shaft and said locking hooks, whereby the latter can be withdrawn from engagement with the body and the open ends of the sections allowed to separate, substantially as set forth. 7th. In a garbage waggon, the combination of a wheeled supporting frame, a tank like receptacle connected with the supporting frame by horizontal pivots, stops carried by said receptacle for engaging with the supporting frame and limiting the movement of said receptacle about said pivots, and means for vibrating said receptacle either forward or back about its pivots, and holding it in any adjusted position, substantially as set forth. 8th. In a garbage waggon, the combination of a wheeled supporting frame, mounted tank-like receptacle arranged between and pivotally connected with two bars on said frame, means for vibrating said receptacle about its pivots, and a stop plate secured to said receptacle and adapted to contact with one of said frame bars at both the forward and rearward limit of movement of said receptacle about its said pivots, subsstantially as set forth. 9th. In a garbage waggon, the combination of a wheeled supporting frame, a tank-like receptacle, plates or supporting arms rigidly connected to the ends of said tank and pivotally connected with said supporting frame, a portion of one of said arms or tank supports being so shaped and positioned as to contact with the supporting frame at one end of the pivotal connection of the receptacle with said frame when the tank is in its loaded position or in position to discharge its load, and means for adjusting said tank about its pivots and maintaining it in such adjusted position, substantially as set forth. 10th. In a garbage waggon, the combination of a wheeled supporting frame, a tank like receptacle, pivot plates rigidly connected with the ends of said tank, pivots connecting said plates with the supporting frame, one of said plates being of such size as to have one edge contact with the supporting frame in advance of its pivotal connection with said frame when the tank is in its loaded position and have its opposite edge contact with the supporting frame in rear of said connection with the frame when the tank is in position to discharge its load, and means connected with the tank for adjusting it about its pivots to various positions intermediate of those aforesaid and maintaining it in such adjusted position, substantially as set forth. 11th. In a waggon of the character described, the combination of a wheeled supporting frame having two longitudinally extening side bars, B, which are curved or bowed upwardly near their forward ends and inclined downwardly toward the rear, an open stopped hopper-like receptacle pivotally mounted between said bars, and consisting of two independently movable sections, another receptacle, provided with a cover, pivotally mounted between said side bars, B, in rear of the said hopper like receptacle, a driver's seat arranged above the bowed portion of said side bars, and means connected with each of said receptacles and extending forward therefrom to points adjacent to said seat for vibrating either receptacle about its pivots and into position to discharge its load, substantially as set forth.

TRADE-MARKS

Registered during the month of October, 1899, at the Department of Agriculture—Copyright and Trade-Mark Branch.

7060. THE IMPERIAL SOAP COMPANY, LIMITED, Toronto, Ont. Soap, 2nd October, 1899.

7061. FARRELL, TREGENT & COMPANY, Vancouver, B.C. Canned Salmon, 2nd October, 1899.

7062. LIEBIG'S EXTRACT OF MEAT COMPANY, LIMITED, London, England, and Antwerp, Belgium. Extract of Meat, 3rd October, 1899.

7063. LIEBIG'S EXTRACT OF MEAT COMPANY, LIMITED, London, England, and Antwerp, Belgium. Fluid Beef, 3rd October, 1899.

7064. THE FARBENFABRIKEN, vormals FRIEDRICH BAYER & COMPANY, Elberfeld, Prussia, Germany. Pharmaceutical Preparations, 6th October, 1899.

7065. FRANCIS & COMPANY, LIMITED, Bridge Foot, Vauxhall, London, England. Portland Cement, 9th October, 1899.

7066. THE T. EATON COMPANY, LIMITED, Toronto, Ont. Boots and Shoes, 10th October, 1899.

7067. WILLIAM H. LEE, Toronto, Ont. Tablets for Colds, 11th October, 1899.

7068. GEORGE BELL & SONS, Liverpool, England, and Buenos Ayres, Argentine Republic. Lumber, 12th October, 1899.

7069. THEODORE H. ESTABROOKS, St. John, N.B. Tea, Coffee and Spices, 16th October, 1899.

7070. A. J. CHABOT, Montreal, Que. Un Journal, 17 octobre, 1899.

7071. THE BRANTFORD PACKING COMPANY, LIMITED, Brantford, Ont. Hams, Sausages and Lard, 20th October, 1899.

7072. THE WELDING COMPOUND COMPANY, Paterson, New Jersey, U.S.A. Welding Compounds, 21st October, 1899.

7073. THE NORTH AMERICAN LIFE ASSURANCE COMPANY OF CANADA, Toronto, Ont. Business Device, 21st October, 1899.

7074. GOODYEAR RUBBER COMPANY, New York and Buffalo, N.Y.; St. Louis and Kansas City, Missouri; Chicago, Illinois; Milwaukee, Wisconsin; Minneapolis and St. Paul, Minnesota; San Francisco, California; Portland, Oregon; and Washington, D.C., U.S.A. Rubber Goods, 24th October, 1899.

