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INVENTIONS PATENTED.

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No. 68,865. Toothing Machine. (*Machine à denteler.*)

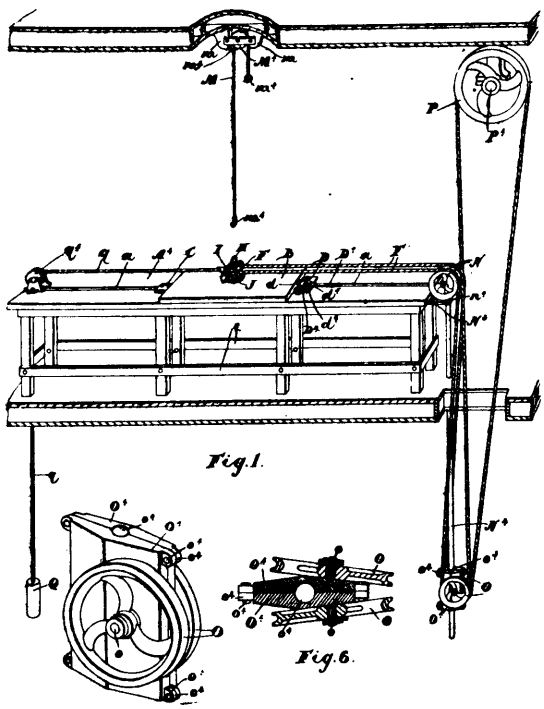


Fig. 1.

Fig. 6.

Fig. 5. 68865

Edmund Palmer Hawkins, assignee of Samuel John Laughlin, both of Guelph, Ontario, Canada, 2nd October, 1900; 6 years. (Filed 17th June, 1899.)

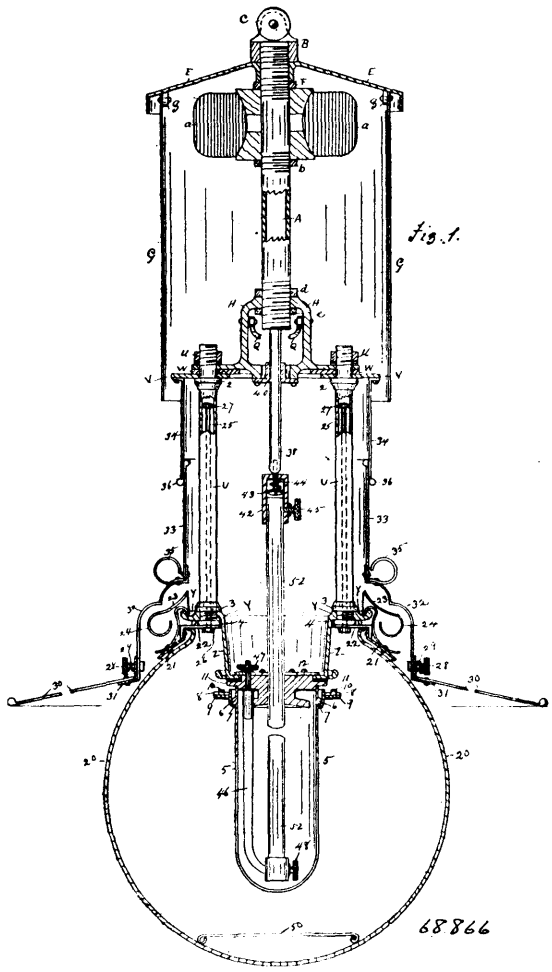
Claim.—1st. In a toothing machine, the combination with the cutter head and the spindle thereof and the cross-bars in which such spindle is journalled of the guard ring surrounding the cutter head, the spindles extending from the guard ring up through the cross-bar and spring means for normally holding the spindles and guard ring beyond the level of the bottom of the cutters, as and for the purpose specified. 2nd. In a toothing machine, the combination with the cutter head and the spindle thereof, and the cross-bars in which such spindle is journalled, of the guard ring surrounding the cutter head, the spindles extending from the guard ring up through the cross-bar, spring means for normally holding the spindles and guard ring up above the level of the bottom of the cutters, the angular wire loop suitably supported on the extension of the cross-bar and provided with a supplemental loop designed to engage with the notch on one of the sleeves of the connecting spindles of the cross-bar, and flat ends to extend over and abutt the ends of the spindles of the guard ring, as and for the purpose specified. 3rd. The combination with the cutter head and driving pulley thereof secured on the spindle of the same and the freely movable frame carrying said head and pulley, of the endless rope drive passing over the pulley of the cutter head at one end and over the main driving pulley at the opposite end, the vertically adjustable rod supported in a bracket at the end of the table, the angularly set guiding pulleys journalled on the end of a cross-bar pivotally held on the top of the vertical rod, the plate vertically adjustable on the rod and the angularly set convering guiding pulleys journalled in studs on the plate and forming with the plate, a weight to keep the rope taut during the gyrations of the cutter head, as and for the purpose specified.

No. 68,866. Arc Lamp. (*Lampe à arc.*)

Frederick W. Martin, Frank Stewart, and the firm of Brown, Boggs and Company, all of Hamilton, Ontario, Canada, 2nd October, 1900; 6 years. (Filed 5th May, 1900.)

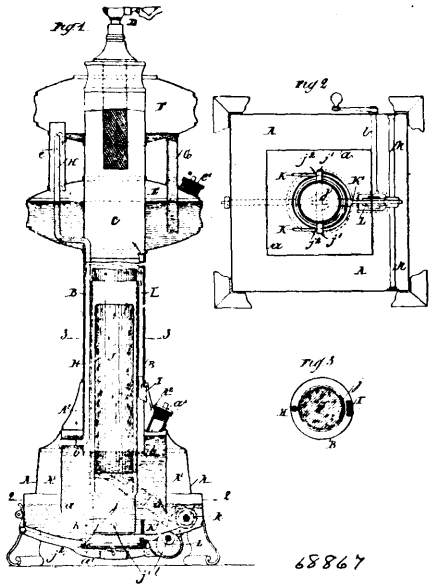
Claim.—1st. In an arc lamp, a main central tube screwed into and suspended from a lamp hanger, a canopy on said tube secured by a nut on the screw of the tube, a choke coil on said tube between said nut and a lower nut, a bearing adjustably secured to the lower end of said tube, a horizontial flange on said bearing and side tubes supported by said flange, as described. 2nd. In an arc lamp, a main suspended central tube, a magnet spool having end raised parts, spring plates with grooves to fit onto said raised parts to hold and to allow removal of the magnet, adjustable clamps on said main tube to receive the ends of said plates to adjustably attach the magnet to said tube, as described. 3rd. In an arc lamp, a spool magnet, indented spring plates connected to raised parts on the ends of the said magnet, a suspended central tube, a bearing adjustably secured to the lower end of the said tube, vertical adjusting clamps on said tube to receive and fasten the ends of said spring plates to hold said magnet, a dash pot, an arm adjustably attached to the central tube and to the dash pot to suspend the same, a plunger in the dash pot, an air valve on the upper end of the plunger and a lever, pivoted to the said bearing, connecting the stem of said plunger with the core of the said magnet, as described. 4th. In an arc lamp, a magnet spool adjustably attached to a central main tube as described, laminated iron partly surrounding said magnet, without contact therewith, straps to hold the laminated iron, a clamp on said main tube connected to said straps to hold the laminated iron around the magnet, for the purpose herein set forth. 5th. In an arc lamp, a suspended central main supporting tube, a vertical bearing, a horizontal flange on said bearing, adjusting nuts screwed onto said tube and against said bearing to fasten the bearing to the tube, side tubes suspended from said flange, rings on the underside of said flange, collars on said side tubes to support said rings, and a globe supporting flange, secured to the lower ends of the side tubes, as described. 6th. In an arc lamp, side tubes, a central suspended bearing with

horizontal flange to rigidly suspend said tubes, an outer globe support with horizontal flange secured to the lower ends of the tubes, a



lower extension of said flange, a lower horizontal flange on said extension to support an inner glass globe, an upper collar on the inner globe, a ring to grip said collar, diametrically opposed pins B, projecting from said ring, an outer ring plate 9, secured to the underside of said pins, lugs 14, on said ring plate at right angles to said pins, spring fastenings pivoted to said lugs, rounded raised part 15, on said lower flange for said fastenings to engage, to bring the top of the globe to a gas check in the central and lower part of the support, as described. 7th. In an arc lamp, a central bearing with horizontal flange suspended by a main central tube, side tubes suspended from said flange, a glass globe with inner protecting screen, a globe support with horizontal flange secured to the ends of said tubes, a ring plate secured to the underside of said flange, an outer attached ring around the upper part of the globe, diametrically opposed brackets secured to said ring, spring steel fastenings secured to the ring, the upper part of said springs capable of fastening over the rounded raised parts of the horizontal flange, of said globe support, as described. 8th. In an arc lamp, an outer glass globe, diametrically opposed brackets secured to a ring around said globe, vertical side tubes, a globe support with horizontal flange secured to the ends of said tubes, rods with upper heads in said tubes, lower end nuts on the rods to engage with the underside of said brackets, a ring plate secured to the underside of said flange, the heads of the rods to rest on said ring plate to suspend the globe in a lowered position, as described. 9th. In an arc lamp, a shade resting on and secured to an annular flanged ring, an inwardly curved casing secured to said ring by hand screws, spiral tension springs on said screws to retain the same, a parallel extension to said casing to telescope into a parallel casing with projecting rim, said casing suspended from the ring plate on the side tubes, a curved spring secured to the inwardly curved casing to lift the shade, a parallel casing, suspended from said ring plate, an outer rim on said casing for said curved spring to fasten thereto, as described.

No. 68,867. Lamp and Apparatus for Making Acetylene Gas. *(Lampe et appareil pour la fabrication du gaz acétylène.)*



Charles Emmanuel Yoonneau, Paris, France, 2nd October, 1900; 6 years. (Filed 14th April, 1900.)

Claim.—1st. An acetylene gas producing apparatus, having a generator to contain water to act on the carbide, said generator having two communicating compartments wherein the water assumes its proper level, one compartment containing the carbide and its gaseous atmosphere communicating with the consuming apparatus, the second, in the space above the water, being in communication with the air space of a receiver containing a liquid, which thus forms a closed space inclosing a confined quantity of gaseous fluid such as air, the said receiver being in communication with another receiver, in such a manner that the liquid driven back or compressed in the first of these receivers by reason of the compression of the confined gaseous body by the rise of water in the second compartment of the generator, rises into the second receiver and can return therefrom into the first when the compression, the cause of this flow, ceases, as above described and set forth. 2nd. An acetylene gas producing apparatus, having a generator to contain water to act on the carbide, said generator having two communicating compartments wherein the water assumes its proper level, the first compartment containing the carbide and its gaseous atmosphere communicating with the consuming apparatus in combination with an automatic pressure regulating means, comprising a reservoir of liquid whose air space part is in communication with the upper part of the said second compartment, while the liquid space of said reservoir is open to the surrounding atmosphere, as and for the purpose described.

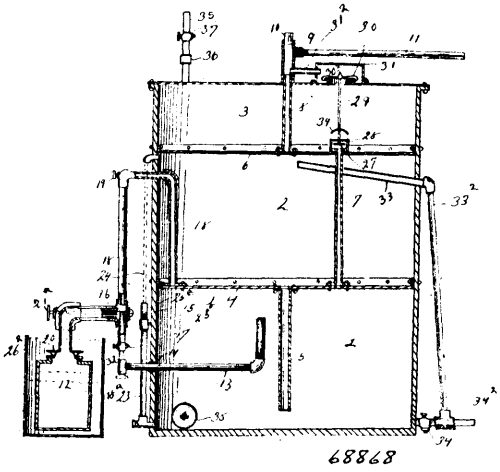
No. 68,868. Acetylene Gas Generator.
(Générateur à gaz acétylène.)

Ole P. Swem, Tacoma, Washington, U.S.A., 2nd October, 1900; 6 years. (Filed 14th April, 1900.)

Claim.—1st. In a gas generator, the combination with a main closure, of partitions for forming therein a gas receiving chamber, a water chamber and gas distributing chamber, means connecting the said chambers, a generating chamber detachably connected with the receiving chamber, a branching pipe connecting the generating chamber with the said distributing chamber, one branch of said pipe entering the chamber at the top and the other branch entering it at the bottom, so that the pressure of the gas in the receiving chamber will regulate the flow of water to the generating chamber, substantially as described. 2nd. A gas generator, comprising a main closure having a receiving tank, a water tank and a distributing tank formed therein, means connecting the water tank and the distributing tank with the reeceiving tank, a generating tank connected with the receiving tank by means of a water pipe, and a gas pipe, said water pipe extending from a point near the centre of the receiving chamber to a point near the top of the generator and provided with a reduced end so that a small flow of water will be secured, cocks for regulating the flow of water and gas in the said piping, and a pipe coupling for removably securing the generator to said piping, substantially as described. 3rd. A gas generator, comprising a main closure having in its lower end a receiving chamber, and a water chamber located above the said receiving chamber and adapted to supply water thereto, a pipe connecting the central portion of the said receiving chamber with a

generating chamber, a gas pipe also connecting the top of the receiving chamber with the generating chamber, the construction

Fig 91.



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being such that the gas will cause the water in the receiving chamber to rise and fall, thereby controlling the flow of water to the generator, substantially as described. 4th. A gas generator, comprising a main closure having a lower receiving chamber, a central water chamber, and an upper distributing chamber, piping connecting the receiving chamber with the generating chamber, a pipe connecting the receiving chamber with the distributing chamber and a valve located at the upper end of said latter pipe, its stem extending into the said distributing chamber and adapted to be raised or lowered by the pressure of the gas for automatically regulating the flow of gas into said distributing chamber, substantially as described. 5th. A gas generator, comprising a main closure having a receiving chamber, a water chamber and a distributing chamber formed therein, a generatng chamber connected with the said receiving chamber for forming gas, a pipe connecting the receiving chamber with the distributing chamber, a valve at the upper end of the said pipe provided with a suitable valve seat, the stem of the said valve being connected with a flexible diaphragm located in the top of the said chamber, a gas deflector secured to said stem, and means for leading gas through said chamber, the construction being such that the flow of gas into the said distributing chamber is automatically regulated by the pressure of the diaphragm and the deflector gives the gas a chance to settle and clear in the said distributing chamber, substantially as described. 6th. In a gas generator, the combination with a main closure having a receiving chamber, a water chamber, and a distributing chamber formed therein, means for supplying gas to the said chamber and a pipe open at the top for supplying water to the water tank, a plug for closing said pipe, a vent pipe secured to said supply pipe for permitting air to enter and pass out of the said water chamber, a cock for controlling the flow of gas, substantially as described.

No. 68,869. Acetylene Gas Generator.

(Générateur à gaz acétylène.)

William Miller, Thomasville, Georgia, U.S.A., 2nd October, 1900; 6 years. (Filed 21st June, 1900.)

Claim.—1st. An acetylene gas generator, comprising a generating chamber, a carbide-magazine communicating therewith below the water level therein, and having a pivoted counter-weighted grate or bottom, at a point above the water level, whereby an intermediate chamber is formed below the magazine, a cock communicating with said intermediate chamber, and a sealed bell in the carbide-magazine, and having a plunger to bear on the charge therein, substantially as described. 2nd. An acetylene gas generator comprising a generating chamber adapted to contain a liquid, a magazine communicating with said chamber and provided with a seal chamber which is independent of the magazine chamber, means for closing the seal chamber and sustaining the charge of active material therein, a bell immersed in the seal chamber of said magazine, and a displacement plunger movable with said bell and fitted in the magazine chamber to travel freely therein on the discharge of the active material therefrom, substantially as described. 3rd. An acetylene gas generator

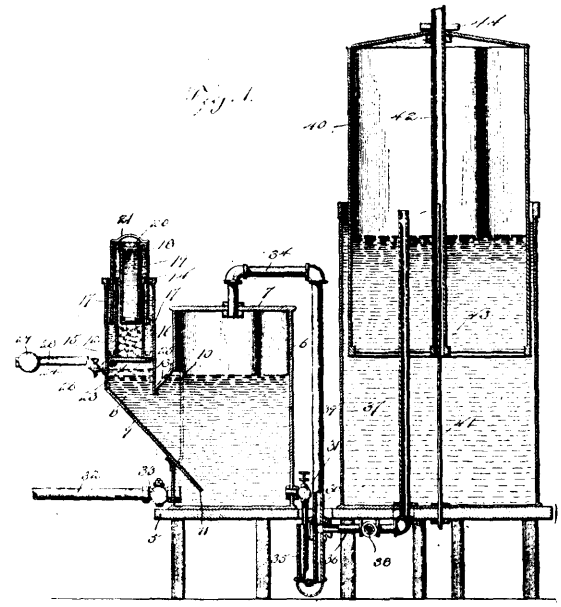

Fig. 2.

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comprising a generatlng chamber, a magazine in communication with said chamber and provided with the independent magazine chamber and seal chamber, a weighted bell and plunger connected together and fitted respectively in the seal chamber and the magazine chamber, and means for closing the magazine chamber against the weight of the charge and the displacement plunger therein, substantially as described. 4th. An acetylene gas generator comprising a tank forming a generating chamber, an inclined conduit communicating with said chamber below the normal water line therein, a magazine fast with said conduit and provided with an internal shell forming a magazine chamber within a surrounding seal chamber, a hinged grate or bottom normally closing the bottom of the magazine chamber, and a bell provided with a weighted displacement plunger adapted to the magazine and seal chambers, substantially as described. 5th. An acetylene gas generator comprising a generating chamber, a magazine communicating with said chamber below the normal water line therein and provided with a magazine chamber above the water line, a hinged counterpoised grate or bottom closing the magazine chamber, a displacement plunger movable in the magazine chamber, and a valve communicating with the magazine at a point between the chamber thereof and the water level in the lower part of the same, substantially as described.

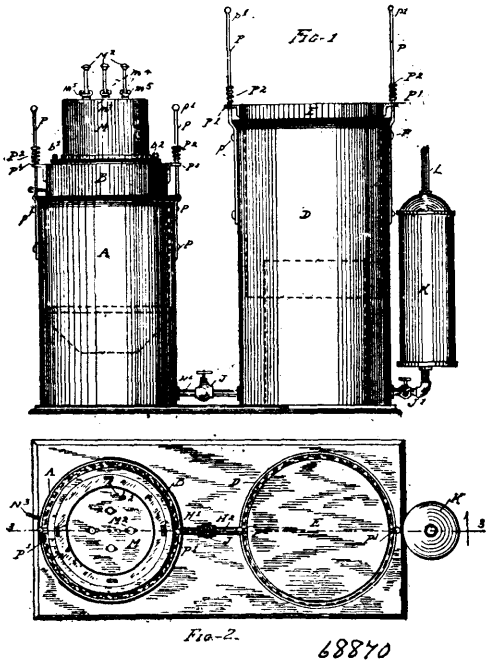
No. 68,870. Acetylene Gas Apparatus.

(Générateur à gaz acétylène.)

James E. Fulton, Athens, Illinois, U.S.A., 2nd October, 1900; 6 years. (Filed 30th June, 1900.)

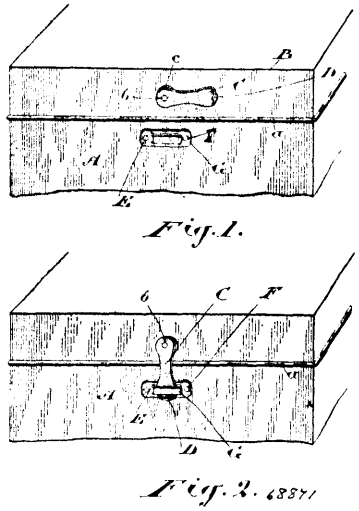
Claim.—1st. In a gas machine, a flanged magazine having radial partitions downwardly opening doors, and means for operating said doors, in combination with a generator cylinder, a gasket between said cylinder and said magazine, securing devices connecting said magazine, with said cylinder, a receptacle within said cylinder, a shell inclosing said cylinder, and a gas receiver in communication with said cylinder as set forth. 2nd. In a gas machine, a magazine having compartments open at one end, doors fitting in the openings in said compartments, rods screw-threaded for a part of their length and having pivotal connection with said doors, glands on said

magazine through which said rods pass and thumb-nuts fitting on the threaded parts of said rods, as set forth, in combination with a



generator cylinder, a receptacle for gas producing material within said cylinder and a closure within said cylinder between the magazine and said receptacle, substantially as shown and described.

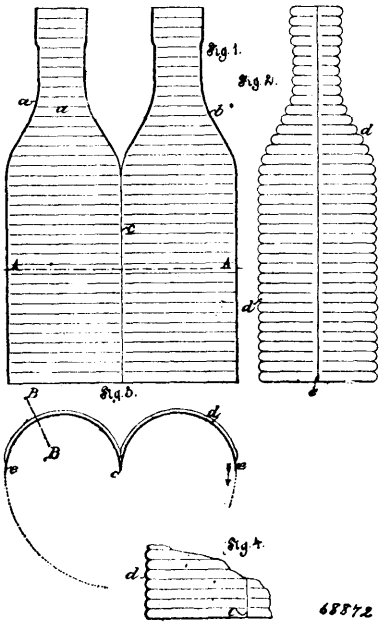
No. 68,871. Hasp Lock for Boxes.
(Moraillon pour serrures de boites.)



William Tassie Tassie, Toronto, Ontario, Canada, 2nd October, 1900; 6 years. (Filed 15th September, 1900.)

Claim.—1st. As a hasp lock for boxes, a latch pivoted at one end upon the box lid and having an enlargement formed at the other, in combination with a keeper secured to the box below the latch and provided with a horizontally extending tongue to engage the latch, substantially as and for the purpose specified. 2nd. As a hasp lock for boxes, a latch pivoted at one end upon the box lid and having an enlargement formed at the other, in combination with a keeper comprising a flat plate secured to the box and a horizontally extending tongue stamped up out of the said plate and adapted to engage the latch, substantially as and for the purpose specified. 3rd. As a hasp lock for boxes, a latch pivoted at one end upon the box lid and having an enlargement formed at the other, in combination with a keeper secured to the box below the latch and provided with a horizontally extending tongue to engage the latch, a rib or flange formed on the box above the keeper, and a washer around the pivot of the latch, substantially as and for the purpose specified.

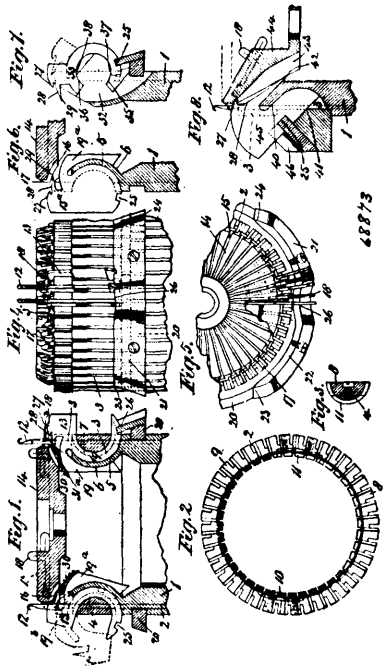
No. 68,872. Bottle Case or Cover.
(Etui et couvercle de bouteilles.)



Carl Degemeyer, Bremen, Germany, 2nd October, 1900; 6 years. (Filed 14th September, 1900.)

Claim.—1st. A bottle casing or cover in one piece, of ribbed or corrugated paper, pasteboard or the like, consisting of two half shells fitting each in its shape the form of a half bottle and which are connected together along their cylindrical part so as to form a hinge or bend, substantially as hereinbefore set forth. 2nd. A bottle casing or cover of paper, pasteboard or the like, consisting of two half shells fitting each the form of a half bottle, and which are connected together along their cylindrical part so as to form a hinge or bend, the substance of the casing having corrugations, ribs or grooves which do not extend to the edges of the casing or to the bending place or hinge with the object of making the edge more resistant and to allow of the bending taking place without the fracture, substantially as described.

No. 68,873. Knitting Machine. *(Machine à tricoter.)*



George Frederick Sturgess, Leicester, England, 2nd October, 1900; 6 years. (Filed 8th May, 1899.)

Claim.—1st. A knitting machine, provided with two needle beds co-acting, each having a combway for the reception of the same set of webbers, the combways of the first bed provided at their bottoms in the base of the bed with slideway seatings continued up one side and down the opposite side, forming a plurality of slideway seatings, detachably bearing webbers provided with needle pointed teeth, and shanked inwardly with a corresponding plurality of clear seating edges, and means located on the outside of the beds, to slide the pointed teeth into and out of the combways of the second bed and the fabric, serving to rigidly hold the needle beds in fixed relative position, and pierce and depress the fabric made on the two beds, substantially as and for the purposes set forth. 2nd. A knitting machine, provided with two needle beds co-acting, each provided with combways for the reception of the same set of webbers, and slidable webbers having needle pointed teeth mounted in the combways of the first needle bed, and means to reciprocate the needle-pointed teeth into and out of the combways of the second needle bed, whereby the webbers pierce each succeeding course of loops and depress the fabric, carrying free staple through to the back, and holding the two beds in correct alignment to each other, substantially as and for the purposes set forth. 3rd. A knitting machine, provided with two needle beds co-acting, each provided with combways containing the same set of slidable webbers, bridging over from bed to bed above the knitted loops, locking and holding the two beds in correct alignment with each other, and means to recede the webbers out of engagement with the combways of the second bed to allow of the formation and passage of new loops between the two beds, substantially as and for the purposes set forth. 4th. A knitting machine, provided with a needle bed having webber combways and recesses in its face, extending downwardly and inwardly to the rear of its needles, each of which is provided with a slideway seating, continued up one side and down the opposite side, forming a plurality of slideway seatings detachably bearing a webber shanked inwardly with corresponding plurality of clear (having no cam-foot projections) slide seating edges, and means located forward of the bed face, to operate them, substantially as and for the purpose set forth. 5th. A knitting machine, having a needle bed provided with webber combways, extending downwardly and inwardly to the rear of its needles, each of which has a plurality of oppositely posed slideway seatings, and containing webbers, each of which has an inwardly shanked body, provided with seating edges conforming to the slideway seatings mounted as to be operable from the bed face, and means forward of the bed face to operate them, substantially as and for the purposes set forth. 6th. A slidable webber, comprised of a blade having a toothed upper part, shanked inwardly to a plurality of clear (having no cam-foot projections) seating edges, said edges being on lines parallel to each other, adapted to slide in and upon the base of the needle bed, provided with a corresponding plurality of slideway seatings, and be operated by a cam located forward of the needle bed face, substantially as and for the purposes set forth. 7th. A slidable webber double-shanked inwardly from the hooked or toothed part, provided with a plurality of clear (having no cam-foot projections) seating edges on lines parallel to each other, substantially as and for the purposes set forth. 8th. A slidable web holding and piercing device, comprised of a blade having a plurality of needle pointed loop or fabric engaging parts or teeth located beneath each other on its fore part, adapted to slide in the combways of the needle bed, and means to reciprocate it, whereby the upper tooth engages the newly made loops, and the lower tooth pierces the loops of the completely formed fabric, substantially as and for the purposes set forth. 9th. A slidable webber provided with a fabric piercing tooth situated below the breast or thread drawing part, adapted to slide in the combways of a needle bed, and be reciprocated as to pierce the loops or mesh of the completely formed fabric, substantially as and for the purposes set forth. 10th. A slidable webber, the hook or tooth of which is brought to a needle or piercing point, adapted to pierce any knitted loop or thread with which it comes in contact rather than trap or cut it, substantially as and for the purposes set forth. 11th. A knitting machine, having a needle bed provided at its top with webber combways and two part or compound detachable webbers, each webber comprised of a fixing blade secured in its combways, making in the combway a webber guideway, having a plurality of slideway seatings, and a hooked movable blade slidably fitted in the guideway so made upon the fixing blade, the whole of the compound webber being detachably retained in its combway, substantially as and for the purposes set forth. 12th. A knitting machine, having provisions for piercing and depressing the fabric between co-acting beds, and for locking the two needle beds together, consisting of needle pointed toothed webbers, detachably sliding in the first bed upon a plurality of bearings in the combways, which extend downwardly and inwardly to a point in the rear of the needles, and and engage the teeth of a combway, which extend downwardly and inwardly to the back of the needles of the second bed, in a manner as to be operable from the face side of the needle beds, substantially as and for the purposes set forth.

No. 68,874. Screw Propeller. *(Propulseur à hélice)*

William Vance, Prescott, Ontario, Canada, 2nd October, 1900; 6 years. (Filed 16th October, 1899.)

Claim.—In a vessel, substantially such as described, the combination with a hull, of a thin keel centrally disposed below the hull and forming the rear overhang, and a screw propeller mechanism below the overhang, in rear of the keel, and having its active surfaces ex-

Fig 1

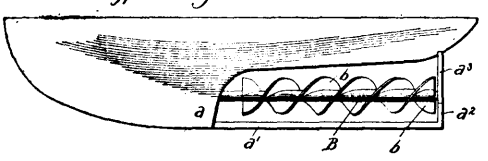
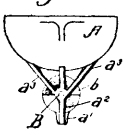


Fig. 2.



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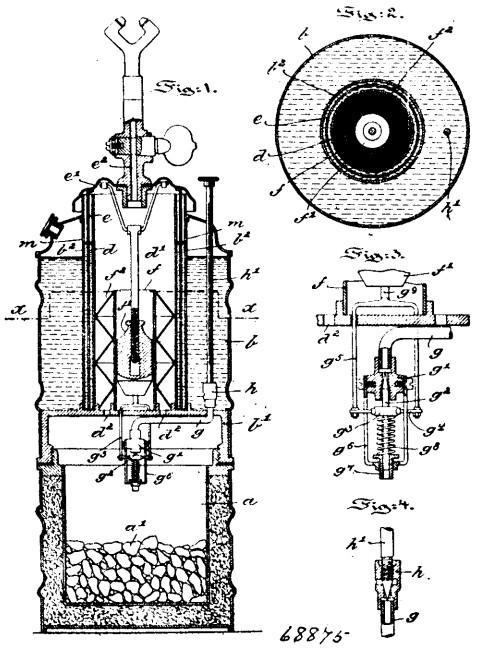
posed beyond the side faces of said keel so as to draw water from beneath the bow and force water rearwardly beneath the overhang, as set forth. 2nd. A vessel, substantially as described, comprising a hull, a thin keel projecting downwardly from the outline of the hull, at the median line thereof, and extending from the bow to a point approximately the center of said hull said keel being distinct from the outline of the hull and having a solid front portion, said hull extending from the rear terminal of the keel and forming an extended oveahang, and a propaller located below the overhang at the point of greatest submergence of the hull and in rear of the keel, the diameter of said propeller greatly exceeding the thickness of the keel and said propeller rotating in a direction to create by suction a motion of the water from beneath the bow toward and beneath the stern, whereby the thin keel affords minimum resistance to the passage of the water influenced by the suction of such propeller. 3rd. A vessel, substantially such as described, comprising a hull and a thin keel projecting downwardly from the outline of the hull, at the median line thereof, and extending from the bow to a point approximately the center of said hull, said keel being distinct from the outline of the hull and having a solid front portion, said hull extending from the rear terminal of said keel and forming an extended overhang, and the propellers located in rear of the keel, on opposite sides of the axis thereof, and extending beneath the overhang of the hull substantially the full length of said overhang, said propellers being arranged at the point of greatest submergence of the hull and rotating in a direction to create by suction a motion of the water from beneath the bow toward and beneath the stern, as and for the purposes described.

No. 68,875. Acetylene Gas Generator.
(Générateur de gaz acétyline.)

William Henry Payne, Camden, New Jersey, U.S.A., 2nd October, 1900; 6 years. (Filed 17th April, 1900.)

Claim.—1st. An acetylene gas generator, comprising a gas generator chamber, a water chamber of annular cross-section and supported upon the gas generator chamber, a gasometer surrounded by the water chamber and in open communication with the generator chamber, a feed pipe connecting the water chamber with the generator chamber, and two valves, one of which is located on the pipe within said water chamber and is adapted to be manually manipulated and the other is located on the feed pipe within the generator chamber, said valve provided with a stem, means adapted to move said stem in one direction, a device carrying said stem, and means for depressing said device and stem, whereby said valve is adapted to be closed and opened automatically by the rise and fall of said gasometer, substantially as and for the purposes described. 2nd. In an acetylene gas generator, the combination with a water chamber, a gas generator chamber and a gasometer, of a feed water pipe connecting the water chamber with the generator chamber and provided with two valves, one of which is located on the pipe within the water chamber and is adapted to be manually manipulated and the other is located on the pipe within the generator chamber and provided with a stem, a spring adapted to move said stem in one direction, a yoke carrying said stem and extending into the gasometer under tension of said spring and means carried by said gasometer for depressing said yoke and stem against the tension of said spring when said gasometer falls within said water chamber, substantially as and for the purposes described. 3rd. In an acetylene gas generator, provided with a gas generator chamber, a water chamber and a gasometer surrounded by said water chamber and in open communication with the generator chamber, a feed pipe connecting the water chamber with the generator chamber, a valve

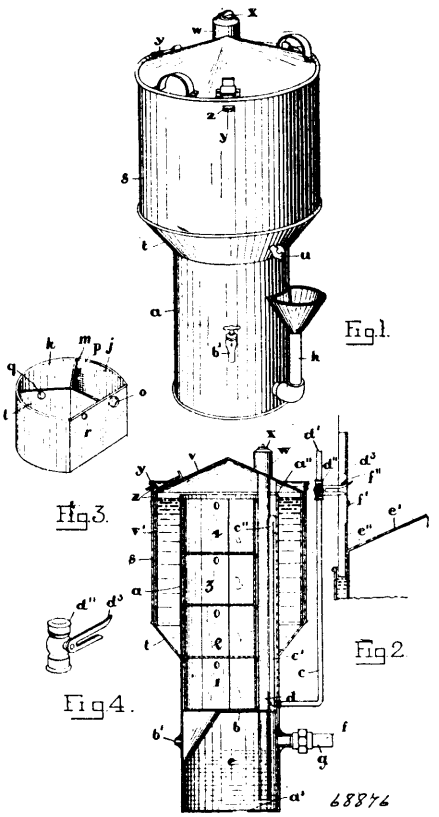
located on said pipe and enclosed in the generator chamber, a stem adapted to control said valve, a spring normally adapted to move



said stem in one direction, a yoke carrying said stem and extending into the gasometer under tension of said spring and means carried by the gasometer for depressing said yoke and stem against the tension of said spring when said gasometer falls within the water chamber, substantially as and for the purposes described.

No. 68,876. Acetylene Gas Generator.

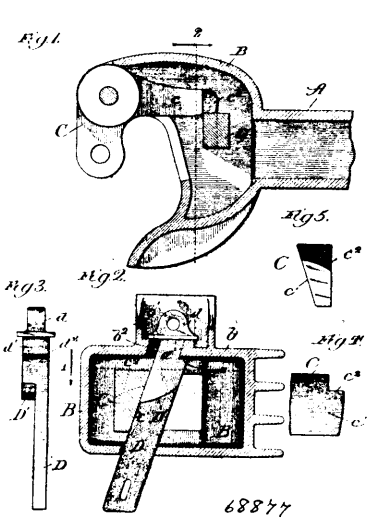
(Générateur de gaz acétylène.)



John D. Forsyth, Stouffville, Ontario, Canada, 2nd October, 1900; 6 years. (Filed 23rd April, 1900.)

Claim.—1st. An acetylene gas generator embracing in its construction a generating cylinder, a series of removable carbide trays contained in the generating cylinder, each tray divided into a series of sections provided with ports communicating with each other and with the generating cylinder, a water jacket surrounding the upper part of the generating cylinder, a removable cover for the generating cylinder the sides of which are contained in the water jacket, a water supply pipe for the generating cylinder, a purifying chamber, a gas outlet pipe communicating with the upper part of the generating cylinder and purifying chamber, and an outlet pipe for the purifying chamber to communicate with the gas mains, substantially as specified. 2nd. An acetylene gas generator, embracing in its construction a generating cylinder having a closed bottom and open top, a false bottom in the generating cylinder forming between itself and the true bottom a purifying chamber, a gas outlet pipe for the generating cylinder to convey the generated gas from the upper part of the same to the purifying chamber, an outlet for the purifying chamber to communicate with the gas mains, a series of removable carbide trays in the generating cylinder above the false bottom, each tray divided into a series of sections by internal partitions having openings at the top to permit of the sections communicating with each other and with the generating cylinder, a water supply pipe, for the generating cylinder, a draw off cock for the generating cylinder, an inlet pipe for the purifying chamber, a water jacket surrounding the upper part of the generating cylinder, a draw off cock for the water jacket and a removable cover for the generating cylinder, the sides of the cover contained within the water jacket, substantially as specified. 3rd. An acetylene gas generator, embracing in its construction a generating cylinder having a closed bottom and open top, a false bottom in the generating cylinder forming between itself and the true bottom a purifying chamber, a gas outlet pipe for the generating cylinder to convey the generated gas from the upper part of the same to the purifying chamber, an outlet for the purifying chamber to communicate with the gas mains, a series of removable carbide trays in the generating cylinder above the false bottom, each tray divided into a series of sections by internal partitions having openings at the top to permit of the sections communicating with each other and with the generating cylinder, a water supply pipe for the generating cylinder, a draw off cock for the generating cylinder, an inlet pipe for the purifying chamber, a water jacket surrounding the upper part of the generating cylinder, a draw off cock for the water jacket, a removable cover for the generating cylinder, the sides of the cover contained within the water jacket, a rotary valve for the water supply pipe and a lever connected to the rotary valve, in combination with the gasometer, a guide connected to the gasometer provided with stops adapted to be actuated by the lever of the rotary valve, substantially as specified.

No. 68,877. Car Coupler. *(Attelage de chars.)*

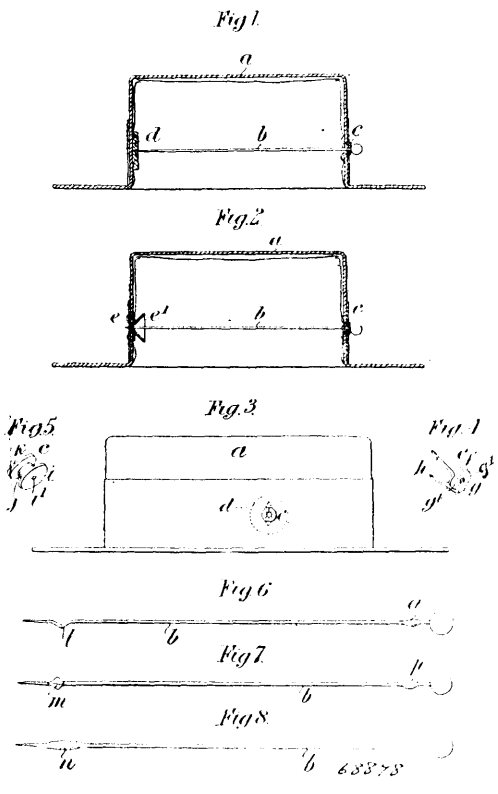


Charles Dietz, Chicago, Illinois, U.S.A., 2nd October, 1900; 6 years. (Filed 27th April, 1899.)

Claim.—1st. In a car coupler, the combination of a draw bar head, a coupling knuckle pivotally secured therein and provided with a tail portion the side locking face of which is arranged at an angle to the vertical plane, and a sliding locking pin arranged in the draw bar head at an angle to the vertical and horizontal planes and provided with a locking face arranged at an angle to the vertical plane and to be contacted by the side locking face of the knuckle tail and assist in holding the parts in their locked coupling position, substantially as described. 2nd. In a car coupler, the combination of a draw bar head, a knuckle pivotally secured therein provided with a tail portion, a sliding locking pin arranged in the draw bar head

at an angle to the vertical and horizontal planes and provided with a cam surface adapted to be contacted by the coupling knuckle while it is being swung into its locking position and cause the pin to be elevated, substantially as described. 3rd. In a car coupler, the combination of a draw bar head, a coupling knuckle provided with a pulling portion and a tail portion pivotally mounted within the draw bar head, a locking pin arranged in the draw bar head at an angle to the vertical plane provided with a shoulder portion adapted to lock with a portion of the draw bar head when the parts are in their locked position, and a cam portion on such locking pin adapted to be contacted by the tail of the knuckle during the swinging of the knuckle into its locking position and cause the pin to be elevated, substantially as described. 4th. In a car coupler, the combination of a hollow draw bar head, a knuckle provided with a pulling portion and a tail portion pivotally mounted so as to swing in the draw bar head, a locking pin arranged in the draw bar head at an angle to the vertical plane and provided with a recess arranged to span a portion of the draw bar head and lock the pin in its locking position, and a cam surface on one of the parts—the tail of the coupling knuckle or the locking pin—so arranged that the locking pin is lifted and unlocked while the knuckle is being swung into its locking position, substantially as described. 5th. In a car coupler, the combination of a draw bar head, a coupling knuckle provided with pulling and tail portions, a cam portion arranged at the end of the tail portion, a locking pin arranged in the draw bar head at an angle to the vertical plane so as to be contacted by the coupling knuckle and lock the parts firmly in coupling position, a recess arranged in the coupling pin at or near its upper portion so as to span the upper web or flange of the draw bar head and further hold the parts in locked position, and a cam portion on one side of the locking pin arranged to be contacted by the cam on the end of the coupling knuckle while it is being swung into its locking position so as to unlock and lift the coupling pin during such movement, substantially as described. 6th. In a car coupler, the combination of a hollow draw bar head, a coupling knuckle of the N. C. B. type provided with a face on its tail portion arranged at an angle to the vertical plane and a cam c^2, a locking pin arranged in the draw bar head at an angle to the vertical plane so as to contact the angular face of the tail of the coupling knuckle, a recess in the upper part of the locking pin adapted to span a portion of the upper part of the draw bar and assist in holding the locking pin in its locked position, a cam D^1 on the coupling pin arranged to be contacted by the cam on the tail of the coupling knuckle while it is being swung into its locking position so as to lift and unlock the coupling pin, substantially as described.

No. 68,878. Hat Fastener. *(Attache de chapeau.)*

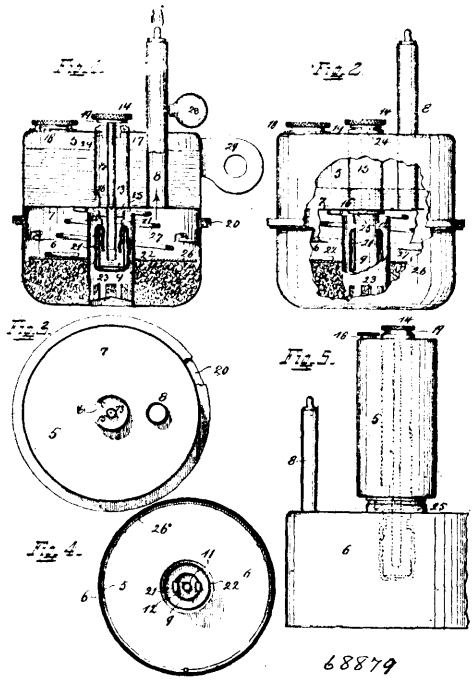


Henry Masters, London, England, 2nd October, 1900; 6 years. (Filed 15th September, 1900.)

Claim.—1st. An improved fastener for ladies' hats, bonnets and the like, consisting of a pin, an eyelet in the hat or bonnet through which the pin is passed and means for receiving the point of the pin, substantially as hereinbefore described. 2nd. A fastener for ladies' hats, bonnets and the like, consisting of a pin, an eyelet in the hat or bonnet through which the pin is passed and of a cork disc secured inside the hat at a point opposite the eyelet into which the pin is inserted, substantially as described. 3rd. A fastener for ladies' hats, bonnets and the like, consisting of a pin, an eyelet in the hat or bonnet through which the pin is passed, and a bell mouthed eyelet inserted inside the hat at a point opposite the eyelet through which the pin is passed, substantially as hereinbefore described. 4th. In fasteners for ladies' hats, bonnets and the like, the employment of the improved pins having the cranked or thickened portions substantially as hereinbefore described and illustrated respectively in figures 6, 7 and 8 of the accompanying drawing. 5th. In fasteners for ladies' hats, bonnets and the like, the employment of the eyelets formed substantially as hereinbefore described and illustrated respectively in figures 4 and 5 of the accompanying drawing

No. 68,879. Acetylene Gas Generator.

(Générateur de gaz acétylène.)

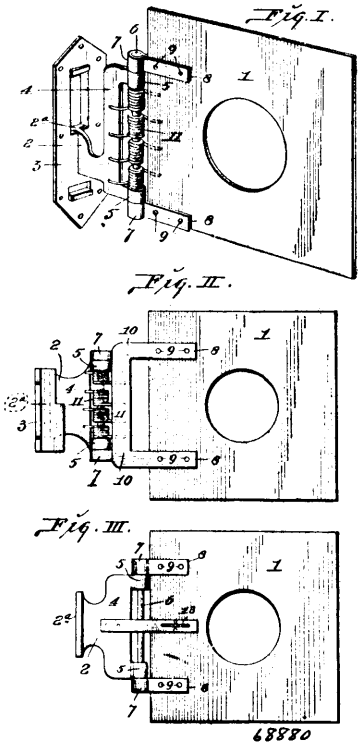


Edward F. Smith, Cincinnati, Ohio, U.S.A., 2nd October, 1900; 6 years. (Filed 3rd July, 1900.)

Claim.—1st. In an acetylene gas generator, the combination of a water receptacle and a carbide receptacle, the two detachably connected, the latter receptacle below the former, a tube 22 projecting upwardly from the bottom of the carbide receptacle, a cup 9 depending from the bottom of the water receptacle into this tube, outlet openings in this latter and in cup 9 and pipe 11 supplying this latter from the water receptacle. 2nd. In an acetylene gas generator, the combination of a water receptacle, and a carbide receptacle a diaphragm 7 separating the two, a cup 9 secured to and depending from the underside of the latter into the carbide receptacle and provided with outlet openings 12, a compartment 15 set off in the water receptacle and communicating therewith by opening 16, a pipe 11 connecting compartment 15 with cup 9, being secured to diaphragm 7 and terminating above bottom of the former and a vent opening 17 being at all times during operation in constantly open communication with the generating compartment and permitting escape of gas at excessive pressure. 3rd. In an acetylene gas generator, the combination of a receptacle for water and one for carbide, a diaphragm between the two, a cup 9, secured to and depending from the underside of the latter into the carbide receptacle, provided with lateral outlet openings 12, a compartment set off in the water receptacle and communicating therewith by an opening 16, a pipe 11 attached to diaphragm 7 and connecting the lower part of compartment 15 with the lower part of cup 9, and wicks supported in openings 12 depending into cup 9 and reaching outside into the carbide receptacle. 4th. In an acetylene gas generator, the combination of a receptacle for water and one for carbide, a diaphragm separating the two, a cup 9 open to the carbide receptacle, a compartment 15 set off in the water

receptacle and communicating therewith by an opening 16, an outlet pipe from compartment 15 communicating with cup 9, a valve controlling this communication, provided on the outside with a knob 14 for manipulation and a vent opening 17 below this knob, the operation being such, that manipulation of this latter for the purpose of operating the valve, controls at once the aforesaid communication as well as passage through opening 17.

No. 68,880. Railway Signal Flag. *(Signal de chemin de fer.)*



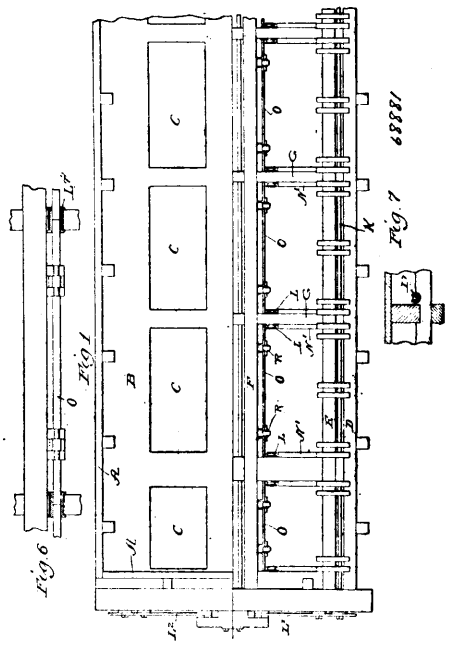
Alexander Hamilton Handlan, St. Louis, Missouri, U.S.A., 2nd October, 1900; 6 years. (Filed 12th September, 1900.)

Claim.—1st. A railway signal, comprising a bracket having a T-head and a shank formed with pertorated ears, a flag, straps having perforated ears and secured to the flag, a pin passing through the perforated ears to provide a hinged joint between the shank and the flag, and a spring bearing on the shank at one end and bracing the flag at the other end, substantially as described. 2nd. The combination of a metallic flag provided with perforated ears, a bracket, a socket adapted to receive the bracket, a shank on the bracket provided with perforated ears, a pin passing through said perforated ears and serving to connect the flag to the shank of the bracket, and springs surrounding said pin and having extended ears bearing against said shank and flag respectively, substantially as set forth.

No. 68,881. Dumping Car. *(Char à bascule.)*

William A. Caswell, Chicago, Illinois, U.S.A., 2nd October, 1900; 6 years. (Filed 14th September, 1900.)

Claim.—1st. The car having a dumping door in its bottom supported at one side by hinges and at the other side by latches mounted on a support located outside of the path of the door and below the bottom of the car, said latches setting under the free edge of the door and having a short movement past said edge in a direction away from both the free and the hinged edges of the door so that they are enabled to move instantly out from under the door and thereby avoid interference with it, substantially as specified. 2nd. The car having a dumping door in its bottom supported at one side by hinges and at the other side by latches mounted on a support located outside the path of the door and below the bottom of the car, both the hinges and the support being directly sustained by the floor sills of the car, said latches setting under the free edge of the door and having a short movement past said edge in a direction away from both the free and hinged edges of the door so that they are enabled to move instantly out from under the door and thereby avoid interference with it, substantially as specified. 3rd. The combination with the hinged dumping doors, of devices for supporting the doors in their closed position, and a shaft for operating said supporting devices, said shaft being made in sections coupled together, substantially as specified. 4th. The combination with the hinged dumping doors, of devices for supporting the doors in their closed position, and a shaft for operating said supporting devices, said shaft being made in separately removable sections detachably



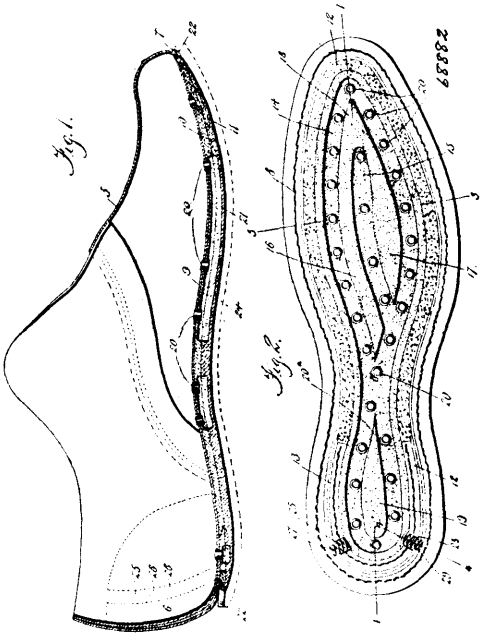
coupled together, substantially as specified. 5th. The combination with the rock shaft for operating the door supporting devices of a dumping car, said shaft being made in sections detachably coupled together, of bearings for the shaft open at the top and headers made in two parts, substantially as specified. 6th. The combination with the rock shaft for operating the door supporting devices, said shaft being made in sections, of coupling devices for uniting the sections and made open at the top, headers supporting said coupling devices and made in two parts and bearings for the shaft intermediate of the headers and open at the top, substantially as specified. 7th. The combination with a trap door and with its supporting latch or arm N, of a movable lifter R interposed between the latch and the door, substantially as specified. 8th. The combination with a trap door and a supporting arm or latch N movable under the door and supported upon the car sill, and a lifter R pivoted to the sill and swinging with said arm, substantially as specified. 9th. The combination with the trap door and its supporting latch or arm N, of a lifter R pivoted stationarily and swinging into position between the arm and the door, substantially as specified. 10th. The combination with the trap door and its supporting arm N, of a pivoted lifter controlled by the arm and movable into position between the arm and door, substantially as specified. 11th. The combination with the trap door, of swinging latches setting under the swinging edge of the door, and lifters moved into position by the latches and serving to raise the door to its proper normal level, substantially as specified. 12th. The combination with the trap door, of a swinging latch setting under the swinging edge of the door, and a lifter pivoted stationarily and having an inclined surface R^1 in contact with which the latch moves and whereby it is enabled to raise the door to its proper position, substantially as specified. 13th. The combination with the trap door, of a swinging latch setting under the swinging edge of the door, and a lifter pivoted stationarily and having an inclined surface R^1 and hook W, substantially as specified. 14th. The combination of the latches N made U-shaped with lifters R swinging into the open spaces of the latches, substantially as specified. 15th. The trap door having a bottom plate 6, in combination with the lifter R and the latch arms operating said lifter, substantially as specified. 16th. The trap door for dumping cars having the inserted projecting rubber 9, and the metal flanged bottom plate 6, the flange of the plate supporting the rubber, substantially as specified. 17th. The dump car provided with a trap door hinged to its floor by hinges, the leaves of which are provided with barrels enclosing the pintle, and risers 14 countering the barrels, both the barrels and risers coming flush with the car floor, substantially as specified.

No. 68,882. Ventilated Shoe. *(Chaussure ventilée.)*

John Tourigny, Windsor Mills, Quebec, Canada, 2nd October, 1900; 6 years. (Filed 14th September, 1900.)

Claim.—1st. A ventilated shoe, provided with a two part inner sole having matching grooves formed in their opposing surfaces and forming a continuous air circulation channel, substantially as and for the purposes described. 2nd. In a ventilated shoe, provided with a two part cork shoe, the members of said sole having

matching grooves formed in their opposing faces, and the lower layer or member of said cork sole overlapping the shoe welt, sub-



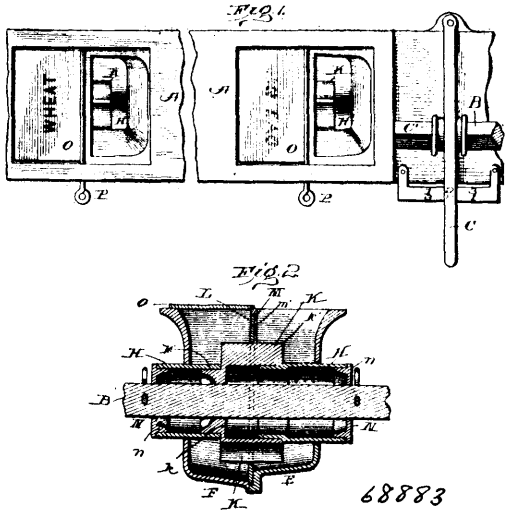
stantially as described. 3rd. In a ventilated shoe, a cork sole consisting of two parts having having matching grooves formed in their opposing faces, and a lining united to the upper layer of said sole by eyelets which form a plurality of ports, substantially as described. 4th. In a ventilated shoe, a two part cork sole consisting of an upper layer provided with the main and auxiliary channels separated by the partitions 16, 17 and 19, and a lower layer which is applied against said channeled face of the upper layer and overlaps the shoe welt, substantially as described. 5th. In a ventilated shoe, a two part cork sole provided in the opposing faces of its members with the coincident grooves forming the air circulating channels, a lining fitted to the upper face of the upper layer, and eyelets connecting said upper layer and the wall of the lining together, the lower layer of the cork sole arranged to overlap the shoe welt, substantially as described. 6th. In a ventilated shoe, the combination with a welt, of a two part cork sole having its members provided with matching grooves in their opposing faces, the upper sole member being fitted within the welt to leave an intervening space between the opposing edges of the parts, and the lower sole member overlapping said welt, and a packing or filling in the surrounding space between said upper sole member and the welt, substantially as described. 7th. In a ventilated shoe, the combination with a welt, and a channeled sole, of an absorbent packing between said welt and sole, substantially as described. 8th. In a ventilated shoe, the combination of a sole provided with circulation channels, an inlet passage in the shoe counter connected with said ventilating channel, and a reinforcement disposed in said inlet passage and preventing the walls thereof from collapsing, substantially as described. 9th. In a ventilated shoe, the combination of a sole having circulation passages, the inlet and exhaust passages in the counter and communicating with the circulation passages, and a reinforcement consisting of coiled wire disposed in each inlet and exhaust passage, substantially as described.

No. 68,883. Feeding Mechanism for Grain Drills.

(Mecanisme d'alimentation pour semoirs.)

Robert Galloway, Buffalo, New York, U.S.A., 2nd October, 1900; 6 years. (Filed 14th September, 1900.)

Claim.—1st. In a grain distributor, the combination with the casing having two seed runs and the dividing wall between said runs, of a single feed wheel adjustably mounted to project into and operate said runs. 2nd. In a grain distributor, the combination with the casing having two seed runs of different sizes, and the partition dividing said runs, of a single feed wheel longitudinally movable from one run to the other, substantially as described. 3rd. The combination with a casing for a seeding mechanism having two runs of different capacities, and a partition dividing said runs, of a feeding wheel adjustable through said partition more or less into either run and means for controlling the longitudinal adjustment of said wheel, substantially as described. 4th. In a seeding mechanism the combination with a casing having two runs therethrough of different



capacity and a rotory disc constituting a partition between said runs, of a feeding wheel adjustable longitudinally through said partition so as to be projected more or less into either of said runs at will and a controlling mechanism for said feed wheels, substantially as described. 5th. In a double run seeding mechanism the combination with a casing having runs therethrough one of greater capacity than the other, a feeding wheel adjustable longitudinally in said casing so as to operate in either run and a disc constituting the partition between said runs and through which the feed wheel is adjusted, said disc extending to the bottom of the larger run, substantially as described. 6th. In a double run seeding mechanism the combination with the casing having the two runs therethrough, the central rotary disc constituting the partition between said runs and the feed wheel adjustable longitudinally through said disc, of the cut-offs located on opposite sides of the feed wheel and having cut-off wings working through the sides of the casing, substantially as described. 7th. In a double run seeding mechanism, the combination with the casing, the centrally arranged rotary disc constituting the partition between the runs, the feed wheel adjustable through said disc, of the cut-offs located on opposite sides of the feed wheel with co-operating bearings and cylindrical projections for maintaining the alignment of said cut-offs and feed wheel and discs mounted outside of said cut-offs for holding the outer ends of the cut-offs in alignment, substantially as described. 8th. In a double run seeding mechanism the combination with the casing having two seed runs of different sizes, the dividing disc between said runs and the bridge, of a single feed wheel adjustable through said disc, the feed shaft, the cut-offs on either side of the feed wheel and the discs or hubs mounted on the feed shaft and supporting the cut-offs, substantially as described.

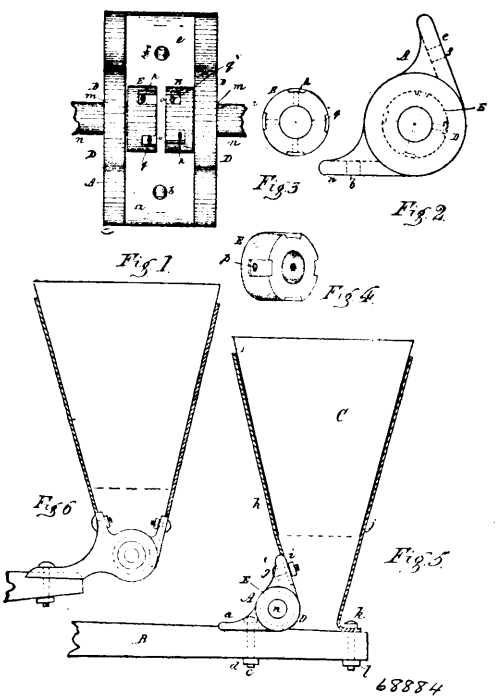
No. 68,884. Tongue Socket for Seed Drills.

(Douille pour semoirs.)

William Stephenson, Morris, Manitoba, Canada, 2nd October, 1900; 6 years. (Filed 14th September, 1900.)

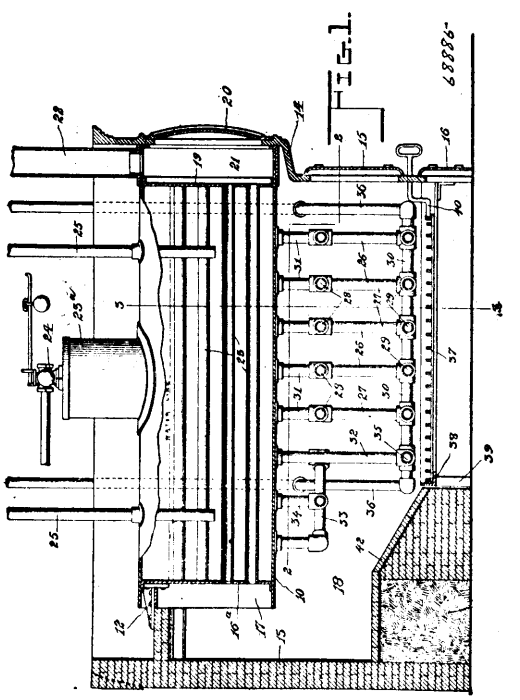
Claim.—1st. In combination with a seed drill, a tongue socket consisting of a bracket having a case flange or bed bolted to the tongue and an upper flange or bed, the same bolted to the strap of the hopper, a circular portion secured at each central side of the socket, with an opening in each to receive the horizontal shafts, a collar on the inner end of each shaft, between the discs, a bolt opening through the centre of each collar and a bolt opening a short distance from the centre in each collar for the shafts and collars to be secured by bolts, all constructed substantially as and for the purpose specified. 2nd. In combination with a seed drill, a tongue socket A, the same constructed with upper and lower flanges *a c* and bolted to the tongue B, and strap *h*, of the hopper C, sides DD attached to the socket or cast with it and provided with openings *m*, for the ends of the shafts *nn* circular collars EE placed between the sides DD having central openings to receive the extreme inner ends of the shafts *nn* and be secured thereto by a bolt in the centre of each, or a slight distance from the centre, for variation of wear, all constructed, substantially as and for the purpose specified. 3rd. In a drill shed the combination of the tongue socket A provided with openings *b f* sides DD with central openings, collars EE having central bolt openings *pq* shafts *nn* made to pass through the sides

DD and collars EE and bolted to the said collars, the lower flange *a*, of the tongue socket A, bolted to the tongue B, of the seed drill



and the upper flange *c*, of the socket A, bolted to the hopper C, or strap *h*, of the hopper, all constructed, substantially as and for the purpose specified.

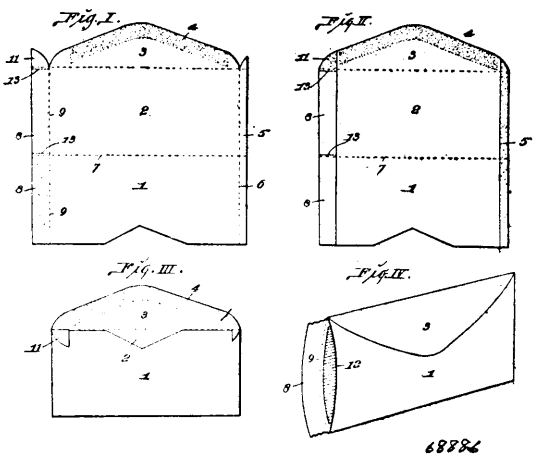
No. 68,885. Heating Apparatus. *(Appareil de chauffage.)*



Joseph Cyprien Thibeault, Arthabaskaville, Quebec, Canada, 2nd October, 1900; 6 years. (Filed 15th September, 1900.)

Claim.—1st. In a heating apparatus, the combination with a boiler, of a series of depending circulating sections each connected together at their lower portions and communicating at their upper ends with said boiler, substantially as described. 2nd. In a heating apparatus, the combination with a boiler having the circulating flues therethrough, of a series of vertical sections arranged below said boiler and spaced apart to form the circulating spaces, said sections forming a combustion chamber and connected with the water spaces of the boiler, substantially as described. 3rd. In a heating apparatus, the combination with a boiler, of a series of sections connected and arranged to form a combustion chamber and having communication with the water spaces of the boiler, and the circulating tubes also connected with the boiler and with the sections and disposed in rear of the latter, substantially as described. 4th. In a heating apparatus, the combination with a boiler having the circulating flues, of the square sections arranged below the boiler and in parallel spaced relation one to the other so as to form a combustion chamber, said sections having communication one with the other at their lower portions and each section having an individual water connection with the boiler, substantially as described. 5th. In a heating apparatus, the combination with a boiler, of a series of sections connected with the boiler and forming a combustion chamber, a movable separator below said sections, means for supporting said separator, and means whereby the separator may be positively operated, substantially as described.

No. 68,886. Envelope. *(Enveloppe.)*



The Samuel Cupples Envelope Company, St. Louis, Missouri, assignee of James West, Brooklyn, New York, U.S.A., 4th October, 1900; 6 years. (Filed 25th June, 1900.)

Claim.—1st. In an envelope, comprising front and back portions, sealed together at one end, a top gummed flap, and a wide fold on the other end of the envelope extending the width thereof, folded in between the front and back portions, one half of the same being gummed down while the other half is free to be pulled out. 2nd. An envelope having a front and back portion, closed at one end and having a gummed flap, the other end of said envelope being formed with a fold, one portion of which is adapted to be sealed to the back of the envelope and the other portion of which is folded against the front of the envelope and left free so that the contents can fit behind the same, substantially as described. 3rd. An envelope, consisting of a front and back portion closed at one end and having a flap adapted to be sealed to the back portion, said envelope having a fold at the end thereof that is not closed, said fold having a portion adapted to be sealed down against the back portion of the envelope, substantially as described. 4th. An envelope, consisting of a front and back portion closed at one end and having a flap adapted to be sealed against the back portion, and having also a fold, one portion of which is sealed to the back of the envelope while the remaining portion is left free and folded against the front of the envelope, and a projection from the fold adapted to be sealed to the back of the envelope, substantially as set forth. 5th. An envelope, comprising a front and back portion secured together at one end, a top gummed flap, a wide fold on the other end of the envelope extending the width thereof, and a projection extending from the top of said fold, said fold having lines of perforations to permit part thereof to be turned out to allow the removal of the contents of the envelope. 6th. An envelope, consisting of a front and back portion, with a flap on the front portion adapted to be sealed to the back portion, and a wide fold on one end of the envelope extending the width thereof, and the adjacent faces of which are left unattached, substantially as and for the purpose set forth.

No. 68,887. Fastening for Boots and Shoes.
(Attache pour chaussures.)

Anna Theresa Moore and John Montgomery, both of Simcoe, Ontario, Canada, 4th October, 1900; 6 years. (Filed 10th September, 1900.)

Claim.—1st. A lace and tongue clasp, consisting of a plate permanently attached to the outer side and upper part of a tongue of a boot or shoe, an outer flap hinged to the upper part of said plate, said flap capable of being locked over the knot of the lace of the

boot or shoe, to retain said knot and said flap capable of being brought upwards on its said hinge to disengage the flap from the

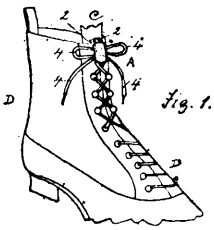


Fig. 1.

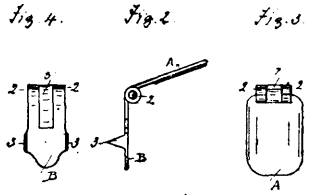


Fig. 4. Fig. 2 Fig. 3.

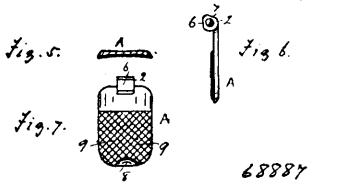


Fig. 5. Fig. 6.

Fig. 7.

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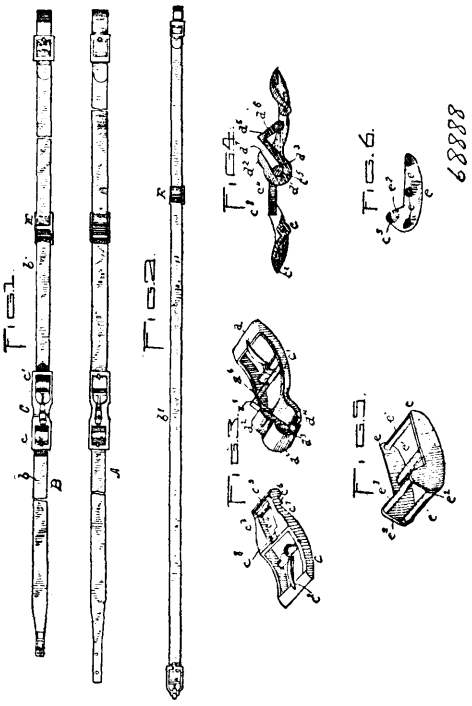
knot and the fore part of the boot or shoe, as described. 2nd. In a boot or shoe, a lace knot clasp, an inner plate hinged to the upper part of said clasp and attached to the upper part of the outer face of the tongue, said flap concaved to suit the contour of the boot and the knot, corrugations on said concave to retain said knot, said flap capable of opening upward on said hinge and remaining there and of closing onto the knot of the lace to retain the tongue and the knot of the lace in defined position to the boot, as described. 3rd. In a boot or shoe, a plate attached to the upper part of the outer face of the tongue by means of prongs on said plate, an outer flap hinged to the upper part of said plate, said flap concaved and corrugated on its inner face to engage the knot of the lace of the boot, said flap capable of opening upward on its hinges, a spring on said plate to engage with the flattened part of the hinged centre of said flap to retain said flap in open position to expose said knot, and said flap capable of closing and locking on the knot, a flattened part of the hinged centre engaged by the upper part of said spring to retain said flap in locked position on the knot, as described.

No. 68,888. Reins. *(Rênes.)*

Otto Fischer, Chattanooga, Tennessee, U.S.A., 4th October, 1900; 6 years. (Filed 22nd August, 1900.)

Claim.—1st. A driving rein, comprising a main section and a hitching strap section having means at its front end to connect to a bit, the adjacent ends of said rein sections being provided with complementary coupling members whereby they may be readily connected and disconnected, and means on the hitching strap section in advance of its coupling member for engagement thereby when the rear end of said hitching strap section is passed around or through a hitching post or like device, substantially as described. 2nd. A driving rein, comprising a main section and a hitching strap section having means at its front end for connecting it to a bit, the adjacent ends of the rein sections being provided with complementary coupling members for readily connecting and disconnecting them, and a slide on the hitching strap section in advance of its coupling member for engagement thereby when the rear end of the hitching strap section is passed around or through a hitching post or like device, substantially as described. 3rd. A driving rein, comprising a main section, provided at its forward end with a coupling member, a hitching strap section provided at its rear end with a coupling member, said coupling members being adapted to be engaged or disengaged by a lateral movement when brought into proper relation and having pivotal movement when connected, and a slide on the hitch-strap section in advance of its coupling member and having a member shaped to interlock with the said coupling member when the two are brought into one certain relative position, substantially as shown and described. 4th. A coupling comprising complementary members adapted to be engaged and disengaged by a lateral movement when the two members are brought in a given relative position, and having pivotal movement one upon the other when connected, and complementary members upon the coupling members adapted to so engage the other when the coupling members are swung upon their pivot to a point just beyond that at which the parts are in position to be disengaged, that the parts are locked against uncoup-



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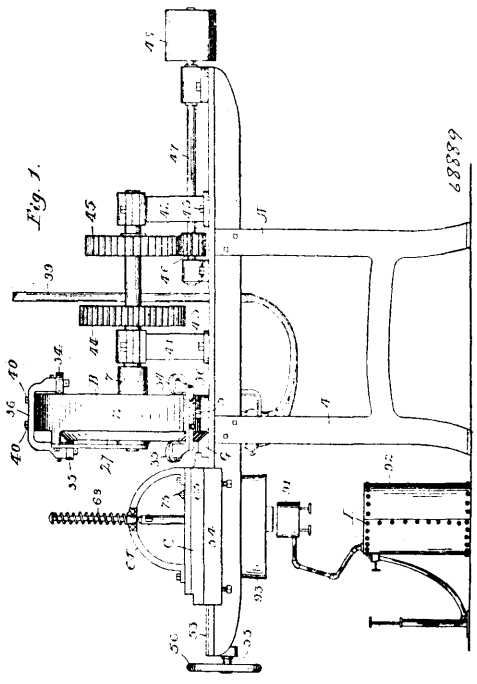
ling lateral movement, substantially as described. 5th. A coupling comprising complementary members adapted to be engaged and disengaged by a lateral movement when the two members are brought in a given relative position, and having pivotal movement one upon the other when connected, one of said members being provided with a socket, and a lug upon the other of said members, the lug and socket being so placed relatively that said lug enters the socket when the coupling members are swung upon their pivot to a point just beyond that at which the parts are in position to be disengaged, substantially as described. 6th. A coupling comprising a member having a body portion provided with an opening therein, a transverse bar adjacent said opening, said coupling being provided with a recess at that side of the opening opposite to the said transverse bar, in combination with a second coupling member having a hook, a channel being formed between said hook and the body portion of the second coupling member of sufficient width to receive the body portion of the first coupling member but not of sufficient width to receive the said transverse bar thereof, said channel communicating with a socket of sufficient size to receive the transverse bar, the hook being of a size to rest in the opening of the first coupling member, whereby the said coupling members are connected and disconnected by a lateral movement, and a lug upon the second coupling member adapted to enter the recess in the first coupling member when said members are folded upon each other with the transverse bar as an axis to a point beyond the position in which the body portion of the first coupling member is in line with the channel of the second coupling member, substantially as described. 7th. In reins for a double harness, a line having a main portion extending to the inner side and being adapted to be connected to the inner side of the bit of the opposite horse when applied, a coupling member upon said main line, a hitching section adapted to be connected at its front end with the outer side of the bit of the horse other than the first horse mentioned, and a coupling member upon the rear end of said hitching section, said coupling member being complementary to the coupling member upon the main section and being adapted to be connected with a slide or engaging device on the hitching section between the ends thereof, substantially as described.

No. 68,889. Metal Moulding Machine.
(Moule pour le métal.)

Cyrus Clinton Webster, Minneapolis, Minnesota, U.S.A., 4th October, 1900; 6 years. (Filed 27th May, 1899.)

Claim.—1st. A casting machine, consisting in combination with a frame having a mould cavity, of a valve controlled ingate registering with said cavity, a dam positioned in said cavity adjacent to said ingate, said dam and ingate, being separable from said frame, and means for revolving said frame, for the purposes specified. 2nd. A casting machine, consisting in combination with a frame suitably journalled and having an annular mould cavity within and lying broad side toward the centre of said frame, of an ingate registering with said cavity, a dam positioned in said cavity adjacent to

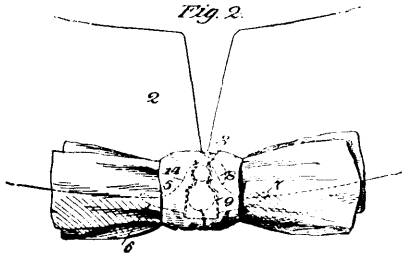
said ingate, said dam and ingate being separable from said frame an ejector having an inclined face passing out of said mould cavity,



and means for continuously revolving said frame. 3rd. A casting machine, consisting of a frame suitably journalled having an annular mould cavity, positioned broad side toward the centre of said frame and within the same, an ingate registering with said cavity at its edge, a notched dam adjoining said ingate and positioned in said cavity, said ingate and dam being mounted on a movable and independent frame, an ejector having an inclined face in said cavity and the driving mechanism for revolving said frame, as shown and for the purposes specified. 4th. The combination of a frame, having a mould cavity E and consisting of plates independently journalled upon a supporting frame and provided with mould faces and so combined and arranged as to form said mould cavity, of guides for holding said plates longitudinally, drive mechanism for revolving said plates, a crucible having an ingate registering with said cavity, a notched dam adjacent to said ingate and positioned in said cavity, a stationary ejector H, a heater for said crucible and means for injecting the molten metal into said cavity, said ingate and dam being movable upon a stationary frame, as shown and for the purposes specified. 5th. A strip metal casting machine, consisting of a crucible, a heater for the same, an ingate block, a dam and an injector, arranged in combination with a mould frame, having an annular mould cavity within and positioned edgewise toward the front and back of said frame, said cavity being of tapering thickness lengthwise, an ejector in said cavity and the drive mechanism for said frame, said ingate block and dam being so arranged as respectively to register with and intercept said cavity at its place of least thickness, as shown and for the purposes specified. 6th. A mould frame D, forming a mould cavity, mechanism for adjusting said frame so as to vary the size of said cavity, an ejector arranged in the cavity and means for driving said frame, in combination with a crucible having a heater for the same, an injector adjoining the mould cavity, an ingate and a dam, said ingate and dam being movably mounted upon a stationary frame, and adjacent to said mould cavity. 7th. A frame having a tapering mould cavity therein, consisting of rotary discs, having mould faces and means for adjusting said mould faces for varying the thickness of the mould cavity, the adjustable guides for holding the plates longitudinally in position, consisting of rollers journalled upon eccentric bolts, the fixed ejector, and driving mechanism for revolving said frame, and an ingate mounted upon a movable crucible, having a heater, said ingate having a notched dam passing across said mould cavity, as shown and for the purposes specified. 8th. A casting machine, consisting of a revolving mould frame, a crucible movably mounted on parallel guides longitudinally positioned with reference to said frame, an annular mould in said frame, an ingate carried by said crucible adapted to register with the mould in said frame, and means for continuously revolving said mould frame and heating the crucible, substantially as described. 9th. An apparatus, consisting in combination of a mould frame, journalled upon a support, an annular mould cavity in said frame, means for adjusting said frame so as to vary the size of the mould cavity, means for revolving said mould frame, means for injecting the molten metal into said mould and means for ejecting the cast strip from the same, for the purposes specified. 10th. A casting machine, consisting of a mould frame, journalled upon a support, and having a mould groove, a crucible movable upon parallel guides toward said frame, a valve controlled ingate, carried by said crucible so as to register with said groove, a blade like ejector passing into the mould groove, positioned upon and carried by a fixed support so to eject the cast strip from the groove, the driving means for said frame, and the heater for the crucible, as shown and for the purposes specified. 11th. The combination with a number of adjacent discs, having means for revolving the same, a valve controlled ingate block, a dam and an ejector, said parts arranged to form a mould groove, of longitudinal guide bars, a crucible carrying said ingate block and dam, movable upon said bars, means for moving said crucible, a pump connected with said crucible and passages leading from said pump and crucible to said ingate block, as shown and for the purposes specified. 12th. The combination in a strip metal casting machine, of a number of discs fastened together and journalled upon a stationary frame, each having an adjoining mould face, driving means and adjusting mechanism for varying the thickness of the mould, an ejector fixed upon said frame and passing into said mould, a pair of guide bars, directed longitudinally toward said discs, a crucible movable upon said guide bars, carrying an ingate block and a stop, which project so as to register with and dam said mould groove when the crucible is forward, a heater for said crucible and a pump for projecting the molten metal from the crucible into the mould, said discs, dam, ingate block and ejector being so arranged as to form a segmental mould, as shown, and for the purposes specified. 13th. In a strip metal casting machine, the combination with the carrying bars of a vertical disc like frame, journalled upon a support, and having an annular mould groove within, drive mechanism for said frame, an ejector passing into said groove, carried by said journal support, a crucible movable upon said bars having an ingate block and stop registering with and damming said mould groove when the crucible is forward, mechanism by which the crucible is moved, a pump having passages connecting said crucible with said ingate block and a heater adjoining said crucible, for the purposes specified. 14th. The combination with the frame, composed of discs journalled together and enclosing an annular groove, a segment of which is open, of a movable valve controlled ingate transverse to said groove, an ejector having a tapering edge intercepting said groove at said opening, a stop, damming said groove adjacent to said ingate, and means for supporting and revolving said frame, for the purposes specified. 15th. A casting machine, consisting in combination of a revoluble frame enclosing a mould cavity, a transverse gate registering with said cavity and a notched dam carried by said gate, for the purposes specified. 16th. An apparatus, consisting of three or more adjoining discs, journalled upon a stationary frame and having mould faces so arranged as to form a concentric mould groove, means for rotating said discs, the crucible having an ingate which registers with said mould groove and an ejector, as shown, and for the purposes specified. 17th. A casting machine, consisting of three or more disc like plates, journalled upon a stationary frame and having adjoining mould faces so arranged as to form a mould cavity, means for revolving said plates, a relatively fixed ejector, and an ingate, as shown, and for the purposes specified. 18th. A strip metal casting machine, consisting of an annular mould journalled upon a frame, an ingate for receiving the molten metal into the mould, and an ejector for ejecting the cast strip out of the mould, in combination with an adjustable mould frame, composed of adjoining disc like plates concentrically journalled and having adjusting mechanism, and means for revolving the mould frame, as shown, and for the purposes specified. 19th. In an apparatus for casting metal into strips, the combination of an annular mould E, having an opening K, the crucible F, an ingate 77, registering with said mould and connecting with said crucible, a valve 78, controlling said ingate, the operating means for rotating said mould, and the ejector H, having the inclined edge 89 in said mould for guiding or ejecting the cast strip from the mould. 20th. The combination of a revoluble frame D, having an annular groove or mould, of the means for rotating said frame, the heater I, the crucible F, the ingate 77 leading from said crucible and registering with said groove or mould, the valve for opening and closing said ingate, the stop 83, means for heating said stop, and the fixed ejector H, having a tapering edge in said mould for guiding and ejecting the cast strip, for the purposes specified. 21st. A casting machine, consisting of a rotary mould frame, composed of vertical discs longitudinally adjacent and journalled together, having faces so arranged as to form a mould groove, an ingate entering the side of the mould groove, a passageway leading out of said mould groove, and an ejector positioned in said passageway, for the purposes specified. 22nd. The combination with a mould, supported by and journalled to a stationary frame, having an annular mould groove therein, of a movable crucible having an ingate adapted to register with said mould groove, means for forcing molten metal from said crucible into the side of said mould, heaters adjoining said crucible, ingate and mould, an ejector, said mould having a suitable passageway for the solidified product in which said ejector is located, and means for revolving said mould, for the purposes specified. 23rd. A casting machine, consisting of a frame of discs 6, 19 and 27, so arranged as to form the mould cavity E, having a place of egress K, for the cast strip and increasing in thickness toward said place from the place of

ingress of the molten metal into the mould cavity, said discs being journalled upon a fixed frame and having means of adjustment, a crucible F, an ingate block G, carried by said crucible, having dam 83, said ingate block and dam being positioned so as to register with said mould cavity, a pump carried by said crucible for projecting the molten metal into said mould cavity, a heater I, adjoining the crucible, an ejector H, corresponding in thickness and shape respectively with the thickness and curvature of the mould, mounted on a stationary frame and so arranged as to eject the cast strip from the mould, as shown, and for the purposes specified.

No. 68,890. Necktie Supporter. (*Support de cravate.*)



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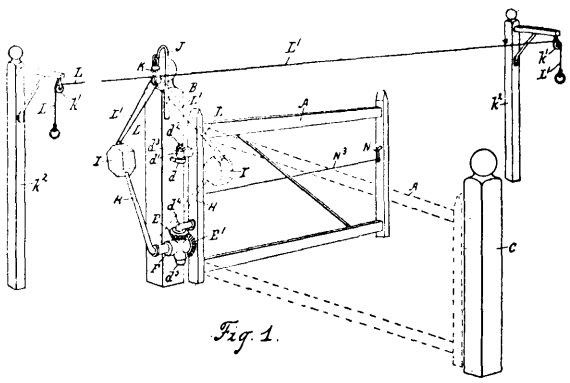
David Edgar Lantz, Farmer City, Illinois, U.S.A., 4th October, 1900; 6 years. (Filed 25th August, 1900.)

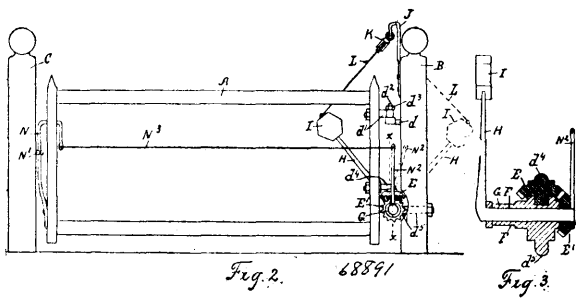
Claim.—1st. A necktie supporter comprising a slotted plate curved to conform to the curvature of a collar with its lower corners extended and curved backward in greater degree than its main portion to form prongs, as and for the purpose specified. 2nd. A necktie supporter comprising a slotted plate curved to conform to the curvature of a collar with its lower ends or corners extended and curved back to form prongs, and the upper edge of the plate curved convexly, as and for the purpose specified. 3rd. A necktie supporter comprising a plate curved to conform to the curvature of a collar and having a vertical button hole slot, the lower corners being extended and curved backward to form prongs, and its upper edge curved convexly and the side edges extending from the extremities of the prongs to said convexly curved portion concavely to give a wedge-like form to the prongs, as shown and described. 4th. A necktie supporter comprising a slotted plate provided with spring barbs extending over its face opposite the slot and with plate securing prongs extending in opposite directions as the base of the plate and bent back into divergent relation. 5th. A necktie supporter comprising a slotted plate having a pair of crimped spring barbs extending over its face and inclined with respect thereto, a divergent plate, securing prongs extending from the opposite sides of the base of the plate and designed to engage the lower edge of the collar to prevent riding up or twisting of the die. 6th. A necktie supporter comprising a plate of substantially triangular form, provided with a vertical slot enlarged at its lower end for the reception of a button head, a flange extending from the base of the plate directly below the slot to form a seat, a pair of crimped spring barbs connected at their lower ends by a transverse bar engaging said seat, and a pair of plate securing prongs extending from the opposite sides of the plate at its base and bent back into divergent relation to slip under the lower edge of the collar to prevent the tie from riding up or twisting.

No. 68,891. Gate. (*Barrière.*)

James L. McFarlane and Thomas C. McFarlane, both of Ailsa Craig, Ontario, Canada, 4th October, 1900; 6 years. (Filed 6th October, 1890.)

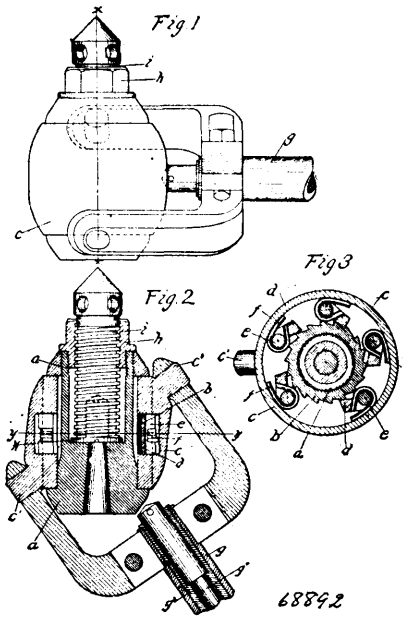
Claim.—1st. An attachment to a gate post carrying a socket bearing or boxing, a shaft supported by and rotating perfectly free in said bearing, a bevelled gear wheel secured to one end and an arm to the other end of said shaft, a weight secured to said arm and means for adjusting said weight, in combination with a gate and a bevelled gear wheel secured to said gate and engaging with the bevelled gear wheel on the shaft, substantially as and for the purpose set forth. 2nd. An attachment to a gate post carrying a socket bearing or boxing, a shaft supported by and rotating perfectly free in said bearing, a bevelled gear wheel secured to one end and an arm





to the other end of said shaft, a weight secured to said arm, a rope or ropes extending over a pulley for adjusting said weight, and means for supporting said pulley and the outer end of said rope or ropes, in combination with a gate and a bevelled gear wheel secured to said gate and engaging with the bevelled gear wheel on the shaft, substantially as and for the purpose set forth. 3rd. An attachment to a gate post, carrying a socket bearing or boxing, a shaft supported by and rotating perfectly free in said bearing, a bevelled gear wheel secured to one end and an arm to the other end of said shaft, a weight secured to said arm, a rope or ropes extending over a pulley for adjusting said weight, a hanger supporting said pulley, and a pole or poles carrying a pulley or pulleys for supporting the outer end of said rope or ropes, in combination with a gate, and a bevelled gear wheel secured to said gate and engaging with the bevelled gear wheel on the shaft, substantially as and for the purpose set forth. 4th. An attachment to a gate post carrying a socket bearing or boxing, a shaft supported by and rotating perfectly free in said bearing, a bevelled gear wheel secured to one end of said shaft, an arm secured to the same end of said shaft, a wire strand connecting said arm with a spring latch on the free end of the gate, a catch on the post, against which the gate shuts, an arm secured to the other end of said shaft, a weight secured to said arm and means for adjusting said weight, in combination with a gate and a bevelled gear wheel secured to said gate and engaging with the bevelled gear wheel on the shaft, substantially as and for the purpose set forth. 5th. An attachment to a gate post carrying a socket bearing or boxing, a shaft supported by and rotating perfectly free in said bearing, a bevelled gear wheel secured to one end of said shaft, an arm secured to the same end of said shaft, a wire strand connecting said arm with a spring latch on the free end of the gate, a catch on the post, against which the gate shuts, an arm secured to the other end of said shaft, a weight secured to said arm, a rope or ropes, extending over a pulley for adjusting said weight and means for supporting said pulley and the outer end of said rope or ropes, in combination with a gate and a bevelled gear wheel secured to said gate, and engaging with the bevelled gear wheel on the shaft, substantially as and for the purpose set forth. 6th. An attachment to a gate post carrying a socket bearing or boxing, a shaft supported by and rotating perfectly free in said bearing, a bevelled gear wheel secured to one end of said shaft, an arm secured to the same end of said shaft, a wire strand connecting said arm with a spring latch on the free end of the gate, a catch on the post, against which the gate shuts, an arm secured to the other end of said shaft, a weight secured to said arm, a rope or ropes extending over a pulley for adjusting said weight, a hanger supporting said pulley and a pole or poles carrying a pulley or pulleys for supporting the outer end of said rope or ropes, in combination with a gate and a bevelled gear wheel secured to said gate and engaging with the bevelled gear wheel on the shaft, substantially as and for the purpose set forth.

No. 68,892. Mechanical Movement.
(Mouvement mécanique.)



Harvey D. Williams, Washington, District of Columbia, and Horace G. Hoadley, Waterbury, Connecticut, U.S.A., 4th October, 1900; 6 years. (Filed 7th November, 1899.)

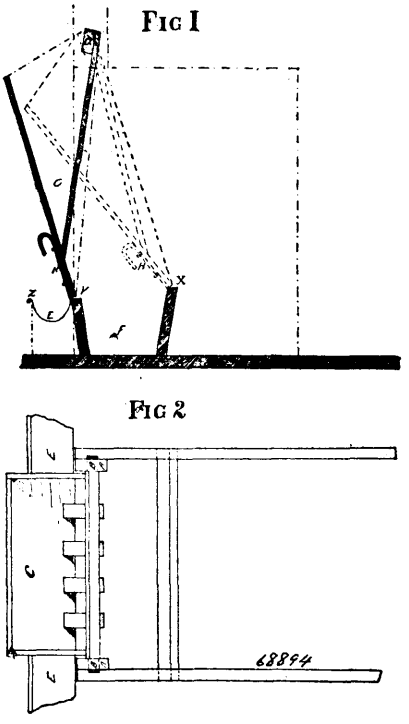
Claim.—1st. In combination the central rotary shaft, the sleeve surrounding said shaft and adapted to rotate thereon, the rotary ratch and co-operating pawl or pawls intermediate of said shaft and sleeve, and the lever pivotally attached to said sleeve by trunnions diagonally located with respect to the axis of said sleeve, all substantially as described and for the purposes set forth. 2nd. In combination the central rotary shaft, the sleeve surrounding said shaft and adapted to rotate thereon, the rotary ratch and co-operating pawl or pawls intermediate of said shaft and sleeve, the lever pivotally attached to said shaft by trunnions diagonally located with respect to axis of said sleeve, and the feed screw with its co-operating nut, all substantially as described and for the purposes set forth. 3rd. In combination the central rotary shaft, a plurality of sleeves surrounding said shaft and adapted to rotate thereon, the corresponding plurality of rotary ratches and co-operating pawl or set of pawls interposed between said shaft and said sleeves, and the lever pivotally attached to a plurality of said sleeves, one of said sleeves being connected by bifurcation pivotally attached to said sleeve and to said lever, all substantially as described and for the purposes set forth. 4th. In combination the central rotary shaft, carrying the circular ratch on its exterior, and an interiorly chambered sleeve surrounding said shaft adapted to rotate thereon, and the spring-pressed pawl or pawls pivotally hung to said sleeve within said chamber, and the lever pivotally attached to said sleeve by diagonally placed trunnions, all substantially as described and for the purposes set forth. 5th. In combination the central rotary shaft, the sleeve surrounding said shaft and adapted to rotate thereon, the ratchet intermediate of said shaft and sleeve, the plurality of pawls arranged in an annular chamber in said sleeve and adapted to engage the ratchet teeth at separate times or intervals, and the lever pivotally attached to said sleeve by diagonally placed trunnions, all substantially as described and for the purposes set forth. 6th. In combination the central rotary shaft, a sleeve containing an internal annular chamber surrounding said shaft and adapted to rotate thereon, the rotary ratch and co-operating pawl or pawls intermediate of said shaft and sleeve and located within said chamber, and a lever pivotally attached to said sleeve by diagonally placed trunnions adapted to give rotation to said sleeve, all substantially as described and for the purposes set forth. 7th. In combination the central rotary shaft, with the vibratory lever pivotally attached thereto on an axis at other than right angles to the axis of said shaft, all substantially as described and for the purposes set forth. 8th. In combination the rotary shaft, the bearing handle for that shaft, and the vibratory lever pivotally attached to said rotary shaft on an axis at other than right angles to the axis of shaft, all substantially as described and for the purposes set forth. 9th. In combination the bearing handle, the reversely off-set rotary shaft and the vibratory lever pivotally attached to said shaft on an axis at other than right angles to the axis of said shaft, all substantially as described and for the purposes set forth.

No. 68,893. Rubber Substitute.
(Substitut pour caoutchouc.)

William Prampolini, San Luis Potosa, Mexico, 4th October, 1900; 6 years. (Filed 25th January, 1900.)

Claim.—1st. The process of preparing a substitute for rubber, which consists in comminuting the shrub called "Synantherceas-Mexicanas," known also by the Indian names of "Yule," "Copalin," "Yerba del Negro," "Guayule," "Jiguhite" and "Hule," and treating the comminuted shrub with a volatile hydrocarbon solvent. 2nd. A new composition of matter for use as a substitute for India rubber consisting of the gummy matter of the shrub called "Synantheroeas-Mexicanas," known also by the Indian names of "Yule," "Copalin," "Yerba del Negro," "Guayule" "Jiguhite" and "Hule," said gummy matter being combined with the residue of a volatile hydrocarbon solvent, substantially as herein described. 3rd. A new composition of matter for use as a substitute for India rubber consisting of the gummy matter of the shrub called "Synantheroeas-Mexicanas," known also by the Indian names of "Yule," "Copalin," "Yerba del Negro," "Guayule," "Jiguhite" and "Hule," said gummy matter being combined with the residual oil of a volatile hydrocarbon solvent, substantially as described.

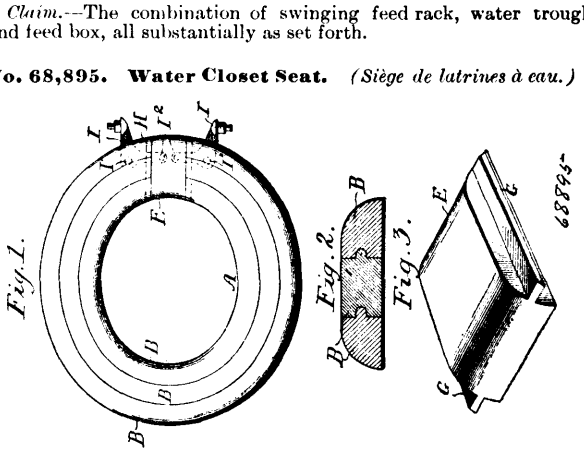
No. 68,894. Live Stock Feeding Rack. *(Ratelier.)*



Richard Smith, Fort William, Ontario, Canada, 4th October, 1900; 6 years. (Filed 21st May, 1900.)

Claim.—The combination of swinging feed rack, water trough and feed box, all substantially as set forth.

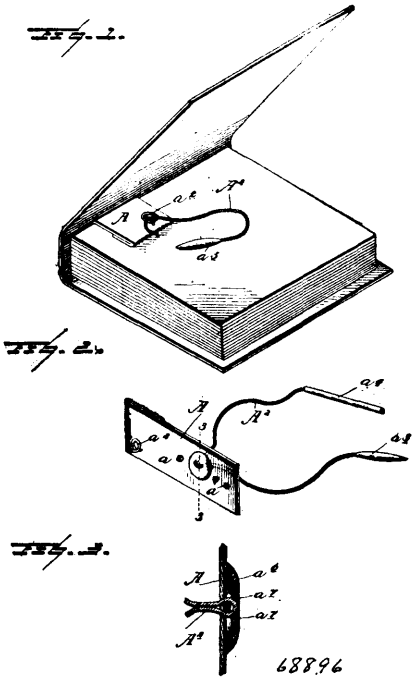
No. 68,895. Water Closet Seat. *(Siège de latrines à eau.)*



Jonas Herrman, Columbus, Ohio, U. S. A., 4th October, 1900; 6 years. (Filed 11th July, 1900.)

Claim.—A closet seat comprising an inner portion provided with a groove, a middle portion provided on one side with a tongue and the other with a groove, an outer portion provided with a tongue and a short locking portion, the said three portions being superimposed upon and interlocked with each other, and with the locking portion at their end and secured firmly together with screws and glue, substantially as described.

No. 68,896. Paper File Binder. *(Lien pour files.)*



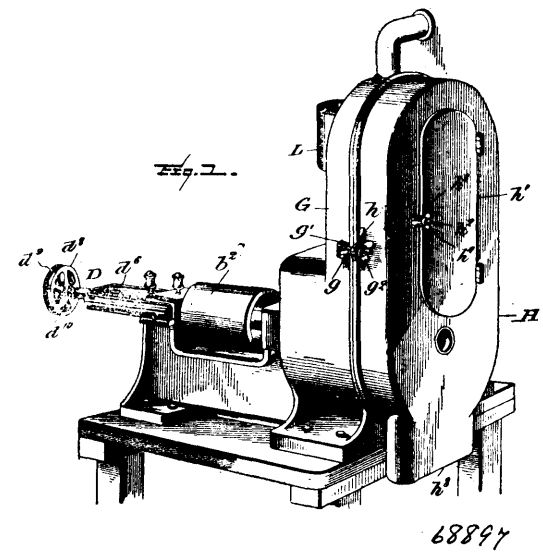
Cyrus S. Bowman, Newton, Kansas, U.S.A., 14th October, 1900; 6 years. (Filed 12th July, 1900.)

Claim.—1st. A file binder, comprising a flexible body portion provided with a plurality of openings and carrying a fastening device, a dished cord grip provided with two openings, and a cord having its two members passed through the two openings in the cord grip and through a single opening in the body portion, substantially as described. 2nd. A file binder, comprising a flexible body portion provided with a plurality of openings and carrying a fastening device, a dished cord grip with two openings, a cord having its two members passed through the two openings in the cord grip and through a single opening in the body portion, and a puncturing tip carried by one member of the cord, substantially as described. 3rd. A file binder, comprising a flexible body portion provided with a plurality of openings and carrying a spring fastening device, a dished cord grip provided with two openings, a cord having its two members passed through the said openings in the cord grip and through a single opening in the body portion, and a puncturing tip carried by one member of the cord, the tip being of greater diameter, intermediate of its ends, than the cord, substantially as described. 4th. A file binder, comprising a flexible body portion provided with a plurality of openings and carrying a spring fastening device, a dished cord grip provided with two openings a cord having two members passed through the said openings in the cord grip and through a single opening in the body portion, a puncturing tip carried by one member of the cord, the tip being of greater diameter, intermediate of its ends than the cord, and a tubular filling tip, carried by the other member of the cord, substantially as described.

No. 68,897. Mill. *(Moulin.)*

The Columbia Pulverizing Company, Alexandria, Virginia, assignee of John Antone Peer, Washington, District of Columbia, both in the U.S.A., 4th October, 1900; 6 years. (Filed 12th September, 1900.)

Claim.—1st. In a mill, the combination with means for effecting a preliminary reduction of the material, of a curved feeding plate having its inner face provided with a series of projections, and recesses between said projections, and a rotary knife travelling in a path concentric with said feeding plate and provided with a straight shearing edge adapted to pass close to but without touching said projections of the feeding plate, substantially as described 2nd. In a mill, the combination with means for effecting a preliminary reduction of the material, of a curved feeding plate having its inner face provided with a series of transversely extending projections provided with feeding faces, and transversely extending recesses between said projections, and a rotary knife travelling in a path concentric with said feeding plate and having a straight shearing

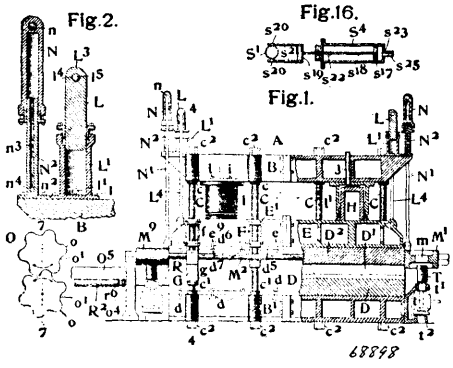


edge adapted to pass close to but without touching the projections of said feeding plate, whereby the material is fed along the feeding faces of said projections toward tne path of said knife, substantially as described. 3rd. In a mill, the combination with means for effecting a preliminary reduction of the material, a curved feeding plate provided with a series of projections extending transversely thereof, a series of stationary knives arranged concentric with and parallel to the inner face of said feeding plate, and a revolving knife, adapted to pass between said feeding plate and said stationary knives without touching same, substantially as described. 4th. In a mill, the combination with means for effecting a preliminary reduction of the material, of a curved feeding plate, provided with a series of transversely extending projections, a rotary knife travelling in a path concentric with said feeding plate and adapted to pass close to, but without touching the projections thereof, and a series of stationary knives arranged in a curved line concentric with the path of the rotary knife, and between said knife and its axis of rotation, the said rotary knife having projections passing close to but without touching the edges of said stationary knives, substantially as described. 5th. In a mill, the combination with the stationary and revoluble cutting discs, of the circular feeding plate adjacent the periphery of the barrel and concentric therewith, provided on its inner face with projections having inclined surfaces and recesses between said projections, a circular series of stationary knives concentric with the inner face of said feeding plate, and having their cutting portions extending in a direction opposite to the inclined portions of the said projections and a rotary knife adapted to pass between said projections of the feeding plate and said stationary knives, substantially as described. 6th. In a mill, the combination with the cutting discs, one of which is revoluble with respect to the other, said discs being each provided with circular rows of knives having cutting edges and adapted to lie between adjacent rows of knives on the other disc, of the serrated feeding plate, a series of stationary knives arranged concentric with the serrated face of said plate and a revolving knife carried by the revoluble disc and adapted to pass between said stationary knives and the serrated face of said feeding plate, substantially as described. 7th. In a mill, the combination with means for effecting a preliminary cutting of the material, of a curved feeding plate provided with inwardly extending projections provided with inclined faces, and recesses between said projections, a curved series of stationary knives arranged concentric with said projections, said knives having cutting edges and inclined guiding surfaces extending inwardly therefrom and a rotary knife adapted to pass between said projections and said stationary knives, provided with a cutting edge and an inclined guding face extending from said edge inwardly for guiding the material to the cutting edges of tne stationary knives, substantially as described. 8th. In a mill, the combination with the main casing and the knife carrying cutting discs, one of which is revoluble with respect to the other, of the serrated feeding plate concentric with the revoluble disc, a series of stationary knives arranged concentric with the serrated plate, a revoluble knife carried by said revoluble disc adapted to pass between said serrated feeding plate and the stationary knives, a screening chamber communicating with said casing, and provided with a vertical screen having its lower end adjacent to the lower portions of said feeding plate and stationary knives, said screening chamber being provided with a discharge aperture, an air inlet for the screening chamber discharging at a point adjacent to the revoluble disc and fan blades carried by said revoluble disc, substantially as described. 9th. In

a mill, the combination with the main casing and the knife carrying cutting discs, one of which is revoluble with respect to the other, of the serrated feeding plate concentric with the revoluble disc, a series of stationary knives arranged concentric with the serrated plate, a revoluble knife carried by said revoluble disc adapted to pass between said serrated feeding plate and the stationary knives, a screening chamber communicating with said casing, and provided with a vertical screen having its lower end adjacent to the lower portions of said feeding plate, and stationary knives, said screening chamber being provided with a discharge aperture in the top thereof on the side of the screen nearest the revoluble disc, and a discharge aperture on the other side of the screen, adjacent to the bottom of the chamber, a valve for regulating or closing the upper discharge aperture, an air inlet for for said chamber discharging adjacent to the revoluble disc and fan blades carried by said revoluble disc, substantially as described.

No. 68,898. Metal Working Apparatus.

(Appareil à travailler le métal.)



The Merrill Process Steel Company, St. Louis, Missouri, U.S.A., assignee of George Spencer Merrill, 4th October, 1900; 6 years. (Filed 10th January, 1899.)

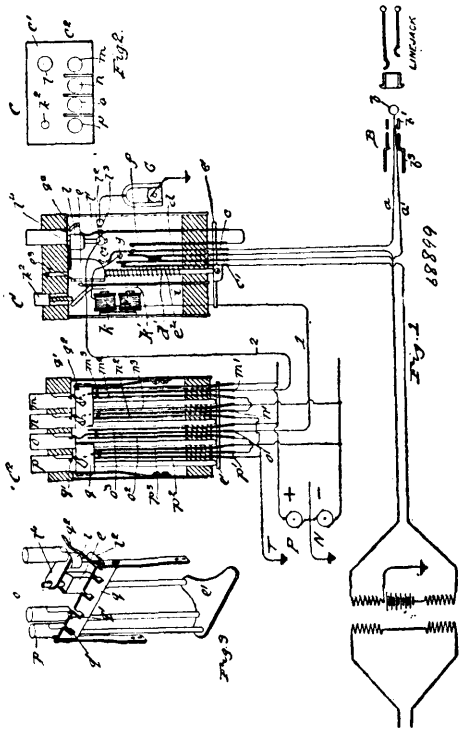
Claim.—1st. The process of renewing old, worn, rolled or drawn metallic articles in whole or in part, and increasing the average cross sectional area of the part renewed, consisting in first heating the article treated, to a heat not lower than a red heat and not high enough to injure the metal therein; then enlarging the average cross sectional area of the part to be used again beyond the ultimate cross sectional area desired, and next giving the part whose average cross sectional area has been enlarged, the desired shape, and a uniform cross sectional area throughout. 2nd. The process of increasing the cross sectional area of metal rails and analogous articles, consisting in forming in each article treated a series of crimps, and after crimping it, subjecting it to transverse pressure, substantially in the plane of its crimps, while limiting its movement at an angle to the direction in which pressure is applied, and the longitudinal movement of its ends, and so transforming a part of the transverse pressure applied, into longitudinal pressure. 3rd. The process of increasing the cross sectional area of metal rails and analogous articles, consisting in heating each article treated to a heat not lower than a red heat and not high enough to injure the metal therein, forming in each, a series of crimps in substantially the same plane, and subjecting each crimped rail or other article while at a temperature not lower than a red heat, to transverse pressure, substantially in the plane of its crimps, while limiting its movement at an angle to plane of its crimps, and the longitudinal movement of its ends and so transforming a part of the transverse pressure applied, into longitudinal pressure. 4th. The process of increasing the cross sectional area of metal rails and analogous articles, consisting in forming in each article treated a series of lateral crimps in substantially the same plane, and subjecting each crimped article to transverse pressure substantially in the plane of its crimps while limiting its movement, at an angle to the plane of its crimps, and the longitudinal movement of its ends, and governing the transverse flow of the metal therein, and so transforming a part of the transverse pressure applied into longitudinal pressure and increasing its cross sectional area and giving it a substantially uniform size and shape in cross section throughout simultaneously, substantially as described.

No. 68,899. Telephone Switchboard Signal.

(Signal d'échange de téléphone.)

The Bell Telephone Company of Canada, Montreal, Quebec, assignee, Joseph John O'Connor, Chicago, Illinois, U.S.A., 4th October, 1900; 6 years. (Filed 21st March, 1900.)

Claim.—1st. A party line ringing appliance for telephone switchboards comprising a master key having switch contacts operated thereby for changing the cord circuit connections, auxiliary keys having subsidiary switch contacts operated thereby, each of said auxiliary keys being adapted when actuated to operate the master keys as well as its particular subsidiary switch contacts, suitable sources of signaling current being connected with the said subsidiary

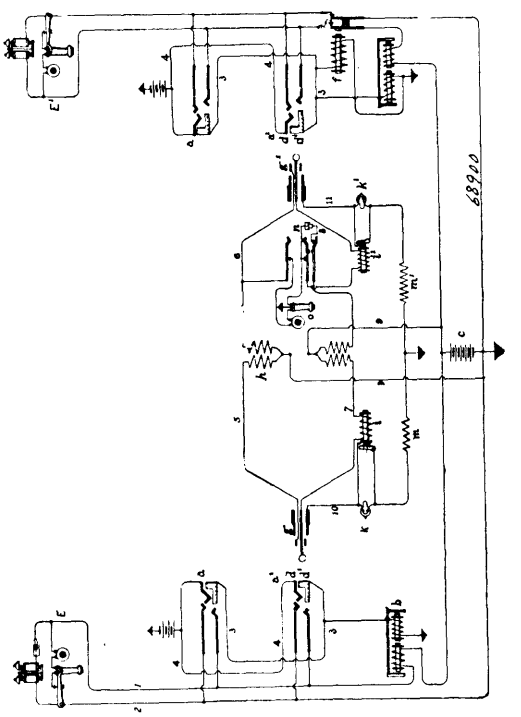


contacts, and interlocking mechanism, brought into play by the depression of either of the auxiliary keys, for preventing the depression of any other auxiliary key, substantially as set forth. 2nd. In a signaling apparatus for telephone switchboards, the combination with a plug for making connection with a telephone line springjack, of a cord circuit whereof said plug is the terminal, a master key for connecting a strand of the cord circuit with a contact associated with the said master key, sources of signaling current, auxiliary switch keys adapted to connect a source of signaling current with the said contact, and means, operated by the actuation of either of the auxiliary keys, for actuating the master key, substantially as described. 3rd. In a signaling apparatus for telephone switchboards, the combination with a conductor adapted to be connected with a telephone line, of a master key and switch contacts actuated thereby for breaking the continuity of said conductor and connecting the severed end thereof, which leads to the plug, with a contact *f*, a source of signaling current G, an auxiliary switch key *l* adapted to connect said source of signaling current with the contact *f*, a mechanical connection between the master key and the auxiliary key, whereby the auxiliary is adapted when actuated to operate simultaneously the master key, and other auxiliary keys for connecting other sources of current with the contatt *f*, substantially as set forth. 4th. In a signaling apparatus for telephone switchboards, the combination with a connecting plug having two contact surfaces for making electrical connection with the two limbs of a telephone line, of a cord circuit having two strands, of which the said contact surfaces are terminals, a master key adapted to break the continuity of the said strands and to connect the severed terminals thereof, which lead to the plug, with contact pieces *f g* of the master key, sources of current of different characters, and auxiliary keys each adapted when actuated to operate the master key and to connect one of the sources of current with one or the other of the said contact pieces *f g*, substantially as set forth. 5th. In a signaling apparatus for telephone switchboards, the combination with a plug for making connection between a switch cord conductor and the springjack of a telephone line, of a master key adapted when actuated to connect the cord conductor with a contact piece of the key, sources of current of differing character, and auxiliary keys each adapted when actuated to operate the master key and to connect one of the sources of current with the said contact piece, substantially as described. 6th. The combination with a plug for making connection with a telephone line springjack, of a cord conductor of which the plug is a terminal, a master key for effecting changes in the cord circuit, subsidiary circuits connected with the master key, and a series of auxiliary keys, each adapted when actuated to operate the master key and to effect changes in said subsidiary circuits, substantially as described. 7th. The combination with a telephone line having a plurality of substations connected therewith, of a signal receiving instruments, one for each substation, each adapted to respond to current of a peculiar or distinctive character, sources of current, a

number of switch keys corresponding to the number of substations, each key when actuated being adapted to contact with the telephone line a source of current of suitable character to actuate a corresponding signal receiving instrument of the telephone line, means controlled by the flow of current in the telephone line for holding either of said keys in its depressed or operative position when such key is once actuated, a switch at each substation for controlling the flow of current in the line, whereby by the release of a depressed key is effected by the operation of said switch, and locking mechanism brought into play during the actuation of either of said keys, for preventing the actuation of the other keys, substantially as described. 8th. In a central office apparatus for telephone switchboards, the combination with a plug and a cord conductor a^1, having a terminal contact b^1, on the plug, of a master key adapted to change the circuit of the cord conductor and connect the same with a contact g, a conductor 1, extending from the contact g, sources of current P. N, and switch keys o, p, each adapted when actuated to operate the master key and to complete the circuit of conductor 1 to ground or other return onductor through one or the other of said sources of current, substantially as and for the purposes set forth. 9th. The combination with a telephone line and a plurality of sub-stations connected on the line, each of said sub-stations having a signal receiving instrument and a switch for controlling the flow of current in the line, of a conductor a, at the central office adapted to be connected with the telephone line, a master key having a contact g, associated therewith and being adapted when actuated to break the electrical continuity of the conductor a^1, and connect the end thereof with said contact g, a conductor 1, extending from the contact g, to the earth, a plurality of sources of signalling current of different characters corresponding to the signalling instruments of the sub-stations, a plurality of auxiliary keys adapted each to connect one of said sources of signalling current in circuit with the said conductor 1, and an electro-magnet controlling the said keys when depressed, the said magnet being included in the conductor 1, whereby a key may be maintained depressed until the switch at one of said sub-stations is operated, substantially as set forth. 10th. The combination with a telephone line, having two limbs and having a plurality of sub-stations connected therewith, each of said sub-stations having a switch adapted to control the flow of current across the two limbs, and a signal bell responsive to current of a distinctive character, of a plug, a cord circuit therefor having two strands terminating in corresponding contact surfaces of the plug and adapted thus to form extensions of the two limbs of the line, respectively, a master key adapted to break the continuity of the conductors and connect the severed terminals thereof with conductors 1, 2, means for maintaining the master key depressed, a magnet included in circuit with conductor 1, adapted when energised to release the master key, a plurality of sources of signalling current for operating the signal-bells at the several sub-stations, auxiliary keys each adapted to connect one of said sources of signalling current with one or the other of said conductors 1, 2, and so with one or the other of the limbs of the telephone line, and switch contacts closed in one or more of the idle auxiliary keys, connecting that conductor of the pair 1, 2, over which such current was not sent out, with a return path for the current, whereby the flow of current may be controlled by the switch at the called station, substantially as described. 11th. A party line ringing appliance for telephone switch boards comprising a master key and switch contacts operated thereby for changing the cord circuit connection, auxiliary keys each adapted when actuated to operate the master key, said auxiliary keys having subsidiary switch contacts operated thereby to connect suitable sources of ringing current with the master key, an electro-magnet k, controlling the keys when depressed, and means for energizing said magnet, substantially as set forth. 12th. The combination with a telephone line having a plurality of sub-stations connected on the line, each of said sub-stations having a signal bell, connected on the line and a switch for controlling the flow of current in the line, of a signalling appliance at the central office, comprising a master key and auxiliary keys, each of said auxiliary keys having contacts connected with the contacts of the master key and being adapted when actuated to operate the master key, the switch contacts of the master key being adapted to control the circuit of the telephone line, sources of ringing current connected with the contacts of the auxiliary keys, whereby any station on the line may be signalled by actuating a corresponding auxiliary key, and an electro-magnet controlled by the flow of current in the line for controlling the keys, whereby a key may be maintained depressed until the switch at one of the stations on the telephone line is actuated to control the flow of current in the line, substantially as set forth. 13th. A signalling appliance for telephone switch boards, comprising a master key and auxiliary keys, each of said auxiliary keys having contacts connected with contacts of the master key and being adapted when actuated to operate the master key, the said master key having switch contacts for changing the cord circuit connections, and sources of ringing current connected with the contacts of the auxiliary keys, substantially as and for the purpose set forth. 14th. A signalling appliance for telephone switch boards, comprising a master key and auxiliary keys, each of said auxiliary keys having contacts connected with contacts of the master key and being adapted when actuated to operate the master key, the said master key having switch contacts for changing the cord circuit connections, sources of ringing current connected with the contacts of the auxiliary keys, locking mechanism brought into play during actuation of one of said auxiliary keys for preventing the actuation of another key, and an electromagnet for controlling the release of the keys when they are depressed, said electro-magnet being controlled by the flow of ringing current, substantially as set forth. 15th. A ringing appliance for telephone switchboards, comprising a master key and auxiliary keys associated therewith, said master key having a plunger e adapted to be depressed and having a spring e^2 tending to restore the plunger to its elevated position, a plate e^1 carried by the plunger of the master key and adapted to be engaged by the auxiliary keys, whereby either of said auxiliary keys will, when depressed, depress the plunger of the master key, and whereby the master key when restored by the spring, will restore the auxiliary keys, an electromagnet controlling the release of the keys, and means for energizing the electro-magnet, substantially as and for the purpose set forth. 16th. A ringing appliance for telephone switchboards, comprising a master key and auxiliary keys associated therewith, each of said auxiliary keys being adapted when actuated to operate the master key, switch contacts operated by the master key for altering the cord circuit connections, switch contacts operated by the auxiliary keys and connected with the master key, a source of alternating current G connected with one of the auxiliary keys, and sources of positive and negative pulsating current P. N. respectively, connected with others of the auxiliary keys, substantially as and for the purpose set forth.

No. 68,900. Telephone Switchboard.