7075. ARTHUR ERNEST MALLETTE, Montreal, Que. Whiskey, 25th October, 1899.

7076. WATSON & TODD, Liverpool, England. Hewn and Sawn Lumber, 25th October, 1899.

7077. D. S. PERRIN & COMPANY, London, Ont. Candies, Confectionery and Biscuits, 26th October, 1899.

7078. NEWLANDS & COMPANY, Galt, Ont. Saskatchewan Buffalo Robes, 28th October, 1899.

7079. CLEMENT & CLEMENT, Montreal, Que. Office Labour Saving Devices, such as the Rotary Neostyle and Addressograph, 30th October, 1899.

7080. THE BERLIN RUBBER MANUFACTURING COMPANY, LIMITED, Berlin, Ont. Rubber Foot Wear, 30th October, 1899.

7081. JAMES INGHAM ASPEN, Toronto, Ont. Medicinal Preparations, 30th October, 1899.

7082. THE AVERY STAMPING COMPANY, Cleveland, Ohio, U.S.A. Ice Skates, 30th October, 1899.

7083. THE FARBENFABRIKEN, vormals FRIEDRICH BAYER & COMPANY, Elberfeld, Prussia, Germany. Pharmaceutical Preparations, 30th October, 1899.

7084. THE HILLSDALE CHEMICAL COMPANY, Newburgh, New York, U.S.A. A Proprietary Remedy, 31st October, 1899.

7085. THE CANADIAN AMERICAN MUSIC COMPANY, LIMITED, Toronto, Ont. Sheet Music, Music Books, Musical Publications and Musical Instruments, 31st October, 1899.

7086. MAURICE ROBIN, Paris, France. Produits Pharmaceutiques, 31 octobre, 1899.

7087. H. SCHAFFNER, Paris, France. Produits Pharmaceutiques, 31 octobre, 1899.

COPYRIGHTS

Entered during the month of October, 1899, at the Department of Agriculture—Copyright and Trade-Mark Branch.

10838. IONE MARCH. By. S. R. Crockett. With Illustrations by E. Pollak. The Copp, Clark Company, (Ltd.), Toronto, Ont., 3rd October, 1899.

10839. THE SCARLET WOMAN. A Novel. By Joseph Hocking. The Copp, Clark Company, (Ltd.), Toronto, Ont., 3rd October, 1899.

10840. CLAUDE PAYSAN. Par Docteur Choquette. Ernest Choquette, Saint-Hilaire de Rouville, Qué, 4 octobre, 1899.

10841. JOUR DE BONHEUR. (Happy Day.) Waltzes. By J. A. Fowler. Whaley, Royce & Co., Toronto, Ont., 5th October, 1899.

10842. THE VOICES OF THE PAST. (Song.) Words by Albert D. Watson. Music by Edmund Hardy. Whaley, Royce & Co., Toronto, Ont., 5th October, 1899.

10843. TARANTELLE IN B FLAT. By A. Wellesley Hughes. Whaley, Royce & Co., Toronto, Ont., 5th October, 1899.

10844. THE STENOGRAPHER'S COMPANION. Volume II, No. 7, October, 1899. Robert Goltman, Montreal, Que., 6th October, 1899.

10845. THE CANADIAN MAGAZINE, October, 1899. The Ontario Publishing Co., (Limited), Toronto, Ont., 7th October, 1899.

10846. THE COMMERCIAL AND STRATEGIC MAP OF THE BRITISH EMPIRE. The Toronto Lithographing Company, (Limited), Toronto, Ont., 7th October, 1899.

10847. SIMPSON'S INSTRUCTION CHART FOR WRITING ON HIS SYLLABIC AND VOWEL CENTRE BUSINESS CHART. Caleb Platt Simpson, London, Ont., 9th October, 1899.

10848. SON EXCELLENCE MGR. FALCONIO. (Photographie, pose debout.) M. A. Montminy et Cie, Québec, Qué., 9 octobre 1899.

10849. SON EXCELLENCE MGR. FALCONIO. (Photographie, pose assise.) M. A. Montminy et Cie, Québec, Qué, 9 octobre 1899.

10850. SON EXCELLENCE MGR. FALCONIO. (Photographie, pose buste.) M. A. Montminy et Cie, Québec, Qué, 9 octobre 1899.

10851. LOVE'S MESSAGE. (Song.) Words by Cyril Clayton. Music by Milton Wellings. The John Church Co., Cincinnati, Ohio, U.S.A., 9th October, 1899.