(*Echange de téléphone.*)

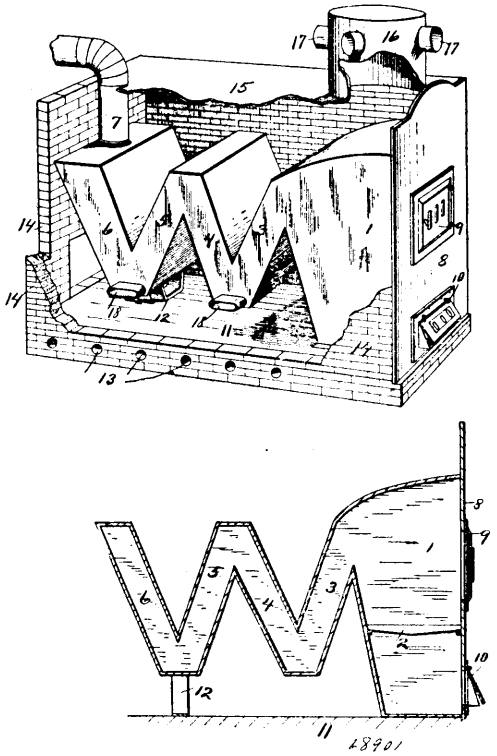


The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Frank Robert McBerty, Evanston, Illinois, U.S.A., 4th October, 1900 ; 6 years. (Filed 3rd April, 1900.)

Claim.—1st. The combination with a telephone line, a spring jack forming a terminal of the line, and a plug and plug circuit for making connection with the springjack, of a local circuit terminating in normally separated opposed contacts of the springjack adapted to be crossed together through the sleeve of the plug, and a magnet in the local circuit, a branch of the local circuit terminating in said contact sleeve of the plug, a secondary supervisory signal in the last-mentioned branch, and a supervisory relay in the plug circuit controlling said signal, as described. 2nd. The combination with a telephone line, a self-restoring line annunciator thereof, a spring jack forming a terminal of the switchboard, and a plug and plug circuit for making connection with the spring jack, and a local battery circuit terminating in normally separated contact pieces of the spring jack adapted to be crossed together through a local contact piece of the plug, said local circuit including the restoring magnet of the annunciator, of a supervisory relay and a source of current in the plug circuit, a branch of the said local circuit in multiple with the restoring magnet, a secondary supervisory signal and a resistance coil in said branch, and a shunt of the secondary signal controlled by the supervisory relay, whereby the line annunciator is reset and the secondary signal is excited for control by the relay

when connection is made by the line, as described. 3rd. The combination with a telephone line and a self-restoring line annunciator in a normal bridge of the line circuit, a spring jack for the line, and a local circuit, including the restoring magnet of the line annunciator and normally open at separated contacts in the spring jack adapted to be closed together by an inserted plug, of an electro-magnetic switch controlling the bridge of the line, the actuating magnet of the said switch being in the same local circuit with the restoring magnet of the line annunciator, as described. 4th. The combination with telephone lines, and a plug and plug circuit forming a temporary extension of one of the lines, a source of current connected with the plug circuit, and an operator's listening key, of switch contacts of the listening key adapted to connect the telephone with the plug circuit and to sever the conductive connection between the tip of the plug and the said battery, whereby the plug may be inserted into the spring jack of a line without producing disturbances in the telephone of the line connected with the plug as described.

No. 68,901. Furnace. (*Fournaise.*)



Amos Albert Cushman and Charles S. Hill, Mansfield, Ohio, U.S.A., 4th October, 1900; 6 years. (Filed 15th September, 1900.)

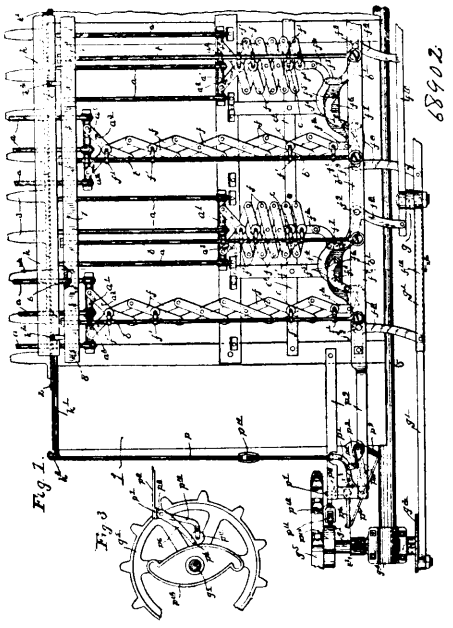
Claim.—1st. The combination of a furnace body provided with a fuel chamber, the up and down chambers, one of said up and down chambers connected to the fuel chamber and leading therefrom walls enclosing the furnace body, a cover located over the furnace body and provided with a hot air drum, all arranged, substantially as and for the purpose specified. 2nd. The combination of a furnace body provided with inclined chambers, a foundation or base provided with air passages and the furnace enclosed by side and end walls and a top or cover provided with a hot air chamber, substantially as and for the purpose specified. 3rd. A furnace body provided with a furnace chamber, up and down chambers located between the furnace chamber and the chimney flue, all arranged, substantially as and for the purpose specified.

No. 68,902. Harvester Mechanism.

(*Mécanisme de moissonneuses.*)

Daniel Svenson, Twin Valley, Minnesota, U.S.A., 4th October, 1900; 6 years. (Filed 8th September, 1900.)

Claim.—1st. The combination with a harvester, of a plurality of lifting fingers mounted for approximately horizontal reciprocations, and means for projecting said fingers forward of the sickle bar and then elevating them while projected, to lift the falling grain, substantially as described. 2nd. The combination with a harvesting machine of reciprocating and pivotally mounted lifting fingers projecting forward of the cutter bar, and a lifting blade or bar extended



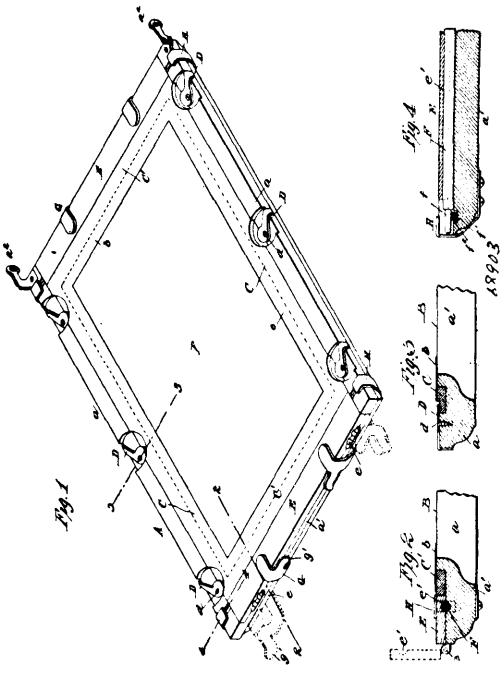
beneath said fingers and having connections for lifting the same, substantially as described. 3rd. The combination with a harvester, of a plurality of lifting fingers and means for projecting them forward of the cutter bar, of a pivoted lifting blade extended below said fingers and operating to raise the same when projected, substantially as described. 4th. The combination with a harvesting machine, of reciprocating fingers pivoted in groups to heads or carriers, lazy tong connections to said heads or carriers, and means for operating the said lazy tongs, substantially as described. 5th. The combination with a harvesting machine, of reciprocating lifting fingers pivoted in groups to heads or carriers, lazy tong connections to said heads or carriers, and means for extending and contracting adjacent lazy tongs in alternate order, substantially as described. 6th. The combination with a harvester, of reciprocating lifting fingers pivoted in groups to reciprocating heads or carrier lazy tong connections for reciprocating alternate heads or carriers in reverse order, a lifting blade pivoted below the free portions of said lifting fingers, and means for operating the said blade to lift said fingers while projected forward of the cutter bar, substantially as described. 7th. The combination with a harvesting machine, of the lifting fingers a, pivoted to the heads a^1, the lazy tongs f operating said heads a^1, the guide rods b serving to support and guide said lazy tongs f, the bell crank and intermediate lever connections to said lazy tongs, the crank and pitman connection to said bell cranks, the pivoted lifting blade k underlying the lifting fingers a, a cam for operating said blades and lever connections between said cam and said blade operating, substantially as described.

No. 68,903. Duplicating Apparatus. (*Appareil duplicata.*)

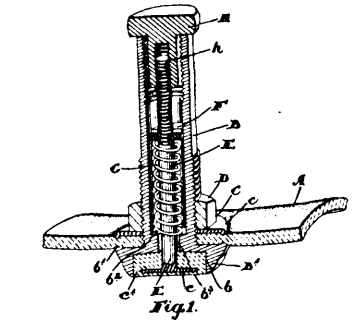
The A. B. Dick Company, Chicago, Illinois, U.S.A., 4th October, 1900; 6 years. (Filed 14th October, 1899.)

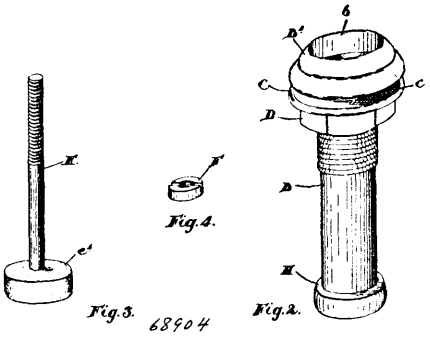
Claim.—1st. In a duplicating apparatus, a hinged leaf provided at its ends with fastening devices by means of which a stencil sheet can be secured in place at its ends only, said hinged leaf also carrying a removable frame to which is permanently secured a perforated diaphragm sheet, which sheet in use will be maintained adjacent to the stencil sheet, substantially as and for the purposes set forth. 2nd. In a duplicating apparatus, the combination with the bed and stencil carrying members, of a stencil and means for securing the same at each end including clamping devices and locking mechanism co-acting therewith, substantially as set forth. 3rd. In a duplicating apparatus, the combination with the bed and stencil carrying members, of a stencil and means for securing at each end including hinged clamping devices adapted to secure stencils of varying thickness and locking mechanism for said devices, substantially as set forth. 4th. In a duplicating apparatus, the combination with the bed and stencil carrying members, of a stencil and means for securing the same at each end including hinged clamping devices co-acting with spring pressed surfaces and locking mechanism for said clamping devices, substantially as set forth. 5th. In a duplicating apparatus, the combination with the bed and stencil carrying members, of a stencil and means for securing the same at each end including hinged clamping bars co-acting with the spring pressed

rods, the ends of said stencil being placed between said bars and rods, and locking devices for securing said bars in position, substantially as set forth. 6th. In a duplicating apparatus, the combination with the bed and stencil carrying members of a stencil and means for securing the same at each end including hinged clamping bars provided with grooves and co-acting with spring pressed rods, the ends of said stencil being placed between said bars and rods, and locking devices for securing said bars in position, substantially as set forth.



No. 68,904. Air Valve. *(Soupape à air.)*

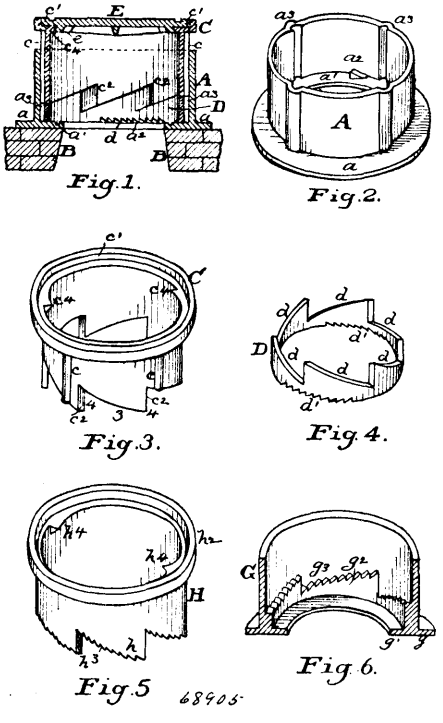




Conrad George, Josephus Snydor Meyers and John Arkell, all of Listowell, Ontario, Canada, 4th October, 1900; 6 years. (Filed 14th March, 1900.)

Claim.—1st. In combination, a valve casing having a head with a cylindrical recess therein and a tubular threaded extension from the head, having a central passage leading through the same and into the cup, a bead extending around the edge of the head, a washer having a beaded edge corresponding to the bead on the head, a nut threaded on said extension for drawing the washer and head towards each other, the tire being interposed between the same, the valve comprising a rubber block fitting said recess and a stem having a flat head embedded in said block and means to hold said block in place, as specified. 2nd. In combination, a valve casing having a recess or cup therein and an orifice leading outwardly therefrom and a valve comprising a stem having an enlarged outer end and a compressible head fitted on such end and adapted to fit the said recess and to expand concentrically against the sides of the same, as specified. 3rd. The combination with the valve casing, having an inner head provided with a recess or cup therein and orifice leading outwardly therefrom, of the stem provided with a disc-shaped end, the rubber disc fitting within the recess and within which the said disc-shaped end of the stem is embedded at or near the outer or exposed end thereof, whereby the upper drawing of the stem compresses the inner side of the disc against the seat and at the same time expands the periphery of the disc circumferentially against the wall of the recess, as specified.

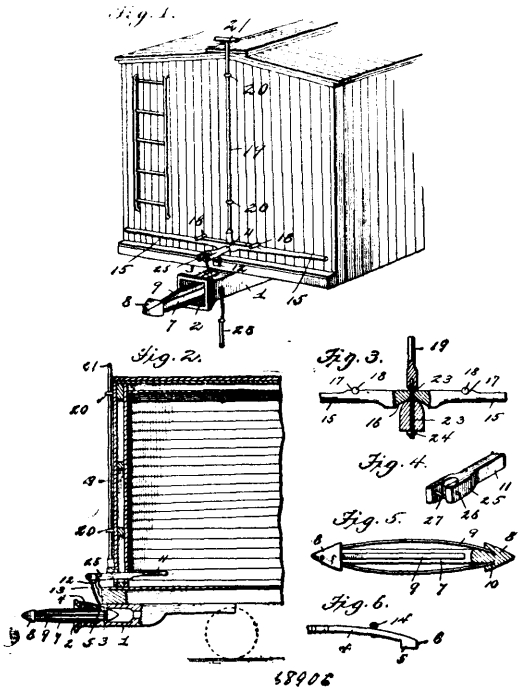
No. 68,905. Manhole for Electric Conduits.
(Trou d'homme pour conduits électriques.)



James Banwell and Charles W. Nokes, both of Cleveland, Ohio, U.S.A., 4th October, 1900; 6 years. (Filed 4th June, 1900.)

Claim.—1st. A manhole for electric conduit and other purposes, comprising an upper and lower section, the said upper section having a series of inclines about its lower edge and corresponding inclines within the lower section on which said upper section is adjustably supported, substantially as described. 2nd. In a manhole for electric conduits and other purposes, the lower section of the casing having a flanged bottom to rest on the wall of the conduit and a series of inclines within said section about its bottom, in combination with the inner section having a series of inclines about its lower edge parallel to the inclines in the lower section and seated thereon, both sets of inclines terminating with practically abrupt shoulders at the top of each incline, substantially as described. 3rd. A sectional manhole, comprising a lower section and an upper section vertically adjustable therein to set it to a given grade level, said upper section having a succession of teeth about its bottom with inclined bearing edges, and a succession of teeth in the lower section with corresponding inclinations and serving as a rest for the upper section and on which the upper section is raised or lowered, substantially as described. 4th. As a new article of manufacture in manhole casings, an inner member constructed at its top to receive and hold a cover and having a series of uniform teeth-shaped projections around its bottom with inclined bearing edges, and an abrupt shoulder at the top of each edge, substantially as described.

No. 68,906. Car Coupler. *(Attelage de chars.)*



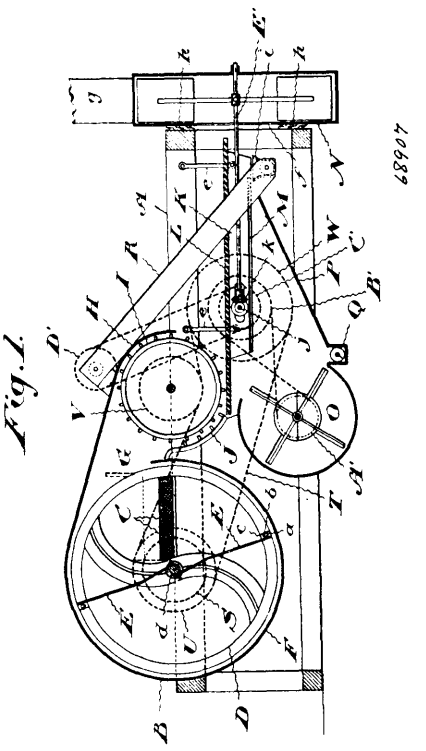
John F. Buckholts, Lois, Georgia, U.S.A., 4th October, 1900; 6 years. (Filed 10th September, 1900.)

Claim.—1st. In a car coupler, in combination, a draw-head, a link engaging device carried thereby, a rock lever extending longitudinally above the draw-head, an operating lever extending across the end of the car, two fulcrums therefor located at points equidistant from the rock lever, and an operating rod extending from the top of the car downward to the operating lever, the operating lever being cut away to form a seat for the rock lever, and the operating rod, operating lever and rock lever being coupled together, substantially as described. 2nd. In a car coupler, an arrow-headed link, and centreing springs extending longitudinally from head to head thereof, and having both ends slidingly fitted to the heads of the link, substantially as described. 3rd. In a car coupler, an arrow-headed link having the heads thereof mortised, in combination with centreing springs extending longitudinally of the link and slidingly fitted in the mortises in the heads thereof, substantially as described.

No. 68,907. Straw Cutter and Thresher.
(Coupe-paille et moulin à battre.)

John Absalom McLeish, West Williams, Middlesex, Ontario, Canada, 4th October, 1900; 6 years. (Filed 13th September, 1900.)

Claim.—1st. In a machine of the class described, the combination of a straw cutter, a thresher provided with a cylinder and concave, and a pneumatic discharge apparatus adapted to receive the straw from the cutter and discharge it between the said cylinder and concave, substantially as and for the purpose specified. 2nd. In a machine of the class described, the combination of a straw cutter, a thresher provided with a cylinder and concave, a pneumatic discharge apparatus adapted to receive the straw from the cutter and discharge it between the said cylinder and concave, and a pneumatic discharge apparatus adapted to receive cut straw from the thresher and discharge it out side of the machine, substantially as and for the purpose specified. 3rd. In a machine of the class described, the combination of a feed cutter provided with a knife wheel, a thresher provided with a cylinder and concave, fan blades connected to the said knife wheel, a fan casing surrounding the knife wheel, a casing or hood over the said cylinder and concave, and an enclosed passageway between the two casings for the cut straw, substantially as and or the purpose specified. 4th. In a machine of the class described, the combination of a feed cutter provided with a knife wheel, a thresher provided with a cylinder and concave and chaff deck, fan blades connected to said knife wheel, a fan casing surrounding the knife wheel, a casing or hood over the said cylinder and concave, an enclosed passageway between the two casings for the cut straw, and a pneumatic discharge fan having a central hole in the side of its casing and so located as to receive through the said hole the cut straw or chaff from the end of the chaff deck, substantially as and for the purpose specified. 5th. In a machine of the class described, the combination of a thresher provided with a straw deck, and a pneumatic discharge fan having a central hole in the side of the casing, and so located as to receive



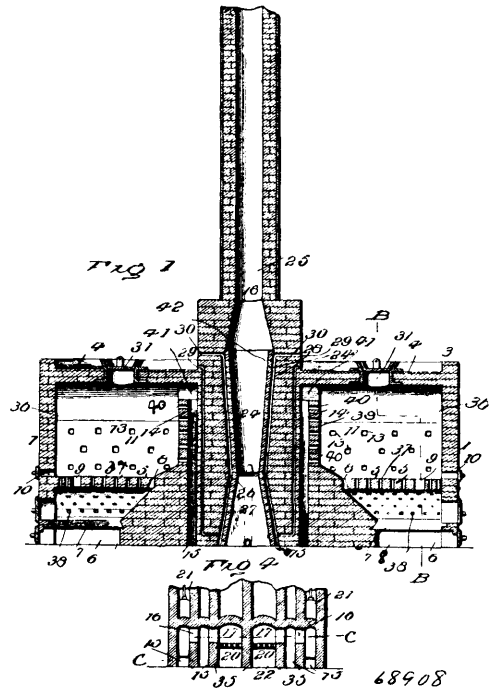
through the said hole the cut straw or chaff from the end of the straw deck, substantially as and for the purpose specified. 6th. In a machine of the class described, the combination of a thresher with a straw deck, and a pneumatic discharge fan having a central hole in the side of its casing and so located as to receive through the said hole the cut straw or chaff from the end of the straw deck, and means for swinging the said discharge fan about its axis, substantially as and for the purpose specified. 7th. In a machine of the class described, the combination of an axle and a knife wheel having one or more pins extending horizontally from its rim and provided with suitable heads in combination with fan blades, a block secured to each fan blade and provided with a hole shaped to admit the passage of the pin head through the block in one position only, and means for detachably securing the inner ends of the fan blades to the axle, substantially as and for the purpose specified.

No. 68,908. Furnace for Burning Refuse.
(Fournaise pour tripailles.)

J. F. Lester, Atlanta, and L. A. Dean, Rome, both in Georgia, U.S.A., 4th October, 1900; 6 years. (Filed 12th September, 1900.)

Claim.—1st. A refuse burner comprising a preliminary combustion chamber having a supply opening in its top, through which the material is deposited, a furnace communicating with said chamber and having its roof forming a floor in the latter and a wall at the rear of said chamber provided with a series of restricted outlets on different levels. 2nd. A refuse burner comprising a preliminary combustion chamber having a supply opening in its top through which the material is deposited, a furnace communicating with said chamber, the roof of the furnace forming the floor in the chamber and provided with an opening for the passage of the refuse into the furnace and for the outlet of the products of combustion, and a wall at the rear of the preliminary combustion chamber provided with a series of restricted outlets on different levels. 3rd. A refuse burner comprising a combustion chamber in which the material is to be deposited, and a series of furnaces below said chamber having arched roofs forming the floor of the combustion chamber, each of said arched roofs having perforations therein which open into the combustion chamber. 4th. A refuse burner comprising a preliminary combustion chamber in which the material is to be deposited, and a series of furnaces below said chamber having arched roofs forming the floor of the preliminary combustion chamber, each of said arched roofs having an opening therein for passage of the refuse into its respective furnace. 5th. A refuse burner comprising a preliminary combustion chamber in which the material is to be deposited, and a series of furnaces below said chamber having arched roofs forming the floor of the latter, such of said arched roofs having perforations therein opening into the combustion chamber and also

having an opening therein for the passage of the refuse to its respective furnace. 6th. A refuse burner comprising a preliminary com-



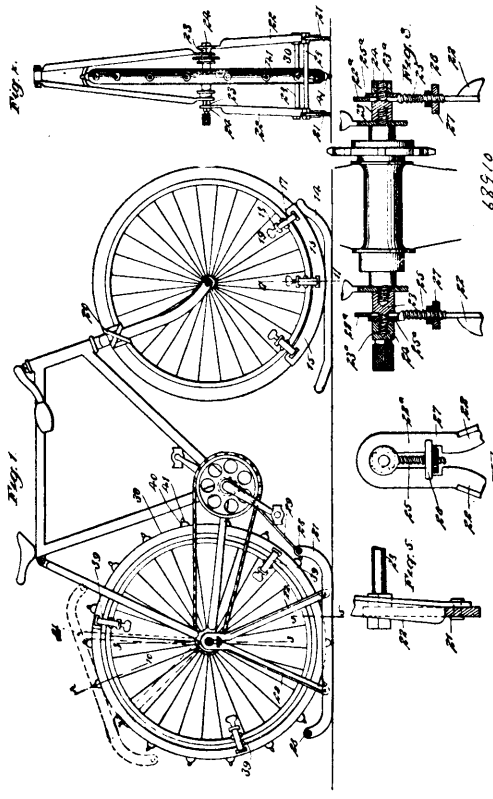
bustion chamber having a fuel supply inlet, a series of furnaces below and communicating with said chamber, the tops of the furnaces forming the floor of the latter, said preliminary combustion chamber having restricted outlets at one end and above the furnaces, the fuel inlet being above the restricted outlets and arranged to deliver the refuse matter in the path of the products of combustion from the furnaces. 7th. A refuse burner comprising a preliminary combustion chamber having a fuel supply inlet, a series of furnaces below and communicating with said chamber, the tops of the furnaces forming the floor of the latter, said preliminary combustion chamber having at one end a series of restricted outlets arranged at different levels, the fuel inlet being above the restricted outlets and arranged to deliver the refuse matter in the path of the products of combustion from the furnaces. 8th. A refuse burner comprising a combustion chamber having a fuel supply inlet, a series of furnaces below said chamber, the tops of the furnaces forming the floor of the latter and having perforations therein opening into the combustion chamber, one wall of said chamber being provided with restricted outlets arranged at different levels, the fuel inlet being above the restricted outlets and arranged to deliver the refuse matter in the path of the products of combustion from the furnaces. 9th. A refuse burner comprising a preliminary combustion chamber having a fuel supply inlet, a series of intercommunicating furnaces below said chamber, the tops of the furnaces forming the floor of the latter, openings being formed in the top of each furnace for the passage of the refuse into its respective furnace and for the outlet of the products of combustion from the furnaces. 10th. A refuse burner comprising a preliminary combustion chamber in which the material is to be deposited, a series of furnaces below said chamber having arched roofs forming the floor of such chamber, each roof having an opening therein for the passage of the refuse into its respective furnace and for the outlet of the products of combustion from said furnaces. 11th. A refuse burner comprising a preliminary combustion chamber in which the material is to be deposited, a series of furnace below said chamber, the tops of the furnaces forming the floor of the latter, a means of communication between the preliminary combustion chamber and the furnaces, a chimney, a series of vertical flues communicating therewith, said preliminary combustion chamber being in communication with each of said vertical flues through a series of openings arranged at different levels. 12th. A refuse burner comprising a preliminary combustion chamber in which material is to be deposited, a series of furnaces below said chamber, the tops of the furnaces forming the floor of the latter, a means of communication between the preliminary combustion chamber and the furnaces, a chimney, a series of vertical flues, a flue common to said series of vertical flues leading to said chimney, said preliminary combustion chamber being in communication with each of said vertical flues through a series of openings arranged at different levels. 13th. A refuse burner comprising a casing having a preliminary combustion chamber, and a series of furnaces below said chamber having arched tops forming the floor of said chamber, said tops having fuel supply openings near one of the walls of the casing which wall is provided with openings therein in line with said tops, substantially as set forth. 14th. A refuse burner comprising a preliminary combustion chamber, a series of furnaces under said chamber, the tops of said furnaces forming the floor of the preliminary combustion chamber, and direct and indirect passages from the furnaces to the chamber, the indirect passages having free communication with the furnaces, substantially as set forth. 15th. A refuse burner comprising a preliminary combustion chamber, a series of furnaces under said chamber, the tops of said furnaces forming the floor of the latter, and direct and indirect passages from the furnaces to the chamber, the indirect passages having free communication with the furnaces and communicating with the combustion chamber at different levels, as set forth. 16th. A refuse burner comprising a preliminary combustion chamber, a series of furnaces below said chamber having communicating openings between said furnaces and air channels between the side furnaces and the side walls of the chamber, said furnaces having communication with said air channels, which latter open directly into the combustion chamber, as set forth. 17th. A refuse burner comprising a preliminary combustion chamber, a series of furnaces below said chamber, the tops of which are perforated and form the floor of said chamber, a wall at the rear of said furnaces, extending to near the top of the combustion chamber, a series of outlets in said wall, said outlets being on different levels, a series of flues in rear of said wall extending to near the top thereof and into which said outlets open, a chimney, and a flue common to said series of flues connecting the latter with said chimney. 18th. A refuse burner comprising a preliminary combustion chamber, a series of furnaces below said chamber, the tops of which furnaces are perforated and form the floor of said chamber, a wall at the rear end of said chamber extending to near the top thereof, a series of vertical flues extending to near the top of said wall, a chimney, a flue common to said vertical flues leading to said chimney, said preliminary combustion chamber being in communication with each of said vertical flues through a series of openings arranged at different levels. 19th. In an apparatus of the class described, a preliminary combustion chamber, having a fuel inlet, a series of furnaces under the floor of such chamber, a means of communication between the preliminary combustion chamber and the furnaces, holes being formed in said floor near one end of the chamber for the passage of the refuse into the furnaces and for the outlet of the products of combustion from the latter and the other end of the preliminary combustion chamber being provided with a series of restricted outlets on different levels, the fuel inlet being above the restricted outlets and arranged to deliver the refuse matter in the path of the products of combustion from the furnaces, as set forth. 20th. In an apparatus of the class described, a preliminary combustion chamber having a fuel inlet, a furnace under the floor of such chamber, a hole being formed in said floor at one end of the preliminary combustion chamber for the passage of the refuse into the furnace and for the outlet of the products of combustion from the latter and a wall at the other end of the preliminary combustion chamber having a series of restricted outlets arranged on different levels, the fuel inlet being above the restricted outlets and arranged to deliver the refuse matter in the path of the products of combustion from the furnaces. 21st. A refuse burner comprising a preliminary combustion chamber in which the material is to be deposited and a series of furnaces having arched roofs forming the floor in such chamber, said furnaces having a continuous communication with each other, and each furnace communicating with the preliminary combustion chamber. 22nd. A refuse burner comprising a preliminary combustion chamber, having a supply opening in its top through which the material is deposited, an exit flue, a furnace having its roof forming a floor in such chamber, the rear wall of the preliminary combustion chamber having a series of outlets on different levels, the lowest one of the series of outlets being in the most direct line to said exit flue. 23rd. A refuse burner comprising a preliminary combustion chamber, a series of furnaces below said chamber, the tops of which are perforated and form the floor of said chamber, a series of vertical flues at the rear of said chamber, a chimney, a flue common to said vertical flues leading to said chimney, and a furnace in the flue common to the vertical flues, said preliminary combustion chamber being in communication with each of said vertical flues through a series of openings arranged on different levels.

No. 68,909. Valve, Tap, etc. (*Soupape, etc.*)

Henry Alfred Wood, Kingston, Ontario, Canada, 6th October, 1900; 6 years. (Filed 13th November, 1899.)

Claim.—The process of manufacturing and finishing the parts of valves, taps or stoppers of any kind, adapted to control, check or block the flow of escape of air, steam, water, or any gas or liquid, by roughly shaping the valve, valve seat, or other part which is required to have a perfectly smooth surface in order to fit closely against any other surface and form a tight joint, and finishing the said part by pressure on or in a prepared hard smooth mould, die, or shaping tool, instead of by grinding and polishing in the usual way, substantially as and for the purposes described.

No. 68,910. Ice Cycle. (*Bicycle pour la glace.*)



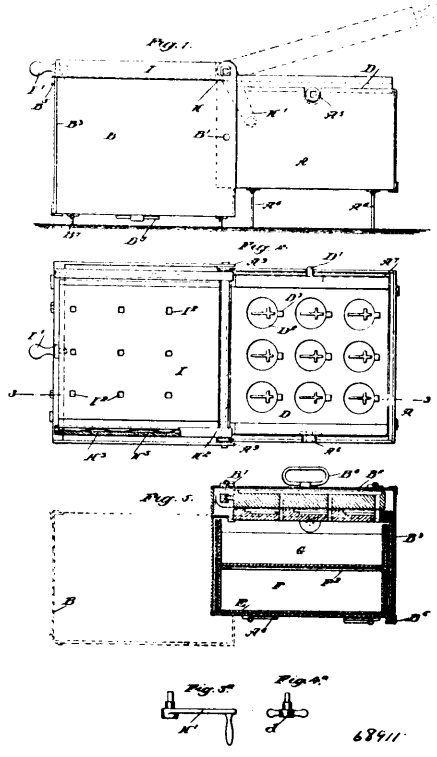
Dietrich William Tietjen, Milwaukee, Wisconsin, U.S.A., 6th October, 1900; 6 years. (Filed 9th December, 1899.)

Claim.—1st. The combination of the front wheel attachment comprising a runner, a socket plate rigid with said runner and arranged to fit over the front wheel tire, and clamps for connecting the said socket plate with the front wheel, of the rear wheel attachment comprising two runners with supports rising therefrom and engaging the axle of the rear wheel, and an ice rim surrounding the rear wheel tire and provided with spurs, substantially as described. 2nd. combination of the front wheel attachment comprising a runner and means for securing it to the front wheel, of the rear wheel attachment comprising two runners with the stanchions rising therefrom and carrying at their upper ends vertically adjustable loops for engaging the rear wheel axle, and a spurred ice rim surrounding the rear wheel, substantially as described. 3rd. The combination of the front wheel attachment comprising a runner and means for securing it to the front wheel, of the rear wheel attachment comprising two runners with supports rising therefrom and engaging the axle of the rear wheel, a bar connecting the front ends of the rear runners, and a brace extending from the said bar to the crank hanger, and a spurred ice rim surrounding the rear wheel, substantially as described. 4th. The combination of the front wheel attachment comprising a runner and means for securing it to the front wheel, of the rear wheel attachment comprising two runners with supports rising therefrom and engaging the axle of the rear wheel, and an ice rim consisting of a strap surrounding the rear wheel tire, and spurs mounted to slide radially in said strip, substantially as described. 5th. The combination of the front wheel attachment comprising a runner and means for securing it to the front wheel, of the rear wheel attachment comprising tworunners with supports rising therefrom and engaging the axle of the rear wheel, and an ice rim consisting of a spurred strap surrounding the rear wheel tire, the ends of the strap overlapping and having projecting lips, and also one provided with a button to enter an orifice of the other, substantially as described.

No. 68,911. Machine for Making Communion Wafers.
(*Machine pour faire les hostiés.*)

Johann Jacob Eugster, New Riegel, Ohio, U.S.A., 6th October, 1900; 6 years. (Filed 14th August, 1899.)

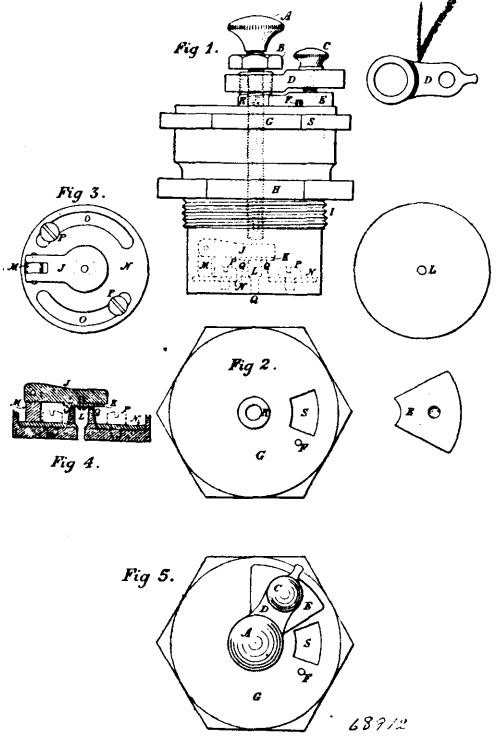
Claim.—1st. The combination of two boxes or sections, pivotally connected and one larger than the other to fit over the same, the smaller section having its bottom at a higher level than the larger section, and a die plate at the top of the smaller section, and aheating plate adapted to be brough on top of said die plate. 2nd. The combination of the two boxes or sections, pivotally connected and one larger than the other to fit over the same, the smaller section having its bottom at a higher level than the larger



section, a die plate at the top of the smaller section, a heating device in the larger section, and a heating plate pivoted adjacent to the junction of the two sections and adapted to swing from a position above the heating device into contact with the die plate. 3rd. The combination of the box or frame, the transverse shaft journalled therein, the die plate arranged upon the frame, and the heating plate carried by said transverse shaft. 4th. The combination of the box or frame, the transverse shaft journalled therein, the longitudinal arms carried by said shaft and provided with guideways, the heating plate arranged to slide in said guideways, and the die plate arranged upon the frame in the path of the heating plate. 5th. The combination of the box or frame, the transverse shaft journalled therein, the die plate journalled upon the frame about a horizontal axis, and the heating plate carried by said transverse shaft. 6th. The combination of the box or frame, the transverse shaft journalled therein, the die plate arranged upon the frame, and the heating plate carried by said transverse shaft, the die plate having a series of perforations located at the periphery of the die or dies proper, and the heating plate having a series of correspondingly located perforations. 7th. The combination of the box or frame, the die plate journalled upon the frame about a horizontal axis, and the heating plate movable toward and from the die plate. 8th. The combination of the frame having a die plate at one end of its top and an aperture at the other end thereof, a heating device below said aperture, and a transverse shaft carrying a heating plate arranged to swing from a position above said aperture into registry with the die plate. 9th. The combination of the frame having a die plate at one end of its top and an aperture at the other end thereof, a heating device below said aperture, a box or plate extending between the heating device and said aperture, and a transverse shaft carrying a heating plate arranged to swing from a position above said aperture into registry with the die plate. 10th. The combination of the frame, the tilting die plate journalled therein to turn about a horizontal axis, the heating plate adapted to register with the die plate, the sliding waste box located below the tilting die plate and arranged to scrape the lower surface thereof, and the apertured support on which rests said waste box. 11th. The combination of the frame, the tilting die plate journalled therein to turn about a horizontal axis, the heating plate adapted to register with the die plate, the sliding waste box located below the tilting die plate and arranged to scrape the lower surface thereof, the apertured support on which rests said waste box, and another box containing both the waste box and the support. 12th. The combination of the frame having a hinged end, a tilting die plate adjacent to said hinged end, a box located below said die plate and having a hinged end adjacent to the hinged end of the frame, an open top support located at the bottom of said box, a waste box located in the upper part of the box and adapted to slide on said support, said waste box being arranged to scrape the lower edge

of the die plate, and a heating plate adapted to register with the tilting die plate. 13th. The combination with the die plate, of a die filling device, consisting of a frame movable into registry with the several dies and carrying paste cylinders located in accordance with the dies, and plunger mechanism for expelling the paste. 14th. The combination with the die plate having flanges or guides, of a die filling device, consisting of a frame mounted to slide on said guides into registry with the several dies, paste cylinders carried by said frame correspondingly to the dies, and plunger mechanism for expelling the paste. 15th. The combination of the die plate having dies and through perforations adjacent thereto, and a paste ejector having pins located correspondingly to said perforations. 16th. The combination of the die plate having dies and through perforations adjacent thereto, the heating plate movable to and from the die plate and having through perforations adapted to register with those of the die plate, and the paste ejector having pins located correspondingly to said peforations.

No. 68,912. Oil Feed Cup. (*Godet à huile*).



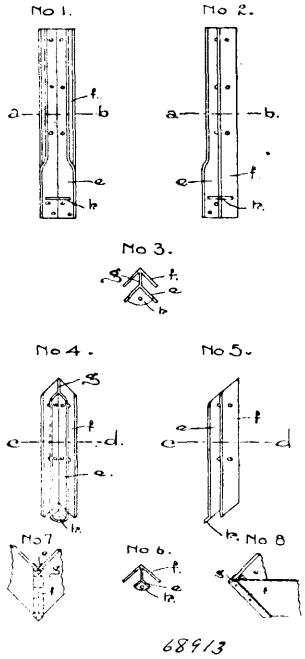
George Arthur Nauffts, Halifax, Nova Scotia, Canada, 6th October, 1900; 6 years. (Filed 17th September, 1900.)

Claim.—1st. The feed valve J constructed and attached to an oil feed cup all substantially as shown and described. 2nd. The cover E clamped by the screw C through the movable arm D which is attached to the nipple R on cap G all substantially as shown for the purpose specified.

No. 68,913. Carriage Corner Angle Irons.
(*Ferrure pour coins de boites de voitures.*)

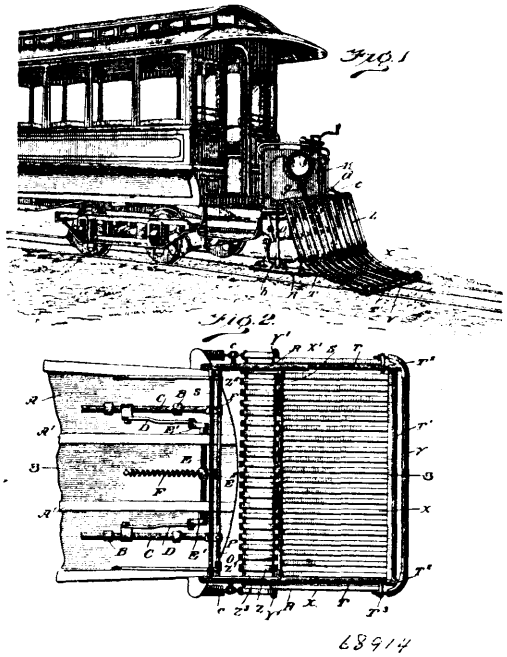
James Whiteman, Shakespeare, Ontario, Canada, 6th October, 1900; 6 years. (Filed 10th April, 1900.)

Claim.—1st. A combination of two similar angle irons joined together by a web from the obtuse angle of one angle iron to the acute angle of the other in such a manner that the two flanges on one side of the web shall be parallel each to each and the two flanges on the other side of the web shall also be parallel each to to each of the flanges on one side of the web being sufficient distance apart to permit of the sides of a carriage box being securely screwed, bolted or fastened between them and the flanges on the other side being of a sufficient distance apart to permit the end of a carriage box being securely screwed, bolted or fastened between them, the said combination having a seat in the acute angle thereof to which the bottom of the carriage box may be screwed, bolted or fastened so that the side, end and bottom of the box will be securely screwed, bolted or fastened to the one combination of angle irons, substantially as described. 2nd. A combination of two similar angle irons a web, connecting them from the obtuse angle of one angle iron to the acute angle of the other in such a manner that the two flanges on one side of the web shall be parallel each to each and the two flanges on the other side of the web shall also be parallel each to each and a seat placed in the acute angle of the inside angle iron near the bottom cast in one piece in such a manner that two boards or strips of wood may be securely screwed, bolted or fastened



between the two angle irons and so that a third board or strip of wood may be securely screwed, bolted or fastened to the seat therein so that the two of its edges will fit into the angle formed by the other two boards or strips of wood at or near the lower edge thereof, substantially as described.

No. 68,914. Improvements in Life Guards for Tram Cars. (*Défense de chars.*)



William T. Watson, Victoria, British Columbia, Canada, 6th October, 1900; 18 years. (Filed 15th September, 1900.)

Claim.—1st. A car fender, having a fender frame, two beds connected with said frame and having a hinge connection with each other, and a flexible connection extending from the fender frame to the hinge. 2nd. A car fender, having a fender frame comprising a relatively stationary rear section, and a spring-pressed, longitudinal-

ly slidable front section, a front bed the front end of which is conected with the front section of the fender frame, a rear bed, the front end of which has a hinge connection with the rear end of the front bed, and a flexible connection extending from the fender frame to the hinge. 3rd. A car fender, comprising a longitudinally extensible fender frame, a front bed connected with said frame directly, a rear bed hinged to the front bed, and a direct connection from the hinge to the fender frame. 4th. A car fender, having a frame with a normally stationary rear section pivotally supported on the car, means for swinging said rear section, a spring-pressed longitudinally movable front section, a front bed connected with said front section, a rear bed having its forward end hinged to the front bed, and springs connecting the rear end of the rear bed with the car. 5th. A car, having brackets with open hooks, pivoted catches for closing said hooks, means for locking the catches, and a fender the frame of which has parts arranged to be received and held by said hooks and catches. 6th. A car, having brackets with open hooks, pivoted catches for closing said hooks, means for locking the catches, and a fender which at its lower end has parts arranged to be received and held by said hooks and catches, while the upper portion of the fender is detachably connected with the dashboard. 7th. The combination of the fender having a frame pivoted to the car and provided with extensions or arms, rods mounted to slide longitudinally on the car and arranged to engage said arms, and means for operating said rods. 8th. The combination of the fender having a frame pivoted to the car, and provided with extensions or arms, rods mounted to slide longitudinally on the car and arranged to engage said arms, a spring-pressed rock shaft operatively connected with said rods, a rack bar connected with the shaft and extending through the platform of the car, a holding pawl engaging said rack bar, and a foot lever having lifting engagement with said rack bar. 9th. A car fender, comprising a frame, two beds connected therewith and provided with loops at their adjacent ends, and a removable hinge rod passing through said loops. 10th. A car fender having a U-shaped front member with angular or L-shaped member at the corners thereof, and outwardly projecting brackets adjacent to said L-shaped members, a tubular rubber cushion seated in said L-shaped members, a threaded rod or wire passing through the cushion and through the brackets, and nuts screwing on the ends of said rod. 11th. A car fender having a frame, a front bed secured thereto, a rear bed loosely connected with the front bed, and a transverse stiffening strip secured to the curved rear portion of the rear bed. 12th. A car fender having a fender frame comprising a relatively stationary rear section and a spring-pressed longitudinally slidable front section, a front bed the front end of which is connected with the front section of the fender frame, a rear bed the front end of which has a hinge connection with the rear end of the front bed, and arms pivoted to the rear frame section and having their upper ends loosely connected with the rear end of the rear bed.

No. 68,915. Computing Scales. (*Balance.*)

Fig. 1.

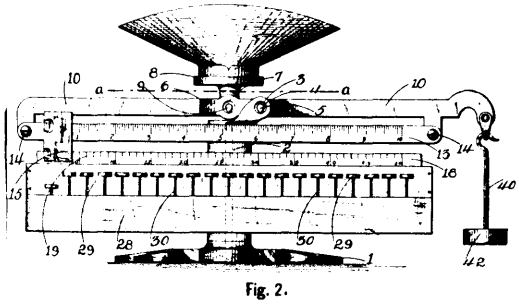
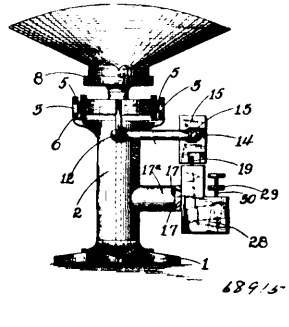


Fig. 2.



Henry C. Herr, Port Huron, Michigan, U.S.A., 6th October, 1900; years. (Filed 12th June, 1900.)

Claim.—1st. In a scale, the combination of the weighing beam and a balancing weight on said beam having an upper opening through which the weighing beam passes and a lower depression, of price computing mechanism comprising a plurality of horizontally arranged bars, each having a scale denoting a different price per pound, and mechanism for moving any one of said bars into position in the lower depression in the balancing weight so that both the weight and price are indicated by the position of the balancing weight. 2nd. In a scale, the combination of a graduated weighing beam, a sliding weight on said beam having a vertical depression in its lower portion, a series of horizontally arranged price computing bars having graduated portions corresponding in length to the graduated portions of the beam and key operated means for raising any one of said bars into price computing position in the vertical depression of the sliding weight. 3rd. In a scale, the combination of a weighing beam, a plurality of normally inoperative price indicating bars, each provided with a different price per pound scale and adapted to be raised into operative position relatively to the weighing beam, a balancing weight on said weighing beam for indicating the weight on the beam and having its lower portion provided with a vertical depression arranged to receive the operatively arranged bar and key mechanism for raising any one of said bars into said depression. 4th. In a scale, the combination of a base, a weighing platform mounted above said base, a weighing beam having weight graduations, a sliding weight mounted on the weighing beam, a casing mounted on the base and having a top opening, a plurality of horizontal price indicting bars arranged in normally inoperative position in said casing, each having a graduated price indicating portion corresponding in length to the graduated weight indicating portion of the base, and each denoting a different price per pound and means whereby any one of said bars may be moved vertically through the top opening in the casing, into proximity to the sliding weight, so that both the weight and price of an article on the platform will be indicated by the position of the sliding weight. 5th. In a scale, the combination of a base, a weighing platform mounted above said base, a weighing beam having weight graduations, a sliding weight mounted on the weighing beam and having a depression in its lower portion, a casing mounted on the base, a plurality of price indicating bars in said casing and each having a graduated price indicating portion corresponding in length to the graduated weight indicating portion of the beam and each denoting a different price per pound, and operating keys operatively connected to said price indicating bars for moving any one of the said bars into operative position in the depression in the sliding weight, so that the weight and price of an article on the platform will be indicated by the position of the sliding weight. 6th. In a scale, the combination with the base thereof, and the weighing mechanism having a sliding weight provided with a bottom depression, of mechanism mounted on the base and unsupported from and out of contact with said weighing mechanism and including a plurality of price indicating bars any one of which is adapted to be moved vertically upward into the bottom depression in the sliding weight, so that the said weight will denote both price and weight. 7th. In a scale, the combination of a weighing beam, a plurality of normally inoperative bars, each provided with a different price per pound scale arranged beneath the weighing beam and adapted to be raised into operative position relatively to the weighing beam, a balancing weight on said beam for indicating the weight on the beam and having its lower portion provided with a vertical depression arranged to receive the operatively arranged bar and key mechanism for raising any one of said bars into said depression. 8th. The combination with a weighing scale, of a plurality of price indicating devices having an upward and forward movement in a diagonal direction, and each denoting a different price per pound and all but one arranged in an inoperative position, and means for raising any one of said devices, the upward movement bringing the device into operative price indicating position, and the forward movement releasing the previous operatively arranged device. 9th. In a weighing scale having price computing mechanism, the combination of a supporting casing, a plurality of horizontally arranged bars, each provided with price indicating valuations and diagonal slots, rods passing through the slots and the casing, a like plurality of operating keys and mechanism operatively connecting the keys to the bars. 10th. The combination with a weighing scale, of price computing mechanism composed of a casing, a plurality of price indicating bars horizontally arranged and normally supported in an inoperative position within said casing, a like plurality of keys operatively connected to said bars and adapted to raise the bars above the casing, and a spring tensioned arm for locking said bars in a raised position. 11th. In a weighing scale having price computing mechanism, the combination of a casing, a plurality of price computing bars, each having diagonal openings and a price indicating scale, rods passing through the slots, a like plurality of shafts, each having a cam device arranged beneath one of the bars, and a crank arm, and a like plurality of operating keys, each having a standard connected to one of the crank arms, as set forth. 12th. In a weighing scale having price computing mechanism, the combination of a casing, a plurality of price computing bars, each having a downwardly extending portion, diagonal openings and a price indicating scale, rods passing through the slots, a like plurality of shafts, each having a cam device arranged beneath one of the downwardly extending portions of the bars, and a crank arm, and a like plurality of operating keys, each having a standard connected to one of the crank arms, as set forth. 13th. In a weighing scale having price computing mechanism, the com-

bination of a casing, a plurality of price computing bars, each having a downwardly extending portion, diagonal openings and a price indicating scale, rods passing through the slots, a like plurality of shafts, each having a cam device arranged beneath one of the downwardly extending portions of the bars, and a crank arm, a like plurality of operating keys, each having a standard connected to one of the crank arms, and a locking device comprising a supplementary shaft arranged in close proximity to one end of the casing, an arm mounted on said shaft, a spring for pressing said arm from the casing and a stop for limiting the outward movement of said arm, as set forth. 14th. In a weighing scale having price computing mechanism, the combination of a casing, a plurality of price computing bars, each having a downwardly extending portion, diagonal openings and a price indicating scale, rods passing through the slots, a like plurality of shafts, each having a cam device arranged beneath one of the downwardly extending portions of the bars, and a crank arm, a like plurality of operating keys, each having a standard connected to one of the crank arms, and a locking device adapted to move beneath the bar when raised into operative position and to be moved therefrom to release said first bar upon the movement of a second bar into operative position. 15th. In a weighing scale having price computing mechanism, the combination of a plurality of price indicating bars having elongated openings, rods passed through the casing sides and the openings, springs arranged on said rods for maintaining said bars in close proximity to each other, and means for elevating any one of said bars into operative position. 16th. In a weighing scale having price computing mechanism, the combination of a plurality of price indicating bars having elongated openings, rods passed through the casing sides and the openings, coil springs arranged on said rods, washers mounted on one end of said springs for maintaining said bars in close proximity to each other, and means for elevating any one of said bars into operative position. 17th. In a weighing scale having price computing mechanism, the combination of a casing, a plurality of price indicating bars mounted in said casing and adapted to have a limited range of up and down movement in a diagonal direction, a shaft at one end of the casing, an arm on said shaft and a spring pressing the arm away from the casting, the arm being adapted to be moved toward the casing by the upward movement of one of the bars and to pass beneath the end of said bar at the limit of its upward movement to maintain it in its elevated position. 18th. In a weighing scale having price computing mechanism, the combination of a casing, a plurality of price computing bars, each having a downwardly extending portion, diagonal openings and a price indicating scale, rods passing through the slots, a like plurality of shafts, each having a cam device arranged beneath one of the downwardly extending portions of the bars, a spring for partially rotating the shaft in one direction, and a crank arm, and a like plurality of operating keys. 19th. In a weighing scale having price computing mechanism, the combination of a casing, a plurality of price computing bars, each having a downwardly extending portion and a price indicating scale, a like plurality of shafts, each having a cam device arranged beneath one of the downwardly extending portions of the bars, and a crank arm, a like plurality of operating keys, each having a standard connected to one of the crank arms, and a spring on each shaft for maintaining the cam device in contact with the downwardly extending portion of the bar, as set forth. 20th. In a weighing scale having price computing mechanism, the combination of a casing, a plurality of price computing bars, each having a price indicating scale, a like plurality of shafts, each having a cam device arranged beneath one of the bars, a like plurality of operating keys, each having operative connection with one of the shafts, and a spring on each shaft for maintaining the cam device against the opposed bar with a spring tension. 21st. In a scale, the combination of a base, weighing mechanism supported on said base and having a weighing beam, mechanism mounted on the base and unsupported from and out of contact with the weighing mechanism, and a balancing weight hung on the weighing beam and having means for computing the price on the mechanism mounted on the base. 22nd. A scale having a base, a weighing beam pivotally mounted on the base, a weighing platform supported from the weighing beam, a device supported from the base and out of contact with the weighing beam, and a weight on the weighing beam for indicating the weight on said beam of an article placed on the weighing platform and the price on the device. 23rd. In a scale, the combination of a base, weighing mechanism supported on said base and having a weighing beam, a weight on said beam and mechanism mounted on the base and unsupported from and out of contact with the weighing mechanism, said mechanism operating in conjunction with the weight on the weighing beam to form a price computing device. 24th. In a scale, the combination of a base, weighing mechanism supported on said base and having a weighing beam, price computing mechanism having its principal and heavier portion mounted on the base and unsupported from and out of contact with the weighing mechanism, and a balancing weight on the weighing beam serving as the remaining part of the price computing mechanism for computing the price on said portion of said price computing mechanism mounted on the base. 25th. In a scale, the combination of a base, a weighing beam pivotally mounted on the base having weight graduations, a weighing platform supported by the beam, a sliding weight mounted on the weighing beam, and a price indicating bar supported from the base and having a graduated price indicating portion corresponding the length to the graduated weight indicating portion of the beam and arranged beneath and out of contact with the weighing beam. 26th. In a scale, the combination of a base having an extension, a weighing beam having weight graduations pivotally mounted on the base, a sliding weight mounted on the weighing beam and a price indicating bar supported from the extension of the base having a graduated price indicating portion corresponding in length to the graduated weight indicating portion of the base, and arranged beneath and in proximity to the sliding weight, so that both the weight and price of an article on the platform will be indicated by the position of the sliding weight. 27th. The combination with a weighing scale having a sliding weight, of a plurality of price indicating devices arranged beneath the weighing beam and each denoting a different price per pound, and all but one arranged in an inoperative position, and means for raising any one of said devices into operative proximity to the sliding weight. 28th. In a scale, the combination of a graduated weight beam, a sliding weight on said beam, a series of price computing bars beneath the weighing beam having graduated portions corresponding in length to the graduated portions of the beam, and means for raising any one of said bars into price computing position relatively to the sliding weight.

No. 68,916. Computing Scales. (*Balances.*)

Fig. 1.

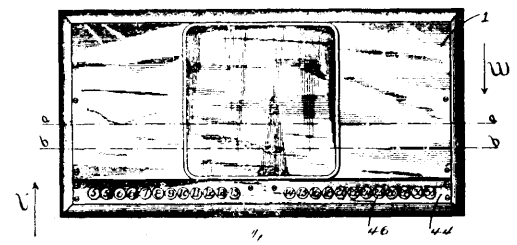
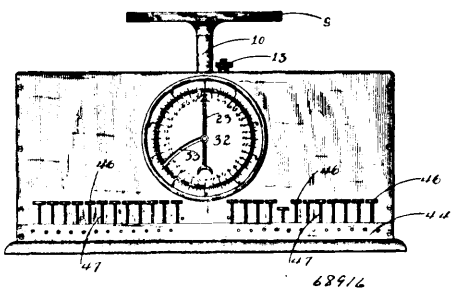


Fig. 2.



Henry C. Herr, Port Huron, Michigan, U.S.A., 6th October, 1900; 6 years. (Filed 12th June, 1900.)

Claim.—1st. A scale having weighing mechanism, including a rotating shaft provided with an indicator and a plurality of integral circular price indicating dials, pivotally arranged in two series, one on each side of the indicator, and means for swinging any one dial of either series into operative position, in proximity to the indicator and concentric with the shaft. 2nd. A scale having weighing mechanism, and a plurality of movable integral circular dials, each having a different price per pound scale, any one of which is adapted to be quickly thrown into or out of operative price indicating position, relatively to the weighing mechanism. 3rd. A scale having a shaft adapted to be rotated by the weighing of an article, and provided with an indicator, a plurality of integral circular price indicating dials, and means for swinging any one of said dials into price computing position, astride the shaft. 4th. A scale having a support, a plurality of integral circular independent dials, having price indicating scales, and extensions pivotally mounted on the support, and means for bringing any one of said dials into operative price computing position. 5th. A scale having weighing mechanism, including a shaft provided with an indicator, and a plurality of movable integral circular price indicating discs arranged in two series, one on each side of the shaft, any one of which is adapted to be moved astride and concentric with the shaft in the rear of the indicator. 6th. A scale having a weighing device, indicators having connections with said weighing device, a weighing dial arranged behind one of said indicators, and a plurality of movable integral circular price indicating dials each having an independent pivotal movement, any one of which is adapted to be moved into operative position behind another indicator. 7th. A scale having a weighing device, an indicating hand having connection with said weighing device, a support, a plurality of movable price indicating dials pivotally mounted on said support, any one of which is adapted to be moved into operative position behind said hand, and a plurality of operating keys, corresponding in number to said indicating dials, and each one

operatively connected by independent mechanism to its corresponding indicating dial. 8th. A scale having a weighing device, a shaft operatively connected to said weighing device and having an indicator at each end, a weight indicating disc permanently arranged behind one of said indicators, and a plurality of integral circular price indicating discs having a path of movement in an arc of a circle, any one of which is adapted to be swung astride the shaft and behind the other indicator. 9th. A scale having a casing, a weighing device, a shaft connected to said weighing device and having two indicators, a disc having a circular weight indicating scale arranged behind one of said indicators, and a plurality of integral circular price indicating discs, any one of which is adapted to be swung astride the shaft, and centrally behind the other indicator, the remaining discs being supported in an inoperative position in the casing. 10th. A scale having a casing, a weighing device, a shaft connected to said weighing device and having an indicator, a disc having a circular weight indicating scale arranged behind said indicator, and a plurality of integral circular price indicating discs, any one of which is adapted to be swung astride the shaft, and centrally behind the indicator, the remaining discs being supported in an inoperative position in the casing. 11th. A scale comprising a casing, having a circular opening in its front and rear sides, a weighing platform mounted above said casing, shaft journalled in said casing, and operatively connected with said weighing platform, two indicating hands fastened to said shaft, a weight indicating disc permanently mounted in one of the circular openings behind one of said hands, means for counter-balancing the platform, and a plurality of movable integral circular price indicating discs, one of which is operatively arranged in the other circular opening and behind the other indicating hand, the remaining discs being supported in an inoperative position in the casing, and mechanism for returning said operatively arranged disc into inoperative position in the casing, and moving any one of the inoperative discs into inoperative position. 12th. A scale comprising a casing, a weighing platform mounted above said casing, a main shaft journalled in said casing and adapted to be rotated by the movement of the platform, indicating hands fastened to said shaft, a rod on each side of said shaft, a plurality of telescoped tubes journalled on each rod, and each having a price indicating disc, a weight indicating disc arranged operatively with respect to one of said indicating hands, and means for turning any one of the telescoped tubes to bring its price indicating disc into operative position with respect to another indicating hand. 13th. A scale comprising a casing, a weighing platform mounted above said casing, a weight indicating device supported in the casing and operatively connected to the weighing platform, a plurality of price indicating dials, one of which is arranged in price computing position relatively to the weight indicating device, and the remainder are concealed in inoperative position within the casing, key operated mechanism for moving the dial arranged in price computing position into a concealed inoperative position within the casing and bringing any one of the other dials into view and operative position. 14th. A scale having weighing mechanism, provided with an indicator hand, a plurality of movable devices provided with price indicating scales, and each adapted to be brought into operative positon relatively to the indicator hand, and a spring tensioned looking device for securing said device in operative position. 15th. A scale having weighing mechanism provided with an indicator hand, a plurality of integral circular price indicating discs, one of which is in price computing position relatively to the indicator hand, and the remainder are arranged in a normally inoperative position, each having a notch portion and each adapted to be changed from an operative position to an inoperative position, and *vice versâ*, and a device having a hook portion adapted to seat in the notch in an inoperatively arranged disc to maintain it in said position. 16th. A scale having a casing, weighing mechanism supported by said casing and having an indicator, a plurality of price indicating discs arranged in said casing, each having a notched portion and each adapted to be brought into operative position in proximity to the indicator, rods supported in the casing and having a longitudinal movement therein, and a plate rigidly mounted on the rods and having hooked portions adapted to catch in the notches, as set forth. 17th. A scale having a casing, weighing mechanism supported by said casing, a plurality of price indicating discs arranged in said casing, each having a notched portion and each adapted to be brought into operative position relatively to the weighing mechanism, rods supported in the casing and having a longitudinal movement therein, a plate rigidly mounted upon the rods and having its sides bent downward to form hooked portions adapted to catch in the notches, as set forth. 18th. A scale having weighing mechanism, an indicator operated by the movement of the weighing mechanism, a plurality of price indicating discs, and key operated mechanism for moving any of said discs into operative posision relatively to the indicator. 19th. A scale having weighing mechanism provided with an indicator, a plurality of price indicating discs, one of which is arranged in operative position relatively to the indicator, and the remainder in inoperative position, means within reach of the operator for moving any one of the inoperatively arranged discs into operative position and mechanism for securing said discs in its operative position, said securing mechanism being automatically operated by the movement of the inoperatively arranged disc into operative position, to release the first mentioned disc and permit it to resume its former inoperative position. 20th. A scale having weighing mechanism provided with an indicator, a plurality of price indicating discs, one of which is in operative position relatively to the indicator and the remainder in operative position, springs for maintaining said inoperatively arranged discs in their position with the spring tension, means within reach of the operator for moving any one of said discs into operative position and mechanism for securing said disc in its operative position, said mechanism being automatically operated by the movement of another of said discs into operative position to release the first mentioned disc and permit the springs to restore said first mentioned disc to its original inoperative position. 21st. A scale comprising a casing, a weighing platform mounted above said casing, a series of rods pivotally mounted in the casing and connected to said platform, a toothed rack bar connected to said rods, a spring for normally maintaining said series of rods and the weighing platform in an elevated position, a shaft journalled in the casing and having a gear wheel meshing with the teeth in the rack, an indicator hand at each end of shaft, a weight indicating dial arranged behind one of said hands, a plurality of price indicating dials and key operated mechanism for arranging any one of said dials astride the shaft and directly behind the other hand, as set forth. 22nd. A scale comprising a casing, a weighing platform mounted above said casing, a series of rods pivotally mounted in the casing and connected to said platform, a toothed rack bar connected to said rods, a spring for normally maintaining said series of rods and the weighing platform in an elevated position, a shaft journalled in the casing and having a gear wheel meshing with the teeth in the rack, an indicator hand at each end of said shaft, a weight indicating dial arranged behind one of said hands, a plurality of price indicating dials supported in the casing, and mechanism for moving any one of said price indicating dials into operative position behind the other hand, as set forth. 23rd. In a computing scale, the combination with the weighing mechanism, of a shaft rotated by the movement of said weighing mechanism and having an indicator hand, and a plurality of integral circular price indicating dials, each of which is adapted to be moved astride the shaft in the rear of the indicator hand and each having a slot for the passage of the shaft, as set forth. 24th. A scale comprising a casing, a weighing platform mounted above said casing, a toothed rack bar having connection with said platform, a shaft journalled in the casing and having a gear wheel meshing with the teeth in the rack, an indicator band rigidly mounted on said shaft, a plurality of circular price indicating dials normally concealed within the casing and each having a slot curving from its centre outwards and adapted to form a slideway for the shaft, and means for swinging any one of said dials into position behind the indicator hand and concentric with the shaft, as set forth. 25th. In a computing scale, the combination with the weighing platform, of a shaft rotated by the movement of said weighing platform and having an indicator hand, a plurality of price indicating dials, each of which is adapted to be moved astride the shaft in the rear of the indicator hand and each having a slot for the passage of the shaft, a like plurality of operating devices and mechanism connecting the operating devices to the dials, as set forth. 26th. In a computing scale, the combination with the supporting casing and the weighing mechanism, of a shaft rotated by the movement of said weighing mechanism and having an indicator head, rods arranged on each side of said shaft a plurality of telescoped tubes journalled on each of said rods, a like plurality of indicating discs, each rigidly attached to one end of one of said tubes, a like plurality of collars, each having two oppositely extending arms and rigidly fastened to the opposite end of one of said tubes, a like plurality of extensible spring tensioned rods, each connected at one end to one of the arms of the collars and at the opposite end to the casing, a like plurality of shafts, each having crank arms, a like plurality of operating keys, each pivoted to one of the crank arms of one of said shafts and a like plurality of rods, each connecting a crank arm of one of the shafts with the arms of the collar on one of the tubes, as set forth. 27th. In a computing scale, the combination with the supporting casing and the weighing platform, of a shaft supported in the casing and rotated by the movement of said weighing platform and having an indicator hand, and a plurality of price indicating dials, each of which is adapted to be moved astride the shaft in the rear of the indicator hand and each having a curved slot for the passage of the shaft, as set forth. 28th. In a computing scale, the combination with the supporting casing and the weighing platform, of a shaft supported in the casing and rotated by the movement of said weighing platform and having an indicator hand, a plurality of price indicating dials, each of which is adapted to be moved astride the shaft in the rear of the indicator hand and each having a curved slot for the passage of the shaft, a like plurality of operating keys and a like plurality of trains of mechanism, each train of mechanism independently connecting one of the keys to one of the dials, as set forth. 29th. The combination with the weighing platform, of an indicator operatively connected to said weighing platform, a plurality of movable price indicating dials, each denoting a different price per pound and each adapted to be moved into operative position relatively to the indicator, a like plurality of operating keys and a like plurality of independent trains of mechanism, each operatively connecting one of the keys to one of said price indicating dials. 30th. A scale having weighing mechanism, and a plurality of movable dials, each having a different price per pound scale, any one of which is adapted to be quickly thrown into or out of operative price indicating position relatively to the weighing mechanism. 31st. A scale having a shaft adapted to be rotated by the weighing

of an article and provided with an indicator, a plurality of price indicating dials, and means for swinging any one of said dials into price computing position astride the shaft.

No. 68,917. Shoe Last. *(Forme à chaussure.)*

Fig 1

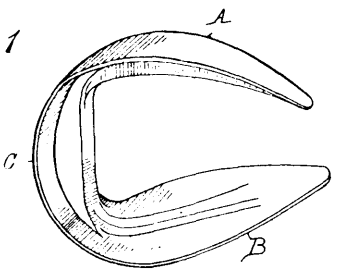
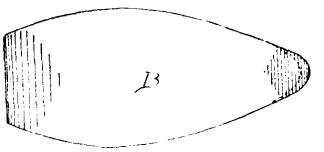


Fig 2



68917

Richard S. Sonley, Essex, Ontario, Canada, 6th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1st. A cobbler's last consisting of the curved parts A, B, united at one end by the curved connecting member C, as specified. 2nd. A twin cobbler's last having its two faces curved in opposite directions and united by a curved connecting member C, substantially as shown. 3rd. A twin cobbler's last integrally formed of one piece and having the two oppositely curved faces A, B, substantially as set forth.

No. 68,918. Pipe Hanger. *(Porte tuyau.)*

Fig. 1.

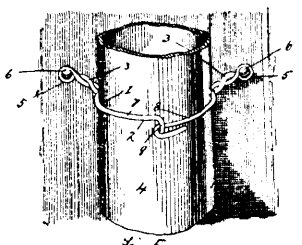


Fig. 5

Fig. 2.

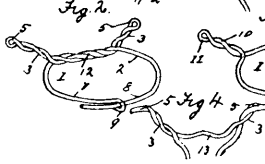


Fig 3

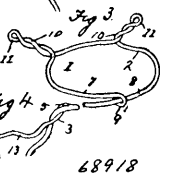
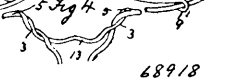


Fig 4.



68918

Edward E. Taft, Mount Pleasant, Iowa, U.S.A., 6th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. A pipe hanger designed to be arranged in a horizontal position to support a vertical pipe and consisting of a pipe receiving loop constructed of a single piece of wire having its terminals located at the front of the loop, one of the terminals being provided with an eye, and the other terminal being passed through the eye and adapted to be drawn through the same to a greater or less extent, whereby the diameter of the pipe receiving loop may be varied, said loop being provided at opposite sides of the back with integral outwardly extending looped portions twisted and off-setting the back of the loop from the supporting surface to enable access to be had to the back of the pipe and the wall, substantially as and for the purpose described. 2nd. A hanger constructed of a single piece of wire and consisting of a loop, and legs extending from opposite sides of the inner portion of the loop, said hanger being formed by twisting the wire at opposite sides of the center to provide the legs and a connecting strand, and then twisting the end portions around the said strand and extending them from the ends thereof to form the loop, substantially as described.

No. 68,919. Potato Harvesting Machine.
(Moissonneuse.)

Fig.1.

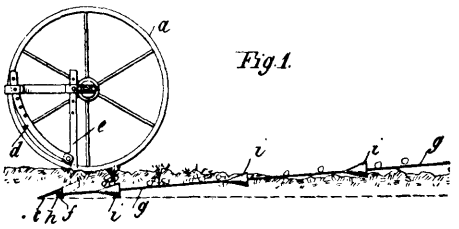


Fig.2.

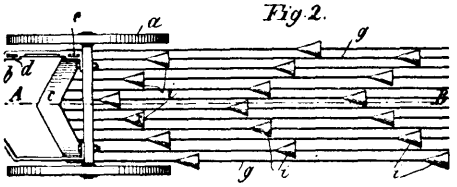
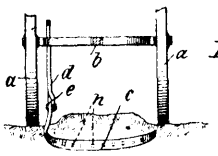


Fig.3.



68919

F. Schulze, Ebstorf, Hanover, Germany, 6th October, 1900; 6 years. (Filed 17th September, 1900.)

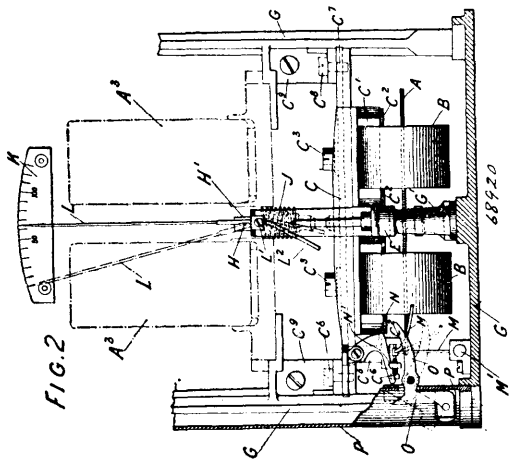
Claim.—1st. In combination with the share of a potato harvesting machine a plurality of rods loosely secured at the back of the share so as to drag along the ground during the operation of the machine and means for keeping the rods a short distance above the ground, substantially as and for the purpose set forth. 2nd. In combination with the share of a potato harvesting machine a plurality of rods loosely secured at the back of the share so as to drag along the ground during the operation of the machine and a plurality of cone bodies secured on the aforesaid rods to keep the latter at a distance from the ground and to break up the clods raised by the share to separate the potatoes therefrom, substantially as described and shown. 3rd. In combination with the share of a potato harvesting machine a plurality of rods loosely secured at the back of the share and a plurality of cone bodies secured on the aforesaid rods to keep them at a distance from the ground and to separate the potatoes from the clods raised by the share, each series of said cone bodies converging in their position towards the share, substantially as described and shown. 4th. The combination and arrangement of parts constituting the improved potato harvesting machine, substantially as herein described and illustrated in the accompanying drawings.

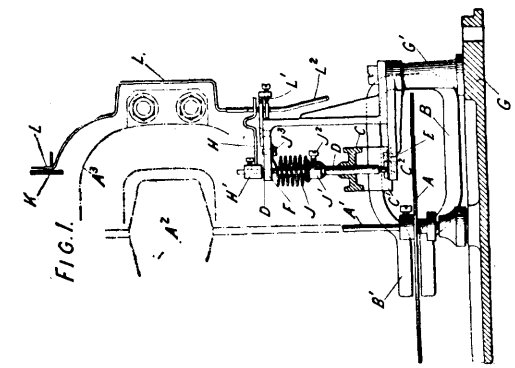
No. 68,920. Electric Meter. *(Electromètre.)*

John Henry Barker and James Alfred Ewing, both of Cambridge, England, 6th October, 1900; 6 years. (Filed 16th May, 1900.)

Claim.—1st. In an electric meter the combination of a revolving conductor, a pivoted or suspended magnetic brake and means to prevent excessive angular movement of the brake, substantially as and for the purpose described. 2nd. In an electric meter the combination of a revolving conductor, a magnetic brake pivoted or suspended about an axes parallel to the axes of rotation of the conductor, means for controlling the motion of the brake and an indicator for multiplying and exhibiting the amount of such motion, substantially as described. 3rd. In an electric meter, the combination with a pivoted or suspended magnetic brake and a revolving conductor, of pawl M and rack M^1, whereby the brake, or an indicator actuated by the brake, is retained in the position of its greater angular movement, substantially as described. 4th. In an electric meter, the combination with a pivoted or suspended magnetic brake and a revolving conductor, or pawl M, and rack M^1, whereby the brake, or an indicator actuated by the brake, is retained in the position of its greatest angular movement, and pivoted lever O forming a resetting device, substantially as specified. 5th. In an electric meter the combination with a pivoted or suspended magnet brake of

fixed supports and means for clamping the magnetic brake to the supports for the purpose described. 6th. In an electric meter, the



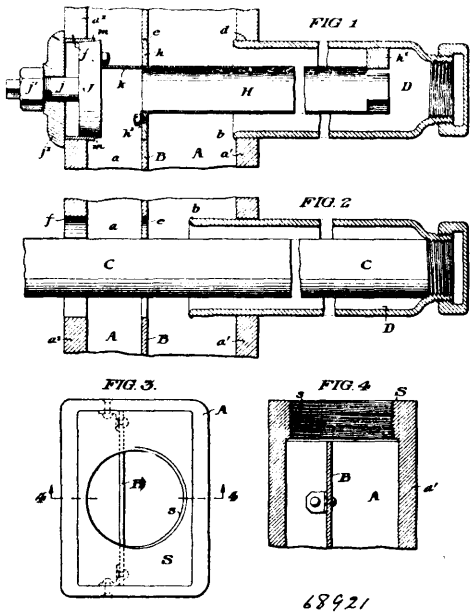


combination of a disc A, supported on axle A^1, the magnet B with poles B^1 between which the disc is rotatable, the bridge piece C to which the magnets are adjustably secured forming a magnetic brake carried upon the axle D with bearing on plate E and bracket F, the arm H adjustably secured to axle D, the controlling spring J suitably attached to the axle D and to the bracket F, the lever or pointer L pivoted to the bracket F and weighted at L^2, and scale K, substantially as specified. 7th. In an electric meter the combination of arm C^5 attached to extension of bridge piece C, the light pawl M, rack M^1 attached to frame G and the pivoted catch N having recesses N^1, substantially as specified.

No. 68,921. Water Tube Boiler. *(Chaudière.)*

Nathan Pratt Towne, Philadelphai, Pennsylvania, U.S.A., 6th October, 1900; 6 years. (Filed 17th September, 1900.)

Claim.—1st. In a tubula boiler, in combination, a drum, a series of headers, a series of circulating tubes and a series of evaporator tubes mounted in openings in the inner walls of said headers and expanded directly against the lips of said openings, and having each a reduced free end closed by a screw cap of smaller diameter than said header openings, substantially as set forth. 2nd. In a tubular boiler, in combination, a drum, a series of circulating tubes, and a series of evaporator tubes mounted in openings in the inner walls of said headers and expanded directly against the lips of said openings, said tubes having front ends of greater thickness than their bodies, and having reduced rear ends closed by screw caps of smaller diameter than said header openings, substantially as set forth. 3rd. In a tubular boiler, in combination, a drum, a series of headers, a series of circulating tubes, and a series of evaporator tubes mounted in openings in the inner walls of said headers and expanded directly against the lips of said openings, and having each a reduced free end closed by a screw cap of smaller diameter than said header openings, the front end lips of said tubes being upset or turned over against the inner faces of the header walls, substantially as set forth. 4th. In a tubular boiler, in combination, a drum, a series of headers, a series of circulating tubes, and a series of evaporator tubes mounted in openings in the inner walls of said headers and expanded directly against the lips of said openings, said tubes having front ends of greater thickness than their bodies, and having reduced rear ends closed by screw caps of smaller diameter than said header openings, the front end lips of said tubes being upset or turned over against the inner faces of the header walls, substantially as set forth. 5th. In a tubular boiler, in combination, a drum, a series of headers, a series of circulating tubes, and a series of evaporating tubes mounted in the rear walls of said headers, each evaporating tube having a reduced end of smaller diameter

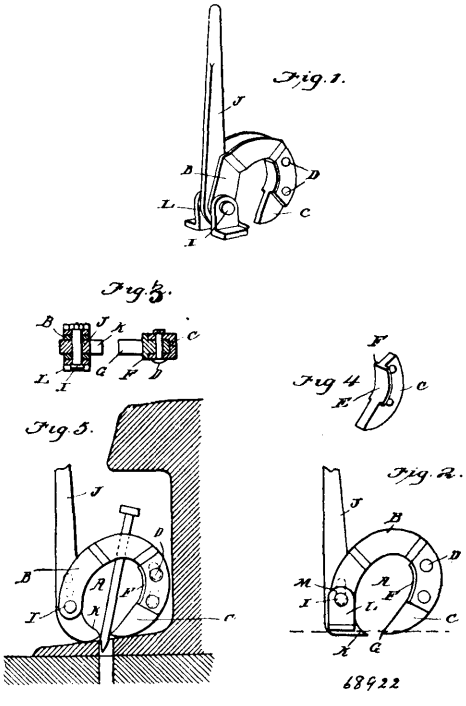


than the opening in the header in which said tube is mounted, and means by which a carrier bar or equivalent device may take hold of a tube to withdraw it through an opening in which it is mounted, substantially as set forth. 6th. In a tubular boiler, in combination, a drum, a series of headers, a series of circulating tubes, and a series of evaporating tubes mounted in the walls of said headers and having each a screw thread formed in its inner face, and also having a reduced end closed by a screw cap of smaller diameter than the opening in the header in which said tube is mounted, substantially as set forth. 7th. In a tubular boiler, in combination, a drum, a series of headers, a series of circulating tubes, a series of evaporating tubes mounted in the walls of said headers and having each a screw thread formed in its inner face and a carrier bar having a threaded end adapted to the threads in the inner faces of the tubes, substantially as set forth. 8th. In a tubular boiler, in combination, a drum, a series of headers having each an outer wall, an inner wall, and an intermediate diaphragm, a series of aligned openings formed in said walls and diaphragms, a series of evaporating tubes the front ends of which are mounted in and expanded directly against the openings in the inner walls of the headers, a series of circulating tubes structurally independent of the evaporating tubes, mounted one in each of said evaporating tubes, opening as to their front ends through the diaphragms and into the regions between the diaphragms and front walls of the respective headers, and means for securing said circulating tubes in position independently of the means for securing the evaporating tubes in position, substantially as set forth. 9th. In tubular boiler, in combination, a drum, a series of headers having each an outer wall, an inner wall, and an intermediate diaphragm, a series of aligned openings formed in said walls and diaphragms, a series of evaporating tubes, the front ends of which are mounted in and expanded against the lips of the openings in the inner walls of the headers, each tube being of such dimensions as to be adapted to pass through the openings in the diaphragm and outer wall, and each tube having a screw thread formed in its inner face for the engagement of a carrier bar, a series of circulating tubes mounted one in each evaporating tube and each as to its front end opening through a diaphragm and into the region between the diaphragm and the front wall of the header in connection with which it operates, means for centreing the front end of each circulating tube in its diaphragm opening, and independent means for centreing the rear end of each in its enclosing evaporating tube, substantially as set forth. 10th. In a tubular boiler, in combination, a drum, a series of headers each comprising a front wall, a rear wall and an intermediate diaphragm, a series of evaporating tubes mounted in the rear walls of said headers and opening as to their front ends into the region between the diaphragms and rear walls of the respective headers, a series of circulating tubes mounted one in each of the evaporating tubes and opening as to their front ends into the regions between the diaphragms and front walls of the respective headers, each circulating tube having supporting devices at or near its rear end consisting of flaps cut from its own substance and turned radially outward, substantially as set forth. 11th. In a tubular boiler, in combination, a drum, a series of headers having each an outer and inner wall and an intermediate diaphragm, aligned openings formed in said walls and diaphragms, a series of evaporating

tubes seated in and expanded directly against the lips of openings formed in the rear walls of the headers, a series of circulating tubes disposed respectively within the evaporating tubes and openings through the diaphragms, closing devices independent of the evaporating tubes adapted to close the openings in the front walls of the headers, and connections between the circulating tubes and said closing devices, substantially as set forth. 12th. In a tubular boiler, in combination, a drum, a series of headers having each a front and rear wall and an intermediate diaphragm, a series of evaporating tubes mounted in the rear walls of the headers and opening into the spaces between said rear walls and the diaphragms of the headers, circulating tubes opening through the diaphragms into the spaces between the diaphragms and front walls of the headers, openings formed in the front walls of the headers in alignment with said tubes, tapered plugs adapted to be passed to the inside of said openings, rings disposed between said plugs and the edges of said openings, threaded shanks connected to said plugs, nuts and washers mounted on said shanks, and connections between said plugs and the circulating tubes, substantially as set forth. 13th. In a tubular boiler, in combination, a drum, a series of headers having each a front and rear wall and an intermediate diaphragm, a series of evaporating tubes mounted in the rear walls of the headers and opening into the spaces between said rear walls and the diaphragms of the headers, circulating tubes disposed within said evaporating tubes and opening through the diaphragms into the space between the diaphragms and front walls of theheaders, openings formed in the front walls of the headers in alignment with said tubes, tapered plugs adapted to be passed to the inside of said openings, rings disposed between said plugs and the edges of said openings, threaded shanks connected to said plugs, nuts and washers mounted on said shanks, and connections between said plugs and the circulating tubes, said connections consisting of arms formed as integral continuations of the circulating tubes and the front ends of which are fastened to the plugs, substantially as set forth. 14th. In a tubular boiler, in combination, a drum, a series of headers having each a front and rear wall and an intermediate diaphragm, a series of evaporating tubes mounted in openings in the rear walls of said headers, openings formed in the diaphragms and front walls of the headers, a series of circulating tubes of less diameter than the evaporating tubes, collars mounted on said circulating tubes and making contact with the edges of the openings in the diaphragms, a series of plugs respectively applied to the respective openings in the outer walls of the headers, and a series of connections, independent of the evapourating tubes, between the individual plugs and the individual connecting tubes, substantially as set forth. 15th. In a tubular boiler, in combination, a drum, a series of headers having each front and rear walls and an intermediate diaphragm, a series of evapourating tubes mounted each in an opening in one of said walls, a series of circulating tubes mounted one in each of the evapourating tubes, and capable of removal independently of said evapourating tubes, openings formed in the front walls and diaphragms of the headers in alignment with openings in the rear walls, a series of collars which fit the openings in the diaphragms mounted one on each circulating tube, said tubes being expended against the bores of the collars, a series of plugs respectively seated in the respective openings in the front walls of the headers, and a series of arms connecting the individual plugs to the individual circulating tubes, substantially as set forth. 16th. In a tubular boiler, in combination, a drum, a series of headers having each front and rear walls and an intermediate diaphragm, a series of evapourating tubes mounted each in an opening in one of said rear walls, a series of circulating tubes disposed one in each of the evapourating tubes, and capable of removal independently of said evapourating tubes, openings formed in the front walls and diaphragms of the headers in alignment with the openings in the rear wall, a series of collars which fit the openings in the diaphragms mounted one on the front end of each circulating tube which tubes are expanded against the collars and each as to its end metal turned up against the side face of its collar, rivets passing through the collars and tubes, a series of plugs seated in the openings in the front walls of the headers, and a series of arms connecting the individual plugs to the individual circulating tubes, substantially as set forth. 17th. In a tubular boiler, in combination, a drum, having a series of tapered openings, a series of headers within the mouths of which are entered and expanded threaded tubular connections the upper ends of which are tapered to fit said tapered openings, a series of threaded rings mounted one on the extremity of each of said threaded tubular connections, and bolts or kindred devices which pass through said rings and the body or shell or a connection of the drum, a series of circulating tubes and a series of evapourating tubes connected to each header, substantially as set forth. 18th. In a tubular boiler, in combination, a drum having a series of tapered openings, a series of headers, a series of threaded tubular connections the bodies of which are entered and expanded in the bores of said headers which are formed to receive them, and the tapered ends of which tubular connections are adapted to the tapered openings, a series of threaded rings mounted on the exteriors of said tubular connections, devices connective of said drum and rings adapted to draw said rings and tubular connections toward the drum, and a series of circulating tubes and evapourating tubes in circuit with each header, substantially as set forth. 19th. In a tubular boiler, in combination, a drum, a series of tubular headers, and a series of evapourating said circulating tubes, each tubular header being of square or angular section formed as a seamless or lap-welded tube having its lower end closed and having a tapped block welded in place in its upper end, substantially as set forth. 20th. In a tubular boiler, in combination, a drum, a series of circulating tubes, a series of evapourating tubes, and a series of tubular headers of square or angular section, each formed as a seamless or lap-welded tube, each having its lower end closed, and each having a tapped block welded in its upper end, a series of threaded tubular connections each of which is expanded as to one end in the tapped opening of one of the blocks and as to its other end entered in an opening in the drum or a connection thereof, rings on said tubular connections, and bolts or kindred devices provided with nuts through which the tubular connections carrying the headers are drawn toward the drum, substantially as set forth.

No. 68,922. Railway Spike and Nail Puller.

(Arrache clous et chevilles.)



Thurman G. Brown, Gillespieville, Ohio, U.S.A., 6th October, 1900; 6 years. (Filed 17th September, 1900.)

Claim.—1st. In a spike and nail puller, the combination of an arch or body consisting of two arched members or bars set parallel to each other, a tooth or bit removably secured between said bars at one end, and a chisel pointed lever pivotally secured between them near the other end, the bars being at a distance from each other to permit of the spike being drawn, passing up between them, substantially as set forth. 2nd. In a spike and nail puller, the combination of two arched bars set parallel with each other at a slight distance apart, a tooth or bit adjustably and removably secured between them near one end, a chisel pointed lever between them and a bolt serving as a pivot of the arched bars and of the lever, substantially as set forth. 3rd. In a spike and nail puller, the combination of a pair of arched bars set parallel with each other slightly apart, each bar being provided with bolt holes near one end, a tooth provided with slotted bolt holes and double flanges, bolts to secure the bars and tooth together, a chisel pointed lever between the bars at their opposite ends and a bolt through the bars and the lever and pivotally securing them all at the same point, substantially as described. 4th. In a spike or nail puller, the combination of two arched bars spaced apart, a tooth or bit secured between them near one end, a chisel pointed lever between them, and a supporting bracket on each side pivoted near the other end, the supporting brackets being of less length than that portion of the lever between the pivot and end thereof, substantially as set forth.

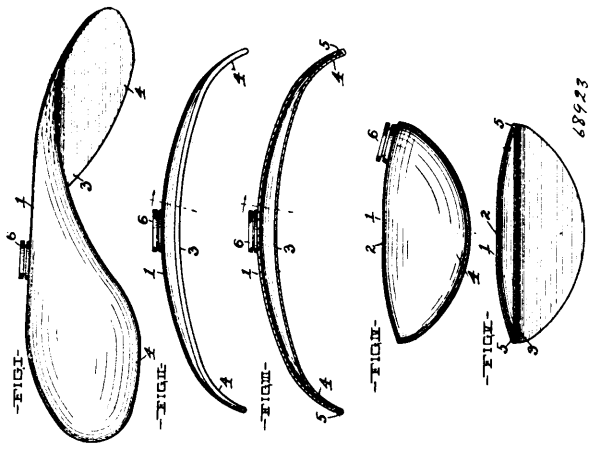
No. 68,923. Body Treating Receptacle.

(Receptacle pour le traitement du corps.)

A. A. La Vigne and H. F. Miller, both of Cleveland, Ohio, U.S.A., 6th October, 1900; 6 years. (Filed 10th July, 1900.)

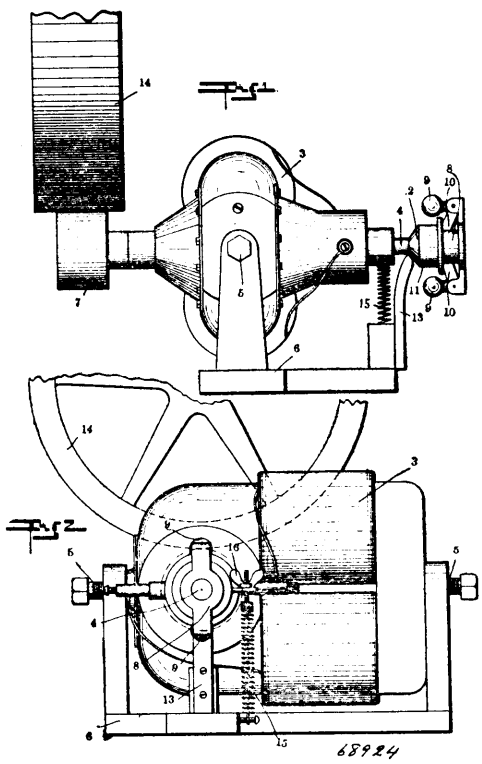
Claim.—1st. A receptacle of the character indicated, oblong and shallow, being deepest at its central portion and decreasing in depth toward its side and end extremities, which receptacle has the follow-

ing: the generally convex top 1, a bottom 2 flat between the side extremities of the receptacle and curving or sloping downwardly to-



ward the end extremities of the receptacle, and the top and bottom of the end portions 4 of the receptacle provided with a greater downward slope than the remaining portion of the top and bottom of the receptacle. 2nd. The hereinbefore described oblong and shallow receptacle having the following; a bottom 2 flat between the side extremities of the receptacle and curving or sloping downwardly toward each end of the receptacle, a generally convex top curving or sloping from the central portion of the receptacle toward the side and end extremities of the receptacle, rounded edges at the junction of the top and bottom, and end portions 4 that slope downwardly more than the remaining portions of the top and bottom of the receptacle. 3rd. The hereinbefore described oblong and shallow receptacle having the following: a section forming a generally convex top, a section forming a bottom flat between the side extremities of the receptacle and sloping or curving downwardly toward each end of the receptacle and flanged at the edges, as at 5, over the top forming section and having its flanges 5 rounded externally and flush or approximately flush with and forming an extension of the top.

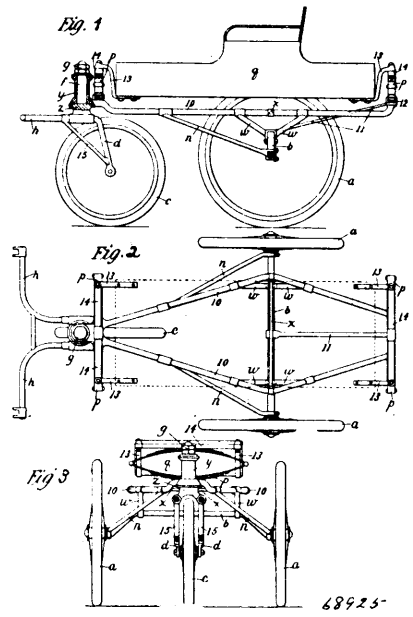
No. 68,924. Dynamo. (*Dynamo.*)



The Motsinger Device Manufacturing Company, Pendleton, Indiana, U.S.A., 6th October, 1900; 6 years. (Filed 7th April, 1900.)

Claim.—1st. In a mechanical movement for maintaining a constant speed of a driven shaft, a driving shaft, a driven shaft operated thereby, a speed controlled means for intermittently causing a relative movement between the driven shaft and the driving shaft and thereby throwing the driven shaft out of and into operative connection with the driving shaft. 2nd. In a mechanical movement for maintaining a constant speed of a driven shaft, a driving pulley, a driven shaft carrying a pulley adapted to engage peripherially the driving pulley, and a speed controlled governor carried by said driven shaft, and means for throwing said driven pulley out of and into engagement with the driving pulley. 3rd. A spark generator consisting of a generator, a speed controlled governor operated by the generator shaft, and means operated by the governor for intermittently moving said shaft out of and into connection with the driving means. 4th. A spark generator, consisting of a generator, a pivotal support therefor, a speed-controlled governor operated by the generator shaft, and means operated by the governor for swinging said generator about its pivot and thereby moving the shaft out of and into connection with the driving means. 5th. In a speed controlling means for dynamos, a pivotal support for said dynamo at right angles to the axis of the armature shaft of the dynamo, a pulley carried by said shaft, a speed controlling governor carried by said shaft, and means controlled by said governor for swinging said dynamo about its pivot. 6th. In a speed controlling means for dynamos, a pivotal support for said dynamo at right angles to the armature shaft of said dynamo, a speed controlling governor carried by said shaft, a sleeve axially movably upon said shaft by said governor, and a standard adapted to be engaged by said sleeve whereby the movement of said sleeve will cause the dynamo to swing about its pivot. 7th. In a speed controlling means for dynamos, a pivotal support for said dynamo at right angles to the armature shaft of said dynamo, a fractional pulley carried by said shaft, and yielding means, such as a spring, for swinging said dynamo about its pivot so as to yieldingly hold the frictional pulley against a driving means, such as a pulley.

No. 68,925. Vehicle Frame. (*Cadre de véhicules.*)



The Safety Three wheel Vehicle Company, assignee of Abraham Bath, all of New York, U.S.A., 6th October, 1900; 6 years. (Filed 17th October, 1899.)

Claim.—1st. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel therein said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device and their middle portions to said rear axle, and braces *n n*, connecting said axle and said side pieces, substantially as herein set forth. 2nd. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel therein said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device, their middle portions to said rear axle, and their rear ends to a casting 12, braces *n n*, connecting said axle and said side pieces, and a brace 11, connecting said axle with said casting 12, substantially as herein set forth. 3rd. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel therein said fork being provided with diagonal braces 15, and a fifth wheel device; of side pieces 10, having their

front ends connected to the upper member of said fifth wheel device, their middle portions to said rear axle, and their rear ends to a casting 12, braces *n n*, connecting said axle with said side pieces, a brace 11, connecting said axle with said casting 12, and a horizontal brace *x*, connecting the said pieces 10, together, substantially as herein set forth. 4th, In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel thereon therein said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device, their middle portions to supports adapted to connect the same to the rear axle and elevate the same above said axle, and their rear ends connected to a casting 12, braces *n n*, connecting said axle with said side pieces, and brace 11, connecting said axle with said casting 12, substantially as herein set forth. 5th. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel therein, said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device, their middle portions connected to supports adapted to connect the same to said rear axle and to elevate the same above said axle, and their rear ends connected to the casting 12, braces *n n*, connecting said axle with said side pieces, a brace 11, connecting said axle with said casting 12, and a brace *x*, connecting the said side pieces together, substantially as herein set forth. 6th. In a vehicle frame or running gear, the combinati n with a curved or arched rear axle and wheels thereon, a forward fork and a wheel therein said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device, their middle portions to the raised or arched portion of the said rear axle and their rear ends to the casting 12, braces *n n*, connecting the ends or lower portions of the said axle with said side pieces, and a brace 11, connecting the middle portion of said axle with said casting 12, substantially as herein set forth. 7th. In a vehicle frame or running gear, the combination with a curved or arched rear axle and wheels thereon, a forward forward fork and a wheel therein said fork and a wheel therein said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device, their middle portions to the raised or arched portion of said rear axle, and their rear ends to the casting 12, braces *n n*, connecting the ends or lower portions of said axle with said side pieces, a brace 11, connecting the middle portion of said axle with said casting 12, and a brace *x*, connecting the said side pieces together, substantially as herein set forth. 8th. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel therein, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of fifth wheel device, their middle portions to supports adapted to connect the same to said rear axle and to elevate said side pieces above said axle, and their rear ends to a casting 12, braces *n n*, connecting said axle with said side pieces, and a brace 11, connecting said axle with said casting 12, substantially as herein set forth. 9th. In a vehicle frame or running gear, the c mbination with a rear axle and wheels thereon, a forward fork and a wheel therein, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device, their middle portions to supports adapted to connect the same to said rear axle and to elevate said side pieces above said axle, and their rear ends to a casting 12, braces *n n*, connecting said axle with said side pieces, a brace 11, connecting said axle with said casting 12, and a brace *x*, connecting said side pieces together, substantially as herein set forth. 10th. In a vehicle frame or running gear, the combination with a curved or arched rear axle and wheels thereon, a forward fork and a wheel therein, and a fifth wheel device, of side pieces 10, having their front ends connected to the upper member of said fifth wheel device, their middle portions to the raised or arched portions of said rear axle, and their rear ends to the casting 12, braces *n, n*, connecting the ends of the lower portions of said axle with said side pieces, and a brace 11 connecting the middle portion of said axle with said casting 12, substantially as herein set forth. 11th. In a vehicle frame or running gear, the combination with a curved or arched rear axle, and wheels thereon, a forward fork and a wheel therein, and a fifth wheel device, of side pieces 10 having their front ends connected to the upper member of said fifth wheel device, their middle portions to the raised or arched portion of the rear axle, and their rear ends to a casting 12, braces *n n*, connecting the ends of the lower portions of said axle with said side pieces, a prace 11 connecting the middle portion of said axle with said casting 12, and a brace *x* connecting said side pieces together, substantially as herein set forth. 12th. In a vehicle frame or running gear, the combination with a curved or arched rear axle and wheels thereon, a forward fork and a wheel therein, and a fifth wheel device, of side pieces 10 having their front ends connected to the upper member of said fifth wheel device, their middle portions connected to the raised or arched portion of said rear axle, and their rear ends connected to the casting 12, braces *n n*, connecting the ends of the lower portions of the axle with said side pieces, a brace 11 connecting the middle portion of said axle with said casting 12, supporting springs *p p* and supporting pieces 13, substantially as herein set forth. 13th. In a vehicle frame or running gear, the combination with a curved or arched rear axle and wheels thereon, a forward fork and a wheel therein, said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10 having their front ends connected to the upper member of said fifth wheel device, their middle portions connected to the raised or arched portions of the said rear axle, and their rear ends connected to the casting 12, braces *n n*, connecting the ends of the lower portions of the axle with said side pieces, a brace 11 connecting the middle portion of said axle with said casting 12, supporting springs *p p* and supporting pieces 13, substantially as herein set forth. 14th. In a vehicle frame or running gear, the combination with the rear axle and wheels thereon, a forward fork and a wheel therein, and a fifth wheel device, of side pieces 10 having their front ends connected to the upper member of said fifth wheel device, their middle portions to supports adapted to connect them to said axle and to elevate them therefrom, and their rear ends to a casting 12, braces *n n*, connecting said axle with said side pieces, a brace 11 connecting the middle portion of said axle with said casting 12, supporting springs *p p* and the supporting pieces 13, substantially as herein set forth. 15th. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel therein, said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10 having their front ends connected to the upper member of said fifth wheel device, their middle portions to supports adapted to connect the same to said rear axle and to elevate the same therefrom, and their ends to a casting 12, braces *n n*, connecting said axle with said side pieces, a brace 11 connecting said axle with said casting 12, supporting springs *p p* and supporting pieces 13, substantially as herein set forth. 16th. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, a forward fork and a wheel therein, said fork being provided with diagonal braces 15, and a fifth wheel device, of side pieces 10 having their front ends connected to the upper member of said fifth wheel device, their middle portions to supports adapted to connect the same to said rear axle and to elevate the same therefrom, and their rear ends to a casting 12, braces *n n*, connecting said axle with said side pieces, a brace 11 connecting said axle with said casting 12, a brace *x*, connecting the said side pieces together, supporting springs *p p* and supporting pieces 13, substantially as herein set forth.

No. 68,926. Whiffletree Hook and Guard.

(Crochet et garde de palonnier.)

Fig. 1.

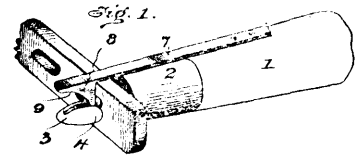


Fig. 2.

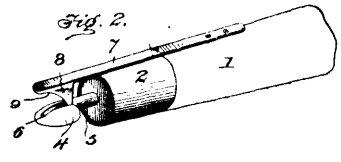


Fig. 3.

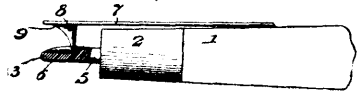
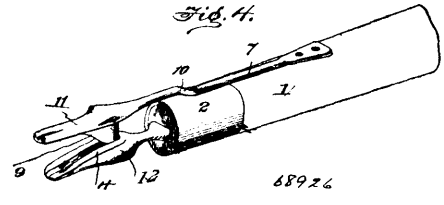


Fig. 4.

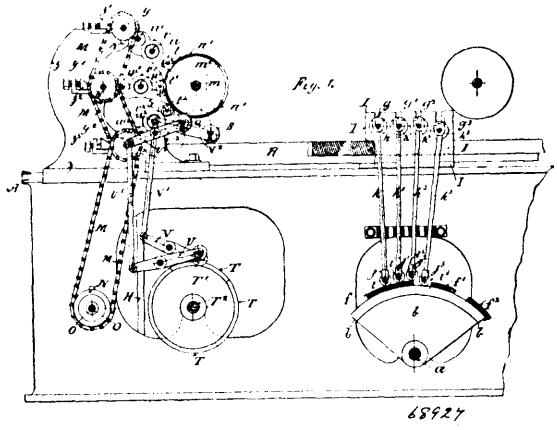


Thore A. Bakken, De Soto, Wisconsin, U.S.A., 6th October, 1900; 6 years. (Filed 2nd May, 1900.)

Claim.—1st. A whiffletree hook and guard comprising a hook or engaging end portion provided on the end of the whiffletree and projecting from the end thereof, in combination with a spring lock or guard consisting of a single flat spring secured to the end of the whiffletree and its outer end left free and provided with a comparatively large solid head which is bevelled inwardly on its under side so as to leave a comparatively large entrance space for the introduction and passage of a cockeye or other connecttng portion of a trace, the construction and arrangement being such that the spring lock or

guard will be automatically lifted as the trace is applied over the hooked or engaging end of the whiffletree and automatically turned to a locked condition in front of the trace, the trace bearing upon the rear side of the head of the guard, substantially as described. 2nd. A whiffletree hook and guard comprising a hook or engaging end portion provided on the whiffletree and projecting from the end thereof, and which hook or engaging end is formed with a depression, in combination with a spring lock or guard consisting of a single flat spring secured to the end of the whiffletree and its outer end left free and provided with a comparatively large solid head which is bevelled inwardly on its under side so as to leave a comparatively large entrance space for the introduction and passage of a cockeye or other connecting portion of a trace, the construction and arrangement being such that the lower end of the spring lock will normally rest in the depression on the hooked or engaging end of the whiffletree which lock will be automatically raised in the act of applying the trace and will automatically return to a locked position after the trace is in position on the end of the whiffletree, substantially as described.

No. 68,927. Multichrome Printing Machine.
(*Machine à imprimer.*)



John Adam Gledhill, Manchester, John D. McVean, Leeds, John Henry Treston, Manchester, and Charles Challenger, Manchester, all in England, 6th October, 1900; 6 years. (Filed 2nd November, 1899.)

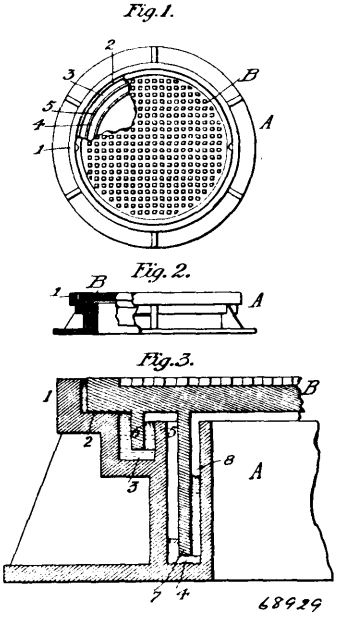
Claim.—1st. In a multi-colour, letter press printing mechanism, the combination with a quadrant carried by a rock shaft of tappits each consisting of a series of circular sections, each having a peripheral, concentric projection, a stud passing through concentric slots in said circular sections, means for holding the same in position, and inking rolls controlled by said tappits, substantially as described. 2nd. In a multi-colour letter press printing mechanism, the combination with tappits, each consisting of a plurality of circular sections, each section having a concentric peripheral projection, of a fixed stud passing through concentric slots in said circular sections, a shaft to carry said tappits, means for clamping the circular sections together, after adjustment, inking rollers, levers having rolls, or runners to engage the tappit sections, and connecting rods between the levers and rolls, substantially as described. 3rd. In a multi-colour, letter press printing mechanism the combination with an ink distributing cylinder and a movable distributing table, of rolls arranged in suitable proximity to the cylinder, levers to support said rolls, tappits formed of separate circular sections each having a peripheral projection, a fixed stud passing through concentric slots in said section, a shaft to carry the latter, levers having rolls, or runners resting on said tappits, and connecting rods between the latter levers and those supporting the rolls, substantially as described. 4th. In a multi-colour, letter press mechanism, the combination with an ink distributing cylinder, a distributing table, and inking rollers, of levers carrying said rollers, tappits consisting of a series of circular sections having peripheral projections and concentric slots, a plate carried by a shaft and having a stud lying in said concentric slots, means for clamping the circular sections against said plate, levers having connection with those which carry the inking rollers, and runners on the ends of said levers to rest on the edges and peripheral projections, of the circular sections on the tappits, substantially as described.

No. 68,928. Medicinal Compound.
(*Composition médicinale.*)

George Lamy and Aristide Perrault, both of Montreal, Quebec, Canada, 6th October, 1900; 6 years. (Filed 11th June, 1900.)

Claim.—1st. A medical composition consisting of alum, spruce gum, high wines, and the bitter herb known as golden thread, in substantially the proportions specified. 2nd. The method of preparing the herein described medical composition which consist in dissolving spruce gum in high wines, making a solution of alum, the bitter herb of golden thread and water, incorporating the ingredients in the presence of each other and boiling the mixture, and then again adding spruce gum dissolved in high wines to the mixture, substantially as described.

No. 68,929. Manhole. (*Trou d'homme.*)



Ernest A. Faller and James White Chisholm, both of San Francisco, California, U.S.A., 8th October, 1900; 6 years. (Filed 16th July, 1900.)

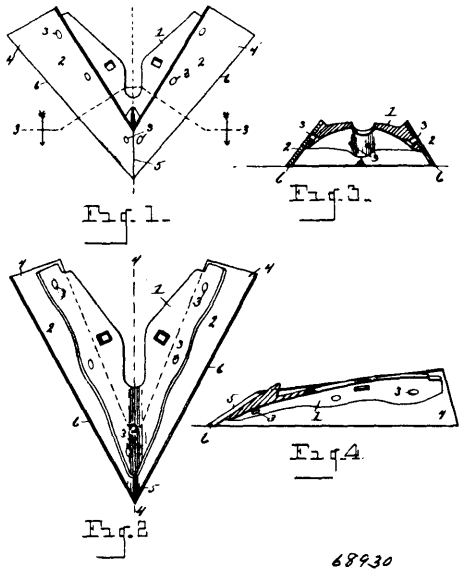
Claim.—1st. In combination, a manhole casing having concentric channels and a cover having concentric flanges or ribs depending therefrom of less thickness than the width of the channels with water passages between the bottoms of the flanges and channels, and between the bottoms of the cover and tops of the walls of the flanges, substantially as described. 2nd. In combination, a manhole casing having concentric channels and a cover having flanges depending into said channels of less thickness than the width of the channels and means for holding said cover above the tops of the channels and with the bottoms of the flanges above the bottoms of the channels, substantially as described. 3rd. In combination, a manhole casing having a platform or seat and interior concentric channels, a cover having its edge supported upon said platform, and having concentric flanges depending into said channels, said flanges being of less thickness than the width of the channels, and water passages between the bottoms of the flanges and bottoms of the channels and also between the tops of the channels and the bottoms of the cover, substantially as described. 4th. The combination with a manhole casing having a seat or platform and a surrounding rim, and inner concentric channels of increasing depth, of a cover resting on said seat and having concentric flanges depending within said channels and of less thickness than the width of said channels, said flanges terminating above the bottoms of the channels and the tops of the channels short of the bottom of the cover, substantially as described. 5th. A manhole frame and cover, having a pluralty of concentric flanges, said flangers interlocking in such a way as to form two water tight seals, with a body of air contained between the said seals, substantially as described.

No. 68,930. Plough Point. (*Soc de charrue.*)

Willie Woodury Marshall, assignee of Frank W. Chickering, both of Hardwick, Vermont, U.S.A., 8th October, 1900; 6 years. (Filed 21st August, 1900.)

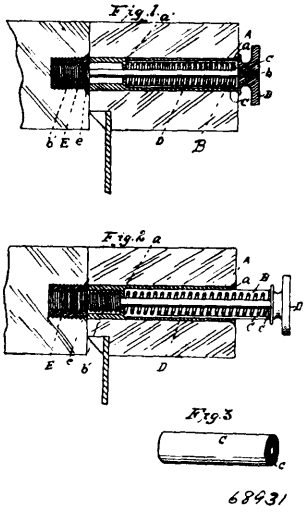
Claim.—1st. A plough point, provided with inclined flaring plates attached to the opposite sides thereof and meeting at the front in a sharp, inclined point, said plates being beveled to form a sharp undercutting edge, substantially as set forth. 2nd. In a plough point, provided with separable inclined plates secured thereto and

provided with a sharp cutting edge depending below the plough point on opposite sides, the forward end of said plates meeting and



terminating in an inclined cutting edge, the rear end of said plates flaring outwardly affording a sharp undercutting edge, substantially as set forth.

No. 68,931. Sash Fastener. (*Arrête-croisée.*)



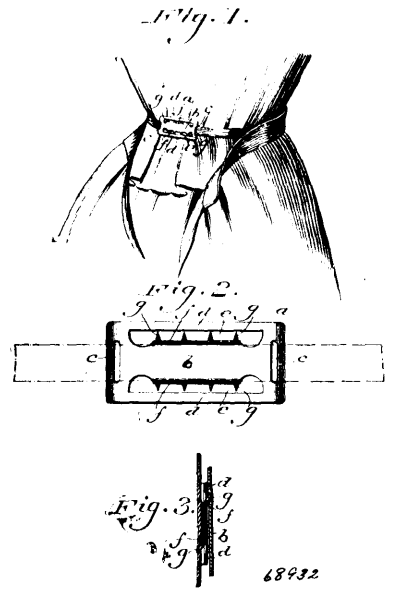
James Joyce and Claude B. Snook, both of Newport, Kentucky U.S.A., 8th October, 1900; 6 years. (Filed 24th August, 1900.)

Claim.—The herein described window fastening, consisting of the tubular casing, having the partition near its inner end, the sleeve telescopically fitting in said casing and having an inturned flange at its outer end, the headed bolt having loose bearings in said casing in the partition thereof and in the flange of the sleeve, and having a threaded inner end portion, the helical spring surrounding the bolt and surrounding the sleeve, and having a bearing at one extremity against said partition and at its opposite extremity against the flange of the sleeve, and the internally threaded bushing adapted to be engaged by the said threaded portion of the bolt, substantially as specified.

No. 68,932. Skirt and Waist Support.
(*Support de jupes et gilets.*)

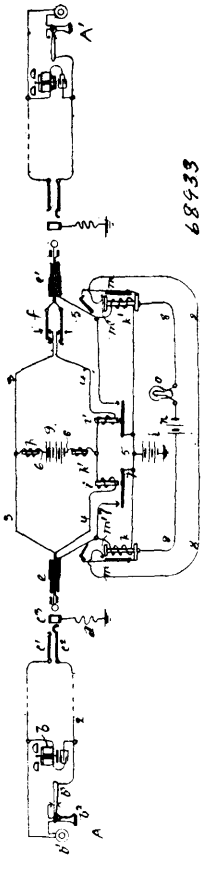
The Delong Hook and Eye Company of Philadelphia, Pennsylvania, assignee of R. B. Lamb, Mount Holley, New Jersey, U.S.A., and Walter Lamb, of Philadelphia aforesaid, 8th October, 1900; 6 years. (Filed 8th September, 1900.)

Claim.—1st. A holder and supporter consisting of a plate having a central bar, top and bottom borders, slots between said parts, lips on said bar and teeth on said lips, said lips extending respectively upwardly and downwardly and being salient. 2nd. A plate having a central bar, slots between said bar and the upper and lower borders



of said plate, salient lips projecting in opposite vertical directions from the upper and lower portions of said bar and teeth extending from said salient lips respectively in the directions thereof.

No. 68,933. Telephone Switchboard Signal.
(*Signal pour échange de téléphone.*)

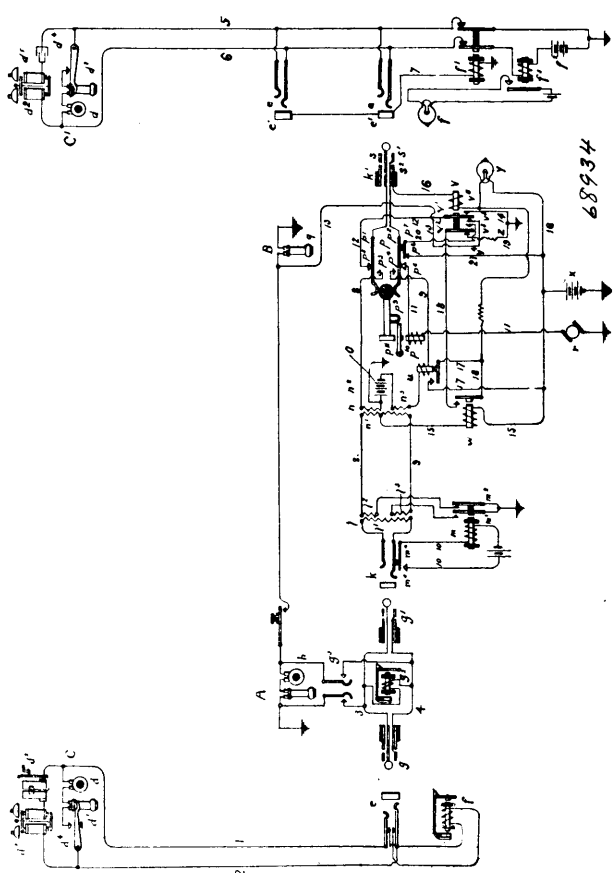


The Bell Telephone Company of Canada, Montreal, Quebec, Canana, assignee of Frank Robert McBerty, Evanston, Illinois, U.S.A., 8th October, 1900; 6 years. (Filed 17th May, 1898.)

Claim.—1st. The combination with united telephone lines, and a signal associated with each line and controlled by current in the line, of a pilot signal and mechanism actuated in the simultaneous operation of the said signals adapted to cause the display of the pilot signals as described. 2nd. The combination with united telephone lines, each provided with means for determining the flow of current in the line in the use thereof, of an electro-magnet controlled by current in each line, and switch contacts actuated by each magnet to be closed when the said magnet is excited, a signal, and a circuit including serially the contacts of both of said magnets, together with said signal and a source of current, as described. 3rd. The combination with pairs of united telephone lines, and a supervisory signal for each line controlled by current therein determined in the use of the line, of a pilot signal, a circuit including the pilot signal, different bridges in multiple of the said circuit, and switch contacts on each supervisory signal apapted to be closed thereby in one position, the switch contacts of both members of a pair of supervisory signals being included serially in each of said bridges, substantially as described. 4th. The combination with telephone lines, each having a switch at its substation for closing the line during the the use of the telephone, of plugs and plug circuits uniting the lines in pairs, a bridge of each plug circuit including a source of current, a relay in the circuit of each line, a supervisory signal associated with each line in a local circuit controlled by the corresponding relay, a pair of switch contacts on each supervisory signal actuated thereby, to be closed when the signal is displayed, a general or pilot signal, a local circuit including the pilot signal, together with a source of current, and normally open bridges adapted to complete the said local circuit, each of said bridges including serially the switch contacts of supervisory signals of united telephone lines, as described.

No. 68,934. Telephone Line Signal.

(Signal pour lignes de téléphone.)



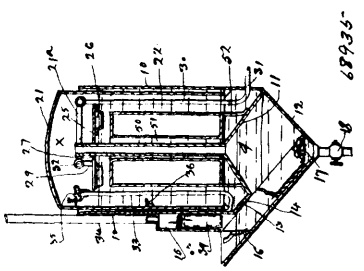
The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, and Frank Robert McBerty, Evanston, both in Illinois, U.S.A., 8th October, 1900; 6 years. (Filed 9th December, 1898.)