10852. ALL IS STILL. (Song.) Words by Cyril Clayton. Music by Milton Wellings. The John Church Co., Cincinnati, Ohio, U.S.A., 9th October, 1899.

10853. TROUBLE; OR, THE YEARS HAVE MANY SHADOWS. (Song.) Words by Edward Teschemacher. Music by A. H. Behrend. The John Church Co., Cincinnati, Ohio, U.S.A., 9th October, 1899.

10854. GRAND MARCH AND BALLET OF EXPANSION. From "The Man in The Moon." Words by Louis Harrison and Stanislas Stange. Music by Reginald de Koven. Op. 39. The John Church Co., Cincinnati, Ohio, U.S.A, 9th October, 1899.

10855. ORCHID BALLET. From "The Man in The Moon." By Reginald de Koven. Op. 39. The John Church Co., Cincinnati, Ohio, U.S.A., 9th October, 1899.

10856. PRIMARY CHART—A HISTORY OF CANADA: SECTION 2, OF A HISTORY OF CANADA. Eli Nash Moyer, Toronto, Ont., 10th October, 1899.

10857. STALKY & CO. By Rudyard Kipling, London, England, 10th October, 1899.

10858. SIX SONGS. By Horatio W. Parker. Op. 47. "Love is a Sickness Full of Woes." "Come, O Come, My Life's Delight." "He That Loves a Rosy Cheek." "Once I Loved a Maiden Fair." "The Complacent Lover." "The Lark Now Leaves His Watery Nest." The John Church Co., Cincinnati, Ohio, U.S.A., 11th October, 1899.

10859. CODE SCOLAIRE DE LA PROVINCE DE QUÉBEC. Par Paul de Cazes, Québec, Qué. 11 octobre, 1899.

10860. MORE CARGOES. By W. W. Jacobs. (Book.) The Copp, Clark Company (Ltd.), Toronto, Ont., 13th October, 1899.

10861. CATARRHOZONE: OZONATED AIR CURE. (Circular). Neil C. Polson, Kingston, Ont., 14th October, 1899.

10862 HISTOIRE APOLOGÉTIQUE DE L'EGLISE. Par Mgr. J. S. Raymond, V. G. Séminaire de St. Hyacinthe. St. Hyacinthe, Qué., 16 octobre, 1899.

10863. HOUSES OF GLASS. A Romance. By Wallace Lloyd. (Dr. James Algie) W. J. Gage & Company (Ltd.), Toronto, Ont., 17th October, 1899.

10864. BY YOUR SIDE. Love Song and Chorus. Words by Sidney R. Ellis. Music by Alfred J. Kuttner. Draper Music Publishing Company, Toronto, Ont., 18th October, 1899.

10865. ON NEW YEAR'S DAY. Descriptive Song. Words and Music by Dave Marion. Draper Music Publishing Company, Toronto, Ont., 18th October, 1899.

10866. THE SUNSHINE OF MY HEART. Plantation Love Song. Words and Music by Dave Marion. Draper Music Publishing Company, Toronto, Ont., 18th October, 1899.

10867. LA FIESTA. March. By Alfred Roncovieri. Draper Music Publishing Company, Toronto, Ont., 18th October, 1899.

10868. THE TEXAS TEASER. Wing Dance Two Step. By George Lowell Tracy. Draper Music Publishing Company, Toronto, Ont., 18th October, 1899.

10869. NEW TECHNIC. A System of the Most Necessary Daily Exercises to produce a Perfect Piano Technic. By Hugo Mansfeldt. Draper Music Publishing Company, Toronto, Ont., 18th October, 1899.

10870. MY CREOLE SUE. Words and Music by Gussie L. Davis. The Canadian American Music Company, (Ltd.), Toronto, Ontario, 18th October, 1899.

10871. MY HANNAH LADY, WHOSE BLACK BABY IS YOU? Words and Music by Dave Read, Jr. The Canadian American Music Company (Ltd.), Toronto, Ont., 18th October, 1899.

10872. GUNAGATHON FOLDER. The Canadian Gunagathon Company (Ltd.), Toronto, Ont., 18th October, 1899.

10873. DOMINION COMMERCIAL TRAVELLERS' HOTEL GUIDE. Maxwell Burdock, Montreal, Que., 18th October, 1899.

10874. CODES DES HUISSIERS ET SHÉRIFS DE LA PROVINCE DE QUÉBEC. Par Victor Cusson, L.L.L. Camille Théoret, Montréal, Qué., 18 octobre, 1899.

10875. OFFICIAL TELEPHONE DIRECTORY, CITY OF TORONTO AND SUBURBS, 1899. The Bell Telephone Company of Canada (Ltd.), Montreal, Que., 20th October, 1899.