Claim.—1st. The combination with a telephone trunk-line between A and B terminal stations, of a visible signal at the B station and a relay controlled from the A station, different circuits including switch contacts of the said relay and the visible signal, one of said circuits being adapted to permit the flow of current through the signal when the relay is excited and the other being adapted to prevent the flow of current through the signal when the relay is excited, and a switch controlling both said circuits to make either operative, as described. 2nd. The combination with a telephone trunk line between A and B terminal stations, a signal at the B station and a relay, with means for exciting the relay from the A station, two circuits of the signal, both circuits including switch contacts of the relay, one circuit being adapted to cause a flow of current through the signal when the relay is excited and the other circuit being adapted to prevent such flow when the relay is excited, a switch controlling both said circuits to make either operative, and means for actuating the switch in making connection between the B terminal of the trunk-line and a called subscriber's line, as described. 3rd. The combination with a telephone trunk-line between A and B terminal stations, a relay at the B terminal and a circuit thereof controlled by switch contacts at the A terminal operated in making connection with the line, a signal at the B terminal, and two circuits of said signal, one of said circuits including serially the signal and the switch contacts of the relay, and the other of said circuits consisting of a closed circuit of the signal and a shunt of the signal controlled by the same contacts of the relay, a switch controlling the said circuits to make either operative, and means for actuating the switch in making connection with the B terminal of the trunk-line, as described. 4th. The combination with a telephone trunk-line and means for making connection with the terminals thereof, of a signal at the incoming terminal of the trunk-line, a relay for controlling the signal, and means for exciting the relay in making connection with the out-going terminal of the trunk-line, a local circuit normally including the switch contacts of the relay and the said signal in series, a device made operative in making connection with the incoming terminal of the trunk-line, adapted to bring the switch contacts of the said relay into shunt of the signal, whereby the mode of control of the relay over the signal is reversed in making connection with the incoming terminal of the trunk-line, as described. 5th. The combination with a trunk-line and means for connecting the telephone lines with the terminals thereof, of a signal at the incoming terminal of the trunk-line, a relay having its magnet in a circuit closed in making connection with the out-going terminal of the trunk-line, a local circuit of the signal normally including the switch contacts of the relay, an electro-magnetic switch and circuit connections therefor adapted to break the normal connection of said relay contacts with the local signal circuit and bring the said contacts into shunt of the signal, and a circuit including an actuating magnet of the said switch closed in making connection between a telephone line and the incoming terminal of the trunk-line, as described. 6th. The combination with a telephone trunk-line at the incoming terminal thereof, of a signal and relay controlled by the out-going terminal of the trunk-line, a local circuit including the signal, and means for closing it in making connection with the incoming terminal of the trunk-line, a shunt about said signal controlled by the switch contacts of the relay, an electro-magnetic switch having its actuating magnet in the said local circuit, said switch being adapted when inert to break the shunt of the signal and to form a circuit including the signal and the switch contacts of said relay in series, as described. 7th. The combination with a telephone trunk-line at the incoming terminal thereof, of a key for applying calling current to the line with which the said terminal is connected, and a magnet responsive to the changes in the current flowing in the line controlling said key, a signal associated with the trunk-line, a relay and means for controlling it from the out-going terminal in making connection with the line, circuit connections of the said relay with the signal, whereby the relay determines current in the signal, and switch contacts of the calling key closed during the transmission of calling current to render said circuit connections operative, whereby the signal is controlled from the out-going terminal of the trunk-line during the transmission of calling current at the incoming terminal thereof, as described. 8th. The combination with a telephone trunk-line at the incoming terminal thereof, of a supervisory relay responsive to currents in the line determined in the use of the sub-station telephone, when the said incoming terminal is connected with the line, a signal for the trunk line, a relay and means for controlling it automatically in making connection with the out-going terminal of the trunk-line, and circuit connections of the signal with the said last-mentioned relay and the supervisory relay, both said relays being adapted to control the current in said signal independently, as described. 9th. In combination with telephone-lines and an inter-office trunk-line, a key for applying calling current to the called line through the agency of the incoming terminal of the trunk-line, and a magnet in the path of the calling current adapted to trip the said key, an operator's testing instrument, an electro-magnetic switch and means for exciting it in making connection between the incoming terminal of the trunk-line, and the called line, said switch being adapted to disconnect the telephone from the testing contact of the terminal plug of the trunk-line, a signal associated with the trunk-line, a circuit therefor containing a battery normally closed at one point in switch contacts of said electro-magnetic switch, a relay controlling a second break in the circuit of the signal, the said relay being controlled by current determined in making connection with the out-going terminal of the trunk-line, a normally open shunt of the signal controlled by said electro-magnetic switch, said switch being adapted to break the normal ground circuit of the signal and connect the said shunt of the signal when the actuating magnet of the switch is excited, said shunt having two breaks, one of which is controlled by said relay and the other of which is controlled by

auxiliary contacts of the calling key during the transmission of calling current, a supervisory relay in the path of current to the called line, and a shunt of the signal controlled by said supervisory relay, substantially as described.

No. 68,935. Acetylene Gas Making Apparatus.

(*Appareil pour la fabrication du gaz acétylène.*)

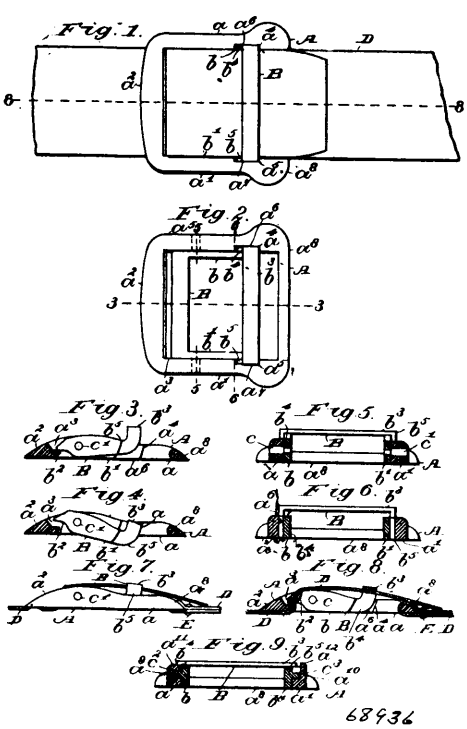


The Eclipse Acetylene Gas Company, Montreal, assignee of William Ross, Quebec, both in Canada. 8th October, 1900; 6 years. (Filed 8th July, 1898.)

Claim.—1st. An acetylene gas apparatus comprising a generating chamber containing water and consisting of a pair of truncated cones located one above the other and connected together and hermetically sealed at their bases, a lateral passage through which calcium carbide can be supplied to the water in said chamber, a gas conducting pipe connected at one end to the truncated apex of the upper cone, and means for discharging the contents of the lower cone, for the purpose set forth. 2nd. An acetylene gas apparatus comprising a generating chamber containing water and consisting of a pair of truncated cones located one above the other and connected together and hermetically sealed at their bases, means comprising an inclined lateral conducting passage and a horizontally arranged travelling belt adapted to conduct predetermined quantities of calcium carbide to said conducting passage, for supplying calcium carbide to the water in said chamber, a gas conducting pipe connected at one end to the truncated apex of said upper cone, and means far discharging the contents of said lower cone, for the purpose set forth. 3rd. An acetylene gas apparatus comprising a cylindrical body portion, a generating chamber consisting of a pair of truncated cones connected together, and to the lower end of said body portion at their bases and constructed to contain a body of water, means for supplying calcium carbide to the water in said generating chamber, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, and a draw off cock connected to the truncated apex of the outer cone, substantially as and for the purpose set forth. 4th. An acetylene gas apparatus comprising a cylindrical body portion, a generating chamber consisting of a pair of truncated cones connected together, and to the lower end of said body portion at their bases, and constructed to contain a body of water, means comprising a horizontally arranged travelling belt, having a series of partitions projecting at right angles thereto, and a conducting passage for supplying calcium carbide to the water in said generating chamber, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, and draw-off cock connected to the truncated apex of the outer cone, substantially as and for the purpose set forth. 5th. An acetylene gas apparatus comprising a generating chamber, a removable perforated diaphragm extending transversely of said chamber a short distance above the bottom thereof for supporting the calcium carbide, a lateral inclined opening or passage to said chamber and means for removing said perforated diaphragm through such lateral opening, substantially as described. 6th. In an acetylene gas apparatus comprising a generating chamber, having a lateral inclined opening or passage, a drawer for containing calcium carbide, and adapted to be slid into said chamber through said passage means for sealing the opening through which said drawer slides and said drawer having its inner end formed of wire mesh and arranged at an angle to the vertical, substantially as and for the purpose set forth. 7th. An acetylene gas apparatus, comprising a cylindrical body portion, a pair of truncated cones connected together and to the lower end of said body portion at their bases, registering openings cut through said body portion and the inner cone, the edges of said openings being connected by a diaphragm, a drawer adapted to be slid into the passage formed by said openings and diaphragm, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, a float resting upon the surface of said seal, a short stand pipe carried by said float and having its lower end maintained thereby constantly a short distance above the surface of said seal, a flexible tubular connection betwten the upper ends of said stand pipe and flow pipe, and a draw-off cock connected to the truncated apex of the outer cone, for the purpose set forth. 8th. An acetylene gas apparatus, comprising a cylindrical body portion, a pair of truncated cones connected together and to the lower end of said body portion at their bases, registering openings cut through said body portion and the inner cone, the edges of said openings being connected by a diaphragm, a drawer adapted to be slide into the passage formed by said openings and diaphragm, said drawer having its inner end formed of wire mesh or the like, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, and a draw-off cock connected to the truncated apex of the outer cone, for the purpose set forth. 9th. An acetylene gas apparatus, comprising a cylindrical body portion, a pair of truncated cones connected together and to the lower end of said body portion at their bases, registering openings cut through said body portion and the inner cone, the edges of said openings being connected by a diaphragm, a drawer adapted to be slid into the passage formed by said openings and diaphragm, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, a float resting upon the surface of said seal, a short stand pipe carried by said float and having its lower end maintained thereby constantly a short distance above the surface of said seal, a flexible tubular connection betwten the upper ends of said stand pipe and flow pipe, and a draw-off cock connected to the truncated apex of the outer cone, for the purpose set forth. 10th. An acetylene gas apparatus comprising a cylindricai body portion, a pair of truncated cones connected together and to the lower end of said body portion, at their bases, registering openins cut through said body portion and the inner cone, the edges of said openings being conncted by a diaphragm, a drawer adapted to be slid into the passage formed by said openings and diaphragm, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a cone located in said cylindrical body portion and consisting of a cylindrical drum having a longitudinal opening therethrough of slightly greater diameter than and adapted to take over said gas conducting pipe, means for supporting said core a short distance above the inner cone, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, and a draw-off cock connected to the truncated apex of the outer cone, for the purpose set forth. 11th. An acetylene gas apparatus comprising a cylindrical body portion, a pair of truncated cones connected together and to the lower end of said body portion, at their bases, registering openings cut through said body portion and the inner cone, the edges of said openings being connected by a diaphragm, a drawer adapted to be slid into the passage formed by said openings and diaphragm, said drawer having its inner end formed of wire mesh or the like, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a core located in said cylindrical body portion and consisting of a cylindrical drum having a longitudinal opening therethrough of slightly greater diameter than adapted to take over said gas conducting pipe, means for supporting said core a short distance above the inner court, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, and a draw-off cock connected to the truncated apex of the outer cone, for the purpose set forth. 12th. An acetylene gas apparatus comprising a cylindrical body portion, a pair of truncated cones connected together, and to the lower end of said body portion, at their basis, registering openings cut through said body portion and the inner cone, the edges of said openings being connected by a diaphragm, a drawer adapted to be slid into the passage formed by said openings and diaphragm, said drawer having its inner end formed of wire mesh or the like, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, a float resting upon the surface of said seal, a short stand pipe carried by said float and having its lower end maintained thereby constantly a short distance above the surface of said seal, a flexible tubular connection between the upper ends of said sand pipe and flow pipe, and a draw-off cock

connected to the truncated apex of the outer cone, for the purpose set forth. 13th. An acetylene gas apparatus comprising a cylindrical body portion, a pair of truncated cones connected together and to the lower end of said body portion, at their basis, registering openings cut through said body portion and the inner cone, the edges of said openings being connected by the diaphragm, a drawer adapted to be slid into the passage formed by said openings and diaphragm, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a core located in said cylindrical body portion and consisting of a cylindrical drum having a longitudinal opening therethrough of slightly greater diameter than and adapted to take over said gas conducting pipe, means for supporting said core a short distance above the inner cone, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, a float resting upon the surface of said seal, a short sand pipe carried by said float and having its lower end maintained thereby constantly a short distance above the surface of said seal, a flexible tubular connection between the upper ends of said stand pipe and the flow pipe, and a draw-off cock connected to the truncated apex of the outer cone, for the purpose set forth. 14th. An acetylene gas apparatus comprising a cylindrical body portion, a pair of truncated cones connected together and to the power end of said body portion, at their bases, registering openings cut through said body portion and the inner cone, the edges of said openings being connected by a diaphragm, a drawer adapted to be slid into the passage formed by said openings and diaphragm, said drawer having its inner end formed of wire mesh or the like, a dome of less diameter than and taking into said cylindrical body portion, a water seal in said body portion and sealing the lower end of said dome, a gas conducting pipe connected at its lower end to the truncated apex of said inner cone and leading through said seal to a point above the surface thereof, a core located in said cylindrical body portion and consisting of a cylindrical drum having a longitudinal opening therethrough of slightly greater diameter than and adapted to take over said gas conducting pipe, means for supporting said core a short distance above the inner cone, a gas flow pipe leading from a point above the water seal in the dome downwardly through said seal and out of the body portion, a float resting upon the surface of said seal, a short stand pipe carried by said float and having its lower end maintained thereby constantly a short distance above the surface of said seal, a flexible tubular connection between the upper ends of said stand pipe and flow pipe, and a draw-off connected to the truncated apex of the outer cone for the purpose set forth.

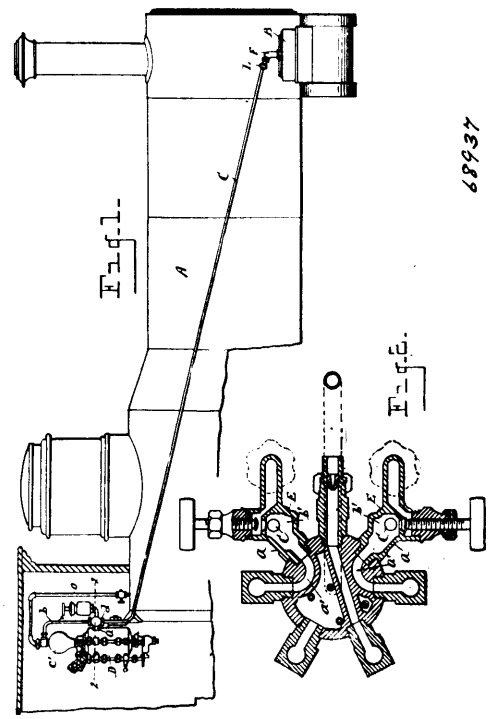
No. 68,936. Buckle. *(Boucle.)*



Delmar Glendower Hurd, Lowell, and R. E. McGee, and J. E. Mitchell, and F. N. Anthony, Fall River, all in Massachusetts, U.S.A., 8th October, 1900; 6 years. (Filed 17th Septembr, 1900.)

Claim.—1st. The combination of a frame having a front bar, provided with a transverse ledge on its inner face, and having a rear transverse bar for the attachment of a strap, and a binder pivoted in said frame between the ends thereof and having its nose or front edge arranged above said ledge and having its rear end in front of said rear transverse bar outwardly offset to receive the free end of said strap above said frame. 2nd. The combination of a frame having a front bar, provided with a transverse ledge on its inner face, and a binder, consisting of a skeleton pivoted in said frame between the ends thereof and having its nose or front edge arranged above said ledge and having its rear end outwardly offset and bent upward to receive a strap of the full width of said nose, the upward pressure of said strap on the rear end of said binder holding said nose down upon the portion of said strap passing between said nose and said ledge.

No. 68,937. Lubricator. *(Graisseur.)*

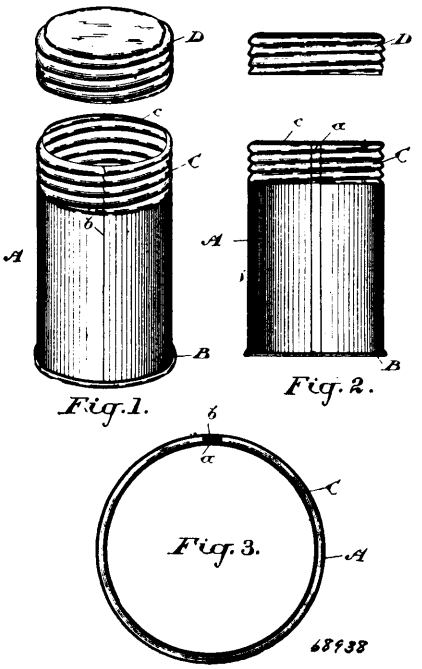


The Michigan Lubricator Company, assignee of George B. Essex, all of Detroit, Michigan, U.S.A., 8th October, 1900; 6 years. (Filed 17th September, 1900.)

Claim.—1st, In a lubricator for locomotives, the combination of the lubricator, the tallow pipe communicating with the boiler, through the lubricator by way of an unrestricted passage of an area sufficient to fill the tallow pipe with steam from the boiler at boiler pressure, the lower end of the tallow pipe communicating with the steam chest, the valve controlling the communicating opening between said pipe and the steam chest, there being a reduced aperture establishing communication between the tallow pipe and the steam chest, distinct from and independent of said valve-controlled opening. 2nd. In a lubricator for locomotives, the combination of the lubricator, the tallow pipe communicating with the boiler through said lubricator, the lower end of the tallow pipe communicating with the steam chest, a diaphragm in said communicating passage having a valve-controlled aperture, the valve adapted to close said aperture, there being a reduced passage establishing communication between the tallow pipe and steam chest independent of said valve-controlled aperture. 3rd. In a lubricator for locomotives, the combination of the lubricator, the tallow pipe communicating with the boiler through said lubricator, the coupling uniting the lower end of the tallow pipe with the steam chest, the inclined diaphragm in said coupling, there being an aperture through said diaphragm, the ball valve adapted to close said aperture, but normally lying away therefrom, there being another and reduced aperture through said diaphragm independent of said valve-controlled aperture. 4th. In a lubricating apparatus provided with suitable cylinder and equalizing pipe connections, and in combination with the lubricator and the steam chest or cylinder, a duct connecting the same, containing a minimum supply choked passage, a relatively larger by-passage, separate and distinct from the minimum supply choked passage, and a valve for controlling said by-passage automatically seated by the pressure within the duct on the lubricator side and automatically unseated by gravity when pressure is on the

cylinder side. 5th. In a lubricator apparatus provided with suitable cylinder and equalizing pipe connections and in combination with the lubricator and the steam chest or cylinder, a duct connecting the same, containing a minimum supply choked passage, a relatively larger by-passage, separate and distinct from the minimum supply choked passage, and a valve for controlling said by-passage, said valve presenting surfaces of equal area to the steam in the duct on the cylinder and on the lubricator sides.

No. 68,938. Can. (*Bidon.*)



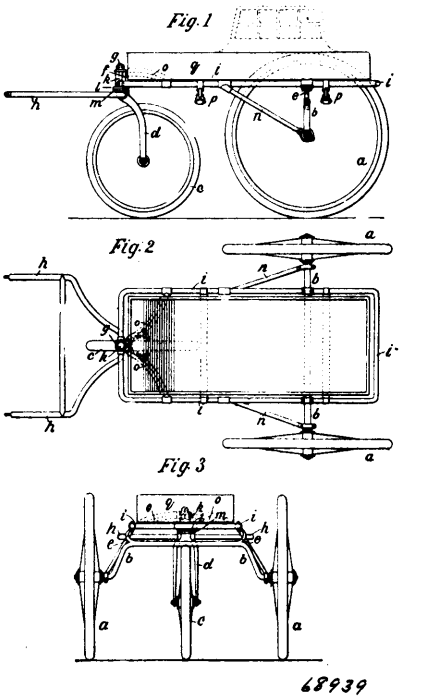
William Tassie Tassie, assignee of Albert E. Donovan, both of Toronto, Ontario, Canada, 8th October, 1900; 6 years. (Filed 15th September, 1900.)

Claim.—1st. A screw top can, having its body formed of a seamed sheet metal cylinder with a screw thread rolled or otherwise formed in it at its upper end, substantially as and for the purpose specified. 2nd. A screw top can, having its body formed of a sheet metal cylinder having a folded vertical seam therein and formed with a screw thread rolled or otherwise produced at its upper end, substantially as and for the purpose specified. 3rd. In a screw top can, a body formed with a flush folded vertical seam and having a screw thread rolled or otherwise produced in its upper end, substantially as and for the purpose specified.

No. 68,939. Vehicle Gear. (*Engrenage de vehicules.*)

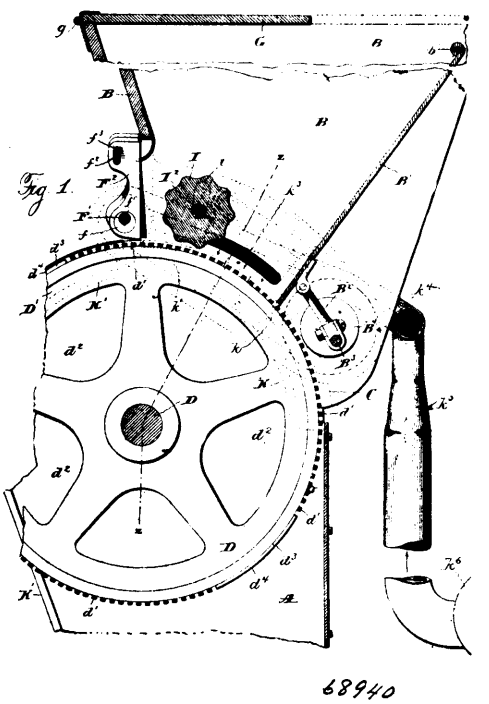
The Safety Three Wheel Vehicle Company, New York City, assignee of James E. Bloomer, Freeport, and William F. Meader, New York City, all in the State of New York, U.S.A., 8th October, 1900; 6 years. (Filed 17th October, 1899.)

Claim.—1st. In a vehicle frame or running gear, the combination with a curved or arched rear axle and wheels thereon, and a forward fork and wheel therein, said fork bearing a post, of a sleeve adapted to receive and retain such post, a frame *i* connecting the upper part of said axle with one end of said sleeve, braces connecting the ends of the lower parts of said axle with said frame *i*, and braces connecting said frame *i* with the other end of said sleeve, substantially as herein set forth. 2nd. In a vehicle frame or running gear, the combination with a curved or arched rear axle and wheels thereon, said axle bearing goose necks *e*, *e* on its upper or raised portion, and a forward fork and wheel therein, said fork bearing a post, of a sleeve adapted to receive and retain said post, a frame *i* connecting said goose necks with one end of said sleeve, braces connecting the ends or lower parts of said axle with said frame *i*, and braces connecting said frame *i* with the other end of said sleeve, substantially as herein set forth. 3rd. In a vehicle frame or running gear, the combination with a rear axle and wheels thereon, said axle bearing goose necks *e*, *e* and a forward fork and wheel therein, and a fifth wheel device, of a connecting frame joining said axle with said fifth



wheel device, comprising the rectangular frame *i*, the braces *n*, *n*, and the braces *o*, *o*, substantially as herein set forth.

No. 68,940. Mechanism for Feeding Match Splints.
(*Mecanisme pour alimenter les éclises pour allumettes.*)



The Match Diamond Company, Chicago, Illinois, assignee of Jacob Pulver Wright, New Haven, Connecticut, U.S.A., 8th October, 1900; 18 years. (Filed 7th October, 1899.)

Claim.—1st. In a machine for feeding splints and the like, in combination with a hopper and a travelling pocketed feeder narrower than the opening of the hopper, and taking directly from the latter, means for injecting a continuous current of air under pres-

sure greater than that of the atmosphere into the hopper at a point below the top of the mass of splints therein, and in such relation to the feeder as to force the splints in the lower part of the hopper towards the pocket of the feeder, substantially as and for the purpose specified. 2nd. In a machine for feeding splints and the like, in combination with a hopper, a travelling pocketed feeder, narrower than the hopper interior, passing through the hopper so as to be in contact with and support the mass of splints or the like therein, and means for injecting air under pressure greater than that of the atmosphere into the hopper at a point where it will engage the splints in the lower part of the mass in the hopper, substantially as and for the purpose shown. 3rd. In a machine for feeding splints and the like, in combination with a hopper, a travelling pocketed feeder moving past the open lower part of the hopper so as to be in contact with and support the mass of splints or the like therein, and having one or more openings through the bottom of each of its pockets, and means for injecting air under pressure greater than that of the atmosphere into the hopper, at a point where it will engage the splints in the lower part of the hopper near the travelling pocketed feeder, substantially as and for the purpose set forth. 4th. In a machine for feeding splints and the like, in combination with a hopper, a travelling pocketed feeder moving past an opening in the hopper so as to be in contact with and serve as a support for the mass of splints or the like therein, and having in the bottoms of its pockets elongated openings, and means for injecting air under pressure greater than that of the atmosphere into the interior of the hopper, so that it will directly engage the splints in the hopper near the travelling pocketed feeder, substantially as and for the purpose set forth. 5th. In a machine for feeding splints and the like, in combination with a hopper, a travelling feeder having a pocketed surface moving past an opening in the hopper so as to be in contact with the splints in such opening, one or more openings in the bottoms of the pockets, and large openings beyond the pockets, and means for injecting air under pressure into the hopper, substantially as and for the purpose specified. 6th. In a machine for feeding splints and the like, in combination with a hopper, a travelling feeder having a pocketed surface of a width less than that of the hopper and than the length of the splints or the like to be fed, passing an opening in the hopper, so as to be in contact with the splints or the like therein, and means for injecting air under pressure into the hopper on opposite sides of the latter, substantially as and for the purpose shown. 7th. In a machine for feeding splints and the like, in combination with a hopper, a travelling feeder having a pocketed surface moving past an opening in the hopper, through which the splints or the like can fall down upon the pocketed surface of the feeder, such surface being narrower than such opening, and means for injecting air under pressure into the hopper on opposite sides thereof at points near the hopper opening, substantially as and for the purpose set forth. 8th. In a machine for feeding splints and the like, in combination with a hopper, a travelling feeder having a pocketed surface moving past an opening in the hopper and made narrower than such opening, a source of supply of air under pressure, and means for directing such air into the hopper on opposite sides thereof, at points near the hopper opening, and in an inward and downward direction with reference to such opening, substantially as and for the purpose described. 9th. In a machine for feeding splints and the like, in combination with a hopper provided with an opening and with air passages extending into its interior on opposite sides near the hopper opening, such passages being adapted to direct the air at an angle downward and inward with reference to the hopper opening, a source of supply of compressed air connected with the air passages, and a travelling feeder having a pocketed surface moving past the hopper opening, made narrower than such opening and arranged to allow the air in the hopper to pass outward between its opposite sides and the sides of the hopper opening, substantially as and for the purpose specified. 10th. In a machine for feeding splints and the like, in combination with a hopper having an opening, a rotary drum with pocketed periphery moving past the hopper opening and made narrower than such opening, a casing on opposite sides of the drum at a distance therefrom, ribs on such casing extending inward to the sides of the drum and arranged to leave an open throat on each side of the drum opposite the opening in the hopper, and means for injecting air under pressure into the hopper, substantially as and for the purpose shown. 11th. In a machine for feeding splints and the like, in combination with a hopper having an opening, a rotary feed drum with pocketed periphery moving past such opening and made narrower than the latter, a casing having uprights on opposite sides of the feed drum, provided with ribs extending inward to the sides of the drum, except for a distance directly below the opening in the hopper, where the ribs are arranged to leave a throat or passage downward between the drum and casing sides, and means for injecting air under pressure into the hopper, substantially as and for the purpose set forth. 12th. In a machine for feeding splints and the like, the combination with a hopper having an opening, a rotary feed drum having a pocketed periphery, narrower than such opening, a casing extending upon opposite sides of the drum, having, on each side of the drum, a rib or plate extending inward to the drum side, and running from a point to the rear of the hopper to a point below the hopper opening, where it is provided with an upwardly extending part, and another similar rib or plate, beginning at a point below the hopper opening, where it is provided with an upward projection, and running forward to a point beyond the hopper, a source of supply of air under pressure, and means for directing such air into the hopper at points near the opening therein, substantially as and for the purpose described. 13th. In a machine for feeding splints and the like, in combination with the hopper having an opening, and the two air passages, on opposite sides, extending inward and downward with reference to the hopper opening, a source of supply of air under pressure, connected with such passage, a rotary feed drum having a pocketed periphery moving past such opening and made narrower than the latter, substantially as and for the purpose specified. 14th. In a machine for feeding splints and the like, in combination with the hopper having an opening, and the two air passages, on opposite sides, extending inward and downward with reference to the hopper opening, a source of supply of air under pressure, connected with such passages, a hollow rotary feed drum having a pocketed periphery moving past such opening and made narrower than the latter, and having the bottom of the pockets provided with one or more openings, communicating with the interior of the drum, substantially as and for the purpose set forth. 15th. In a machine for feeding splints and the like, in combination with a hopper having an opening, and means for injecting air under pressure into the hopper, a hollow rotary feed drum made narrower than the hopper opening, revolving in contact with the mass of splints in the hopper, and having, in its periphery, pockets with elongated openings in their bottoms, made long enough to permit the passage of pieces of splints or broken splints, substantially as and for the purpose set forth. 16th. In a machine for feeding splints and the like, in combination with a hopper having an opening, and means for infecting air under pressure into the hopper, a hollow rotary reed drum moving past the hopper opening, so as to form a support for the splints or the like in the hopper, and having its periphery provided with one ore more series of pockets, each having a bottom arranged to support a splint or the like at points near its end, and made open between such points, and one or more large openings beyond the pockets, communicating with the interior of the drum, substantially as and for the purpose described. 17th. In a machine for feeding splints and the like, in combination with a hopper and a travelling seeder having a pocketed surface moving past an opening in the hopper, so as to engage and form a support for a portion of the mass of splints in the hopper, a heavy, freely turning roller in the hopper, made capable of rising and falling movement with reference to the feeder, and means for injecting air under pressure into the lower part of the hopper, substantially as and for the purpose specified. 18th. In a machine sor feeding splints and the like, in combination with a hopper, a travelling feeder having a pocketed surface moving below an opening in the hopper so that the mass of splints in the hopper rests upon it, and having elongated openings in the bottom of its pockets, adapted to allow the passage of broken pieces of splints, and a heavy fluted freely turning roller within the hopper above the feeder made capable of yielding freely upward away from such feeder, substantially as and for the purpose shown.

No. 68,941. Wireless Telegraphy. *(Telegraphe sans fils.)*

Fig. 1.

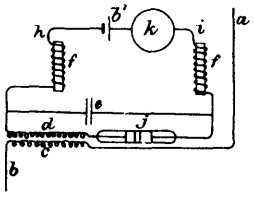
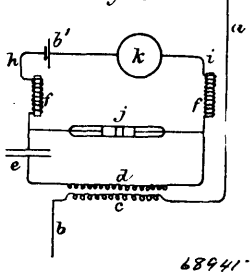


Fig. 2.



68941

The Wireless Telegraph and Signal Company, assignee of Guglielmo Marconi, all of London, England, 8th October, 1900; 6 years. (Filed 25th May, 1899.)

Claim.—1st. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, a capacity, a conductor connected to one end of the primary of the coil, a connection between the other end and the capacity, connections between the ends of the imperfect contact and

the ends of the secondary of the coil and a condenser in one of the latter connections. 2nd. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, a local battery and relay included in the local circuit, choking coils respectively included in said circuit between terminals of the imperfect electrical contact and the battery and relay, an induction coil, a capacity, a conductor connected to one end of the primary of the coil, a connection between the other end and the capacity, connections between the ends of the imperfect contact and the ends of the secondary of the coil, and a condenser in one of the latter connections. 3rd. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary and secondary of which consist of a single layer only, a capacity, a conductor connected to one end of the primary of the coil, a connection between the other end and the capacity and connections between the ends of the imperfect contact and the ends of the secondary of the coil. 4th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary and secondary of which consist of a single layer only, a capacity, a conductor connected to one end of the primary of the coil, a connection between the other end and the capacity and connections between the ends of the imperfect contact, the ends of the secondary coil, and a condenser in one of the latter connections. 5th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary and secondary of which consist of a single layer only, and in which the primary consists of a number of parallel wires connected at their ends, a capacity, a conductor connected at one end to the primary of the coil, a connection between the other end and the capacity and connections between the ends of the imperfect contact and the ends of the secondary of the coil. 6th. In a receiver for electrical oscillations, the combinaton of an imperfect electrical contact, a local circuit through it, an induction coil, the primary and secondary of which consist of a single layer only, and in which the primary consists of a number of parallel wires connected at their ends, a capacity, a conductor connected to one end of the primary of the coil, a connection between the other end and the capacity and connections between the ends of the imperfect contact, the ends of the secondary of the coil and a condenser in one of the latter connections. 7th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary and secondary of which are both of wire not exceeding one-fiftieth of a centimeter in diameter, a capacity, a conductor connected to one end of the primary of the coil, a connection between the other end and the capacity and connections between the ends of the imperfect contact and the ends of the secondary of the coil. 8th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary and secondary of which are both of wire not exceeding one-fiftieth of a centimeter in diameter, a capacity, a conductor connected to one end of the primary of the coil, a connection between the other end and the capacity and connections between the ends of the imperfect contact, the ends of the secondary of the coil and a condenser in one of the latter connections. 9th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 10th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 11th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which consists of several layers, the number of turns in the outer layers being less than those next the primary a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in the connection to the inner end of the secondary. 12th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 13th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 14th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil. the secondary of which is wound in sections each consisting of several layers, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 15th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which is wound in sections each consisting of several layers, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 16th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which is wound in sections each consisting of several layers, the ends of the secondary leading from the outer layers of two of the sections, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 17th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which is wound in sections each consisting of several layers, the ends of the secondary leading from the outer layers of two of the sections, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 18th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than in those next the primary, the ends of the secondary leading from the outer layers of two of the sections, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 19th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than in those next the primary, the ends of the secondary leading from the outer layers of two of the sections, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 20th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 21st. In a receiver for electrical oscillations the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 22nd. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in the connection to the inner end of the secondary. 23rd. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 24th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 25th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections

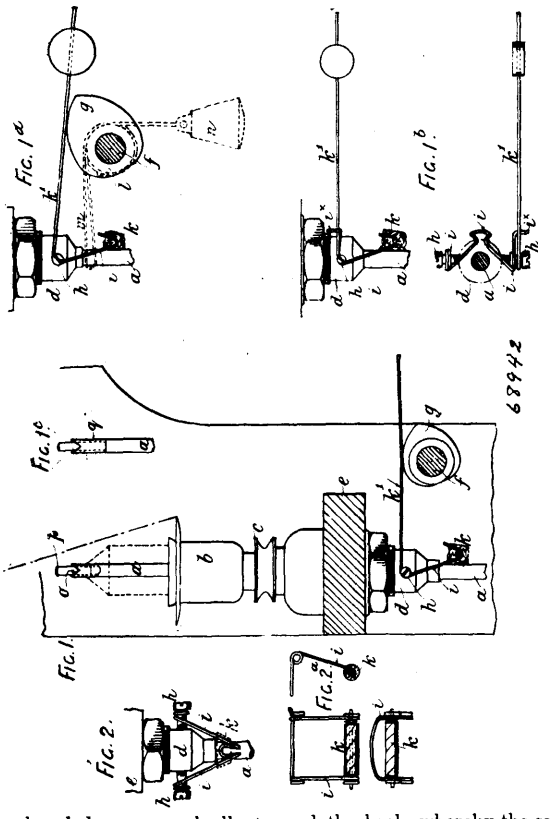
between the ends of the imperfect contact and the ends of the secondary, and a condenser in the connection to the inner end of the secondary. 26th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consist of two wires connected in parallel wound in two layers, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 27th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact, and the ends of the secondary, and a condenser in one of the latter connections. 28th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which is wound in sections each consisting of several layers, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 29th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which is wound in sections each consisting of several layers, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 30th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which is wound in sections each consisting of several layers, the ends of the secondary leading from the outer layers of two of the sections, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condensor in one of the latter connections. 32nd. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than in those next the primary, the ends of the secondary leading from the outer layers of two of the sections, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 33rd. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which is wound in sections each consisting of several layers, the number of turns in the outer layers being less than in those next the primary, the ends of the secondary leading from the outer layers of two of the sections, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 34th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 35th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 36th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in two layers, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in the connection to the inner end of the secondary. 37th. In a receiver for electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in four layers the first and second layers being formed of one wire and the third and fourth of the other, the second of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 38th. In a receiver for electrical oscillations, the combination of an imperfect electrical contract, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in four layers, the first and second layers being formed of one wire and the third and fourth of the other, secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections. 39th. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in four layers, the first and second layers being formed of one wire and the third and fourth with the other, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary and a condenser in the connection to the inner end of the secondary. 40th. In a receiver for electrical osscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in four layers, the first and second layers being formed of one wire and the third and fourth of the other, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, and connections between the ends of the imperfect contact and the ends of the secondary. 41st. In a receiver for electrical oscillations, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in four layers, the first and second layers being formed of one wire and the third and fourth of the other, the secondary of which consists of several layers, the number of turns in the outer layers being less than in those next the primary, and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the end of the imperfect contact and the ends of the secondary, and a condenser in one of the latter connections 42nd. In a receiver for electrical oscillat ions, the combination of an imperfect electrical contact, a local circuit through it, an induction coil, the primary of which consists of two wires connected in parallel wound in four layers, the first and second layers being formed of one wire and the third and fourth of the other, the secondary of which consists of several layers, the number of turns in the outer layer being less than in those next the primary and wound unsymmetrically with a lump at one end, a capacity connected to one end of the primary, a conductor connected to the other end, connections between the ends of the imperfect contact and the ends of the secondary, and a condenser in the connection to the inner end of the secondary.

No. 68,942. Apparatus for Spinning Fibrous Substances. (*Appareil pour filer les matières fibreuses.*)

Thomas Ashworth, Urmston, Lancaster, England, 10th October, 1900; 6 years. (Filed 30th May, 1899.)

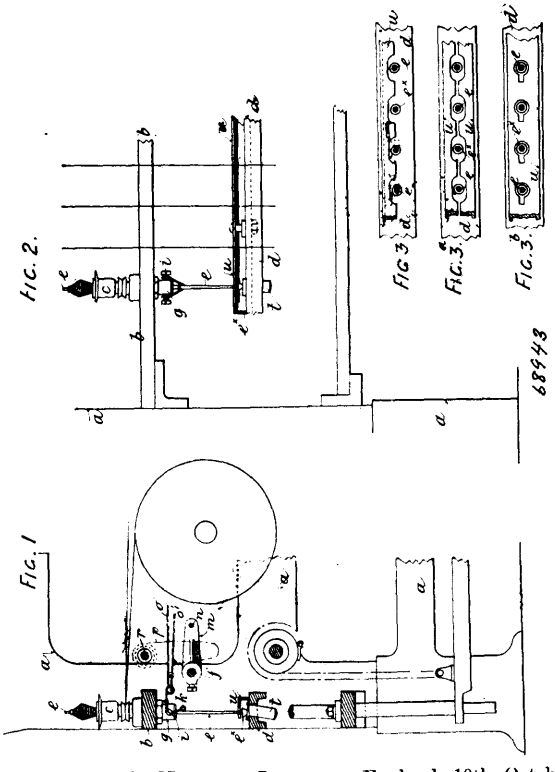
Claim.—1st. A spindle provided at the top with a tubular part having vandykes or points, and means for filling said tubular part, as and for the purpose described. 2nd. A spindle bored out and plugged at the top and having vandykes or points, as and for the purpose described. 3rd. A tubular flier with a cup or trumpet shaped mouth at the top and a long tube fixed in the bolster and provided with a shoulder outside, and carrying a loose shell with a corresponding shoulder inside, in combination with a spindle, revolving in the fixed tube and the shell hanging loosely on the shoulder and supporting the tubular flier, with means whereby the shell can rock slightly on the shoulder, but cannot revolve, as and for the purpose described. 4th. The combination of a spindle rail with a footstep for spindles loosely fitted in the hole in the spindle rail and provided with

means whereby it is prevented from turning, and provided with a flange at the top and resting on the rail, the underside of such flange



being beveled away gradually toward the back, whereby the said footstep may have a constant tendency to fall forward at the bottom, substantially as hereinbefore described.

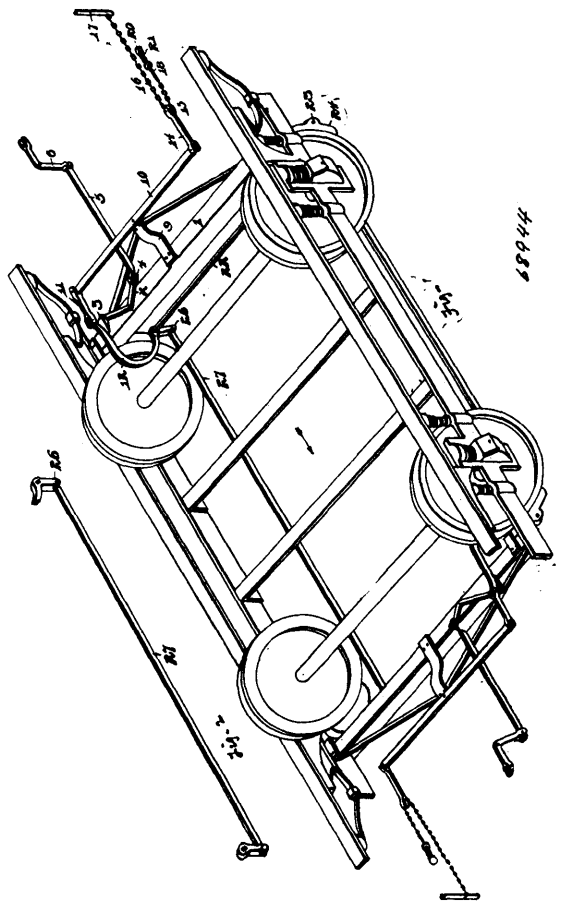
No. 68,943. Apparatus for Spinning Fibrous Substances. (*Appareil pour filer les matières fibreuses.*)



Thomas Ashworth, Urmston, Lancaster, England, 10th October, 1900; 6 years. (Filed 30th May, 1899.)

Claim.—1st. The combination with a series of spindles and loose hanging brake frames of a series of light wire levers acting upon such frames and a series of chains connected at one end with such levers, falling into a festoon or loop, and with means at the other end for regulating the lengths of such loops, and with means for raising and lowering such levers to take the weight of such loops off the hanging brake frames, or to put the same on as required. 2nd. The combination with spindles and loose hanging frame brakes adapted to make contact therewith, of weight levers for such brakes, and a lifting rail or wire for said levers, a rocking shaft to actuate said rail, and a chain, connected at one end to the weighing levers, hanging loose in the form of a loop, and a shaft on which the other end of the chain may be wound or unwound, as and for the purpose described.

No. 68,944. Car Brake. (*Frein de chars.*)

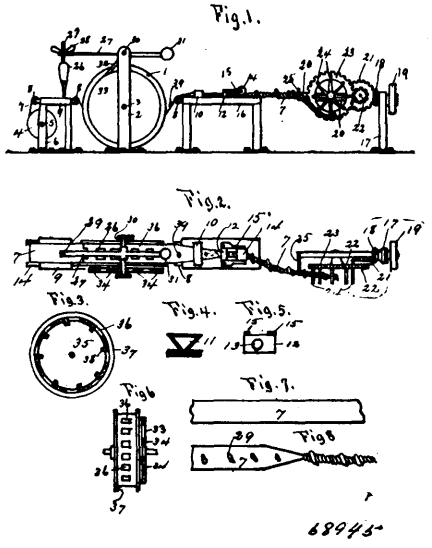


William T. Shryock, Allegheny, Pennsylvania, U.S.A., 10th October, 1900; 6 years. (Filed 22nd September, 1900.)

Claim.—1st. The combination with the brake beam and brake shoes, a main lever connected to each beam, means for operating said levers, and means carried by the truck for graduating the position of the main lever, substantially as described. 2nd. The combination with the brake beam and brake shoes, and the connecting-rods connecting said beams, of means for operating the brake beams, and a main lever connected to each brake beam, one of which levers is dormant and the other native, with means for graduating the position of the dormant lever. 3rd. In a car brake, the combination with the brake beams and the rods connecting said beams, of means for operating said beams, and a main lever connected to each beam, one of said levers being normally dormant and the opposite one being normally active, with means for graduating the position of the dormant lever. 4th. In a car brake, a brake rod operating in the direction the car truck is moving, an auxiliary draft rod suitably connected thereto and operating in an opposite direction, a lower draft rod operating in the same direction, a cushioning connection between the said draft rods, a compound lever, an inclined extension or frame formed integral with the upper end thereof adapted to be connected to the lower draft rod, a compression rod carrying a plate on its lower end arranged in the said frame adapted to be engaged by the lower draft rod, a tension spring mounted on the said rod for cushioning the upward movement of the lower draft rod when the same is brought into engagement with the lower draft rod, means arranged in the said lever for limiting the movement of the

lower draft rod, a forward brake shoe, a brake beam connected to the said lever and operated thereby so as to cause the said brake shoe to engage the forward side of the forward wheel or wheels of a car truck, a rear brake shoe, connections between the said rear brake shoe, and compound lever adapted to be operated by the said lever so as to cause the rear brake shoe to engage the rear side of the rear wheel or wheels of a car truck, substantially as described.

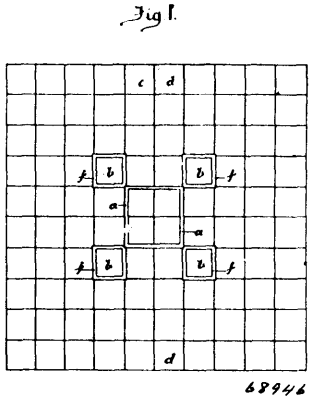
No. 68,945. Machine for Preparing Seeds for planting.
(Machine pour preparer les graines à ensemencer.)



Elijah F. Israel, Wichita, Kansas, U.S.A., 10th October, 1900; 6 years. (Filed 6th July, 1900.)

Claim.—1st. The herein described machine consisting of a reel for holding a long strip of paper, a receptacle for holding glue or its equivalent, a receptacle for holding seeds, a mechanism for twisting said strip of paper, and a reel for winding said strip of paper upon when twisted. 2nd. The herein described machine for preparing seeds for planting consisting of a reel for holding a long strip of tissue-paper a hollow seed-wheel having one or more openings in its periphery, a receptacle for holding glue or its equivalent adapted to be dropped on said strip of paper at certain intervals, and a mechanism for twisting said strip of paper with the seed therein, and winding the same on a reel. 3rd. The herein described machine for preparing seeds for planting, consisting of a reel for holding a long strip of tissue paper, a receptacle for holding glue or its equivalent adapted to be dropped on said paper at certain intervals, a receptacle for holding seeds to deliver said seeds to said strip of paper on said drop of glue, a reel adapted to be rotated in a double direction for twisting said paper, and gear wheels for rotating said reel. 4th. A single strip of narrow long paper, seeds placed at desired intervals thereon, and said paper twisted around said seeds.

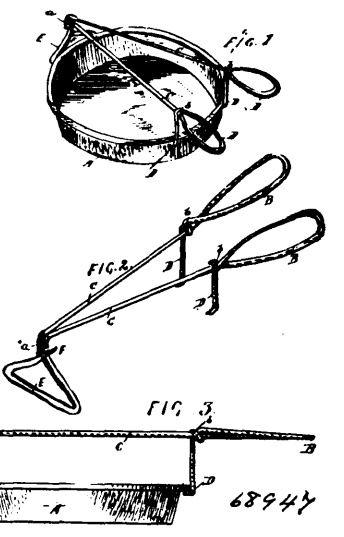
No. 68,946. Chess or Draught Game. *(Jeu.)*



Samuel Simmins, Heathfield, Sussex, England, 10th October, 1900; 6 years. (Filed 15th January, 1900.)

Claim.—1st. The new or improved chess board, having 100 squares with what I term a citadel or kings sanctuary and forts, consisting of the four central squares bounded by the distinguishing mark *a* and the four squares *b* bounded by the distinguishing mark *f*, for the purpose of playing my improved game of chess in combination with eight extra pieces, namely, four generals, and four pawns, substantially as described and illustrated herein and for the purpose set forth.. 2nd. The new or improved draught board having 100 squares with what I term citadel or kings sanctuary and forts, consisting of the four central squares bounded by the distinguishing mark *a* and the four squares *b* bounded by the distinguishing mark *f* for the purpose of playing my improved game of draughts in combination with 30 active pieces, that is to say, three rows of five for each player, substantially as described and illustrated herein and for porpose set forth.

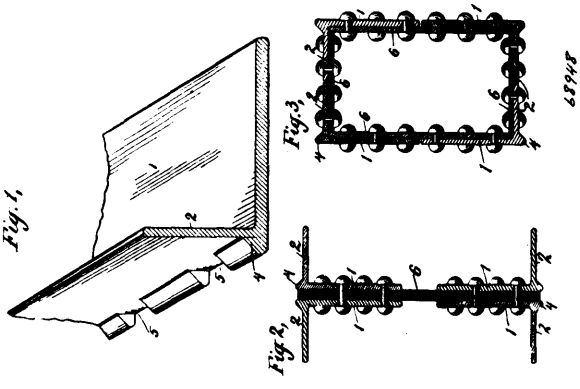
No. 68,947. Pan Lifter. *(Appareil à soulever les casseroles.)*



Edwin Hudson, Agosta, Ohio, U.S.A., 10th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. A pan lifter made from a piece of wire bent to form an elongated loop E, with stems, vertically disposed, and adapted to receive a segment of the rim of a pan, means to secure said stems of the wire together immediately above the loop, said stems being bent at substantially a slight angle to the loop and diverging rearwardly therefrom, and the end portion of each stem bent to form a looped handhold B, then around the stem at the inner end of the handhold and extending downwardly at substantially at a right angle to the stem and then inwardly to form the lifting hooks D, substantially as and for the purpose specified. 2nd. A pan lifter made from a piece of wire bent to form the vertically disposed elongated loop E, the rearwardly diverging stems C, leading from the loop at right angles thereto, the loop-shaped handholds at the rear ends of the stems and the lifting hooks D, projecting downwardly from the inner ends of the handholds, combined with a wrapping wire coiled around the two stems of the wire immediately above the loop B, one end of said wrapping wire projecting toward the lifting hooks D, and forming a supplemental lifter hook, substantially as and for the purpose specified.

No. 68,948. Angle Chair or Fitting. *(Chaise angulaire.)*

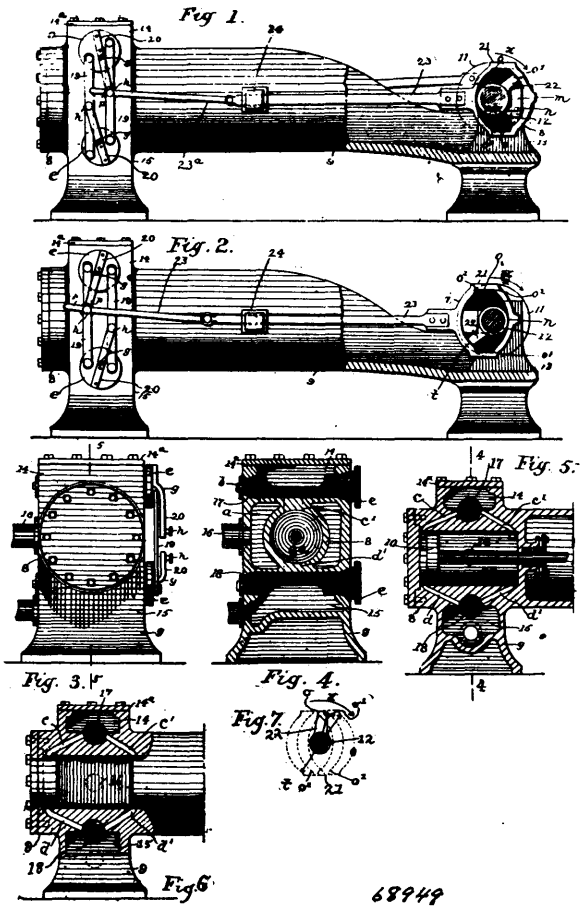


George A. Weber, Stamford, Connecticut, U.S.A., 10th October, 1900; 6 years. (Filed 24th September, 1900.)

Claim.—1st. A rolled angle bar, chair or fitting comprising a base, a flange extending upwardly from said base, and a strengthening

piece formed at the meeting line of said base and flange, said rib being oblique to both parts. 2nd. A built up structural shape comprising a web or webs and a plurality of angle bars, chair or fittings each having a rib or strengthening piece secured to said web or webs. 3rd. A rolled angle bar, chair or fitting comprising a base, a flange extending upwardly from said base and a strengthening piece formed at the meeting line of said base and flange and wholly on the outside thereof and of such size as to prevent deflection of said parts at their juncture.

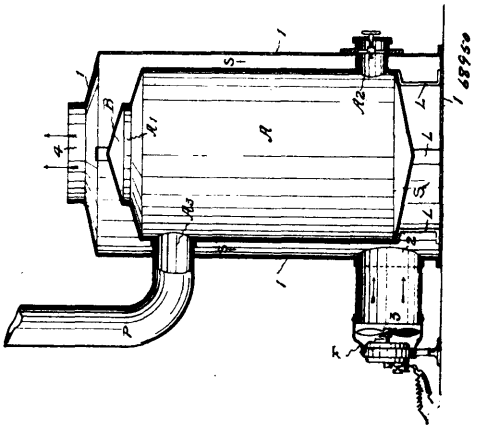
No. 68,949. Valve. *(Soupape.)*



Joseph Hamilton Ansell, Fort Washakie, Wyoming, U.S.A., 10th October, 1900; 6 years. (Filed 24th September, 1900.)

Claim.—1st. The combination with a cylinder having a live steam chest above the longitudinal bore thereof, and an exhaust steam chest below said bore, of a cylindric rockable valve in each steam chest, seated in transverse bores of the cylinder that cut through walls of said cylinder in the steam chest, the valves having each a flat side reducing their thickness opposite the openings of their seats in the cylinder, two diagonal steam ducts intersecting each valve seat, and extending therefrom to intersect the longitudinal bore of the cylinder near its ends, and means to rock said valves. 2nd. In a steam engine, the combination with a supported cylinder having the wall thereof thickened above and below the bore, a steam chest on the upper side and on the lower side of the cylinder, said cylinder being transversely bored in the thick portions of its wall to afford seats for valves, a rocker valve for each chest, substantially cylindric at the ends and flattened between the ends, means to hold the valves in place, steam ducts formed in the thickened portions of the cylinder side wall, two for each steam chest, and trending from the bore of the cylinder near each end to intersect the seat of the rocker valve in said steam chest, of two parallel bars pivoted on the outer ends of the valves, a radius bar secured at at one end on each valve intermediately of the parallel bars, a pin on each radius bar near its free end, a cam block on the transverse crank shaft, and a rod extending from the cam block to hook upon a pin on one of the radius bars. 3rd. In an engine valve gear for rocker valves located in steam chests respectively above and below the cylinder bore, parallel bars pivoted at their ends upon the outer ends of the rocker valves, a radius bar extended diagonally from each valve head and offset to move over the parallel bars, a pin on the free end of each radius bar, and a cam actuated valve rod which is adapted to engage its hooked end with the pin or either radius bar.

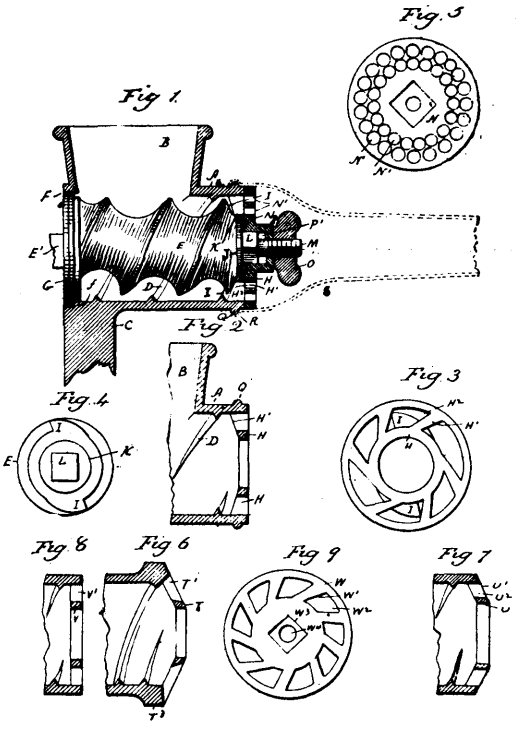
No. 68,950. Air Heating Stove. *(Poêle à air chaud.)*



William Ralph, Vancouver, British Columbia, Canada, 10th September, 1900; 6 years. (Filed 24th September, 1900.)

Claim.—1st. The combination with an air tight heater of an outer casing surrouding the same, an air space between the heater and such casing, an inlet conveying air to within such casing, an electrically driven fan to force air into the inlet and through the casing, and an outlet at the top for the escape of the heated air from the casing. 2nd. The combination with a slow combustion or air tight heater, of a bottom of flattened, conical form, an exterior casing to such heater, an air space between the heater and the exterior casing, a means for conveying the fuel to the heater, the air for combustion and the products thereof through the air space from and to the exterior connections, an opening near the bottom of such exterior casing, a pipe conveying the exterior air to within the air jacket, an electrically driven fan forcing the air through such pipe and casing, an opening in the top through which the heated air may escape, and means whereby such heated air may be divided and distributed.

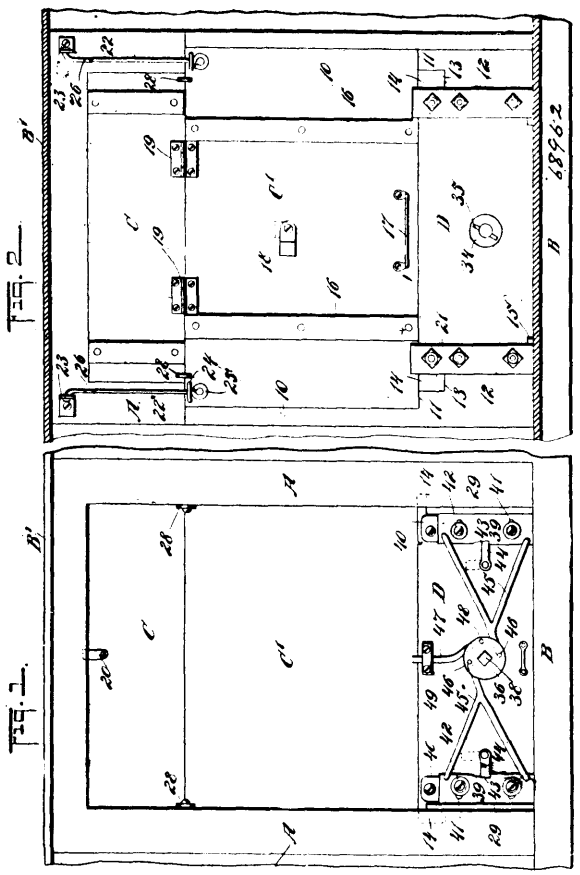
No. 68,951. Food Chopper. *(Hache-nourriture.)*



Levi Tracy Snow, New Haven, Connecticut, U.S.A., 10th October, 1900; 6 years. (Filed 24th September, 1900.)

Claim.—In a food chopper, the combination with a case having its outer end provided with a concentrically arranged bearing ring and cutting arms merging at their inner ends into the said ring, and at their outer ends into the case, the spaces between the said arms constituting discharge openings, of a screw like forcer formed at its forward end with one or more teeth which co-act with the inner ends of the inner faces of the said arms, and which are too short to reach the outer ends thereof, and therefore too short to extend across the outer portions of the said discharge openings, whereby relief is provided against undue pressure within the chopper between the forward end of the case and the forward end of the forcer.

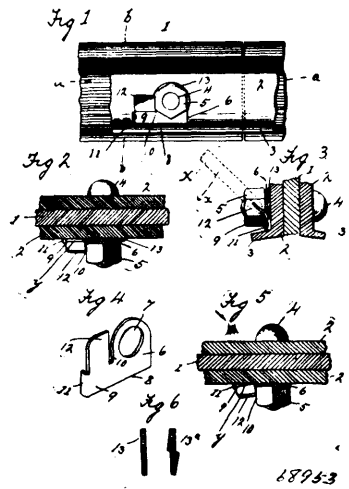
No. 68,952. Grain Door. (*Porte à grain.*)



John Flesher, Parry Sound, Ontario, Canada, 10th October, 1900; 6 years. (Filed 20th September, 1900.)

Claim.—1st. A frame, and a door for the frame, said door being constructed in sections, including an upper section, an intermediate section and a lower section, a hinge connection between the upper and the intermediate sections, and locking connections between the lower section and the intermediate section of the door, and the said lower section and the frame, as and for the purpose specified. 2nd. A frame and a door for the frame, said door being constructed in sections including an upper section, an intermediate section and a lower section, a hinge connection between the upper and the intermediate sections, a locking connection between the lower section and the intermediate sectton of the door, and the said lower section and the frame, hinges connecting the intermediate section of the door with the frame, the intermediate section of the door being capable of sliding on the said hinges, and locking devices for the intermediate section of the door carried by said hinges, as set forth. 3rd. A grain door, consisting of an intermediate section, an upper section hinged to the intermediate section, locking devices for the intermediate section independent of the upper section, a lower section adapted to have a pivoted support, locking devices for the lower section, means for locking the intermediate section to the lower section, and hinge bars having extensions, which hinge bars are held to slide in guides carried by the intermmediate section of the door, said guides being adapted for locking engagement with the extensions on the hinge bars, for the purpose set forth. 4th. A support, a grain door consisting of sections capable of folding one upon the other, each section being capable of intermediate locking engagement with said support, and hinge bars having sliding connection with an intermediate section of the door, and pivoted connection with the support. 5th. A frame having an opening therein and a door adapted to close said opening, which door consists of an upper, an intermediate and a lower section, a hinge and sliding connection between the intermediate section of the door and the said frame, and locking plates carried by the lower section, which section is independent of the other sections of the door, keepers located in the frame and adapted to receive the said locking plates, a spindle provided with a disc, and rods connected with the locking plates and with the said disc, as and for the purpose set forth. 6th. A frame having an opening therein and a door adapted to close the said opening, which door consists of an upper, an intermediate and a lower section, a hinge and sliding connection between the intermediate section of the door and the said frame, locking plates carried by the lower section, which section is independent of the other sections of the door, keepers located in the frame and adapted to receive said locking plates, a spindle provided with a disc, rods connected with the locking plates and with the said disc, a bolt carried by the lower section of the door, also connected with said disc and operated thereby, said bolt being adapted for engagement with the intermediate section of the door, and means, substantially as described, for securing the upper and lower sections of the door upon the intermediate section, for the purpose set forth.

No. 68,953. Nut Lock. (*Arrête écrou.*)



Elmer J. Timmons, Cincinnati, Ohio, U.S.A., 10th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1st. In a nut lock, the combination of a bolt, a nut screwed thereon and a locking plate comprising a body perforated for the passage of the bolt and a wing having at one side a flange adapted for contact with the part through which the bolt is passed to hold the locking plate spaced away from such part and provided at the same side with a portion adapted to be bent in position to engage the side of the nut to hold the same against turning movement, substantially as set forth. 2nd. In a nut lock, the combination of a bolt, a nut screwed thereon, a washer on said bolt between the part through which the bolt is passed and the nut, and a locking plate comprising a body perforated for the passage of the bolt and held thereon between the washer and nut, and a wing having a flange for contact with the part through which the bolt is passed for holding said part and the wing spaced away from each other, said wing being provided with a portion adapted to be bent in position to engage the flat side of the nut to hold the same against turning, substantially as set forth.

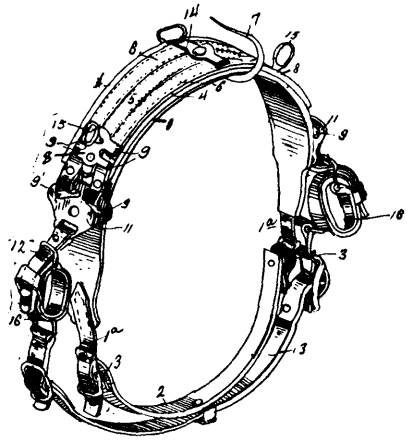
No. 68,954. Harness Saddle. (*Selle de harnais,*)

William O. Campbell and William H. Mickey, both of Peebles, Ohio, U.S.A., 10th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1st. In a harness saddle, the combination with the strap 1, the lower strap connected therewith, the strips connected with the edges of the strap 1, and the central strap secured to said strap 1, of the movable holdfast supported by the strap 1, the loops connected therewith adapted to be connected with the shafts of a vehicle and the belly band connected with said loops, substantially as described. 2nd. In a harness saddle, the combination with the strap 1, the lower strap connected therewith and the movable holdfast of the plates connected with said holdfast formed with segmental slots, the straps connected therewith provided with shaft loops and the belly band, substantially as described. 3rd. In a harness saddle, the combination with the strap 1, the strips secured to the edges thereof and the central strap, of the holdfast comprising the two

straps, the slotted plates secured thereto, the straps connected therewith provided with shaft loops, the belly band, and the guide plates

FIG. 1.



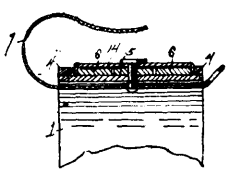


FIG. 2.

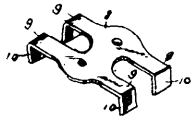
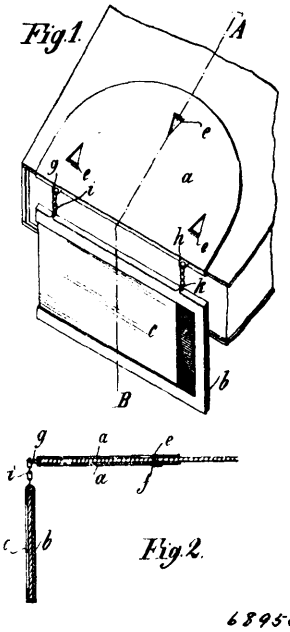


FIG. 3.

6895-4

secured to said central strap having their ends turned downwardly forming flanges engaging with the edges of the straps of the holdfast, substantially as described.

No. 68,955. Paper File. *(File à papier.)*

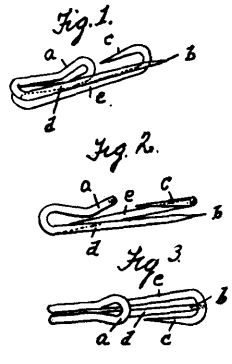


6895-5

George Kunkell, Rethen, near Hannover, Germany, 10th October, 1900; 6 years. (Filed 20th October, 1900.)

Claim.—Indicating means for use with paper files comprising in combination a duplicated clamping plate provided with points and holes to attach same to the file, a frame secured to the front edge of the clamping plate by means of short chains and a tablet adapted to receive inscriptions bearing reference to the character of the contents of the file said tablet to be inserted in the frame, substantially as described and shown.

No. 68,956. Safety Pin. *(Epingle de sûreté.)*

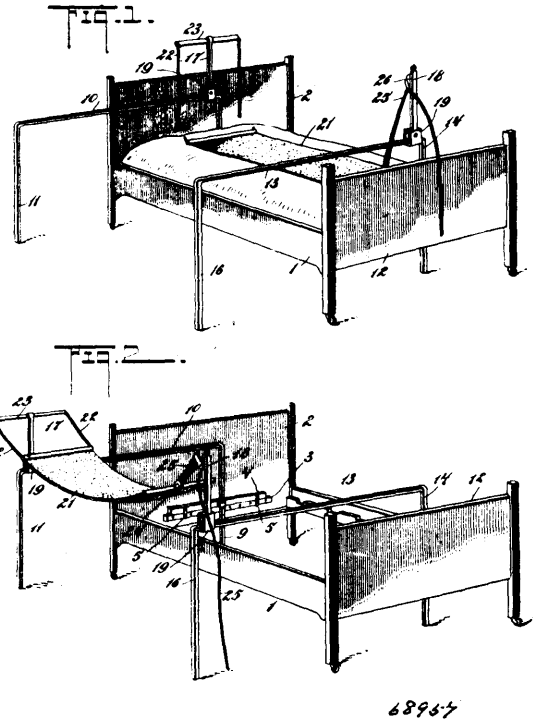


6895-6

George L. Bradshaw, Quincey, Illinois, U.S.A., 10th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1st. A pin formed of a doubled wire having the doubled end thereof bent to form a hook and one leg of the pin extending straight from the bail of the hook and pointed at its end and the other leg of the pin being deflected toward the hook and bent back upon itself, said bent over portion being pointed and resting parallel with the hook and out of the plane of the first leg. 2nd. A pin formed of doubled wire having a hook provided at the doubled end thereof, one leg of the pin extending straight from the bail of said hook and pointed at the end, the main portion of the other leg of the pin extending straight from the bail of the hook to a point near the end of the first leg and being deflected out of parallelism with the first leg, said second leg being bent around in a plane parallel with the transverse axis of the hook and pointed at its end, said pointed end being on the opposite side of the first leg to the main portion of the second leg. 3rd. A pin comprising the two legs, one of which has a point extending in one direction and the other having its end bent back over itself forming a point extending in a direction opposite to that of the first point, said legs being connected by a loop portion which is bent back over the leg portions to provide an engaging hook at the opposite end of the pin to the points, substantially as described.

No. 68,957. Invalid Bed Device. *(Lit d'invalide.)*



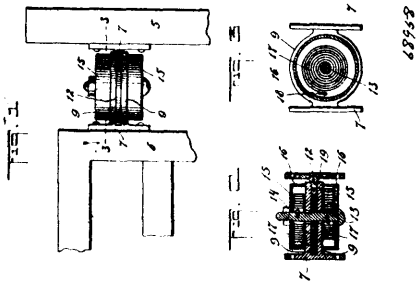
6895-7

Anna Elizabeth Countryman, Marcus, Iowa, U.S.A., 10th October, 1900; 6 years. (Filed 24th September, 1900.)

Claim.—1st. The combination with a bed, of horizontal tracks or rails supported at the head and foot of the bed, standards movable

on said rails, and a sling or hammock adapted for connection with the standards, substantially as specified. 2nd. The combination with a bedstead, of tracks or rails removable connected to the head and foot boards thereof, standards movable on said tracks or rails, rollers carried by the standards for engaging with the tracks or rails, a cross bar on one of the standards, a sling or hammock adapted for connection with said cross bar, and a rope or tackle connection between one end of said sling or hammock and the other standard, substantially as specified. 3rd. The combination with a bedstead, of strips secured to the head and footboards thereof, bars removably connected to said strips, sockets connected to the bars, rails or tracks having legs passing through said sockets and also having legs at the outer ends for engaging with the floor upon which the bed is placed, standards movable on said tracks or rails, and a sling or hammock adapted for connection with the standards, substantially as specified.

No. 68,958. Hinge. (*Penture.*)



William Francis McKee, New York City, New York, U.S.A., 10th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—A hinge consisting of two similar base plates secured one to a gate or door and one to the post, one of said plates being provided with two circular plates projecting at right angles therefrom and the other with a single circular plate which fits between the said circular plates, a pintle which passes centrally through the plates, springs mounted on the opposite ends of the pintel, the inner ends of each spring being secured to the said pintel, and the outer ends to the first-named circular plates and an independent detachable circular flanged inclosing cap for each spring held in position by the pintle, all as and for the purpose set forth.

No. 68,959. Upholstering Spring. (*Ressort pour meubles.*)

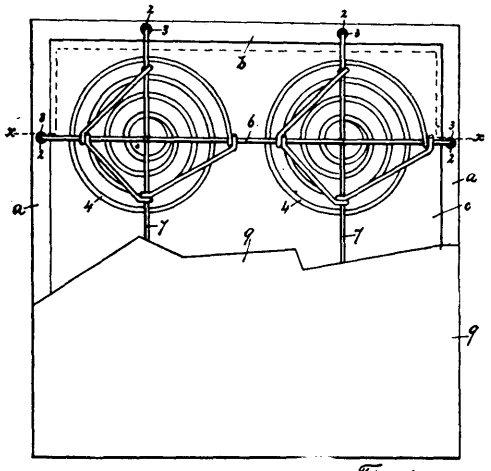


Fig. 1.

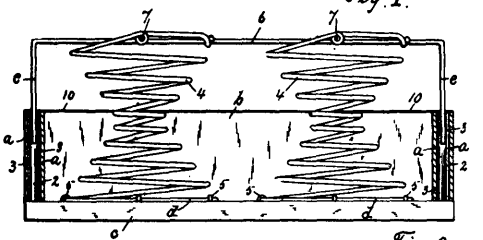


Fig. 2.

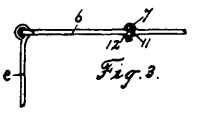


Fig. 3.

68959

Adelaide L. Cruttenden, St. Mary's, Ontario, 12th October, 1900; 6 years. (Filed 22nd December, 1898.)

Claim.—1st. In an upholstering spring, stay rods formed with angular end portions, in combination with a frame, in the sides and ends of which sockets are formed, and coil springs, the angular end portions of said stay rods being inserted and resting in said sockets, and means for securing said stay rods to one another and to the upper ends of said springs, and for securing the lower ends of said springs to said frame, substantially as and for the purpose set forth. 2nd. In an upholstering spring, stay rods formed with angular end portions, in combination with a frame, in the sides and ends of which sockets are formed, linings in said sockets, and coil springs, the angular end portions of said stay rods being inserted and resting in said sockets, and means for securing said stay rods to one another and to the upper ends of said springs, and for securing the lower ends of said springs to said frame, substantially as and for the purpose set forth.

No. 68,960. Lamp. (*Lampe.*)

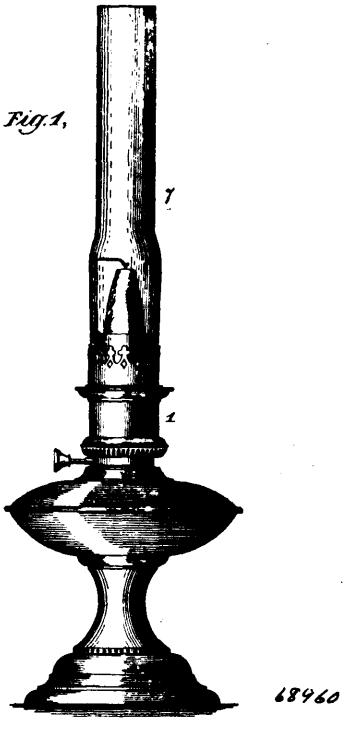


Fig. 1.

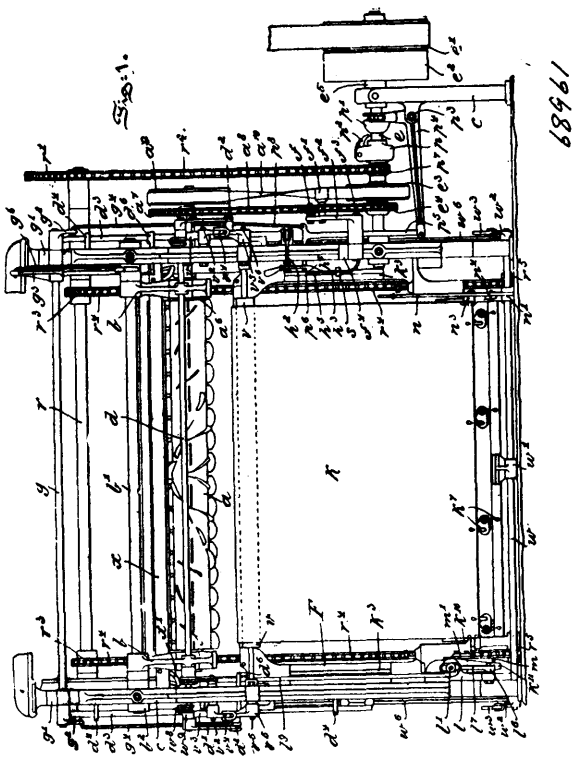
68960

Charles Lancaster Marshall, Newark, New Jersey, U.S.A., 12th October, 1900; 6 years. (Filed 3rd June, 1898.)

Claim.—1st. The combination, with a central draft tube, of a gasifier above the draft tube comprising an inner thimble closed at the top, open at the bottom, and perforated at the sides, a deflecting ring below the top and perforated sides of said inner thimble, and an outer ring surrounding the inner thimble, the construction and proportion of the parts being such that a blue or colourless flame may be produced projecting from the gasifier, substantially as described. 2nd. The combination, with a central draft tube, of a gasifier above the draft tube comprising an inner thimble closed at the top, open at the bottom, and perforated at the sides, said sides being contracted at the bottom, a deflecting ring below the top and perforated sides of said inner thimble, and an outer ring surrounding the inner thimble, the construction and proportions of the parts being such that a blue or colourless flame may be produced projecting from the gasifier, substantially as described. 3rd. A gasifier of the type described comprising an inner thimble closed at the top, open at the bottom, and perforated at the sides, a deflecting ring below the top and perforated sides of said inner thimble, and an outer ring surrounding the inner thimble, substantially as described. 4th. A gasifier of the type described comprising an inner thimble closed at the top, open at the bottom, and perforated at the sides, said sides being contracted at the bottom, a deflecting ring below the top and perforated sides of said inner thimble, and an outer ring surrounding the inner thimble, substantially as described. 5th. A gasifier of the type described consisting of a hollow metal body open at the bottom, and having imperforated sides and an opening above said imperforated sides for the escape of gases within it, substantially as described. 6th. A gasifier of the type described consisting of a hollow metal body open at the bottom and having a deflecting ring and imperforated sides above said deflecting ring, an opening being provided above said imperforated sides for the escape of gases within the gasifier, substantially as described. 7th. A gasifier of the type described consisting of a

hollow metal body open at the bottom and having a deflecting ring and imperforated sides extending upwardly from the outer edge of said deflecting ring, an opening being provided above said imperforated sides for the escape of gases within the gasifier, substantially as described.

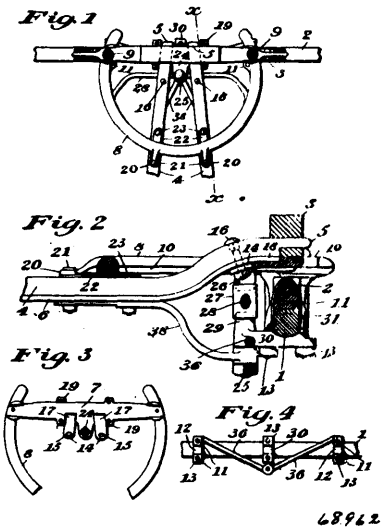
No. 68,961. Machine for Treating Hides, Skins and Leather. *(Machine pour le traitement des peaux, cuires, etc.)*



Joseph Hall, Leeds, York, England, 12th October, 1900; 6 years. (Filed 2nd March, 1899.)

Claim.—1st. In a machine of the character described, two working rolls or cylinders, a vertically arranged table adapted to be raised and lowered between said rolls, an apron passed around said table and adapted to receive the work, and mechanism for spreading said apron away from the table during the upward movement of said table, whereby a greater portion of said apron and the work thereon may be presented to the working rolls, substantially as and for the purposes described. 2nd. In a machine of the character described, two working rolls or cylinders, a vertically arranged table adapted to be raised and lowered between said rolls, an apron adapted to receive the work and passed around said table, means for shifting said apron on said table, and mechanism for spreading the apron away from the sides of the table during the upward movement of said table, substantially as and for the purposes described. 3rd. In a machine of the character described, two working rolls or cylinders, a vertically arranged table adapted to be raised and lowered between said rolls, an apron adapted to receive the work and passing around said table, means for moving said rolls toward or away from each other, and mechanism, controlled by said means, for spreading said apron during the upward movement of the table and the inward movement of the rolls, substantially as and for the purposes described. 4th. In a machine of the character described, a vertically arranged table, an apron passing around said table, two rollers arranged between the sides of the table and the apron and means for elevating said rollers to spread the apron away from the sides of said table, substantially as and for the purposes described. 5th. In a machine of the character described, two working rolls, or cylinders provided with blades, a vertically arranged table adapted to be raised and lowered between said rolls, an apron passed around said table and adapted to receive the work, and mechanism for spreading said apron away from the table during the upward movement of said table in combination with a sharpening device for the blade of the working rolls, the same comprising an oscillating bar, steels carried by said bar and adapted to engage the edges of the blades of the rolls, and means for swinging said bar, substantially as and for the purposes described. 6th. In a machine of the character described, two working rolls or cylinders provided with blade, a vertically arranged table adapted to be raised and lowered between said rolls, an apron passed around said table and adapted to receive the work, and mechanism for spreading said apron away from the table during the upward movement of said table, in combination with a sharpening device for the blades of said rolls, the same comprising a bar, steels carried by said bar, means for depressing said bar, to permit the steels to engage the steels to engage the blades of the rolls at points on the roll diametrically opposite to those at which the balades engage the work on said apron, and means for oscillating said bar in its depressed position to cause said steels to rub over the edges of said blades, substantially as and for the purposes described.

No. 68,962. Fifth Wheel for Vehicles.
(Roue d'avant train.)



Andrew Kimble, Zanesville, Ohio, U.S.A., 12th October, 1900; 6 years. (Filed 9th July, 1900.)

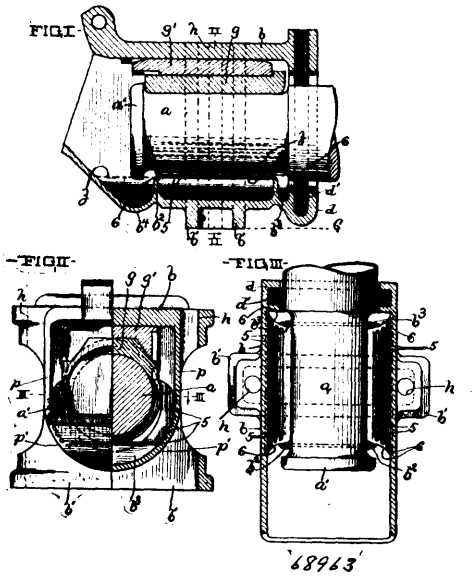
Claim.—1st. In a fifth wheel for vehicles, the combination of a head block, a head block plate secured thereto, an upper circle, an axle, a lower circle connected to the axle, a king bolt located behind the axle and on which the lower circle turns, reaches bent up at their forward ends, lugs projected rearwardly from the head block plate at opposite sides of the king bolt, and bolts passed through the lugs and reaches for holding said parts together, substantially as set forth. 2nd. In a fifth wheel for vehicles, the combination of a head block, a head block plate secured thereto, an upper circle, an axle, a lower circle having its forward ends rested on the axle, a king bolt located behind the axle and on which the lower circle turs, bolts passed through the forwards ends of the lower circle on opposite sides of the axle, tie plates extended under the axle and through which said bolts pass, a central tie plate having its rear end projected behind the axle and provided with a boss for the passage of the king bolt, a clip on the axle and having arms passed through the central tie plate, and brace arms extended from opposite sides of the rear end of the central tie plate and passed diagonally forwards and laterally and having their outer ends integrally connected to the forward ends of the outer tie plates, substantially as set forth. 3rd. In a fifth wheel for vehicles, the combination of a head lock, an axle, upper and lower circles, a king bolt on which the lower circle turns, reaches extended under the rear parts of the upper and lower circles and connected at their forward ends to the head block, connections between the rear part of the upper circle and each of the reaches, and flat metal springs secured at their ends to the respective reaches and having their central portions bent upwardly into engagement with the underside of the lower circle, substantially as set forth. 4th. In a fifth wheel for vehicles, the combination of a head block, an axle, upper and lower circles, the upper circle having projecting lugs at its rear part, a king bolt on which the lower circle turns, reaches extened under the rear parts of the upper and lower circles and connected at their forward ends to the head block, bolts passed through the lugs at the rear part of the upper circle and arranged to connect said upper circle to each of the reaches, and flat metal springs each having one end held beneath one of the lugs of the upper circle on the bolt which is passed through said lug and having its central portion bent upwardly into engagement with the underside of the lower circle, substantially as set forth.

No. 68,963. Journal Box. *(Coussinet de tourillon.)*

James Rufus Reniff, Chicago, Illinois, U.S.A., 12th October, 1900; 6 years. (Filed 10th July, 1900.)

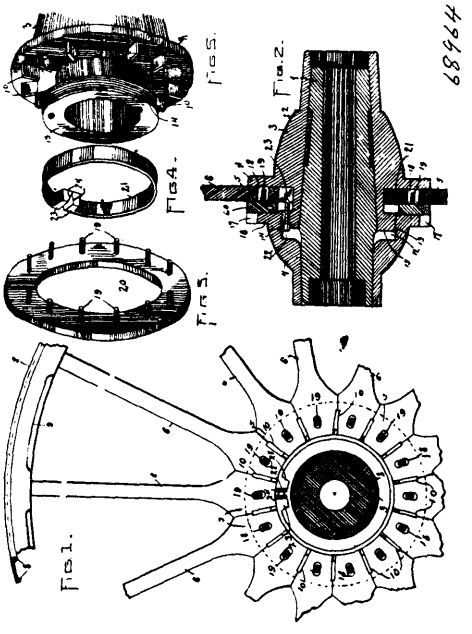
Claim.—1st. In a journal box of the character indicated, two internal ribs formed upon the bottom of the box below opposite ends respectively of the journal space, and extending transversely of the bottom between and contiguous to the side walls of the box,

and the rear rib being higher than the forward rib, substantially as and for the purpose set forth. 2nd. In a journal box of the



character indicated, two internal ribs formed upon the bottom of the box below opposite ends respectively of the journal space and extending transversely of the bottom between and contiguous to the side walls of the box, the rear rib being higher than the forward rib, and a depression formed in the bottom next forward of the forward rib, substantially as and for the purpose set forth. 3rd. In a journal box of the character indicated, two internal ribs formed upon the bottom of the box below opposite ends respectively of the journal space and extending transversely of the bottom between and contiguous to the side walls of the box, the rear rib being higher than the forward rib, a depression formed in the bottom forward of the forward rib, and the bottom of the said depression extending forwardly and upwardly, substantially as and for the purpose set forth. 4th. In a journal box of the character indicated, two internal ribs formed upon the bottom of the box below opposite ends respectively of the jorurnal space and extending transversely of the bottom between and contiguous to the side walls of the box, and means for ringing or squeezing oil containing waste carried up between the journal and the said walls and conducting the oil wrung or squeezed out of the waste into the space formed between the aforesaid ribs. 5th. A journal box of the character indicated, having the lower portions of its side walls converging downwardly and provided, upon their inner sides, with a series of channels extending longitudinally of the box and arranged to co-operate with the journal in preventing waste from being carried up between the said journal and channelled walls, substantially as and for the purpose set forth. 6th. A journal box of the character indicated, having its side walls converging downwardly and provided with a series of horizontally arranged or approximately horizontally arranged channels extending longitudinally of the box, and upright channels connecting the said longitudinally arranged channels and having their lower ends arranged to discharge into the lower portion of the box below the journal space. 7th. A journal box of the character indicated, having the lower portions of its side walls converging downwardly and provided respectively with a series of channels arranged longitudinally of the box, and upright channels arranged at the ends of and connected with the channels of the aforesaid series of channels and gradually enlarged in capacity toward their lower and discharging ends, substantially as and for the purpose set forth. 8th. A journal box of the character indicated, having the lower portions of its side walls converging downwardly, two internal ribs formed upon the bottom of the box below opposite ends respectively of the journal space and extending transversely of the bottom between and contiguous to the side walls of the box, a series of channels formed in and longitudinally of the aforesaid lower portions of the side walls, and upright channels formedin each of the said walls and connecting the longitudinally arranged channels of the respective wall and leading downwardly and arranged to discharge at their lower ends into the space formed between the aforesaid ribs, substantially as and for the purpose set forth. 9th. A journal box of the character indicated, having the lower portion of the side walls converging downwardly, two internal ribs formed upon the bottom of the box below opposite ends respectively of the journal space, two upright channels formed in each side wall of the box, and converging from opposite ends respectively of the journal space downwardly and arranged to discharge at their lower ends into the space formed between the aforesaid ribs, and a plurality of channels formed in and arranged longitudinally of the aforesaid converging portions of the side walls and arranged between and connected with the first-mentioned channels, substantially as shown and for the purpose specified. 10th. A journal box of the character indicated, having the lower portion of its side walls converging downwardly and provided upon their inner sides with channels or recesses and arranged somewhat eccentrically to a journal occupying the journal space of the box, and the arrangements of the parts being such that the width of the space between the channelled or recessed portions of the said walls and the journal shall gradually decrease upwardly, substantially as and for the purpose set forth.

No. 68,964. Vehicle Wheel. (*Roue de vehicules.*)



William F. Thomas, Burlington, Iowa, U.S.A., 12th October, 1900; 6 years. (Filed 11th July, 1900.)

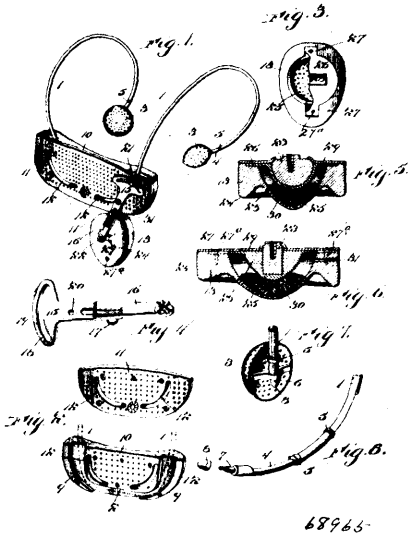
Claim.—1st. A device of the class described comprising a hub, spokes, a split expansible ring engaging the inner ends of the spokes, and an adjustable screw interposed between the ends of the split ring and adapted to expand the latter, substantially as described. 2nd. A device of the class described, comprising a hub, composed of separable sections, spokes interposed between the sections of the hubs and provided with slots, and a removable ring arranged within the hub and provided with pins extending into the slots of the spokes, substantially as described. 3rd. A device of the class described comprising a hub, spokes, and an expending device composed of a split ring engaging the inner ends of the spokes and provided with bevelled lugs, and a screw engaging the bevelled faces of the lugs and adapted to expand the ring, substantially as described. 4th. A device of the class described comprising the main section having an outwardly extending annular flange provided with radial lugs forming spoke sockets, slotted spokes fitting between the lugs, a ring pivoted with pins extending into the slots of the spokes, a removable section detachably secured to the main section and engaging the ring, and an expanding device, substantially as described. 5th. A device of the class described comprising a main section having an outwardly extending annular flange provided with radial lugs, a removable section having an annular recess, slotted spokes fitting between the lugs, a ring interposed between the spokes and the removable section and provided with pins fitting in the slots, and expansible ring arranged within the hub and engaging the inner ends of the spokes, and a screw mounted on the main section and engaging the ring, substantially as described. 6th. A device of the class described, comprising a main section having annular flanges 11 and 15, the flange 15 being threaded, and provided with a threaded perforation, an expansible ring fitting between the said flanges, a screw mounted in the threaded perforation and engaging the ring, and a removable section having interior screw threads, to engage those of the flange, substantially as described.

No. 68,965. Truss. (*Bandage herniaire.*)

Iven Edmond Johnson, Woodville, Texas, U.S.A., 12th October, 1900; 6 years. (Filed 19th April, 1900.)

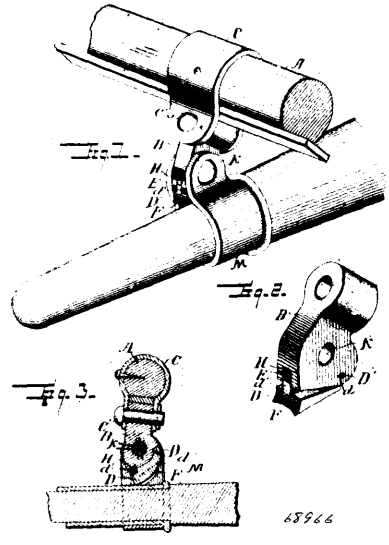
Claim.—1st. A truss comprising a body band including side loops adapted to engage over the hips, and an abdominal member consisting of two detachably united sections between which said band is recived and held, and extending continuously from one side loop to the other, substantially as described. 2nd. A truss comprising a

body band including side loops adapted to engage over the hips and an abdominal member consisting of two detachably united plates



between which said body band is received and extending continuously from one side loop to the other, and the inner face of the member being concaved, substantially as described. 3rd. In a truss, the combination of a body band comprising side loops to engage over the hips, and having the end portions of the spring wire comprising the body band halved, adjustable sections correspondingly halved to match the halved ends of the body band and completing the cross sectional outline thereof, means for securing the adjustable sections in place, and hip pads applied to the outer terminals of the adjustable sections, substantially as set forth. 4th. A truss comprising a body band including side loops adapted to engage over the hips, pads adjustably secured to the terminals of the body band, and an abdominal member consisting of two detachably united perforated plates between which said body band is received and held, and the inner one of said plates being concaved upon its inner surface, substantially as described. 5th. In a truss, the combination of a body band formed of spring wire bent to provide side loops and a connecting bar, the side loops being adapted to engage over the hips and their rear terminals become seated in the hollow opposite the hip joints, and an abdominal plate applied to the intermediate portion of the body band and consisting of complementary parts or members between which the body band is clamped by the same means securing the members together, substantially as set forth. 6th. In a truss, a body band having an intermediate depressed portion, and an abdominal plate secured to said depressed portion, and the parts of the body band contiguous thereto, and having oppositely curved slots in its end portions, in combination with a hernial pad, and means for adjusting said pad to the abdominal plate through the instrumentality of either of the curved slots therein, substantially as and for the purpose set forth. 7th. In a truss, the combination with the body band comprising said loops and an intermediate connecting bar, of an abdominal plate secured to the intermediate portion of the body band and comprising complementary members having corresponding perforations, and means for connecting said members and clamping the body band between them, substantially as specified. 8th. In a truss, the combination with the body band formed of a length of spring wire bent to form side loops and an intermediate connecting bar, of an abdominal plate comprising complementary members between which the body band is placed, one of the members having a groove or channel to receive the body band, said members having corresponding perforations and curved slots, and means for connecting the parts comprising the plate and clamping body band between them, substantially as described. 9th. In a truss, a body pad, an abdominal member consisting of two detachably united perforated plates between which said body band is secured, in combination with an arm bearing a hernial pad and said arm being adjustably connected with the abdominal member, and means for maintaining said arm in an adjusted position, substantially as described. 10th. In a truss, a body band, and an abdominal plate secured to the intermediate portion of the body band, in combination with an arm having an accurate slotted portion and bearing a hernial pad, means for pivtoally connecting the arm to any required portion of the abdominal plate, and a fastening operating in the arcuate slot of said arm to secure the latter in any desired angular position. 11th. In a truss, the body band, and an abdominal plate secured to the intermediate portion of the body band and having oppositely curved slots in its end partions, in combination with an arm having its inner end expended and formed with an arcuate slot and having a hernial pad applied to its outer end, a pivot connection adjustably securing the arm to the abdominal plate, and a fastening operating in a slot of the arm and securing it in any angular adjusted position, substantially as and for the purpose described. 12th. In a truss, the combination with the body band provided with an abdominal plate, of an arm comprising inner and outer sections having their opposing ends overlapping and slotted, the inner section having an end portion expanded and formed with a curved slot, means for adjustably connecting the sections of the arm, and a hernial pad applied to the outer end of the arm, substantially as described. 13th. A hernial medicament receiving pad, comprising an outer ring portion and a central portion of cup form perforated, and said ring having a duct for receiving a medicament, a socket secured to the ring portion and extending into the cup, a coupling device disposed in the socket for movement in one direction, the wall of the socket serving to prevent movement of the coupling device in the opposite direction, an abdominal member, and a connection between said abominal member and the coupling device, substantially as described. 14th. In a truss, the combination with an abdominal plate adapted to be secured to the body band, of a two part extensible arm, one part of the arm being adjustably connected to the said abdominal plate to move in the arc of a circle, a hernial pad rotatably mounted on the other part of the said arm and adapted to be held in fixed adjustment thereon, and means for preventing transverse movement of the arm.

No. 68,966. Neck Yoke. (*Joug.*)



Peter Perry Cline, assignee of William M. Manuel, both of Gallatin, Missouri, U.S.A., 12th October, 1900; 6 years. (Filed 12th July, 1900.)

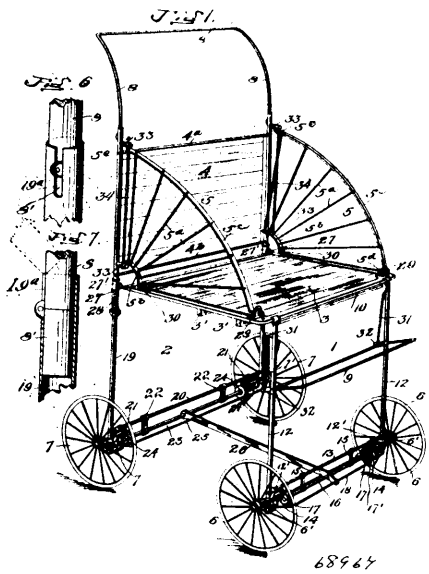
Claim.—1st. A neck yoke centre, comprising, in combination with the neck yoke, a pivoted member connected thereto, a spring actuated grip block pivoted to the latter, and a pole tip engaging strap having pivotal connection with said member, as set forth. 2nd. A neck yoke attachment, comprising, in combination with the neck yoke, the member pivoted thereto, the latter having a recess at its free end, a grip block having a rib which is pivoted in said recess, and a spring or cushion bearing against said block, and a pole tip strap pivoted to said member, as set forth. 3rd. A neck yoke attachment, comprising, in combination with a neck yoke, a strap secured thereto, the member having a pivotal pin to which the ends of the strap are pivoted, the pole tip strap pivoted to said member, the grip block having a rib on its rear face, which rib is seated in a recess in the free end of said member, and pivoted at its lower end to a pin carried by the walls of the recessed end of the member, the outer face of said grip block being concaved, ribbed and tapered, as shown and described, and for the purpose set forth.

No. 68,967. Perambulator. (*Voiture.*)

The Folding Wheel Carriage Company, assignee of Charles Edward Fanning, all of Davenport, Iowa, U.S.A., 12th October, 1900 6 years. (Filed 11th July, 1900.)

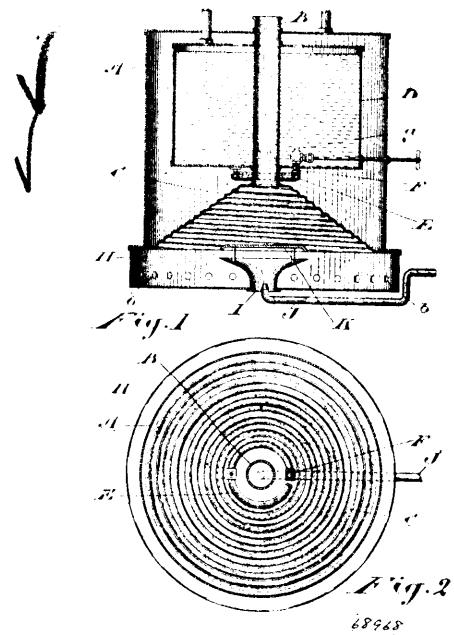
Claim.—1st. In a perambulator of the class described, the combination of the rear supporting frame and back, the front supporting frame and seat adapted to be folded up against said rear supporting frame and back, the sides hinged to said seat and adapted to be automatically folded down upon and raised up from said seat, means for automatically raising angles to their plane of rotation, and means for automatically fold-supporting wheels adapted to automatically fold inwardly at right and lowering said sides, the front supporting wheels and the rear

ing said front and rear wheels when the perambulator is folded, substantially as set forth. 2nd. In a perambulator of the class



described, the combination of the rear supporting frame, consisting of the rear seat supporting standards rigidly connected near their lower ends by a cross rod having formed on their extreme lower ends, inwardly upturned bearings and connected at their upper portions by the upper and lower back bars between which and the standards is placed the material forming the back, the front supporting frame consisting of the short, front seat supporting standards, hinged at their upper ends to the seat frame, and rigidly connected near their lower ends by a cross-bar, and having formed on their extreme lower ends, inwardly upturned bearings, the seat frame and seat hinged to the said forward supporting standards and having a resilient hinged connection with said rear supporting standards, the said seat and the said forward frame being adapted to fold together and against said rear supporting frame, sides having hinged connection with said seat and adapted to be automatically folded down against said seat when the same is folded up against the back, means for folding said sides and again raising them, the front and rear supporting wheels adapted to be automatically folded at right angles to their planes of rotation and means for automatically folding said wheels, substantially as set forth. 3rd. In a perambulator of the class described, the combination of the rear supporting frame and back, the front supporting frame and seat, adapted to be folded up against the said rear supporting frame and back, the sides hinged to said seat and adapted to be automatically folded down upon and raised up from said seat, means for automatically raising and lowering said sides, said means consisting of the vertical rods pivoted at their lower ends to the inner ends of the sides of the foot-rest frame which are pivoted near their inner ends to the front supporting standards, the upper ends of the said vertical rods being bent at right angles and engaging fingers projecting inwardly from said sides, the front supporting wheels and the rear supporting wheels adapted to automatically fold inwardly at right angles to their plane of rotation, and means for automatically folding said front and rear wheels when the perambulator is folded, said means consisting of the transversely disposed rods supported in hangers from a rigid portion of the front and rear supporting frames, and provided on their rear ends with vertically disposed bevelled gear wheels having off-sets connected by similar transverse rods, the said rods being connected together by a longitudinally disposed bar, the said vertical bevel gear wheels being in mesh with horizontally disposed bevelled gear wheels mounted on bearings in the front and rear supporting frames and having rigidly attached thereto, short stud shafts or arms forming journals for the front and rear supporting wheels, and whereby when the perambulator is folded, the said vertically disposed gears will be rotated which will in turn rotate the horizontal gears and thereby cause said journal arms and wheels to be folded inwardly, substantially as set forth. 4th. In a perambulator of the class described, the combination of the rear supporting frame and back, the front supporting frame and seat, adapted to be folded up against the said rear supporting frame and back, the sides hinged to said seat and adapted to be automatically folded down upon and raised up from said seat, means for automatically raising and lowering said sides, the front supporting wheels and the rear supporting wheels adapted to automatically fold inwardly at right angles to their plane of rotation, and means for automatically folding said front and rear wheels when the perambulator is folded, an auxiliary seat or extension supported in hangers beneath the main seat and adapted to be slid back beneath said main sheet when not in use, the handle bars provided at their lower ends with a hinged extension and having a sliding engagement with the upper hollow slotted ends of the rear supporting standards whereby said handle bars may be withdrawn from said hollow ends of the standards far enough to clear said hinged joint, when they can be folded down against said standards, substantially as set forth.

No. 68,968. Boiler. *(Chaudière.)*



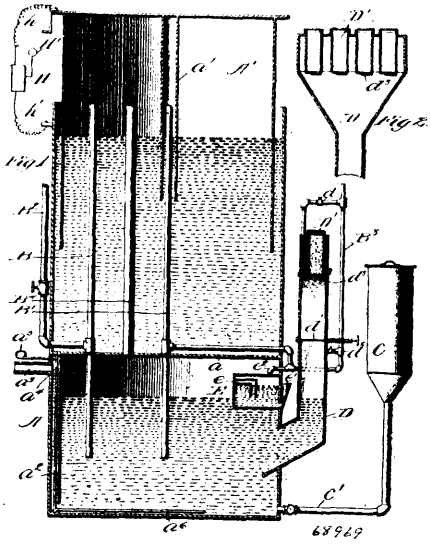
George F. Atwood, West Chazey, New York, and Elimar A. Messenger, Boston, Massachusetts, U.S.A., assignee of Willard H. Coun, Toronto, Ontario, Canada, 12th October, 1900; 6 years. (Filed 22nd September, 1900.)

Claim.- 1st. In a boiler, the combination of a shell, a flue, an inclined heating plate connected with the shell and with the flue, a water tank having an outlet through which small quantities of water may be permitted to drop on the heating plate, and means for highly heating the said plate, substantially as and for the purpose specified. 2nd. In a boiler, the combination of a shell, a flue, an inclined horizontally corrugated heating plate connected with the shell and with the flue, a water tank having an outlet through which small quantities of water may be permitted to drop on the heating plate, and means for highly heating the said plate, substantially as and for the purpose specified. 3rd. In a boiler, the combination of a shell, a flue, an inclined heating plate shaped as the frustrum of a cone and connected with the shell and with the flue, a water tank having an outlet through which small quantities of water may be permitted to drop on the heating plate, and means for highly heating the said plate, substantially as and for the purpose specified. 4th. In a boiler, the combination of a shell, a flue an inclined horizontally corrugated heating plate shaped as the frustrum of a cone and connected with the shell and with the flue, a water tank having an outlet through which small quantities of water may be permitted to drop on the heating plate, and means for highly heating the said plate, substantially as and for the purpose specified. 5th. In a boiler, the combination of a shell, a flue, an inclined heating plate shaped as the frustrum of a cone and connected with the shell and with the flue, helical corrugations being formed in the heating plate to form one or more water channels, a water tank having an outlet through which small quantities of water may be permitted to drop on the heating plate, and means for highly heating the said plate, substantially as and for the purpose specified. 6th. In a boiler, the combination of a shell, a flue, an inclined heating plate shaped as the frustrum of a cone and connected with the shell and with the flue, a water tank, and a perforated ring located over the upper part of the heating plate and connected with the water tank, substantially as and for the purpose specified. 7th. In a boiler, the combination of a shell, a flue, a heating plate connected with the shell and the flue, a water tank within the boiler surrounding the flue and provided with an an outlet through which small quantities of water may be permitted to drop on the heating plate, and means for highly heating the said plate, substantially as and for the purpose specified. 8th. In a boiler, the combination of a shell, a flue, a heating plate connected with the shell and the flue, and shaped as the frustrum of a cone, a water tank within the boilert surrounding the flue, a perforated ring located over the upper par,

of the heating plate and connected with the water tank, and means for highly heating the said plate, substantially as and for the purpose specified.

No. 68,969. Acetylene Gas Generator.

(Generateur à gaz acétylène.)

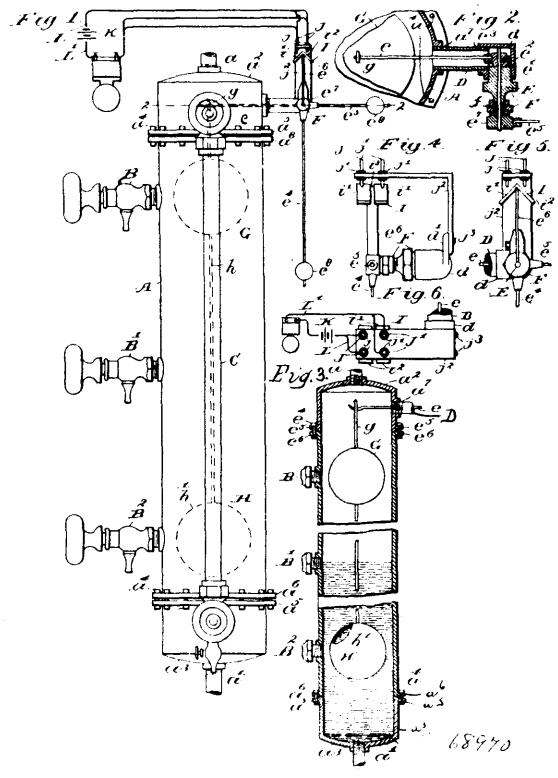


Napoleon Dion, assignee of Joseph Henri Pelletier, both of Fraserville, Quebec, Canada, 12th October, 1900; 6 years. (Filed 26th October, 1899.)

Claim.—1st. In an acetylene gas generator, the combination with a conduit having communication at its lower portion with a generating chamber, of a self-closing valve arranged in said conduit and adapted to open automatically by the deposit of carbide thereon, and means for dropping carbide in segregated charges into the conduit and upon the valve, whereby the later is opened by the weight of the carbide and closes automatically in the intervals between the dropping of carbide. 2nd. In an acetylene gas generator, the combination with a conduit communicating at its lower end with a generating chamber, of a rotary carbide magazine having a series of compartments which are adapted to successively discharge into the conduit, and gasometer controlled mechanism for effecting the rotation of said magazine on the descent of a floatable gas bell. 3rd. In an acetylene gas generator, the combination with a conduit communicating at its lower end with a generating chamber, of a rotary magazine housed within said conduit and provided with a series of compartments, each of said compartments being closed by a door provided with a latch mechanism, a trip in the path of the latch mechanism for successively relating the doors on the rotation of said magazine, and gasometer controlled mechanism for rotating the magazine on the descent of the gas bell. 4th. In an acetylene gas generator, the combination with a conduit communicating at its lower end with a generating chamber, and provided at its upper portion with a casing having a removable cover, a chambered magazine revoluble within said casing, a gasometer actuated feed lever having a pawl, and gear elements between said pawl and the revoluble magazine to rotate the latter with a step-by-step feed on the descent of the gas bell, substantially as described. 5th. In an acetylene gas generator, the combination with a generating chamber, of a pressure regulator receptacle disposed within said chamber and having a spout through which a liquid seal may be introduced into said pressure regulating chamber, a pipe communicating with the generating chamber and sealed by the liquid contents of the pressure regulating chamber, and a gasometer blow-off pipe communicating with said pressure regulating chamber, substantially as described. 6th. In an acetylene gas generator, the combination of fixed and movable electrical contacts secured to a gasometer tank and a gasometer bell, respectively, and disposed one in the path of the other for the movable contact to strike the fixed contact on the descent of the bell for a predetermined distance, a signal mechanism, and an electrical circuit including the signal mechanism and communicating with said fixed and movable contacts, for the purposes described, substantially as set forth. 7th. In an acetylene gas apparatus, the combination with the generator thereof, of a tube communicating at its lower end a plurality of carbide receptacles, a sliding partition dividing said tube into an upper and a lower portion; a valved pipe connecting the upper portion of said tube with the escape pipe; and a valved pipe connecting the lower portion of said tube with the escape pipe, whereby both portions of said tube may be ventilated, substantially as described. 8th. The combination with the generator of an acetylene gas apparatus, of a tube communicating at its lower end with said generator and having a cylinder at its upper end, adapted to be closed by means of a removable cover, a carbide receptacle revolubly mounted in said cylinder and divided by a series of partitions into a plurality of chambers, a cover hinged to each of said chambers, a tripping device for automatically releasing said cover, a notched wheel fixed upon said cylinder, a toothed wheel meshing with said notched wheel; a lever pivoted to said cylinder and adapted to be depressed by the descent of the bell, and a hook arm pivoted to said lever and adapted to engage and intermittently rotate said toothed wheel, substantially as described.

No. 68,970. Electric Alarm Water Column.

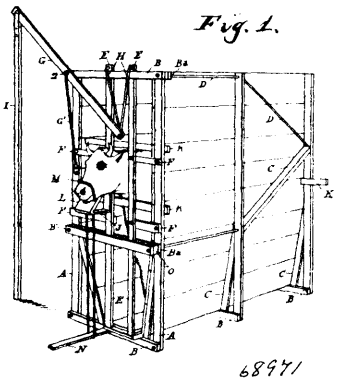
(Avertisseur électrique à eau.)



Martin Luther Bush, Lawrence, and Charles Frank Swain, Menthuen, both in Massachusetts, U.S.A., 12th October, 1900; 6 years. (Filed 20th August, 1900.)

Claim.—1st. The combination of the water cylinder, having water connections above and below the normal water level of said cylinder, of a float and a weight, both arranged in said cylinder, the one above the other below said normal water level, an inextensible connection between said weight and float, a lever, arranged partly within and partly without said cylinder, an inextensible connection between said float and the inner arm of said lever, battery and alarm connections and a circuit closer carried by the outer arm of said lever, said battery and alarm connections and said circuit closer being arranged wholly outside of said cylinder and being insulated therefrom. 2nd. The combination with a water cylinder having boiler connections, of a float and a weight, both within said cylinder, a circuit closing lever, arranged partly within and partly without said cylinder, inextensible connections between said weight and said float, said float and weight, respectively, being arranged above and below the normal water level in said cylinder, and said weight being suspended directly from said float and the battery and alarm connections arranged wholly outside of said cylinder and insulated therefrom. 3rd. The combination in an electric alarm water cylinder having boiler connections, of a float and a weight, both arranged within said cylinder, an inextensible connection between said float and weight, said weight being normally below the water level in said cylinder and said float being normally above said water level, a lever, having an arm arranged within said water cylinder, an inextensible connection between said float and said arm, and battery and alarm connections having terminals outside of said cylinder, said lever having another arm, arranged outside of said cylinder and having inclined springs adapted to have a scraping contact with said terminals when said lever is rocked.

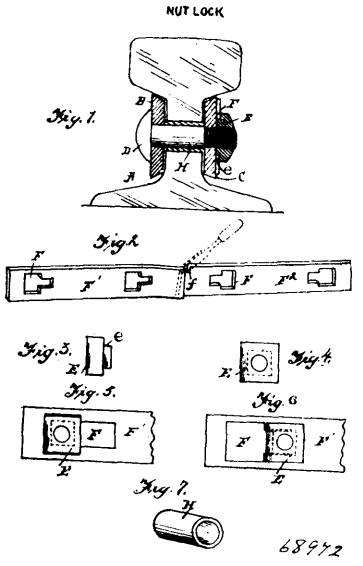
No. 68,971. Dehorning or Branding Chute.
(Appareil pour décorner et marquer au fer.)



William S. Young, McPherson, Kansas, U.S.A., 12th October, 1900; 6 years. (Filed 23rd August, 1900.)

Claim.—1st. In a dehorning and branding chute, the combination of the main frame, vertical stanchions set in slideways in said frame, pivoted links connecting said stanchions with the frame, an operating lever fulcrumed on the frame, codnecting rods pivoted to the end of said lever and extending to said stanchions to impart thereto simultaneous vertical and lateral movement, substantially as set forth. 3rd. In a dehorning and branding chute, the combination of a main frame, laterally and vertically moving stanchions pivotally linked to said frame, removable cross bars extending transversely of said stanchions, and an adjustable loop extending vertically through openings in said head rest to a foot treadle, substantially as set forth.

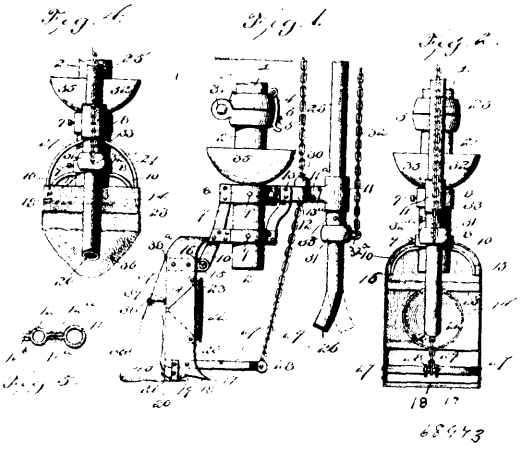
No. 69,972. Nut Lock. *(Arrête-écrou.)*



John Saur, Richmond, Indiana, U.S.A., 12th August, 1900; 6 years. (Filed 1st August, 1900.)

Claim.—1st. The combination with the meeting end of two rails provided with the usual bolt openings, the fish plates having bolt holes registering therewith, and thimbles extending through said openings, longer than the thickness of the rail web, and having their ends abutting against the inner facings of said plates around the openings therein, of a bolt passing through both plates and each thimble, the nut therefor having a shouldered end, and locking plates moving longitudinally upon the outer face of one fish plate, and adapted to have their inner ends contact when the plates align, both plates being provided with openings adapted to engage said shouldered inner ends of the nuts, substantially as described. 2nd. In a nut lock, the combination with the rail ends having bolt openings, thimbles extending through them and longer than the thickness of the rail web, and fish plates at the sides of the rail web and against the ends of said thimbles, of the bolts passing through both plates and the thimble, the nut having a shouldered inner end, and locking plates movable longitudinally upon the outer face of one fish plate and adapted to have their inner ends contact when the plates align, one of said inner ends having a notch in the upper corner of the plate and both plates being provided with openings adapted to engage said shoulders as described. 3rd. In a nut lock, the combination with the rail ends having bolt openings, and fish plates at the sides of the rail web, of the bolt passing through both plates, the nut having a shouldered inner end, and respectively long and short locking plates, movable longitudinally upon the outer face of one fish plate, and adapted to have their inner ends contact when the plates align, a notch in the upper inner corner of the shorter plate, and both plates being provided with openings adapted to engage said shouldered inner ends of the nuts, and substantially as described.

No. 68,973 Mining Dredge *(Drague.)*



Lorenzo D. Sibley, Vineland, New Jersey, U.S.A., 12th October, 1900; 6 years. (Filed 2nd August, 1900.)