10876. THE PUBLIC SCHOOL GRAMMAR. By H. I. Strang, B.A. The Canada Publishing Company (Ltd.), Toronto, Ont., 20th October, 1899.

10877. A WARMIN' UP IN DIXIE. Cake Walk, March and Two-step. By E. T. Paull. Draper Music Publishing Company, Toronto, Ont., 20th October, 1899.

10878. A WARMIN' UP IN DIXIE. Words and Music by E. T. Paull. Draper Music Publishing Company, Toronto, Ont., 20th October, 1899.

10879 PHOTOGRAPH OF THE YACHT "SHAMROCK." Robert Duncan & Co., Hamilton, Ont., 20th October, 1899.

10880 PARTRIDGE SHOOTING IN THE ROCKY MOUNTAINS. (Drawing.) By Arthur Heming, Hamilton, Ont., 20th October, 1899.

10881. RANGE RIDERS OF THE NORTH-WEST MOUNTED POLICE TRAILING CATTLE THIEVES. (Drawing.) By Arthur Heming, Hamilton, Ont., 20th October, 1899.

10882. PRICE LIST NO. 20, AUTUMN AND WINTER, 1899-1900. The S. Carsley Company (Ltd.), Montreal, Que., 23rd October, 1899.

10883. ONTARIO GAME AND FISHING LAWS. A DIGEST." Fourth Edition. By A. H. O'Brien, M.A., Ottawa, Ont., 24th October, 1899.

10884. THREE BRITONS. (Picture.) David E. Hughes, Toronto, Ont., 24th October, 1899.

10885. MENTAL ARITHMETIC. Part II. By Chas. G. Fraser, The Educational Publishing Company, Toronto, Ont., 25th October, 1899.

10886. FIX BAY'NETS; OR, THE REGIMENT IN THE HILLS." By G. Manville Fenn. W. J. Gage & Company (Ltd.), Toronto, Ont., 25th October, 1899.

10887. CANADIAN BATTLE SONG. By George Whitfield Grote, Toronto, Ont., 25th October, 1899.

10888. SABBATH SCHOOL BIBLE STAMP CARD AND QUARTERLY ATTENDANCE RECORD. (Folder.) Henderson & Company, Toronto, Ont., 25th October, 1899.

10889. BOOK OF GOSPEL STAMPS. Henderson & Company, Toronto, Ont., 25th October, 1899.

10890. THE COLLECTOR'S GUIDE. By James Morrison Glenn, Q.C., LL.B. Second Edition. The Municipal World, St. Thomas, Ont., 27th October, 1899.

10891. ŒUVRES DE SANG. Livre en voie de publication par articles dans le "Le Monde Illustré" de Montréal, et "L'Evangeline," de Weymouth Bridge, Nouvelle-Ecosse. Firmin Picard, Montréal, Qué., 27 octobre 1899.

10892. BRIGGS' LEDGER SYSTEM. (Form.) F. W. Briggs, Montreal, Que., 28th October, 1899.

10893. BRIGGS' NEW SYSTEM OF BOOK-KEEPING FOR DOCTORS. (Form.) F. W. Briggs, Montreal, Que., 30th October, 1899.

10894. THE TWO MISS JEFFREYS. By David Lyall. The Copp, Clark Company (Ltd.), Toronto, Ont., 30th October, 1899.

10895. THE HANDY NET PRICE CATALOGUE OF THE POSTAGE STAMPS, STAMPED ENVELOPES AND WRAPPERS OF BRITISH NORTH AMERICA. The Canada Stamp Company, Quebec, Que., 30th October, 1899.

10896. HIS EXCELLENCY MGR. FALCONIO. (Photograph.) Quéry Frères, Montreal, Que., 30th October, 1899.

10897. HIS EXCELLENCY MGR. FALCONIO. (Photograph.) Quéry Frères, Montreal, Que., 30th October, 1899.

10898. MAP OF KAMLOOPS COPPER-GOLD MINING DISTRICT. Walter Thomas Newman and Ernest Clifford Wood, Vancouver, B.C., 31st October, 1899.

10899. MR. DOOLEY IN THE HEARTS OF HIS COUNTRYMEN. By F. P. Dunne. George N. Morang & Company (Ltd.), Toronto, Ont., 31st October, 1899.

10900. CAMPIN' ON DE OLE SUWANEE. A Characteristic March, Two-Step, Polka or Cake-Walk. By Lee Orean Smith. Whaley, Royce & Company, Toronto, Ont., 31st October, 1899.

10901. OLE EPH'S VISION. A Characteristic March, Two-Step, Polka or Cake-Walk. By Lee Orean Smith. Whaley, Royce & Company, Toronto, Ont., 31st October, 1899.