Claim.—1st. In a mining excavator or digger, a fluid pressure pipe for conveying fluid under pressure to be forced into the earth, a frame fixed to said pipe above open delivery end thereof, a shovel hinged to said frame at a point to one side of the pressure pipe, and means for raising and lowering the hinged scoop whereby the scoop may be raised to a horizontal position or lowered to a vertical position at one side of the plane of the pressure pipe, substantially as described. 2nd. In a mining excavator or digger, the combination with a fluid pressure pipe and a hinged shovel or scoop, of a reflecting pan adapted to deflect the current of pressure fluid from said pipe and protect the contents of the shovel or scoop from the action of said pressure fluid, substantially as described. 3rd. In a mining excavator or digger the combination with a main pressure of a shovel or scoop supported by said main pressure pipe and provided with an inclined face and a pocket or depression in rear of said inclined face and adapted to retain minerals of greater specific gravity than the surrounding washings which are agitated by a current of pressure fluid, and an auxiliary pipe arranged at one side of the main pressure pipe and provided with a deflected or inclined nozzle, substantially as described. 4th. In a mining excavator or digger, the combination of a pressure pipe, a hinged scoop, a reflecting pan carried by the scoop and arranged to be raised thereby into vertical alignment with an outlet from the pressure pipe, and a reflecting cup supported by said pressure pipe above the discharge mouth thereof, said cup adapted to deflect the pressure fluid in an outward direction against the walls of the cavity or excavation made by the action of the dredge and to collect particles of mineral which may gravitate into said cup, substantially as described. 5th. In a mining excavator or digger, the combination with a pressure pipe of a shovel hingedly connected to said pressure pipe at a point to one side of the vertical plane thereof and adapted to be lowered to a vertical position, means for adjusting the shovel on its hinged connection with said pressure pipe, and a stop to limit the descent of the shovel when the latter is lowered to its vertical position, for the purpose described, substantially as set forth. 6th. In a mining excavator or digger, the combination of a pressure pipe, a collecting shovel carried thereby, and a collecting bag orsack attached to said shovel adapted to gather fine particles of minerals by its flexible lower and thin front edge, substantially as described. 7th. In a mining excavator or dredge, the combination of a main pressure pipe, mineral collecting devices carried thereby in a plane at one side of the fluid outlet from said pipe, and an auxiliary pressure pipe disconnected from the collecting devices and situated in advance of the same, said auxilliary pressure pipe adjustable axially and provided with an angular discharge nozzle adapted to direct a current of working fluid, in advance of the collecting devices, and also adapted to wash the opening or excavation for the purpose described, substantially as set forth. 8th. In a mining excavator or digger, the combination of a main

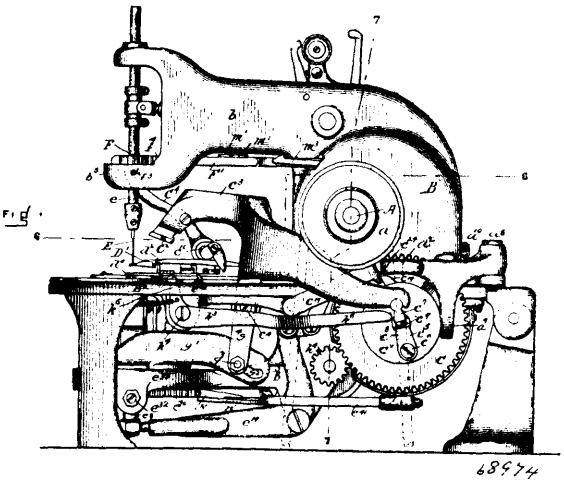
pressure pipe, a collecting shovel carried thereby, an auxiliary pressure pipe, and a suspending chain having a swivelled connection with said auxiliary pressure pipe to permit the latter to turn without twisting the suspending chain, substantially as described. 9th. In a mining excavator or digger, the combination with a main pressure pipe, of a frame connected therewith, a collector device supported by said frame, an auxiliary pressure pipe parallel to the main pressure pipe, and a guide on said frame and fitted loosely to the auxiliary pressure pipe, for the purpose described, substantially as set forth. 10th. In a mining excavator or digger, the combination of a pressure pipe, a shovel movably connected thereto, and a reflecting pan carried by said shovel, substantially as described. 11th. In a mining excavator or digger, the combination of a pressure pipe, a hinged shovel connected thereto, a reflecting pan carried by said shovel to be presented thereby opposite to the discharge mouth of said pipe, and a reflector cup supported on the pressure pipe above its open discharge mouth, substantially as described. 12th. In a mining excavator or digger, the combination with a pressure pipe, of a hinged shovel having a collecting pocket, a bag or sack attached to said shovel, and devices for spreading the mouth of the bag and keeping the same in an open position at the working end of the shovel, substantially as described. 13th. In a mining excavator or digger, the combination with a pressure pipe, of a carrying frame attached thereto and having an arm which depends below the open mouth of said pressure pipe, a shovel hinged to said depending arm of the frame and arranged to be lowered to a vertical position at one side of the vertical plane of the pressure pipe, and means for swinging the shovel in a vertical plane on its hinged connection with said frame, substantially as described. 14th. In a mining excavator or digger, the combination of a pressure pipe, a carrying frame attached thereto, a shovel hingedly connected to the frame and arranged to assume a vertical position at one side of the vertical plane of the pressure pipe, a bail attached to the shovel and arranged to abut against the frame for limiting the upward movement of said shovel, and a chain connected to the bail, substantially as described. 15th. In a mining excavator or digger, the combination of a pressure pipe, a frame attached to said pipe and provided with a guide loop, a shovel hinged to said frame, a bail attached to said shovel, a chain passing through the guide loop and connected to the bail, and a stop on said chain and arrranged to rest on the guide loop, whereby the stop limits the vertical adjustment of the bail and scoop and serves to sustain the scoop in its vertical position when the dredge is advanced, substantially as described. 16th. In a mining excavator and digger, the combination of a main pressure pipe, a collecting shovel carried thereby, means for adjusting said shovel, an auxiliary pressure pipe independent of the main pressure pipe and having an inclined discharge mouth arranged at one side of the collecting shovel, said auxiliary pressure pipe being adjustable axially to vary the angle of presentation of its deflected discharge mouth, and means for suspending said auxiliary pressure pipe, substantially as described. 17th. In a mining excavator or digger, the combination of a main pressure pipe, a frame supported by said pipe and having at its free end a guide sleeve, a shovel attached to said frame, an auxiliary pressure pipe fitted loosely in said guide sleeve for axial adjustment freely therein, and provided below said sleeve with an inclined discharge mouth, a suspension chain, and swivel connections between said chain and the auxiliary pressure pipe, substantially as described. 18th. In a mining excavator or digger, the combination of a main pressure pipe, a frame having a guide sleeve, a shovel attached to said guide, an auxiliary pressure pipe fitted loosely in said sleeve, a fast collar on the auxiliary pressure pipe, a loose collar also fitted to the pressure pipe and impinging against the fast collar, and a suspension chain connected to the loose collar, substantially as described. 19th. In a mining excavator or digger, a shovel provided at one end with an inclined face having a sharpened cutting edge or lip, and an abrupt ledge or shoulder at the rear terminal of the inclined face and forming between the latter and the heel of the pan a pocket or compression combined with a frame to which the heel of the scoop is hinged, and means for raising or lowering the shovel on its hinged connection with the frame, substantially as described. 20th. In a mining excavator or digger, the combination of a pressure pipe, a frame supported thereby, and a collecting bag or sack attached to said frame and having a thin front edge, said back or sack having its mouth held in an open position by the frame at one side of the vertical plane of the pressure pipe, substantially as described. 21st. In a mining excavator or digger, the combination with a pressure pipe, of an amalgam cup or pan connected with the pressure pipe above its outlet end, for the purpose of connecting particles of minerals forced upward by fluid from the pressure pipe, collecting devices supported by the pressure pipe on a horizontal plane below the amalgam cup or pan, and a reflecting device mounted on the collecting device, substantially as described.

No. 68,974. Button Hole Stitching Machine.

(*Machine à faire les boutonnières.*)

Charles Axel Dahl, Lynn, Massachussets, U.S.A., 12th October, 1900; 6 years. (Filed 12th October, 1899.)

Claim. 1st. In a button hole stitching machine, the combination of the bed plate of the machine, a work clamping mechanism held fixed upon the plate during the stitching of each straight side of the button hole and laterally moved upon the bed plate during the stitching of the eye, a frame mounted upon said bed plate movable intermittently forward and back thereon, the length of the button



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hole to be stitched, and stitch forming devices carried by said frame held stationary in the frame during the stitching of the sides but in a position on one side reversed from that of the other and rotated step by step substantially a half rotation during the said traversing movements of said work clamping mechanism. 2nd. In a button hole stitching machine, the combination of the bed plate of the machine, a work holding and slit spreading clamp, a button hole cutter held in operative relation to the clamp at the beginning of the operation of the machine, the throat of the machine, its support, the under complemental stitch forming devices, the cutter anvil and means for moving the throat, its support and said under complemental stitch forming devices out of position and the cutter anvil into position, and for reversing said movements, whereby the cutter anvil is moved into operative relation with the cutter during the cutting of the button hole slit and is then returned to its original or inoperative position, and the throat, its support and said under complemental stitch forming devices returned to their operative position, as and for the purposes set forth. 3rd. In a button hole stitching machine, the combination of the bed plate of the machine, a work holding and slit spreading clamp and means for moving it laterally at the beginning and ending of the stitching of the rear end of the button hole in a manner to cause the stitches to cross each other at the rear end of the button hole, devices for also providing the said clamp with lateral movements during the stitching of the eye of the button hole, and means for holding the clamp stationary upon the bed at all other times, with a stitching frame mounted upon the bed plate, stitch forming devices carried by said frame and means for moving said stitching frame with an intermittent or step by step feeding movement backward and forward lengthwise the frame and button hole and means for operating the stitch forming devices and turning them a half rotation during the traversing or lateral movements of said clamp in the stitching of the eye of the button hole, and devices for returning the stitch forming devices to their original position after the completion of the stitching of the button hole and the stopping of their stitching action. 4th. In a button hole stitching machine, the combination of the bed plate of the machine, a work holding and slit spreading clamp, means for providing it with lateral movements during the stitching of the eye, and for holding it stationary during the stitching of the straight sides of the button hole, with a frame, stitch forming devices mounted upon said frame, a button hole cutter, an anvil for the same, means for actuating the button hole cutter and moving the anvil into and out of operative position and means actuated after the operation of the button hole cutter to move the frame and stitch forming devices backward and forward upon the bed with a step by step feeding movement, and devices for actuating the stitch forming mechanism and for turning the same in one direction during the traversing movements of said clamp and in the reverse direction at the end of the stitching operation. 5th. In a button hole stitching machine, the combination of the bed plate of the machine, a work holding and slit spreading clamp, a stitcher frame, stitch forming devices mounted upon the frame, a button hole cutting jaw above the bed plate of the machine and a cutter anvil below the bed plate of the machine movable independently of the stitcher frame into and out of operative relation with the cutter, and devices for actuating the cutter anvil, the stitcher frame and stitching devices, as and for the purposes set forth. 6th. In a button hole stitching machine, the combination of the bed plate of the machine, a work holding and slit spreading clamp, means for laterally moving it in respect to the plate at the beginning and at the ending of the action of the stitching devices and for also laterally moving it during the stitching of the eye of the button hole and for holding the work stationary at all other times, a stitcher

frame, means for moving it lengthwise the bed plate, stitching devices carried thereby, button hole cutting devices, means for interchanging the position of a portion of the stich forming devices and the cutter anvil, and devices for starting and stopping the operation of the button hole cutting devices and for starting and stopping the operation of the frame feeding mechanism and stitching devices, as and for the purposes set forth. 7th. The combination in a button hole stitching machine of an automatic button hole cutting mechanism comprising a cutter, an anvil and means for temporarily substituting the anvil during the cutting operation for a portion of the stitch forming devices, a work clamp for holding the work during the operation of the button hole cutter, and means for moving said clamp laterally at the beginning and at the ending of the action of the stitch forming devices and also laterally during the stitching of the eye, a frame, stitch forming devices mounted the room, means for moving the frame backward and forward with a step-by-step movement, means for actuating the stitching devices and a connection between the button hole cutting devices and the frame feeding and stitch actuating mechanism to automatically start the operation thereof at the completion of the operation of the button hole cutting devices, means for automatically stopping the frame feeding and stitch forming mechanism, and devices for automatically returning the button hole stitching mechanism and the clamp plate laterally to their original or starting position automatically actuated upon the stopping of said frame feeding and stitcher actuating mechanism. 8th. The combination in a button hole stitching machine, of the bed of the machine, a work holding and slit spreading clamp mounted upon the bed of the machine, a button hole cutting mechanism, the anvil of which is movable into and out of operative position, stitch forming mechanism and frame, means for actuating the button hole cutting mechanism, and stitch forming mechanism and frame, means for automatically spreading the clamp plate, for moving it laterally during the stitching of the eye and for holding it stationary during the stitching of the eye and for holding it stationary during the stitching of the straight sides of the button hole, a starting lever connected with the work clamps and with the button hole cutting mechanism to upon its starting movement close the clamps and start said mechanism, automatic devices connecting the button hole cutting mechanism with the stitching mechanism adapted to be automatically started by the button hole cutting mechanism and to automatically start the button hole stitching mechanism, devices for automatically stopping the action of the stitching mechanism at the completion of the stitching of the button hole and independent means for turning backward the stitch forming devices, restoring the clamp plate to its original position and automatically releasing the clamps at the stopping of the stitch forming mechanism. 9th. The combination in a button hole stitching machine of the movable frame and stitching devices carried thereby, the cutter lever e^3 pivoted to the frame and operated as specified, the anvil G, the movable anvil support pivoted to said moving frame its arm g^1 having a cam slot g^2 of the shape specified, and an arm g^4 depending from the cutter lever and connected with the said slot g^2 by a cam pin or roll. 10th. The combination of the throat E^4, its pivot support and under complemental stitch forming devices carried by said pivoted support the upper stitch forming devices and button hole cutter with the anvil G, its support g and means for simultaneously moving the two supports in one direction to move the throat and under complemental stitch forming devices and their support out of position, and the anvil arm and anvil into position and for holding them for an instant in such position, and to then move the said supports in a reverse direction and to hold them in said last named position during the operation of the stitch forming devices. 11th. The combination of the bracket or arm B^3, the sleeve or holder E^5 pivoted to said support, the arm g carried by said sleeve or holder, on the upper end of which the anvil G is mounted and the rotary support E^2 also carried by said sleeve or holder and supporting the throat and under complemental stitch forming devices, the upper stitch forming devices and the button hole cutter, as and for the purposes described. 12th. In a button hole sewing machine the combination of the bed of the machine, a frame B intermittently moved thereon forward and back, an under bracket or support B^3 attached to said frame B to be movable therewith, forward rests and and guides b^4 in the legs or supports B^2 of the bed for guiding and supporting the forward end of said bracket, a saddle E^5 pivoted to the forward end of said bracket B^3, under rotary complemental stitch forming devices mounted on said pivoted saddle, an anvil arm also mounted upon said saddle having an anvil at its upper end, means for tilting said saddle E^5 and for rotating said complemental stitch forming devices, the upper stitch forming devices and the button hole cutter. 13th. In a button hole cutting and stitching mechanism the combination of the bed plate of the machine, a movable stitcher frame mounted thereon having an underneath bracket or support B^3 which extends forward below the work clamp and throat of the machine and has one or more bearing sections at or near its front end, with the machine frame having a stationary rest below said work clamps and throat to receive and support said forward bearing section of said bracket, an anvil arm mounted upon said bracket or support B^3 to be movable therewith, and the anvil G carried by said arm, the stationary rest acting to support the forward end of said bracket, anvil arm and anvil during the operation of the button hole cutter and thereby relieve said parts from strain. 14th. The combination of the wheel C having a hub c the disc C^1, mechanism for automatically engaging said disc with said wheel and for automatically disengaging said disc from said wheel at the end of one full revolution thereof, the button hole cutter, its anvil, throat and under complemental stitch forming devices connected with said disc and operated during its revolution to move the anvil into and out of position, the throat and under section of the stitching devices out of and into position to hold the anvil stationary for an instant during the cutting operation and to reciprocate the button hole cutter and the upper stitch forming devices, as and for the purposes described. 15th. The combination of the wheel C, the disc C^1 actuating the button hole cutting devices and mechanism between the said wheel and disc, comprising a pawl c^{21} pivoted to the inner face of the disc C^1 and extending into a cavity in the outer face of the wheel C, and the end of which is adapted to be moved upon an arc in said cavity towards and from the outer edge thereof, a pawl c^{19} attached to the pawl c^{21} and adapted to extend outward from the cavity between the wheel and the disc, a spring for moving the end of the pawl c^{21} outwardly attached to the disc C^1, the wheel C having the cavity c^{22} and the shoulders or teeth c^{23} with which the end of the pawl c^{21} is adapted to engage, and the lever c^{17} pivoted at c^{15} having an end c^{24} which is adapted to be moved into and out of engagement with the end of the pawl c^{19} and a starting lever preferably the lever for depressing and clamping the plates connected with said lever c^{18} to move the same to disengage the end of the lever c^{17} from the pawl c^{19}. 16th. The combination of the wheel C, the disc C^1 connected with the button hole cutting mechanism, the clutch between said wheel and disc, the clutch actuating and stop lever c^{17}, the handle C^4 and trip c^{12} between it and the lever c^{17}, whereby upon the movement of the handle the lever is disengaged from the clutch, and whereby also without restoring the handle to its original position the lever is left free to immediately resume its original clutch disengaging position. 17th. The combination in a button hole cutting and stitching machine of the main shaft A, the loose pulley thereon, the pinion a^4 connected therewith and the gear wheel C connected with said pinion, the pulley a fast to the main shaft A, the disc C^1 operating the button hole cutting mechanism, a clutch connecting the gear C with the disc C^1 adapted to permit a single rotation of the disc C^1 and a belt shifter moved by the section a^{11} of the disc to shift the belt from the pulley a^1 to the pulley a, whereby the main shaft A is started through it, the mechanism for feeding frame B and for actuating the stitching devices. 18th. The combination of the main shaft A, the pulley a fixed thereto, the loose pulley a^1 loose thereon and operating a wheel C, a disc C^1 and mechanism connecting it with the button hole cutting mechanism, a clutch connecting the wheel C with the disc C^1 and a belt shifter adapted to transfer the belt from the pulley a^1 to the pulley a upon the completion of the operation of the button hole cutting mechanism and to hold it upon the pulley a during the operation of the stitch forming devices, and to then transfer it to the pulley a^1, whereby after the machine comes to rest it turns constantly the said pulley and the wheel C until the clutch connecting it with the disc C^1 is set in operation. 19th. The combination of the bed of the machine, the plate D pivoted to the bed, material holding and slit spreading clamps carried at the forward end of said plate, a rotary face cam and a cam roll upon the rear end of said pivoted plate yieldingly held in contact with said cam which is constructed to move the clamp plate laterally during the stitching of the eye of the button hole and to hold it stationary during the stitching of each straight side of the button hole. 20th. The combination in a button hole stitching machine, of the bed plate D pivoted to the bed of the machine, the material holding and slit spreading clamps carried at the front end of said plate, the movable stitching frame and devices upon it adapted to engage said pivoted plate and move the same laterally while they are travelling bodily with the movable frame. 21st. The combination in a button hole stitching machine of the bed of the machine, material holding and slit spreading clamps pivoted to said bed and provided with lateral movements during the stitching of the eye of the button hole and held stationary during the stitching of the sidet of the button hole, whereby the work is held stationary excepting so far as it is given slight lateral movements during the stitching of the eye, a stitcher frame movable step by step upon the bed of the machine in a straight line backward and forward, an intermittently revolving wheel mounted upon a horizontal axis or shaft attached to said frame whereby said wheel is movable with it, a cam upon the face of said wheel connected with the clamps to move the same laterally, and a cam groove in the face of said wheel connected with the bed of the machine by a roll or pin fixed to said bed whereby the frame is moved backward and forward, as and for the purposes described. 22nd. The combination of the lower bar e^8, the bent lever e^{14} pivoted at e^{15}, the cam groove e^{16} in the back side of the rotary disc e^{17} of the main shaft connected with the upper end of the bent lever e^{14} by the lever e^{18} pivoted at e^{19}, the upper end of which carries a cam pin which enters said cam groove e^{16}, and the lower end of which is connected with said bent lever e^{14} by a link e^{20}. 23rd. The combination of the needle bar having the pinion F, the lower bar having the pinion e^{33}, the upper rack bar F^1 carried by the arm b, the forward end of which engages the pinion F, the lower rack bar e^{41}, the forward end of which engages the pinion e^{33}, the sliding yoke f^5 having the arms f^9, f^{10} to which said bars are attached, the rotary cam F^2 and a cam roll f^6 carried by the yoke and held in engagement with the edge of the cam by friction, the said cam being constructed to permit the rapid backward movement of the yoke and racks at the completion of the stitching

operation. 24th. The combination of the bed of the machine, the frame mounted thereon to be movable as specified, the cam disc B^1 mounted upon the frame to travel therewith and connected with the bed and having two cams, one of which is connected with the bed and the other with the clamps, the said cam having the gear h^3 upon its outer edge, a pinion h^4 to engage said gear teeth and means for intermittently rotating the said pinion, comprising the shaft h^5 upon which it is mounted, a clutch upon said shaft which is reciprocated by means of the lever h^{16} pivoted at h^{17}, the cam h^{15}, and the spring h^{20}, all as and for the purposes described. 25th. The combination in a machine of the character specified of the pulley a^1, the pulley a, the belt shifter a^2, a spring a^{10} for moving it in one direction, a cam a^{11} for moving it in the reverse direction, and means for holding the belt shifter and releasing it at the intervals stated, comprising the wheel B^1, having in its face a hole a^{15}, an autometically closing cover plate carried by said wheel and adapted to cover said hole, and an arm extending from the belt shifter, the end a^{13} of which is adapted upon the rotation of the wheel B^1 to act as a stop in holding the cover plate while the hole is being uncovered, and which hole then permits the lateral movement of the belt shifter, and which cover plate upon the movement of the belt shifter in a reverse direction is adapted to be moved past the end of said belt shifter arm to close the hole and prevent the return of the belt shifter. 26th. The combination of the disc C^1 operating the cutting mechanism and connected with the wheel C as specified and having the section a^{11} for operating the belt shifter with the belt shifter having a hook section to shut behind the part a^{11}, of the disc C^1, and the said wheel C and the cutting mechanism, as and for the purposes described. 27th. The combination of the belt shifter, the pulleys a, a^1, the wheel C and a latch attached to the belt shifter and adapted to be brought into contact with a spring on the inner face of the wheel C as the belt is being shifted from the pulley a^1 to the pulley a and to lock said wheel from rotating between the end of said spring and a stop thereon. 28th. In a button-hole stitching machine the combination of a cam caused to be actuated after the operation of the stitching device has ceased, the stitching mechanism and means for turning it, the clamp plate, an intermediate connection between them and the cam whereby the said cam causes the stitch forming devices to be turned backward and the clamp plate to be transferred after the completion of the stitching operation. 29th. The combination of the wheel C^1, a cam thereon connected with the mechanism for rotating the stitch forming devices to operate the same after the completion of the stitching operation, and a stop upon said wheel for holding the same stationary until the belt shifter has been shifted from the pulley a to the pulley a^1, and in such relation to the said stitching mechanism returning cam as to cause said wheel C to make a portion of a revolution before the cam is brought into operation, whereby the cam is prevented from turning the stitching devices until after the needles have been removed out of the work. 30th. The combination in a button-hole cutting and stitching machine of the main shaft A, the stitch forming devices operated thereby, the fast pulley a and the loose pulley a^1 thereon, the wheel C connected with the loose pulley to be operated thereby, the disc C^1 connected with the wheel C by a clutch and the button hole cutting devices, a belt shifter for moving the belt from the pulley a^1 to the pulley a at the end of the operation of the cutting devices, and for moving the belt from the pulley a to the pulley a^1 at the end of the operation of the stitching devices, means substantially as described for moving the said belt shifter, a stop for stopping the rotation of the disc C^1 after it has been unclutched, a stop for stopping the rotation of the wheel C upon the transfer of the belt from the pulley a^1, means for releasing said last named stop, and for transferring the belt from the pulley a to the pulley a^1 at the completion of the operation of the button-hole stitching devices, and whereby the said devices are stopped and a cam upon the said wheel C brought into operation after the stopping of the button-hole stitching devices and connected with them, whereby the stitching devices are adapted to be turned backward to their normal position. as and for the purposes described. 31st. The combination of the frame B, the wheel B^1, having the frame propelling cam B^4, and a metal band enclosing the said feed wheel and adapted to bear thereon whereby it acts as a cover to the teeth and also as a retarding device for checking the momentum of the frame at the instant the belt is shifted from its actuating pulley. 32nd. In a buttonhole stitching machine, the combination of the bed plate, the clamp plates, a cam for moving the clamp plates laterally after the completion of the stitching operation from the position in which they were at the end of the stitching operation to the position which they should occupy at the beginning of the stitching of the next button hole in order, the stitching device and means for simultaneously turning them backward a half revolution at the same time that the clamps are transferred, as and for the purposes set forth. 33rd. The combination in a buttonhole stitching machine of the clamp plate, a cam roll at the rear end of the clamp plate, a cam having a movable section held by the said cam roll until the clamp plate is moved laterally to move the cam roll until the clamp plate is moved laterally to move the cam roll from engagement with the cam, and means for then moving said movable section of the cam, whereby it is returned under the cam roll and devices for so moving the clamp plate and cam roll while the stitching devices are inoperative. 34th. The combination of the plate D, supporting the material holding and slit spreading clamps connected with its actuating cam as described, the said cam having the movable cam section, a spring for holding the end of said plate in contact with the cam, devices for moving the end of the plate from the cam to permit the interposition of the movable section of the cam between it and the end of said plates, and for the purposes described. 35th. The combination with the plate D, pivoted as described and supporting the material holding and slit spreading clamps and a rock lever n^1, pivoted at n^2, having an arm n^3, the upper end of which engages the plate D, at n^4, and a dog N, on the side of the lower rack bar and which dog engages said rock lever as the said rack bar approaches the end of its forward movement after the operation of the stitch forming devices. 36th. In a buttonhole stitching machine the combination of the bed plate of the machine, a work clamp mounted thereon, means for transferring it laterally in one direction at the beginning of the stitching of the rear end of the buttonhole and in a reverse direction at the end of the stitching of the rear end of the buttonhole, a buttonhole stitching mechanism movable lengthwise the buttonhole, means for holding it stationary or for slightly moving it at the beginning and at the end of the stitching of the rear end of the buttonhole during the transferring movement of the work clamp whereby the stitching of the buttonhole is begun by stiches of the same length as those used in stitching the sides and eye placed closely together in the material at the rear end of the buttonhole and in line therewith, and whereby the stitching of the buttonhole is ended by the sewing on top of the stitches first named of additional stitches of the same length as the sides and eye and a compact double stitched bar thus formed at the rear end of the buttonhole. 37th. The combination in a buttonhole stitching machine of an upper reciprocating straight eye-pointed needle and means for reciprocating it upon a vertical plane, a lower reciprocating straight eye-pointed needle and means for reciprocating it upon a straight line from below the work plate at an angle to the plane of movement of the upper needle and across the same, a looper below the work plate and means for providing it with movements past the upper needle to take the loop therefrom as the upper needle is lifting from its lowest position and carry the loop back of the under needle as the latter needle is falling, and to then hold it over the needle until the under needle has taken it and to then return it by the same path to its original position, all as and for the purposes set forth. 38th. The combination of the support E^2, the lever e^9, the bar e^8, connected with the lever e^9, means for reciprocating the said bar e^8, the inclined slide-way e^7, the slide e^6 therein, the needle E^1, attached thereto and a connection between the free end of the lever e^9 and the slide. 39th. The combination of the support E^2, the looper holder pivoted to said support as described and movable laterally in relation thereto, the looper E^3, carried by said looper holder and the lever h^{22} having the cam slot e^{21} and lever e^{28} having the cam e^{27}, both connected with said looper holder, one adapted to reciprocate the same and the other to provide it with lateral movement, and the reciprocating bar e^8, connected with the said cam e^{27}. 40th. The combination with the looper holder and the looper carried thereby, the laterally sliding support or pin to one end of which the looper holder is attached, the lever e^{28} connected at its free end with said pin, the cam e^{27} thereon, a reciprocating pin or bearing piece actuated as specified to engage said cam, and the spring e^{31}, to return the looper holder and hold the lever with the cam in inoperative relation to the end of said pin. 41st. The combination in a buttonhole stitching machine of a clamp plate having a lateral movement at the beginng and at the end of the stitching of the rear end of the buttonhole, means for holding it fixed during the stitching of the straight sides of the button hole, means for moving the clamp plate laterally in both directions during the stitching of the eye and additional means for moving the clamp plate transversely in a direction the reverse of that in which it is moved at the end of the stitching of the last side of the button hole, which movement is made after the stitching of the button hole is finished to restore the clamp plate to its original position in relation to the stitching mechanism and while the latter is being rotated back to its original position the stitching mechanism and means for imparting to it a step by step feeding movement and for rotating it in one direction during the stitching of the eye and in a reverse direction at the completion of the stitching of the button hole. 42nd. The combination of the reciprocating bar e^8, a cross pin e^{12} mounted thereon to reciprocate therewith and having an end which comes into contact with the cam upon the side of a pivoted lever, with said lever e^{28}, the said cam e^{27} thereon, the looper holder e^{25} upon which the looper is mounted, said pin being connected with the upper end of said lever e^{28} to be moved in one direction thereby, a spring e^{31} to move it in the reverse direction and the looper E^3 carried by said looper holder. 43rd. The combination in a button hole cutting and stitching machine of the bed plate of the machine, the stitcher frame and means for moving it step by step backward and forward upon said bed plate, the stitching mechanism carried thereby, the lever C^2 mounted upon the forward end of said frame, a crank and means for providing it with a single continuous revolution, a pitman connecting the crank with said lever e^3, an anvil beneath the bed plate moved into and out of operative position with the cutter C^2 during the downward and upward movements of the cutter and held stationary upon the stitcher frame out of operative relation with the cutter during the movement of the stitcher frame, as and for the purposes set forth. 44th. The combination in a button hole cutting and stitching machine of the bed plate of the machine, the stitcher frame mounted thereon, the stitching mechanism carried thereby, means for moving

the frame and actuating the stitching mechanism, the cutter lever and cutter mounted thereon, a crank pin and means for providing it with one continuous revolution, a longitudinal adjustable pitman connecting the crank pin with the cutter lever, and an anvil, as and for the purposes set forth. 45th. The combination in a button hole stitching machine of a longitudinally movable frame mounted upon the bed of the machine, button hole stitching devices mounted thereon, button hole cutting mechanism also mounted upon said frame to be movable longitudinally therewith, one section of which cutting mechanism is above the bed plate of the machine and the other section of which is below said bed plate, and means for moving said upper section towards and from the lower section and for moving the lower section horizontally into and out of operative relation with the upper section, as and for the purposes set forth. 46th. The combination in a button hole stitching machine of the button hole stitching devices comprising a bed plate, a work clamp laterally movable during the stitching of the eye, a stitcher frame movable lengthwise the work clamp and bed plate, stitching devices carried by said stitching frame and rotated during the stitching of the eye in one direction and at the completion of the stitching operation in a reverse direction, a button hole cutter above the work plate, a co-operating anvil below the work plate and means for moving the lower complemental stitch forming devices and the anvil laterally to move the said lower stitch forming devices out of their operative relation with the upper stitch forming devices and the anvil into operative relation with the cutter and to restore them to their original positions, and devices for actuating the cutter. 47th. In a button hole cutting and stitching machine, the combination of a laterally movable clamp with a button hole cutting mechanism, the anvil and cutter of which are set to operate slightly out of line to a median line passing through the centre of the fulcrum of the clamp plate and the centre of the upper needle. 48th. In a button hole stitching and cutting machine, a button hole cutting mechanism the anvil and cutter of which are set slightly out of line to a median line passing through the centre of the fulcrum of the clamp plate and the centre of the upper needle.

No. 68,975. Rack for Music Books.

(Ratelier pour livres de musique.)

FIG. 1.

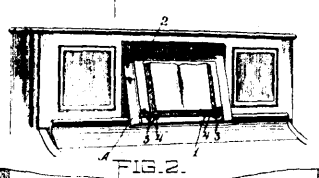


FIG. 2.

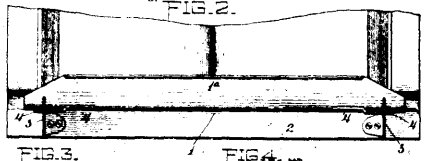


FIG. 3.

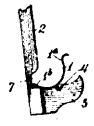


FIG. 4.

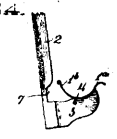
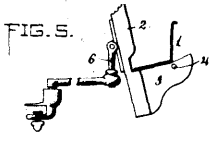


FIG. 5.



68975

Charles E. Stewart, Bobcaygeon, Ontario, Canada, 12th October, 1900; 6 years. (Filed 20th June, 1900.)

Claim.—1st. A support for music, books or the like, and brackets adapted for attachment to a suitable back, upon which said support has an intermediate longitudinal tilting bearing, said support constructed with sides projecting oppositely from the line of said bearing and with the general direction of said sides extending at an angle to each other, thereby forming two supports, either of which may be depressed, and when the article rests upon one side the other side will project upwardly, for the purpose set forth. 2nd. A music rack comprising a suitable back and a support adjacent to said back, provided at an intermediate point with a longitudinal tilting bearing, whereby either side may be depressed when the article rests thereon, said support being trough-like in shape, whereby when the article rests upon one depressed side, the other side will project upwardly and in front of the artice to hold the leaves from turning. 3rd. A book support, music rack, or the like, comprising a suitable back, supporting brackets, and a rigid trough-like support with a tilting bearing upon said brackets intermediate of its sides, and adapted to rest thereon in opposite positions, substantially as described. 4th. A book support, music rack, or the like, comprising supporting brackets, a trough-like support having tilting bearings upon said brackets, and a suitable back having a recess 7 into which the edge of the support enters, substantially as and for the purposes set forth. 5th. A book or music support having the general directions of its sides extending at an angle to each other, and mounted to rock upon a longitudinal axis intermediate of said sides, so that by tilting the support either side may be brought into and held in supporting position, and when the book or music rests upon the inner side, the outer side projects in position to provide a leaf holder.

No. 68,976. Life Saving Corset. *(Corset pour sauvetage.)*

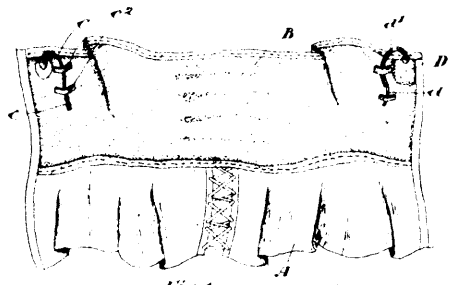


Fig. 1.

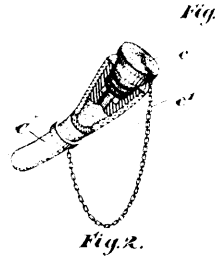


Fig. 2.

Fig. 3.

68976

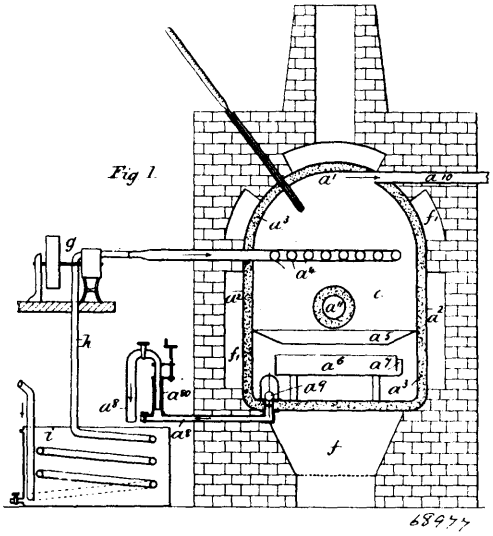
Charles Orlando Dutton, Lachine, Quebec, Canada, 12th October, 1900; 6 years. (Filed 8th March, 1900.)

Claim.—In a corset the combination with the body thereof, of an elongated rubber bag, as a lining with a tube from one corner, having a screw top, attached to a retaining chain, and a receptacle in an upper corner, fitted with a tube from its mouth, and a second tube, intermediate of the length of the first tube, and attached thereto, as and for the purpose specified.

No. 68,977. Liquid Distilling Apparatus.

(Appareil de distilation de liquides.)

Fig. 1.



68977

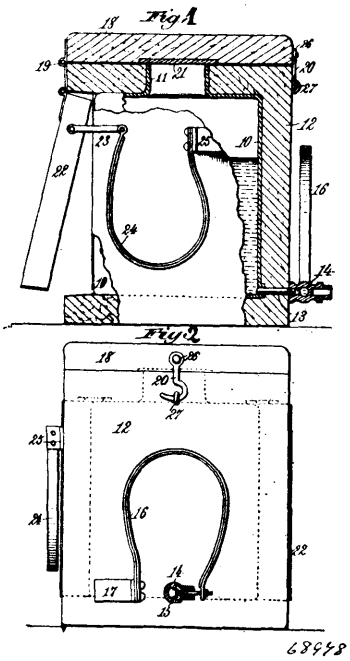
Louis Charles Reese, London, England, 12th October, 1900; 6 years. (Filed 30th May, 1899.)

Claim.—1st. As an improvement in the art of distilling liquids, the method of vaporizing the liquid to be distilled consisting in sup-

plying it through a distributor under pressure to a vaporizer or vaporization chamber uniformly heated from all its sides to a sufficient temperature to effect the complete vaporization of the distillable parts to be obtained from the liquid, the vaporizer or vaporization chamber being a capacity determined by the density of the vapour of the liquid to be distilled at the temperature of its vaporization, the slowness with which the vapors must pass through the vaporizer for its constituents to become ready for the condensers, the proportionate quantity of the residue, the degree of expansion of this residue at the temperature of the vaporizer, the duration of time the residue must remain in the vaporizer for being completely freed from all distillable parts to be obtained, and the quantity of the liquid to be vaporized per unit of time, and being provided at its upper part with a vapor outlet of suitable sectional area for the free passage of the vapours in the required volume per unit of time, and at its lower part with a trapped residue outlet the overflow level of which is determined by the pressure of the vapours within the vapourizer and the depth and surface level of the residue required to be kept within the vapourizer to preserve a liquid sealed outlet and to keep always such a quantity of the residue within the vapourizer that all its distillable parts to be obtained are vapourized, whereby the process of vapourization and of separation of the residue is rendered automatic, exact and continuous, as set forth. 2nd. A vapourizer for the vapourizing liquid to be distilled consisting of a closed heated chamber provided with means of supplying thereto under pressure in a finely distributed state the liquid to be distilled, and of heating it uniformly and evenly throughout to a sufficient temperature to effect the complete vapourization of all distillable parts to be obtained of the liquid, with a free outlet for the vapour at the upper part, and with a trapped outlet for the residue at its lower part, and adapted to effect the automatic, uniform and continuous vapourization of all the distillable parts to be obtained from the liquid, and the separation of the residue by being made of a capacity determined as herein before stated and provided with a residue outlet, the overflow level of which is determined as herein before stated, as set forth. 3rd. As an improvement in the art of distilling liquid, the method of fractionally condensing the mixture of vapours of the vapourized liquid, the constituents of which boil at different temperatures by leading them in a continuous current through the condensation chambers of a series of condensers, each consisting of a condensation chamber and a surrounding cooling chamber, in which the several respective vapours, excepting the last ane belong to that part of of the liquid to be fractionated boiling at the lowest temperature, are caused to give up their latent heat of vapour successively in order to the boiling points of the fractions which they belong to, to those still warm liquids, which, boiling at the next lower temperatures, are condensed in the condensation chambers of the next following condensers and are led therefrom into the cooling chambers of the respectively preceding condensers, therein serving as cooling and condensing liquids of definite constant temperatures by being re-boiled, the vapours of those parts of these liquids boiling at the lowest temperatures in relation to those of all their constituents not being condensed again in the cooling chambers but being led into the condensation chambers of the next following condensers in which they were originally condensed, therein partially condensed again, led back into the respective cooling chambers, reboiled, partially condensed, led back into the respective condensation chambers, and so on, which process is repeated until those parts of each cooling fraction boiling at the highest temperatures leave the respective cooling chambers as a completed fraction and those parts of this liquid boiling at the lowest temperatures, not condensed again in the cooling chamber and in the condensation chamber of the next following condenser, enter the condensation chamber of the next but one condenser, whereby the process of fractionately condensing or "splitting up" the mixture of vapour, of the vaporized liquid is rendered continuous, automatic and accurate, and the fractions, excepting the first and last, are also partially rectified, as set forth. 4th. A fractionator, consisting of a series of condensers, each of the condensers consisting of a condensation chamber and a surrounding cooling chamber, the series of condensation chambers being in through communication by pipes connected by preference at their upper parts to permit the vapours to be condensed passing successively through the series of condensers and each condensation chamber excepting the last one being equipped at its lower part with an upturned outlet pipe for the condensed liquid leading as regards the first fraction to an ordinary cooler and as regards each following fraction (excepting the last) to the cooling chamber of the next preceding condenser, the overflow of these outlet pipes being as high as the depth and surface level of the liquid necessary for preserving a liquid sealed outlet and for regular working and the vapour pressure in the condensation chamber demand, and each cooling chamber being provided with an inlet higher than the surface of the liquid in this chamber, this inlet serving as an inflow for the fraction condensed in the condensation chamber of the next following condenser, with a vapour outlet pipe in preference attached at its upper part connecting it with the condensation chamber of the next following condenser in preference at its upper part, and with an upturned outlet pipe the overflow level of which is as high as the depth and surface level of the liquid necessary for preserving a liquid sealed outlet and for regular working and the vapour pressure in the cooling chambers demand, the whole co-operating to cause the fraction condensed in the condensation chamber of each condenser (excepting as regards the last one) to be produced by re-boiling and partially re-vaporizing in the cooling chamber of this condenser the fraction condensed in the condensation chamber of the next following condenser, the fraction so used being thus partially rectified in such use, whereby the process of fractionating the vapors of the vaporized liquid is rendered continuous, automatic and accurate, and the respective fractions are also partially rectified, as set forth. 5th. As an improvement in the art of distilling liquids, the method of vaporizing the liquid to be distilled and fractionating the vaporized liquid, substantially in the manner herein described and set forth. 6th. In a distilling apparatus, as set forth, the combination of a vaporizer for vaporizing the liquid to be distilled and a fractionator for "splitting up" the vaporized liquid, in the manner substantially as herein described.

No. 68,978. Liquified Air Containers.

(*Receptacle à air liquéfier.*)

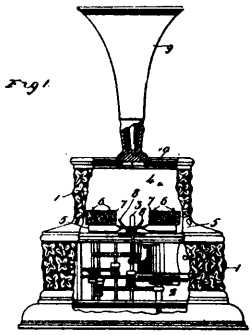


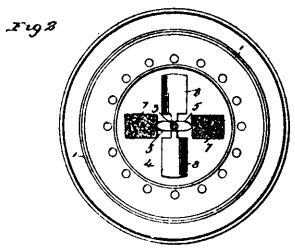
Edward Carlton Hargrave, Bay City, Michigan, U.S.A., 12th October, 1900; 6 years. (Filed 4th May, 1899.)

Claim.—1st. A liquified air container having an enveloping non-ducting casing, a liquified air delivery valve at its bottom portion for delivering liquified air to the space which is to be refrigerated, and means at the top portion for the escape of evaporated liquified air from the container, substantially as described. 2nd. A liquified air container having an enveloping non-conducting casing, a liquified air delivery valve at its bottom portion for delivering liquified air to the space which is to be refrigerated, and a valve at the top portion for the escape of evaporated liquified air from the container, substantially as described. 3rd. A liquified air container, having an enveloping non-conducting casing, an automatically operated liquified air delivery valve at its bottom portion for delivering liquified air to the space to be refrigerated, and a valve at its top for the escape of the evaporating liquified air from the container, substantially as described. 4th. A liquified air container, having an enveloping non-conducting casing, a liquified air delivery valve at its bottom portion for delivering liquified air to the space to be refrigerated, and a non-conducting movable cover provided with a valve located over the mouth of the tank for permitting the escape of evaporated liquified air from the container, substantially as described. 5th. A liquified air container, having an enveloping non-conducting casing, an automatically operated liquified air delivery valve at its bottom portion for delivering liquified air to the space to be refrigerated, and a non-conducting movable cover having a valve located over the mouth of the container for permitting the escape of evaporating liquified air threfrom, substantially as described. 6th. A liquified air container, having an enveloping non-conducting casing, a liquified air delivery valve at its bottom portion for delivering liquified air to the space to be refrigerated, and a hinged non-conducting cover provided with a valve located over the mouth of the container for permitting the escape of evaporating liquified air therefrom, substantially as described. 7th. A liquified air container provided with an enveloping casing or a jacket, and means whereby the transmission of heat from the exterior to the surface of the container or liquid may be varied for the purpose of accelerating or retaining the evaporation of the liquified air, substantially as described. 8th. A liquified air container having an

enveloping non-conducting casing, means whereby the transmission of heat from the exterior to the surface of the container may be varied for accelerating or retarding the evaporation of the liquified air, a liquified air delivery valve at the bottom portion for delivering liquified air to the space to be refrigerated, and means for permitting the escape of evaporating liquified air from the top portion of the container, substantially as described. 9th. A liquified air container having an enveloping non-conducting casing provided with an adjustable section for more or less exposing a part of the surface of the container or liquid to the action of the atmosphere, whereby the evaporation of the liquified air in the container may be accelerated or retarded, substantially as described. 10th. A liquified air container having an enveloping non-conducting casing, provided with an adjustable section for more or less exposing a part of the surface of the container to accelerator or retard evaporation of the liquified air therein, a liquified air delivery valve at the bottom of the container, and a valve at the top thereof for the escape of evaporating liquified air from the container, substantially as described. 11th. A liquified air container having an enveloping non-conducting casing provided with an automatically adjusted section for more or less exposing a part of the surface of the container or liquid to accelerate or retard evaporation of the liquid air in the container, substantially as described. 12th. A liquified air container having an enveloping non-conducting casing provided with a movable section for more or less exposing a part of the surface of the container to accelerate or retard evaporation of the liquified air in the container, and a thermostat connected with said movable section to automatically move it relatively to a part of the surface of the container, substantially as described. 13th. A liquified air container having an enveloping non-conducting casing provided with a hinged movable section for more or less exposing a part of the surface of the container or liquid to accelerate or retard variation of the liquified air, substantially as described. 14th. A liquified air container, having an enveloping non-conducting casing provided with a movable section for more or less exposing a part of the surface of the container or liquid to accelerate or retard evaporation of the liquified air, a liquified air delivery valve at the bottom of the container and a valve at the top thereof for the escape of evaporating liquified air, substantially as described.

No. 68,979. Odorizer. (*Parfumeur.*)





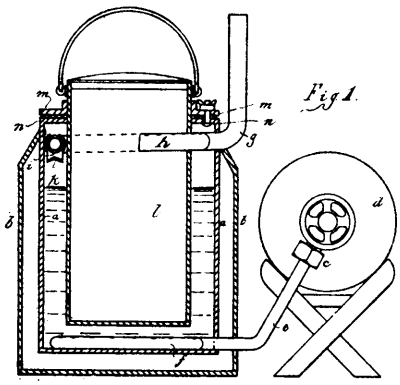
68979

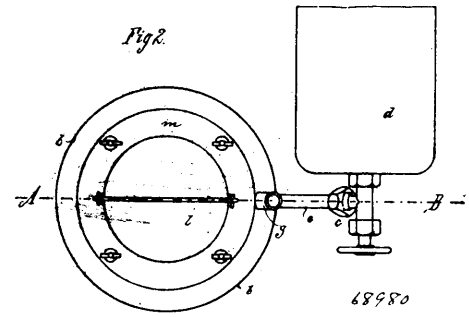
Charles G. Ette, St. Louis, Missouri, U.S.A., 15th October, 1900; 6 years. (Filed 16th November, 1899.)

Claim.—1st. In an odorizer, comprising a base, a suitable motor, a rotating shaft forming a part of the same, a body secured to said shaft, fan blades forming a part of said body, and absorbent material also forming a part of the body, and out of contact with the fan blades, all mounted in the base, in combination with a vase, above the base, and adapted to contain natural or artificial flowers. 2nd. An odorizer, comprising a suitable motor, a rotating shaft forming a part of the same, a body secured to said shaft, arms forming a part of said body and carrying absorbent material, and fan blades also forming a part of the body and located between the arms, as and for the purpose described. 3rd. In an odorizer, comprising a base, a suitable motor, a rotating shaft forming a part of the same, a body secured to said shaft, arms forming a part of said body and carrying absorbent material, and fan blades also forming a part of the body and located between the arms, all mounted in the base, in combination with a vase above the base and adapted to contain natural or artificial flowers. 4th. An odorizer, comprising a suitable motor, a rotating shaft, forming a part of the same, a body secured to said shaft, arms forming a part of said body, pins carried by said arms, absorbent material removably secured to the arms by said pins, and fan blades also forming part of the body and located between the arms and out of contact with the absorbent material, as and for the purpose described.

No. 68,980. Ice Producing Process and Apparatus.

(*Procédé et appareil pour la production de la glace.*)

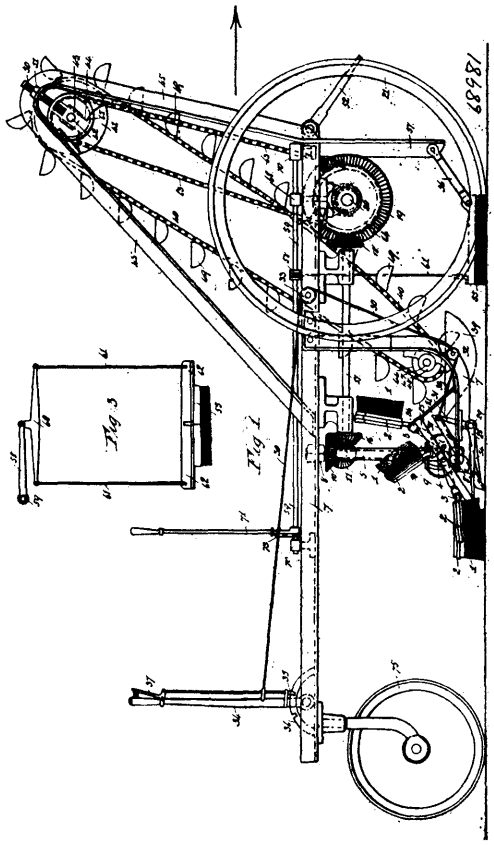




Carl Krausse, Neumarket, Saxony, Germany, 15th October, 1900 6 years. (Filed 28th August, 1899.)

Claim.—1st. A refrigerating process in which liquid carbonic acid is used, consisting in directly introducing carbonic acid gas under pressure into a saline solution to be cooled so as to serve as the freezing means for the material to be refrigerated, substantially as described. 2nd. The refrigeration of liquid or fluid substances by directly introducing carbonic acid gas under pressure into the material to be refrigerated, substantially as described. 3rd. Refrigerating apparatus for carrying out the process described comprising a closed vessel intended to contain the saline solution, a spray tube at the bottom of said vessel for admitting the carbonic acid gas under pressure and an exit pipe for the discharge of the used carbonic acid gas at the top, an inner vessel for the material to be refrigerated, substantially as described. 4th. In apparatus of the kind described, a ring shaped tube, such as *h*, with perforations in its upper surface provided before the exit tube, as *g*, to prevent any of the saline solution being carried away by the escaping carbonic acid gas, substantially as described. 5th. Apparatus for the production of ice and refrigerated materials containing carbonic acid comprising a vessel with an admission pipe for the compressed carbonic acid gas entering the vessel obliquely in a downward direction a removable cover and a gas discharge pipe, substantially as described. 6th. In apparatus of the kind described, superposed shields such as *q r*, arranged before the exit opening for the used carbonic acid gas, said shields being provided at the edges and at the centre respectively with perforations to prevent particles of the liquid being carried away by the escaping carbonic acid gas, substantially as described. 7th. Refrigerating apparatus comprising a vessel *a*, a removable cover *o*, gas escape pipe *g*, inclined gas inlet pipe *e*, substantially as described. 8th. Refrigerating apparatus comprising a vessel *a*, cover *m*, gas escape pipe *g*, with shield *k*, and protector pipe *h*, perforated gas inlet pipes *e*, *f*, and inner vessel *l*, substantially as described.

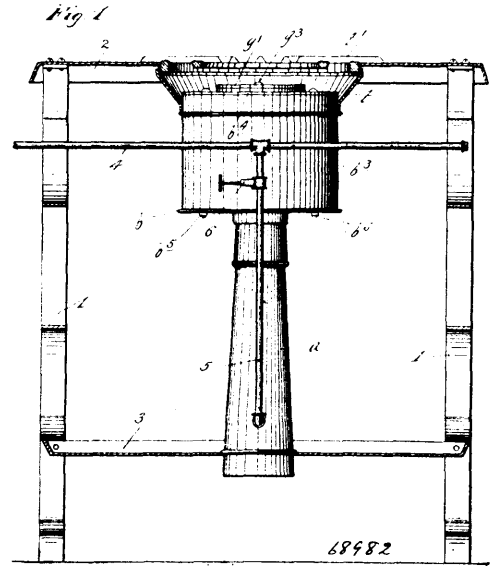
No. 68,981. Road Cleaner. *(Nettoyeur de chemins.)*



Henry James Ranger, Christchurch, Canterbury, New Zealand, 15th October, 1900; 6 years. (Filed 10th September, 1900.)

Claimed.—1st. In a road cleaning machine the employment of pivoted rotating arms carrying brushes and a cam race whereby said arms are raised during part of their rotation substantially as and for the purposes herein described. 2nd. In a road cleaning machine the combination of two sets of rotating arms carrying cleaning brushes, the arms in each set being pivoted upon a separate sleeve means for connecting the sleeves whereby motion of one is conveyed to the other said sleeves, being caused to revolve by forward movement of the travelling wheels of the machine an inclined cam race beneath set of arms, an inclined chute up which material is conveyed by the brushes, a hopper receiving from said chute, and an elevator removing material from said hopper substantially as and for the purposes herein described. 3rd. In a road cleaning machine the combination of rotating arms carrying cleaning brushes and pivoted at their ends upon a sleeve means for revolving said sleeve upon a fixed support by forward movement of the travelling wheels of the machine by inclined cam race beneath the arms, an inclined chute up which the material is conveyed by said brushes and a hopper receiving the material from the chute substantially as herein described. 4th. In a road cleaning machine the combination of two sets of rotating arms carrying cleaning brushes, the arms in each set being pivoted upon a separate sleeve, journalled upon a fixed vertical pillar, a bevel wheel upon one sleeve gearing with a similar wheel upon one end of a spindle, which has a bevel wheel upon its opposite end gearing with a similar wheel upon the other sleeve, a main axle of the machine revolving by forward motion of the travelling wheels a bevel driving wheel free from said axle, and a clutch by which it may be caused to revolve therewith, means for operating said clutch by a hand lever, a bevel pinion in gear with the bevel driving wheel and fixed upon a spindle, the opposite end of which has a bevel wheel in gear with the bevel wheel upon one of said sleeves substantially as and for the purpose herein described. 5th. In a road cleaning machine the combination of rotating arms carrying cleaning brushes and pivoted at their ends upon a sleeve means for revolving said sleeve upon a fixed support by forward movement of the travelling wheels of the machine, an inclined cam race beneath the arms an inclined chute up which the material is conveyed by said brushes and a hopper receiving the material from the chute, an elevator consisting of buckets carried upon endless sprocket chains for removing material from said hopper, and means for actuating said elevator from the travelling wheels axle substantially as herein described. 6th. In a road cleaning machine the combination of rotating arms carrying cleaning brushes and pivoted at their ends upon a sleeve, said sleeve being supported upon a pillar fixed to the frame of the machine, a bevel wheel upon said sleeve gearing with another bevel wheel upon a spindle which has a bevel pinion upon its opposite end, driven by a bevel wheel upon the axle of the travelling wheels of the machine substantially as described. 7th. The combination in road cleaning machinery of two corresponding sets of rotating arms carrying cleaning brushes, the members of each set of arms being pivoted upon a sleeve revolvable upon a fixed support, a bevel wheel upon one sleeve gearing with a bevel wheel fixed upon a spindle which has another bevel wheel at its opposite end gearing with a bevel wheel upon the sleeve which carries the other set of arms, with means for rotating one set of arms by forward motion of the machine, substantially as and for the purposes specified. 8th. In a road cleaning machine the combination of rotating arms carrying brushes and pivoted at their ends upon a sleeve, means for revolving said sleeve upon a fixed support by forward movement of the travelling wheels of the machine, an inclined chute up which material is conveyed by said brushes, a hopper receiving material from the chute, and an inclined circular cam race beneath said arms, said cam race being in two parts, the one fixed and the other pivoted, with means for operating said pivoted portion of the race whereby it is raised with the arms resting upon it, substantially as and for the purposes herein described. 9th. In a road cleaning machine rotating arms carrying brushes and pivoted at their ends, a cam race beneath said arms whereby they are caused to rise in one portion of their path of rotation, said cam race being in two parts, the one fixed and the other pivoted, a hinged inclined chute up which material is conveyed by the brushes, a rocking shaft having a lever arm projecting beneath said chute, and a lever arm projecting beneath the pivoted portion of the cam race, with means for rocking said rocking shaft and thereby simultaneously lifting the pivoted part of the cam race and raising the lower edge of the chute, substantially as and for the purposes herein described. 10th. In a road cleaning machine a main axle of the machine revolved by forward motion of the travelling wheels thereon, a bevel driving wheel free upon said axle giving motion through bevel gearing to rotating arms carrying cleaning brushes, a sprocket chain wheel by which motion is conveyed to an elevator, said chain wheel being free upon said axle and connected to said bevel driving wheel, a sliding cluth upon said axle by which the bevel driving wheel and chain wheel may be caused to revolve therewith, a fork working in a recess in said clutch, a rocking shaft to which said fork is attached, and a lever for operating said rocking shaft substantially as and for the purposes herein specified. 11th. In a machine for cleaning roads the means of attaching a cleaning brush to an arm consisting in forming a recess in the brush, which receives a carrier bracket, one end of which is hooked and takes into a hole in the end of the arm, and the other terminates in a lug, wherein is formed a slot, receiving a bolt, which also passes through a hole in the arm, and is provided with a wing nut, substantially as specified.

No. 68,982. Gas Stove and Burner.
(Poêle à gaz et bruleur.)

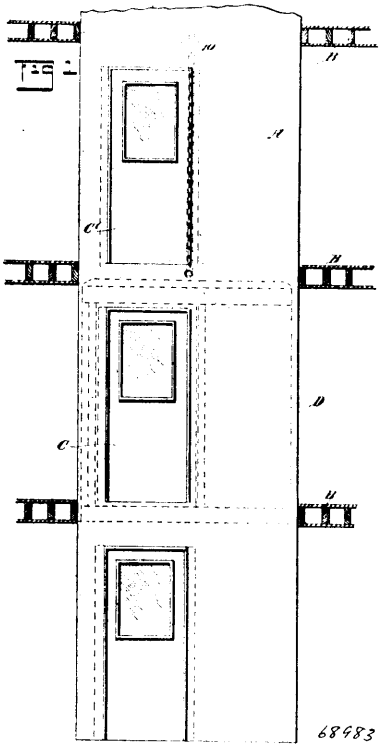


Charles M. Stroud, Hastings, Minnesota, U.S.A., 15th October, 1900; 6 years. (Filed 8th September, 1900.)

Claim.—1st. In a gas burner, the combination with a spreading drum with closed bottom, of a perforate screen surrounding said drum and spaced therefrom to form an attenuated gas chamber, which

chamber is closed at its top and open at its bottom, and a shield or plate surrounding said screen to form a combination chamber which is open at its top, substantially as described. 2nd. In a burner, the combination with a perforate cylinder or screen, of a spreading drum scaped within said screen to form on other gas chamber, which chamber is closed at its top, an air and gas inlet below said drum, and a plurality of cylinders surrounding said screen to form a combustion chamber and a series of concentric air intake chambers with air passages permitting the upward and downward passing of the air from the outer air chamber to the combustion chamber, substantially as described. 3rd. In a gas burner, the combination with the perforate cylinder or screen *f* and the spreading drum *g*, g^2 forming therewith a gas chamber open at its lower and closed at its upper end, of a central air and gas inlet opening below said drum, the auxiliary air supply passages b^1O opening through the bottom of the burner, and the cylinder or wall b^1 surrounding said screen *f* and forming a combustion chamber that is closed at its lower and open at its upper and open at its upper end, substantially as described. 4th. In a gas burner, the combination with the head *b* having the passages b^8 and b^1O and stack or tube opening centrally through the same, of a perforate cylinder or screen *f* extending outward of said air passages b^1O, the spreading drum gg^2 secured within said perforate cylinder or screen *f*, as described, the cylinders b^1 and b^2 with perforations b^6 and b^7, respectively, resting on said head *b*, the outer imperforate cylinder b^3 also resting on said head *b*, and the annular head b^4 closing the chambers formed between the cylinders b^1, b^2 and b^3 substantially as described. 5th. The combination with the spreading drum *g* with closed bottom g^2, of the screen *f* secured to said drum *g* by the head g^1, the stack *a* opening centrally through the head *b*, which head *b* is secured to the lower end of said screen, and the cylinder b^1 secured at its lower end *o*, said head *b* to form a combustion chamber outward of said screen, which combustion chamber has auxiliary air ports opening thereinto at its lower portion, substantially as described.

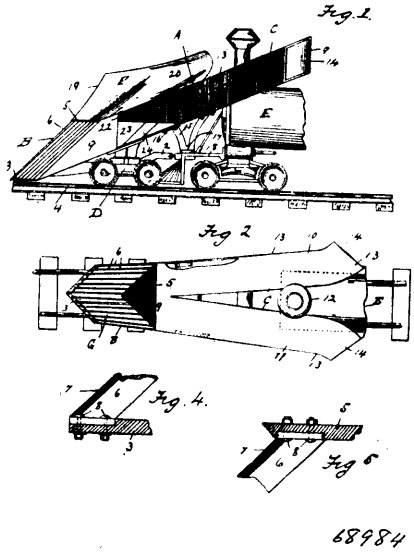
No. 68,983. Elevator. *(Elevateur.)*



Parley D. Root, Wakefield, Rhode Island, U.S.A., 15th October, 1900; 6 years. (Filed 7th September, 1900.)

Claim.—1st. In elevators, a shaft door and a car door, the shaft door being opened and closed by a corresponding movement of the car door. 2nd. In elevators, a shaft, a sliding door for the shaft, a car and a sliding door for the car, the two doors being arranged for interlocking engagement, but one door being capable of passing the other, and means for simultaneously opening and closing one door by a corresponding movement on the part of the interlocking door. 3rd. In elevators, a shaft a sliding door for the shaft, a car, a sliding door for the car, one door being arranged to interlock with the other when the doors are brought opposite one another, the said doors being also capable of passing one another in a vertical direction, latches for the doors, and means for operating the latch of a shaft door from the elevator car. 4th. In elevators, a shaft, a sliding door for the shaft, having ribs formed upon its inner face, the tracks for the sliding doors having spaces between them and between the sides of the shaft, a car provided with a sliding door, having ribs upon its outer face, which ribs are adapted to extend at each side of the outer surfaces of the ribs on the shaft door, the ribs on the car door being so placed that when the car door is closed the said ribs will be in vertical alignment with the spaces between the tracks, and when the car door is opened whereby the ribs will engage with the said tracks, as described. 5th. In elevators, a shaft, a sliding door for the said shaft, having ribs formed upon its inner face, the tracks for the sliding door having spaces between them and between the sides of the shaft, a car provided with a sliding door, having ribs upon its outer face, which ribs are adapted to extend at each side of the outer surface of the ribs on the shaft door, the ribs on the car door being so placed that when the car door is closed the ribs will be in vertical alignment with the spaces between the tracks, and when the car door is opened whereby the ribs will engage with the said tracks, a concealed latch for the shaft door, and a trip carried by the elevator car and adapted for engagement with the said latch, as and for the purpose set forth. 6th. In elevators and shafts for the same, a latch for the shaft doors, and a projection from the elevator car, adapted to engage with the said latch and open the same, as set forth.

No. 68,984. Snow Plough. *(Charrue à neige.)*



George R. Huff, St. Croix Falls, Wisconsin, U.S.A., 15th October, 1900; 6 years. (Filed 26th September, 1900.)

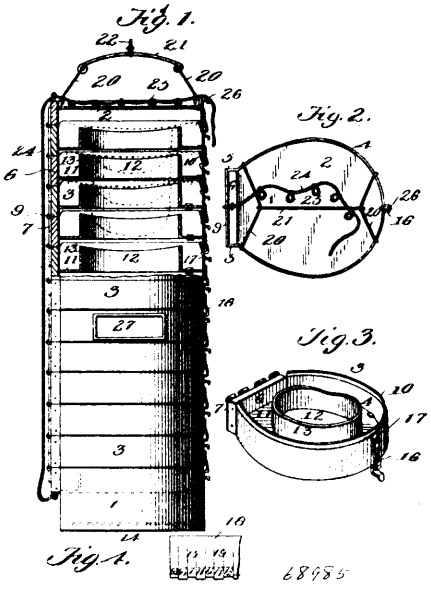
Claim.—1st. A snow plough, consisting of a scoop having a mouth and wedge shaped frames, cutting or distributing knives mounted upon said frames across said mouth, a bifurcated chute lending from said scoop, in combination with tbe truck and the means for supporting the plough and connecting the truck to the locomotive, as shown, and for the purposes specified. 2nd. A snow plough, consisting in combination with the locomotive of a scoop having a wedge mouth, cutting or distributing knives inclined across said mouth, an upwardly and outwardly inclined bifurcated chute leading from said scoop, the truck for carrying said plough and the means for supporting said plough and connecting said truck to the locomotive as shown, and for the purposes specified. 3rd. A snow plough, consisting in combination with the locomotive of a scoop B having a suitable opening, cutting or distributing knives 6 inclined across said opening, a bifurcated chute C inclined from said scoop, an auxiliary plough F, mounted upon said scoop and chute, the truck for carrying said plough, and the means for supporting said plough and connecting said truck to the locomotive as shown, and for the purposes specified.

No. 68,985. Hat Box. *(Boîte à chapeau.)*

Holland Frederick Lindsey, Corinth, Mississippi, U.S.A., 15th October, 1900; 6 years. (Filed 26th September, 1900.)

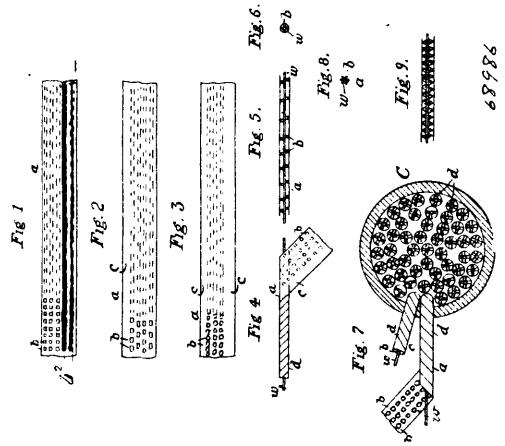
Claim.—1st. A hat case comprising a plurality of compartments disposed one on top of another and permanently hinged together at the rear, and means common to all the compartments for holding said case open at any one of the compartments, substantially as described. 2nd. In a hat case, the combination of a plurality of compartments disposed one on top of another, each of said compartments comprising an integral rigid rim having its ends bent into parallelism, a block fastened between said parallel ends, hinges connecting said blocks, a hat holding device, and an imperforate top and bottom for respectively closing the upper and lower compartments, substantially as described. 3rd. A hat case comprising

a plurality of compartments disposed one on top of another and hinged together at the rear, means for supporting the uppermost



compartments from an overhead support, independent fastening devices for fastening each compartments to the adjacent compartments, a flexible connection attached at one end to the lowermost compartment and extended upwards behind all the compartments, and means for adjustably attaching the other end of said connection to the uppermost compartments, substantially as described and for the purpose specified. 4th. A hat case comprising a plurality of compartments disposed one on top of another and hinged together at the rear, independent fastening devices for detachably fastening the compartments together, a cord attached to the rear of the lowermost compartment and extending along the rear of all the compartments and across the top of the uppermost compartment, and a knob or projection attached to the front of the top of the uppermost compartment substantially as described and for the purpose specified.

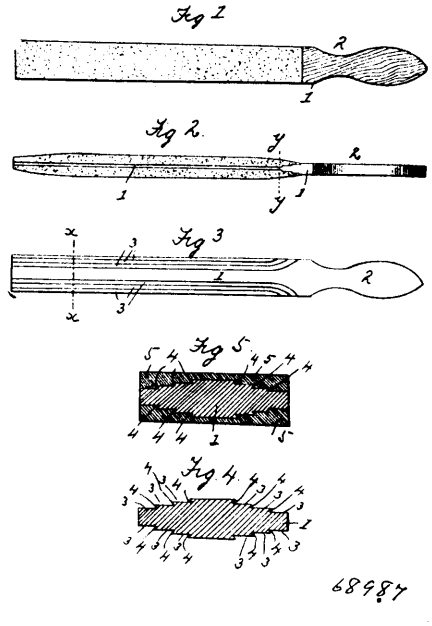
No. 68,986. Electric Conductor. *(Conducteur électrique.)*



Jasper Newton Keller, Newton, Massachusetts, U.S.A., 15th October, 1900; 6 years. (Filed 30th April, 1900.)

Claim.—1st. An insulated conductor, consisting of a metallic conductor and an insulating covering interposed between which are fragments or pieces of insulating material slightly separated from each other. 2nd. An insulated conductor, consisting of a metallic conductor and an insulating covering between which are interposed pieces of insulating material held positively separated from each other. 3rd. An insulated conductor, consisting of a metallic conductor and an inclosing covering separated from each other by insulating material at a slight distance from each other. 4th. An insulated conductor, consisting of a metallic conductor and an inclosing covering separated from each other by pieces of cork at a slight distance from each other. 5th. An insulated conductor, consisting of a metallic conductor and an inclosing covering separated from each other by pieces of insulating material held positively apart from each other, the interstices being occupied by air. 6th. An insulated electric conductor, consisting of a metallic conductor, and an insulating covering composed of a fillet or tape of thin insulating substance having secured on one of its surfaces pieces of non-conducting material wound spirally around said metallic conductor. 7th. An insulated electric conductor, consisting of a metallic conductor, and an insulated covering composed of a fillet or tape of thin insulating substance having secured to its inner surface pieces of non-conducting material wound spirally around said metallic conductor. 8th. An insulated electric conductor, consisting of a metallic conductor, and an insulating covering composed of a fillet or tape of paper having small isolated pieces of non-conducting material secured to its inner surface in continuous rows, wound spirally around said metallic conductor. 9th. An insulated electric conductor, consisting of a metallic conductor, and an insulating covering composed of a fillet or tape of paper having small pieces of non-conducting material adhesively secured to its inner surface in continuous rows, wound spirally around said metallic conductor. 10th. An insulated electric conductor, consisting of a metallic conductor, and an insulating covering composed of a fillet or tape of thin insulating substance having secured to its inner surface small pieces of non-conducting material with a clear margin on one side, wound spirally around said metallic conductor, the said clear margin being cemented to the previous winding, as set forth. 11th. An insulated electric conductor, consisting of a metallic conductor, and an insulating covering composed of a fillet or tape of paper having secured to its inner surface small pieces of non-conducting material, with a clear margin on one side, wound spirally around said metallic conductor. 12th. An insulated electric conductor, consisting of a metallic conductor, and an insulating covering composed of a fillet or tape of paper having adhesively secured to its inner surface small pieces of non-conducting material of substantially equal thickness wound spirally around said metallic conductor, whereby the said metallic conductor is held in the centre of said covering. 13th. An electric cable, comprising an outer lead sheath inclosing a plurality of electric conductors, each consisting of a metallic conductor and an insulating covering composed of a fillet or tape of thin insulating substance having secured to one of its surfaces small isolated pieces of non-conducting material, wound spirally around said metallic conductor. 14th. An electric cable, comprising an outer lead sheath inclosing a plurality of electric conductors, each consisting of a metallic conductor and an insulating covering composed of a fillet or tape of thin insulating substance having secured to one of its surfaces small pieces of non-conducting material in rows, with a clear margin on one side, wound spirally around said metallic conductors. 15th. An insulated electric conductor, consisting of a metallic conductor, and an insulating covering composed of a fillet or tape of insulating material having secured to its inner surface pieces of non-conducting material, with a clear margin on one side, wound spirally around said metallic conductor, the said clear margin overlapping the previous winding.

No. 68,987. Knife Sharpener. *(Aiguiseur de couteau.)*



Phineas Mather Withington, Stoughton, Massachusetts, U.S.A., 15th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. In a knife sharpener, the combination of a core of non-abrading material having a plurality of rabbets on each side of each edge whereby said core is made thinner at its edges than in the centre of its width, and a covering of abrading material app ied to said rabbeted sides of the core thicker at the edges than at the centre of the width of said core. 2nd. In a knife sharpener, the combination of a core of non-abrading material having a plurality of rabbets and a corresponding number of undercut shoulders or grooves formed in each side of each edge of said core, and a covering of abrading material applied to opposite sides of said core and filling said undercut grooves, and of considerably greater thickness at the edges of said core than at the centre of its width.

No. 68,988. Steam Generator. *(Générateur à vapeur.)*

Fig. 1.

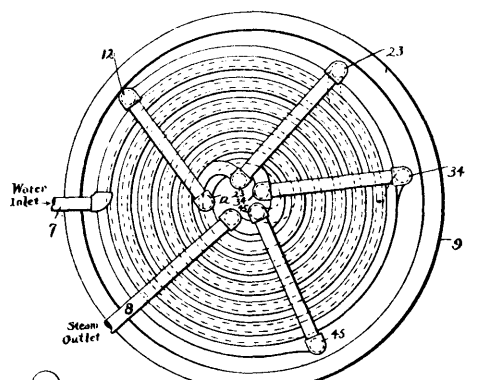
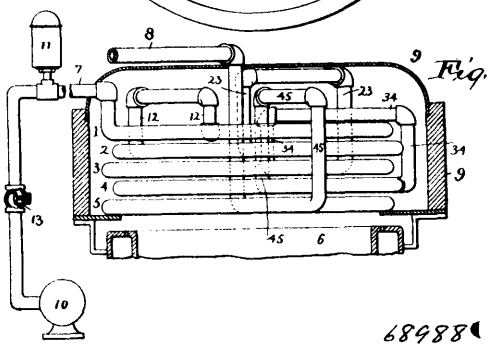


Fig. 2.

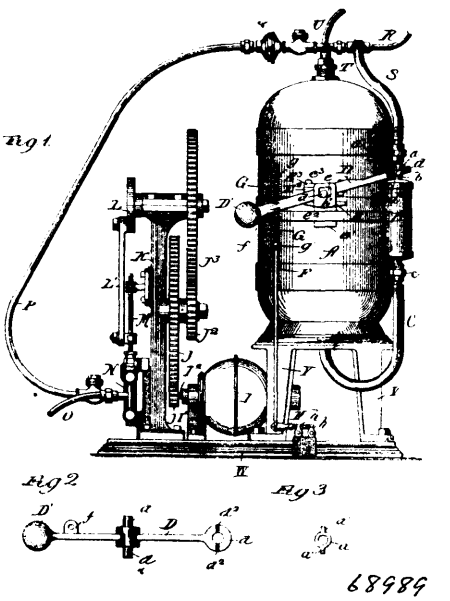


68988

Rollin Henry White, Cleveland, Ohio, U.S.A., 15th October, 1900; 6 years. (Filed 13th September, 1900.)

Claim.—1st. A steam generator whose heating surface consists of a plurality of pipe coils connected in series and approaching a source of heat whereby the water is heated progressively, combined with means for preventing the gravitation of the water to the lowest coil, substantially as specified. 2nd. A steam generator whose heating surface consists of a plurality of pipe coils connected in series and approaching a source of heat whereby the water is progressively heated, and having means for preventing the gravitation of the water to the most heated coils whereby said latter coils become superheaters for the steam generated, substantially as specified. 3rd. A steam generator consisting of a plurality of convolutions of pipes arranged one above another, pipes connecting said convolutions in series from the upper to the lowest convolution and having means to prevent the gravition of the water to the lowest convolution, a water inlet pipe connected with the upper convolution, means for forcing water into the generator through said inlet pipe, a steam outlet pipe connected with the lowest convolution, and a heater located below said generator, substantially as specified. 4th. A tubular boiler, consisting of a plurality of convolutions of pipe arranged one above another and connected in series, and adapted to take water into the upper convolution and to discharge the steam from the lower convolution, one or more of the connections between said convolutions being a riser tube which extends above the upper convolution, substantially as and for the purpose specified. 5th. A tubular boiler, consisting of a plurality of spiral coils of pipe arranged one above another, a plurality of riser tubes which extend over the upper coil and connect said coils in series, and are connected to the inner end of one coil and to the outer end of the coil next below it, a water inlet pipe connected to the upper coil, and a steam outlet pipe connected with the lower coil, substantially as and for the purpose specified. 6th. In a steam generator, the combination of a tubular boiler consisting of a plurality of convolutions of pipe arranged one above another and connected in series, with a steam outlet pipe connected with the lower convolution, a pump, an inlet pipe connecting said pump with the upper convolution, an air chamber connected in said inlet pipe, a check valve in said pipe on the pump side of said air chamber, and a heat generator below the lowest convolution, substantially as and for the purpose specified.

No. 68,989. Carbonating Apparatus.
(Appareil à carboniser.)



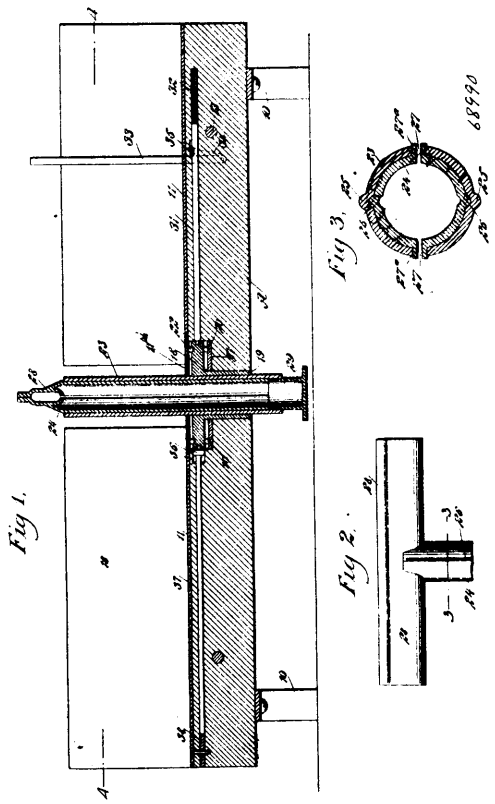
68989

Leonard Tufts and Heber Augustus Hopkins, Cambridge, Massachusetts, U.S.A., 15th October, 1900; 6 years. (Filed 13th September, 1900.)

Claim.—1st. In a carbonating apparatus, the combination of a mixing vessel, a liquid supply pipe for the mixing vessel, an adjustable balance vessel, a balancing arm of lever carrying the balance vessel suspended therefrom at one end hand having a weight at the other end, a bracket on the mixing vessel pivotally supporting the arm or lever, a pipe communicating with the balance vessel and the mixing vessel permitting liquid to rise and fall in the balance vessel coincident with the rise and fall of the liquid in the mixing vessel, an electric motor, an electric switch for the motor, an operating-rod between the balancing arm or lever and the switch arm or lever actuated by the rise and fall of the liquid in the mixing vessel and the balance vessel for the rise of the liquid to a predetermined point to move the switch arm and open the switch and the fall of the liquid to a predetermined point to move the switch arm and close the switch, an adjustable and yielding connection between the balancing arm or lever and the operating-rod, and a liquid supply pump communicating with the liquid supply pipe of the mixing vessel and driven from the electric motor and automatically started and stopped by the starting and stopping of the electric motor through the movements of the switch arm or lever with the rise and fall of the liquid in the balance vessel, substantially as described. 2nd. In a carbonating apparatus, the combination of a mixing vessel, a liquid supply pipe for the mixing vessel, a balance vessel, an adjustable support on the balance vessel, a balancing arm or lever carrying the balance vesse suspended therefrom at one end by the adjustable support and having a weight at the other end, a pivot or trunnion on each side of the arm or lever, a bracket on the mixing vessel provided with elongated openings receiving the pivots or trunnions of the arm or lever, a pipe communicating with the balance vessel and the mixing vessel permitting liquid to rise and fall in the balance vessel coincident with the rise and fall of the liquid in the mixing vessel, an electric motor, an electric switch for the motor, a liquid supply pump driven by the electric motor and communicating with the liquid supply pipe for the mixing vessel, an arm or lever for the electric switch, a rod attached at one end to the switch arm or lever and loosely connected with the balancing arm or lever, a resistance spring around the rod on each side of and engaging the balancing arm or lever, and an adjusting nut for the springs regulating the tension thereof and the throw of the balancing arm or lever, substantially as described. 3rd. In a carbonating apparatus, the combination of a mixing vessel, a liquid supply pipe for the mixing vessel, a gas supply pipe for the mixing vessel, an adjustable balance vessel having communication with the mixing vessel and the gas supply pipe permitting liquid to rise and fall in the balance vessel co-incident with the rise and fall of the liquid in the mixing vessel, a pivotal balancing arm or lever carrying the balance vessel suspended therefrom at one end and having a weight at the other end, a bracket on the mixing vessel having the balancing arm or lever pivotally mounted thereon,

an electric motor, an electric switch for the motor, a liquid supply pump driven from the motor and communicating with the liquid supply pipe to the mixing vessel, an arm or lever for the electric switch, a rod fixedly connected at one end to the switch arm or lever loosely connected at the other end with the balancing arm or lever, and a resisting and yielding connection, between the balancing arm or lever and the rod, regulating the throw of the arm or lever, for the rise and fall of the liquid in the balance vessel to automatically start and stop the motor and control the liquid supply to the mixing vessel at the pump by stopping and starting the pump, substantially as described.

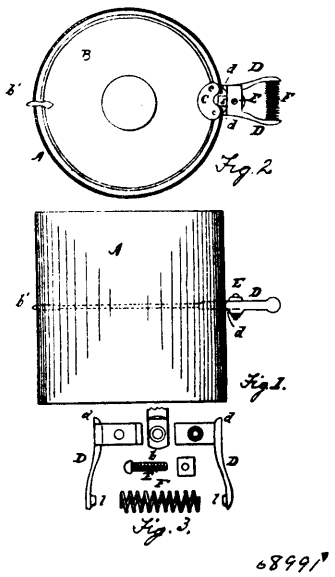
No. 68,990. Mitre Box. (*Boîte à onglet.*)



Marcus Aretas Kossuth Shotwell, Fort Bayard, New Mexico, U.S.A., 15th October, 1900; 6 years. (Filed 13th September, 1900.)

Claim.—1st. A mitre box comprising a base, a turn table mounted to rotate in the said base, a guide cylinder carried by the turn table, and a saw carrying cylinder adjustably supported in the guide cylinder, and means for locking the turn table, for the purpose described. 2nd. A mitre box comprising a base, a turn table mounted to rotate in the said base, a guide cylinder carried by the turn table and a saw carrying cylinder adjustably supported in said guide cylinder, means for locking the turn table, the said turn table having roller bearings and having peripheral apertures, a locking device arranged to enter any one of the apertures in the turn table, a releasing device for the locking device, and an auxiliary locking device for the turn table, adapted to engage with the same at any point between adjacent apertures. 3rd. A miter box comprising a base, a turn table mounted to rotate upon the said base and having a downwardly extended socket, a guide cylinder removably seated in the said socket, means for preventing a rotary movement of said cylinder relative to the socket, another cylinder mounted to move vertically in the first-named cylinder, and means for preventing a rotary movement of said other cylinder relatively to the first-named cylinder, each of said cylinders being vertically slotted at opposite sides. 4th. A mitre box comprising a base, a turn table mounted to rotate upon the said base and having a downwardly extended socket, a guide cylinder removably seated in the said socket, means for preventing a rotary movement of said cylinder relative to the socket, another cylinder mounted to move vertically in the first-named cylinder, means for preventing rotary movement of said other cylinder relative to the first named cylinder, each of said cylinders being vertically slotted at opposite sides, an auxiliary guide cylinder mounted to turn around the main guide cylinder, a supporting rod connected with the cylinder located within the main guide cylinder, the said supporting rod entering the auxiliary guide cylinder, and an adjusting device for said rod, as set forth. 5th. A mitre box comprising a base, a turn table mounted to rotate in the base, and a saw guide mounted on the turn table and consisting of two telescopic sections oppositely slotted, one of the said sections having longitudinal ribs to engage in channels formed in the other section, substantially as described. 6th. A mitre box comprising a base, a bed plate attached to the base, a turn table having a central socket portion extending into the base and adapted to rotate therein, a guide cylinder having ribs on its outer side to engage in channels formed in said socket, a saw-carrying cylinder mounted in the guide cylinder and having ribs on its outer side to engage in channels formed in the guide cylinder, a saw back receiver on the upper end of the saw-carrying cylinder, each of said cylinders being vertically slotted at opposite sides, and means for locking the cylinders in adjusted position, for the purpose specified. 7th. In a mitre box, a base, a turn table mounted to rotate in the base, ball bearing for the said turn table, and a saw guide carried by the turn table, substantially as specified.

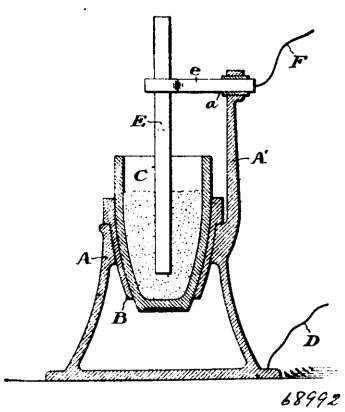
No. 68,991. Damper. (*Régistre.*)



Horatio J. Noyes, Ashtabula, Ohio, U.S.A., 15th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—In pipe dampers, the gripping handle, consisting of the angle lever D, D, having the grip bearing projections *d*, *d*, in combination with the damper B, said levers pivoted onto the journal *b* of the damper, the pressure spring F between the outer ends of the levers adapted to operate for gripping the damper to the pipe, substantially as described and for the purpose specified.

No. 68,992. Ore Concentrating Process.
(*Procédé pour concentrer les minerais.*)



Marcus Ruthenburg, Philadelphia, Pennsylvania, U.S.A., 15th October, 1900; 6 years. (Filed 9th March, 1900.)

Claim.—1st. The hereinbefore described process, which consists in assembling a mass of independent particles of ore or concentrate, in the path of an electrical current, subjecting said material to the action of an electrical current, until the contiguous corners of its

component particles cohere, and terminating the action of said electric current, while the coherent body, thus produced, is of open, porous structure, substantially as set forth. 2nd. The hereinbefore described process, which consists in assembling a mass of independent particles of magnetite, in the path of an electrical current, subjecting said material to the action of an electrical current, until the contiguous corners of its component particles cohere, and terminating the action of said electric current while the coherent body, thus produced, is of open, porous structure, substantially as set forth.

No. 68,993. Crucible. *(Creuset.)*

Fig. 1

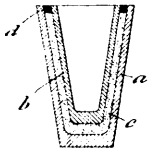
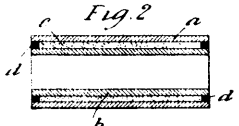


Fig. 2



68993

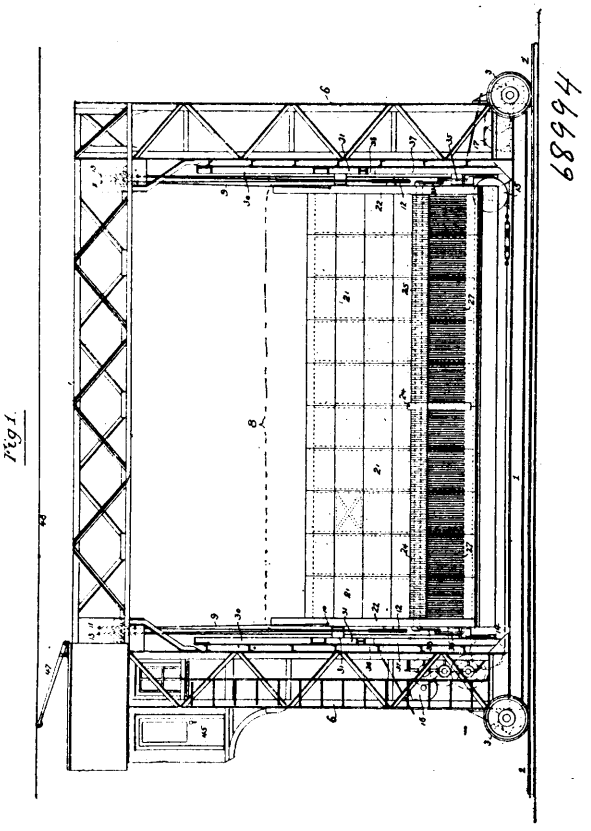
Alleyne Reynolds, Riverdale, York, England, 15th October, 1900; 6 years. (Filed 14th February, 1900.)

Claim.—1st. A crucible or retort, consisting of an outer casing of clay or plumbago compound, such as is used for ordinary crucibles, and an inner casing of smaller diameter made of dolomite, the space between the casings being filled with a material such as magnesite, substantially as described. 2nd. A crucible or retort, consisting of an outer casing of clay or plumbago compound, such as is used for ordinary crucibles, and an inner casing of smaller diameter made of dolomite, which resists the chemical action of iron, manganese and basic fluxes, the space between the casings being filled with magnesite, substantially as described. 3rd. A crucible, consisting of an outer casing *a*, and an inner casing *b*, separated by the space *c*, adapted to receive a filling material and be closed by connection *d*, substantially as described.

No. 68,994. Coke Loading Machine.
(Machine à charger du coke.)

John Wright Weaver, Cleveland, Ohio, U.S.A., 15th October, 1900; 6 years. (Filed 10th September, 1900.)

Claim.—1st. The combination in apparatus for loading cars, of a suitable framework, a loading pan, hoisting mechanism therefor, and controlling devices whereby the pan, as it is lifted, is forwardly projected so as to carry its delivery end over the top of the car, substantially as specified. 2nd. The combination in apparatus for loading cars, of a suitable framework, a loading pan, hoisting mechanism therefor, and controlling devices for said pan, whereby the first portion of its rising movement is vertical and the latter portion of the rising movement partly vertical and partly forward, substantially as specified. 3rd. In apparatus for loading cars, the combination of a suitable framework, a loading pan, hoisting mechanism therefor, and guides for the pan carried by said framework, the lower portions of said guides being substantially vertical and their upper portions forwardly bent or inclined, substantially as specified. 4th. The combination in apparatus for loading cars, of a suitable framework, a loading pan, hoisting mechanism therefor, a gate for closing the lower end of the loading pan, guides on the framework, and intervening mechanism whereby said guides are caused to govern the position of said gate, substantially as specified. 5th. The combination in apparatus for loading cars, of a suitable framework, a loading pan, hoisting mechanism therefor, a gate closing the lower end of said loading pan, and manually operated devices for controlling said gate, substantially as specified. 6th. The combination in apparatus for loading cars, of a suitable framework, a loading pan, hoisting mechanism therefor, a gate closing the lower end of the pan, a guide on the framework having a movable portion, whereby said guide controls the position of the gate, and means for shifting the movable portion of the guide, substantially as specified. 7th. The combination in apparatus for loading cars, of a suitable framework, a loading pan, hoisting mechanism therefor, a gate at the lower end of the pan, a guide on the framework, said guide having a swinging section, means whereby said guide is caused to control the position of the gate, a shaft on the fixed structure, and connections between said shaft and the swinging section of the guide, substantially as specified. 8th. The combination in a loading pan, of the longitudinal and transverse beams or grinders, and end frames, with a sectional bottom composed of plates supported by said transvers e



68994

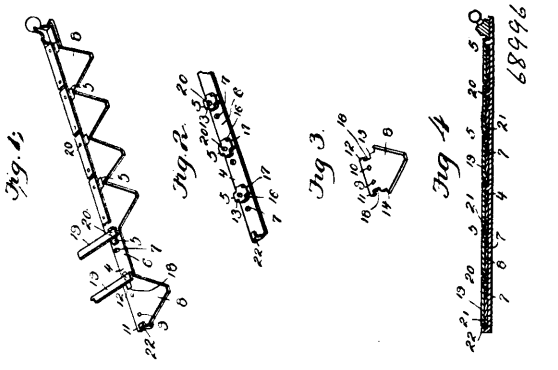
grinders, substantially as specified. 9th. The combination of the loading pan with the retaining gate, consisting of a longitudinal shaft having blocks strung or threaded thereon, said blocks carrying the bars of the gate, substantially as specified.

No. 68,995. Artificial Fuel. *(Combustible artificiel.)*

Helen Mar VanEtten and Hull Greenfield, both of Moravia, New York, U.S.A., 15th October, 1900; 6 years. (Filed 24th January, 1900.)

Claim.—A composition for artificial fuel, consisting of about nine hundred and forty-seven and one-half pounds of coal dust, a like amount of slack, about one hundred pounds of alkali makers' waste, and about five pounds of alum, as herein specified.

No. 68,996. Cutter Bar. *(Porte lames.)*



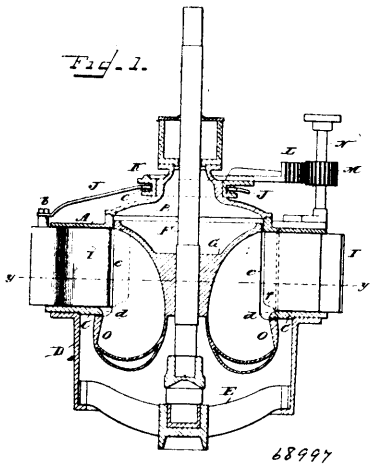
68996

William H. Hodges, Union Star, Missouri, U.S.A., 15th October, 1900; 6 years. (Filed 12th September, 1900.)

Claim.—The combination with the cutter bar, of the cross shaped blocks arranged at intervals thereon, and a projecting pin adjacent to each block, the cutting blades having their shanks recessed to fit the blocks and provided with openings to engage the pins, addi-

tional openings in said shanks and pivoted levers carrying lugs for engagement with the openings in the shanks of the cutting blades, substantially as described.

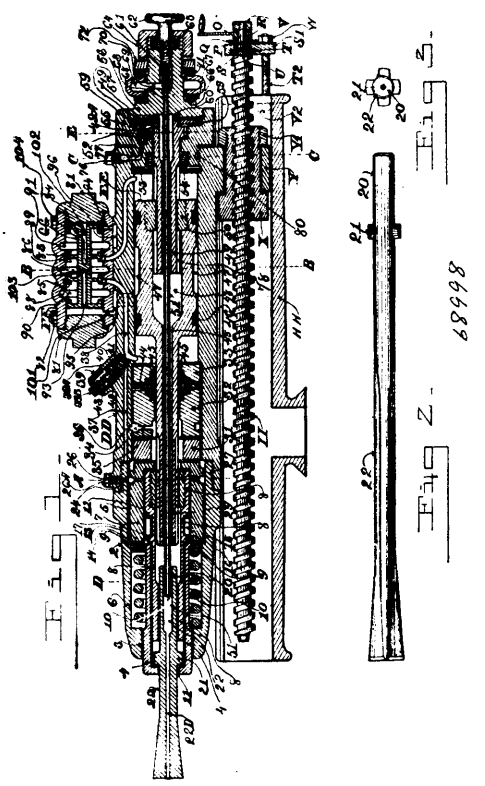
No. 68,997. Turbine. (*Turbine.*)



William M. Mills, Dayton, Ohio. U.S.A., 15th October, 1900; 6 years. (Filed 14th July, 1900.)

Claim.—In a turbine water wheel, the combination with the case having an upper chute plate and a lower chute plate of greater internal diameter than the former plate, of the wheel revoluble therein and having its lower part extended in diameter and surrounded by a band lying under the inner beveled edge of the bottom plate, and the division walls of the chutes extended in close proximity to the edges of the buckets and having their lower inner corners cut away, substantially as described.

No. 68,998. Rock Drill. (*Foret.*)



John George Leyner, Denver, Colorado, U.S.A., 16th October, 1900; 6 years. (Filed 5th March, 1900.)

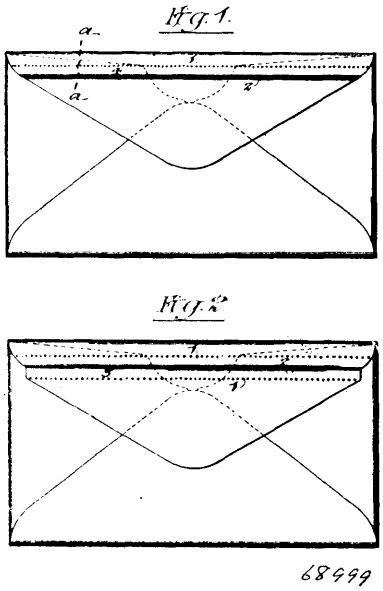
Claim.—1st. In a rock drilling engine, the combination with the cylinder and the piston, of a front cylinder head comprising an integral, cylindrical member adapted to be threaded to the end of said cylinder, an axial bore through said head, a counterbore at its inner end, a chuck bearing ring rotatably mounted in said chuck ring, substantially as described. 2nd. In a rock drilling engine, the combination with the cylinder, the piston and the cylinder head, of a rotable chuck ring, axially supported in said cylinder head, and a drill holding chuck supported by said chuck ring, with a rock cutting drill bit loosely supported in said chuck, and having its shank extending into said chuck and adapted to be impinged by the reciprocative movement of the piston, substantially as described. 3rd. In a rock drilling engine, the combination with the cylinder, the piston and the front cylinder head having an axle bore, of a counterbore adjacent to its cylinder end, a chuck ring in the larger bore of said cylinder, a second counterbore intermediate of the other two counterbores, a steel ring bearing against the outer end of said ring, a spring between said ring and a shoulder formed in said cylinder head, a drill holding chuck rotably mounted in said chuck ring, a drill bit adapted to be held loosely by said chuck, and a chuck sleeve in said cylinder head adapted to be manually turned to lock said drill bit loosely and removably to said chuck, substantially as described. 4th. In a rock drilling engine the combination with the cylinder and the piston, of the front cylinder head, the chuck ring therein, and chuck supported by said chuckring, the chuck sleeve surrounding the chuck and extending beyond the end of said cylinder head far enough to be turned by the hand of an operator, the spring and the spring ring, substantially as described. 5th. In a rock drilling engine the combination with the cylinder and the piston, of the front cylinder head, the chuck therein, the chuck ring for supporting the same, a fluted nut in the end of said chuck, a hammer bar forming an extension of said piston and having a fluted end fitting the fluted nut in said chuck, a drill bit loosely supported by said chuck and extending into the reciprocating path of said piston and means for manually locking and for unlocking said drill bit to and from said chuck, substantially as described. 6th. In a rock drilling engine the combination with the cylinder and the piston, of the front cylinder head, a drill holding chuck rotably supported axially therein, a drill bit operatively supported by said chuck, means for manually locking said drill bit to and for unlocking it from said chuck and means connected with the said piston for rotating or turning said chuck and drill bit step by step, substantially as described. 7th. In a rock drilling engine the combination with the cylinder, the piston and the front cylinder head, of a drill bit, adapted to be operatively held and supported loosely in said cylinder head so as to be withdrawn therefrom and inserted therein instantly at will, and adopted to extend into the reciprocal path of said piston and be impinged by it in its reciprocal movements in the said cylinder and having a pas-age extending through it, from one end to the other adapted to convey a portion of the actuating expansive fluid used to operate the piston from the valve chest and cylinder to the cutting point of the said drill bit and means for rotating or turning said drill bit step by step, substantially as described. 8th. In a rock drilling engine the combination with a cylinder, a piston, a valve chest and valve and a front cylinder head, of a rock cutting drill bit having an axial hole through it from end to end, a water-conveying tube extending into said drill bit and arranged and adapted to deliver a supply of water under pressure, a supply of air flowing with said water to the bottom of holes in rock while drilling them, and an automatically opening and closing valve arranged and adapted to be opened and closed by the pressure of the air and to allow only a suitable amount of air to flow to the drill bit, to eject, when combined with said water, the rock cuttings from the hole being drilled, substantially as described. 9th. The combination in a rock drilling engine of the cylinder, the piston, the front cylinder head and the drill holding chuck and chuck-sleeve, with a drill bit adapted to be operatively supported by said chuck and chuck sleeve and having a shank and two oppositely arranged projections formed on said shank near its end and an axial perforation through said drill bit and means connected with said chuck and chuck sleeve for rotating said drill bit step by step, substantially as described. 10th. In a rock-drilling engine the combination of the cylinder, the piston, the cylinder head, the chuck ring mounted in said cylinder head and the chuck and chuck-sleeve, with a drill bit of any form of cross section, having a striking end adapted to fit freely in said chuck and arranged to be operatively impinged by and intermittently rotated by said piston, a projection at substantially diametrically opposite points, adjacent to said drill point's striking end, adapted to loosely lock said drill bit rotatably to said chuck and against longitudinal displacement from said chuck and chuck sleeve, and a passage or conduit from the striking end of said drill bit to its cutting point adapted to convey a portion of the piston's actuating fluid from said cylinder to the cutting point of said drill bit and to the bottom of the hole being drilled, substantially as described. 11th. In a rock drilling engine, a rock drill bit having a drill shank of any merchantable form of cross section and having a cutting point of any desired common form, a shank end adapted to be struck by said piston, a lug or shoulder adjacent to said end and an axial hole from end to end throughout its length, or a closed passage attached to or arranged to form a part of said drill bit extending from its striking end to its cutting point, substantially as described. 12th. In a rock drilling engine the combination with the cylinder, the piston and the front cylinder head, of a drill bit resting freely and loosely and not in any way clampingly secured or fastened to the cylinder head but operatively supported in a substantially fixed position relative to the

reciprocal movements of said piston and arranged and adapted to be struck intermittently and successively by said piston, means for rotating said drill bit step by step and means for conveying a portion of the piston's actuating fluid from the cylinder to the drill bit's cutting point, substantially as described. 13th. In a rock drilling engine a rock cutting drill comprising a bar of drilled steel of any form of cross section containing an axial hole through it from end to end, and a projection or shoulder adjacent to or at a short distance from its striking end, substantially as described. 14th. In a rock drilling engine, a rock cutting drill loosely positioned and supported in and to the drilling engine and arranged to be impinged upon one end by a reciprocal movement of the piston, and arranged and adapted to convey a portion of the piston's actuating fluid directly from the front cylinder part into and through said cutting drill to its cutting point and to the bottom of the hole being drilled, and an automatically operating valve adapted to control the admittance of air to the rock cutting drill, whereby said actuating fluid is used to expel the rock cuttings from the hole being drilled, substantially as described. 15th. In a rock drilling engine, a rock cutting drill loosely positioned and supported in the drilling engine and arranged to be impinged upon one end by a reciprocal movement of the piston, an axial hole through said rock cutting drill from end to end arranged and adapted to convey a portion of the piston's actuating fluid directly from the cylinder to its cutting point to blow out from the hole being drilled the rock cutting, and means for mingling a supply of water with said actuating fluid in said rock cutting drill, substantially as described. 16th. In a rock drilling engine for expelling rock cuttings from holes while drilling them, consisting of an operative drilling engine having rock cutting drills arranged and adapted to extend into the cylinder of the drilling engine and to be struck and actuated to cut rock by the reciprocative movements of the piston impinging against its inner end and in which the cutting drills have an axial hole through them from end to end, and the piston's actuating fluid is controllably supplied automatically to the axial hole in said rock cutting drill, and means for leading a supply of water under pressure into the axial hole in said drill bit and for mingling the air and water together and for discharging them in the bottom of holes in rock while drilling them, substantially as described. 17th. In a rock drilling engine, a rock cutting drill arranged to be struck by the reciprocal movements of the piston and provided with a collar, projection or shoulder adjacent to its striking end, adapted to form a locking, securing and positive means for holding and rotating said drill bit, and a passage axially through said cutting drill arranged to conduct a portion of the piston's actuating fluid from the cylinder to the cutting point of said rock cutting drill, and a valve for controlling the supply of actuating fluid flowing to the drill bit, substantially as described. 18th. In a rock drilling engine, a drill bit arranged to project into the cylinder of the drilling engine and arranged to be operatively struck upon its end by the reciprocal movements of the engine's piston and containing a passage or conduit from said engine's cylinder to or adjacent to said drill bit's cutting point and a water passage or tube through said drilling engine to said passage in said drill bit, means to provide a suitable water supply for said passage and said drill bit, whereby a commingled supply of the cylinder's actuating fluid and water is conveyed from said drilling engine through said drill bit to its cutting point and to the bottom of holes in rock while drilling them, substantially as described. 19th. In a rock drilling engine, a suitable cylinder, a reciprocative piston, a suitable controlling valve, and suitable feeding mechanism and drill bits arranged to project into said cylinder into the reciprocal path of said piston and arranged and adapted to be struck directly on their cylinder invading ends of the reciprocal movements of said piston, and containing a passage or conduit for the actuating fluid of said rock drilling engine, opening into or communicating with said engine's cylinder and extending through said drill bits to or adjacent to their cutting points, a water conveying tube or conduit connecting with the said passage or conduit in said drill bits, means to provide a suitable water supply and to mingle with a portion of the cylinder's actuating fluid, substantially as described. 20th. In a rock drilling engine, the combination with the cylinder and the pistons of a drill bit containing an axial hole from end to end and extending into the reciprocal path of the piston and passage in said cylinder, open to a controlled supply of the engine's actuating fluid, an axial bore through said piston, a tube in said bore projecting into the hole in said drill bit, and means to provide a suitable water supply under pressure, substantially as described. 21st. In a rock drilling engine, the combination of the cylinder, the piston, the cylinder heads, the chuck sleeve, the chuck and hollow drill, with a liquid or water conveying tube through said piston connected with said hollow drill and a valved controlled passage from said cylinder adapted to allow a suitable supply of the cylinder's actuating fluid to flow into said hollow drill, whereby a combined stream of liquid and actuating fluid is caused to flow through saiddrill bit to the bottom of holes while drilling them, and means, including a valve, for controlling the volume and pressure of said liquid and actuating fluid stream, substantially as described. 22nd. In a rock drilling engine, the combination with the cylinder, of a piston having an extension hammer bar, the front cylinder head, the chuck sleeve, the chuck, the chuck ring and the cupped washers and rings surrounding said hammer bar, with a hollow drill bit held loosely to said chuck sleeve and chuck and arranged to be instantly withdrawn from or inserted in said chuck sleeve and chuck, and provided with means for defining its operative position in said chuck sleeve and chuck and to said cylinder and piston, and with a fixed tube projecting from the rear end of said cylinder freely through said piston and extending into said drill bit, substantially as described. 3rd. In a rock drilling engine, the combination with the cylinder and the piston, of a hollow drill bit projecting into said cylinder into the reciprocating path of the piston and arranged to convey a portion of the piston's actuating fluid to the bottom of holes while drilling them, with a water tube projecting into said drill bit for supplying water under pressure and mingling it with the actuating fluid of said drill bit and discharging into the bottom of holes while drilling them a combined stream of actuating fluid and water, and means for preventing the water from entering said cylinder, substantially as described. 24th. In a rock drilling engine for expelling rock cuttings from holes while drilling them and for laying the rock dust, a substantially combined mixed or commingled operative supply of any suitable watery liquid and an operative portion of the engine's actuating fluid discharged steadily or intermittently during operative rock drilling or at each stroke of the piston or at suitable intervals in any suitable operative form such as a spray or jet, or as a stream into the bottom of holes in rock while drilling them, and means for preventing the water from entering said cylinder, substantially as described. 25th. In a rock drilling engine, the combination with the cylinder and the piston, of the front, the rear and the supplementary cylinder heads, a hollow drill bit projecting into the path of the piston and a water inlet tube secured to the said rear cylinder head and projecting through said piston into said drill bit, and an air passage leading from said cylinder to said drill bit, substantially as described. 26th. In a rock drilling engine, the combination with the piston, the cylinder and the valve and chest, of the drill bit, the supplementary cylinder head, the rifle bar and the rear cylinder head having a water inlet tube secured thereto and projecting therefrom loosely through the axial centre of said rifle bar and said piston into the striking end of said drill bit, and an actuating fluid passage leading from the valve chest and cylinder to said drill bit, substantially as described. 27th. In a rock drilling engine, the combination with the drill bit, the cylinder, the valve chest and valve, the piston and the rifle bar, axial holes through said rifle bar and piston, a water inlet tube projecting loosely through said axial holes into said drill bit adapted to conduct a stream of water under pressure through said tubes and drill bit, a valve for controlling the flow of said water, and a valved controlled actuating fluid passage leading from said valve chest and cylinder into said drill bit, and means for preventing a harmful flow of water into said cylinder, substantially as described. 28th. In a rock drilling engine, the combination of a piston having a rifle bar, a drill bit having an axial hole through it, a cylinder having a water conveying tube projecting through said rifle bar and piston into said drill bit, a water passage to said tube, a valve adjacent to said tube for controlling said passage, means for mingling said water with a portion of the engine's actuating fluid, means for conducting said actuating fluid and water in a combined stream to the bottom of holes in rock while drilling them, and means for preventing a harmful flow of water into said cylinder, substantially as described. 29th. In a rock drilling engine, the combination with the hollow drill bit, of the chuck sleeve, the chuck, the cylinder, the piston, having a hammer bar extension, the rifle bar and the rear cylinder head having a water inlet tube projecting through said rifle bar and piston into said drill bit, a passage around said tube from said cylinder into said drill bit, and means including cupped washers arranged to surround the piston's hammer bar for preventing a harmful flow of water into said cylinder, substantially as described. 30th. In a rock drilling engine, the combination with the cylinder and the piston, of a hollow drill bit mounted to be turned step by step by said piston, a water inlet tube projecting into said drill bit and a valve controlled actuating fluid passage from said cylinder into said drill bit, substantially as described. 31st. In a rock drilling engine, the combination with the cylinder, the piston, the cylinder head and the sleeve of a hollow drill bit projecting into said cylinder, means for conveying a portion of the cylinder's actuating fluid to its cutting point, of a conduit adapted to convey a stream of water under pressure to said drill point, a rear cylinder head, a passage in said cylinder head for said water, a valve adapted to control the admisson and volume of said water, and a water inlet coupling adapted to connect with a source of water supply on either side of said cylinder, substantially as described. 32nd. In a rock drilling engine, the combination with the piston having an axial hole, the drill bit, the rifle bar having an axial hole and the back cylinder head carrying a water inlet tube projecting through the axial bores of said rifle bar and piston, with a water inlet coupling rotatably mounted on said cylinder head, a passage from said coupling to said tube, and means, including a nut and thread for packing said coupling against leakage, substantially as described. 33rd. In a rock drilling engine, the combination with the piston and the hollow drill bit, of the back cylinder head, the water inlet tube projecting therefrom through said piston and into said drill bit, a passage through said cylinder head for the admittance of water under pressure to said tube and drill bit, a valve controlling said passage and a suitable packing device for said valve, substantially as described. 34th. In a rock drilling engine, the combination of the hollow drill bit, the piston, the rifle bar and the back cylinder head, with a tube projecting loosely through bores in said rifle bar and piston and with a water inlet coupling having a

hose or pipe connecting nipple, and a passage from said coupling to said tube, substantially as described. 35th. In a rock drilling engine, the combination with the back cylinder head, of the rotatable water coupling mounted thereon, a shoulder or abutment adjacent to said coupling, a washer between said coupling and said shoulder, a second washer on the opposite side of said coupling, and a nut threaded to said cylinder head adapted to tighten said washers and coupling against said shoulder and thereby pack said coupling against leakage, substantially as described. 36th. In a rock drilling engine, the combination of the supplementary cylinder head, the rear cylinder head secured thereto, the water inlet tube, the rifle bar revoluble on said tube, the piston arranged to reciprocate and turn on said tube and the hollow drill bit surrounding the discharging end of said tube, substantially as described. 37th. In a rock drilling engine, the combination with the back cylinder head, of the water inlet coupling rotatively mounted thereon, the washer at its sides and the tightening nut, substantially as described. 38th. In a rock drilling engine, the combination with the cylinder, of the piston, the hollow drill bit, the rifle bar and the water inlet tube projecting through said rifle bar and piston into said drill bit, with the back cylinder head, the water inlet passage therein, the water inlet coupling and the valve for controlling said water inlet passage, substantially as described. 39th. In a rock drilling engine, the combination of the cylinder, the piston, the rifle bar and the pawls with the supplementary cylinder head and back cylinder head, the pawl trunnion supporting ring, a water inlet tube, a threaded hole in said cylinder and into said supplementary cylinder head, a can screw in said threaded hole and an oil hole leading from said can screw hole to said pawls and rifle bar substantially as described. 40th. In a rock drilling engine, the combination of a drill bit having a passage in its cutting point, a water or liquid conduit through said engine to said drill bit, means for introducing a portion of the engine's actuating fluid into said water conduit or to said drill bit, and for delivering a combined and commingled spray, stream or jet of actuating fluid and water from said drilling engine and drill bit to the bottom of holes while drilling them, substantially as described. 41st. In a rock drilling engine, the combination of the cylinder and the piston, with the front cylinder head having a drill holding chuck rotatably mounted therein, and arranged to be turned step by step by said piston, a drill bit operatively supported by said chuck and arranged to conduct a portion of the cylinder's actuating fluid and a stream of water from the engine's cylinder to its cutting point, a chuck sleeve surrounding said chuck, a collar on said chuck sleeve, a ring mounted on said collar, a spring between said ring and an abutment in said cylinder head, and means whereby the ring may be moved by the collar of said chuck sleeve to compress said spring, substantially as described. 42nd. In a rock drilling engine, the combination of the cylinder, the piston and the front cylinder head, a rock cutting drill bit having projections near the end of its shank, a drill bit supporting mechanism consisting of a chuck comprising a cylindrical tube containing two oppositely arranged slots in its forward end, a fluted axial hole in its opposite end, a hammer bar extension to said piston, a fluted portion at its end fitting loosely in said fluted end of said chuck, projections on said chuck, means for rotably supporting said chuck in said cylinder head, a chuck sleeve surrounding freely said chuck, steps on said chuck sleeve arranged to engage said projections of said chuck, an end flange extending over the end of said chuck, and an oblong hole axially through the flanged end of said sleeve chuck, adapted to fit loosely said drill shank and lugs, substantially as described. 43rd. In a rock drilling engine the combination of the cylinder, the piston, the front and rear cylinder heads the rifle bar rotating mechanism and the feed mechanism, with a water conveying tube projecting from the rear cylinder head through said rifle bar and piston, a drill holding chuck and chuck sleeve, revoluble mounted in said cylinder head, an axial bore through said sleeve chuck, a drill bit operatively supported by said sleeve and chuck, and arranged to be operatively rotated step by step by said piston and chuck, and provided with a conduit or passage communicating with said cylinder and with the discharge end of said water conveying tube and arranged and adapted to convey a combined and commingled stream of water and actuating fluid to the cutting point of said drill bit, and having said drill bit project into the reciprocal path of said piston and arranged to be impinged by said piston, a collett loosely mounted on said chuck sleeve, a ring mounted on said collett, a spring arranged between said ring and an abutment in said cylinder head, substantially as described. 44th. In a rock drilling engine, the combination of the cylinder, and the front cylinder head, of a piston in said cylinder having an extended bar adapted to strike on the shank end of a rock cutting drill bit and a series of flutes cut around said bar, a drill holding chuck mounted loosely on the fluted portion of said bar, a rock cutting drill bit, means for removably securing said drill bit to said chuck and means for rotating said piston and chuck and rock cutting drill bit, substantially as described. 45th. In a rock drilling engine, the combination of the cylinder and the front cylinder head, with a rock cutting drill bit, a drill holding chuck, arranged to hold the drill loosely and in such a manner that it can be instantly inserted or removed from said chuck manually, a piston in said cylinder having a hammer bar extension adapted to strike the shank end of said drill bit, means for rotating said piston step by step and means for rotating said drill bit step by step from said piston, substantially as described. 46th. In a rock drilling engine the combination of the cylinder and the cylinder head with the manually operating drill bit holding chuck, a piston having a hammer bar extension; cupped washers mounted on said hammer bar, a ring between said cupped washers, a ring on the outside of each cupped washer, a rubber buffer ring at the side of one ring and means for compressing the cupped washers around said hammer bar, substantially as described. 45th. In a rock drilling engine, the combination of the cylinder and the drill bit manually supporting chuck, with the piston arranged to strike said drill bit; means for rotating said piston and drill bit, and means, including a spring for cushioning the blow of the piston on the drill bit when the drill bit is out of cutting relation to rock, substantially as described. 48th. In a rock drilling engine the combination with the cylinder, the piston and the front cylinder head, of the hollow drill bit and the drill chuck and sleeve, means including a rifle bar for rotating said drill bit step by step means including a hand operating device for securing said drill bit instantly to or for removing it instantly from said drill holding chuck, means including a spring for cushioning the spent blow of the piston against said drill bit, means including a water conveying tube and a water supply system under pressure for delivering a supply of water into said drill bit, means including air passages for delivering a suitable supply of actuating fluid into the water and in said drill bit, means including packing rings for keeping the water out of said cylinder, and means for operating and oiling the moving parts of said drilling engine, substantially as described. 49th. In a rock drilling engine, the combination with the cylinder, the piston and its extending hamme bar, the rifle bar and pawls, and valved water conveying tube, the water inlet coupling, the cylinder head and the drill holding chuck members, arranged to be rotated by said piston, the hollow drill bit supported by said chuck mechanism, the valved controlled actuating fluid passages leading to said hollow drill bit, the buffer ring and the cupped washers and their supporting rings surrounding said hammer bar, substantially as described. 50th. In a rock drilling engine, the combination with the cylinder and the piston of the front cylinder head, the drill holding chuck and chuck sleeve, the drill bit having the projecting lugs, the slots in the chuck in which said lugs are confined, and the end flange on the chuck sleeve for confining the lugs to the slots of the chuck, substantially as described. 51st. In a rock drilling engine, the combination of an operative cylinder, an operative valve mechanism, a piston arranged to rotate step by step as it reciprocates in said cylinder and a suitable feed mechanism, with a drill bit loosely and unclampably supported operatively by said drilling engine and arranged to be impinged against by said piston, and adapted to be rotated step by step by said piston, and containing a passage throughout its length, passages controlled by an automatically operating valve, arranged to convey a portion of the piston's actuating fluid into said drill bit, a valved water conveying tube extending through said piston, means for providing a supply of water under pressure to said tube, and communicating with the passage in said drill bit, and means for excluding the water from said cylinder, substantially as described. 52nd. In a rock drilling engine, the combination with the valve chests, the valve and the cylinder of the piston having a circumferential groove centrally of its length, actuating fluid ports leading from said valve chest to the ends of said cylinder, open passages leading from the main air inlet part of said valve to its opposite ends, ports or passages leading from the opposite ends of said valve chest to a position in the cylinder where they will register with the said annular groove in said piston during its reciprocative movements, and having the port contain independent passages placed at a short distance apart and means for closing the passages nearest the centre of the cylinder, and ports leading from the path of travel of the central part of said piston to the atmosphere, substantially as described. 53rd. In a rock drilling engine, the combination with the valve chest and valve and the cylinder, of ports arranged to co-operate with the reciprocal movements, of the piston and with a circumferential port therein to automatically operate and cushion the piston, and means comprising two separated outlets leading into said cylinder from the front port of said cylinder, a pin for closing the port nearest the centre of the cylinder, and a hole in the cylinder in which to keep the pin when in disuse, whereby the opening of the valve in the forward or striking blow, and of the piston is retarded and the harder blow is struck, substantially as described. 54th. In a rock drilling engine, the combination of the valve chest, the valve, the cylinder and the piston, of a circumferential groove around the piston slightly nearer its forward or drill striking end, ports leading from said valve chest into said cylinder and from said cylinder to the atmosphere, and arranged to automatically operate the valve and piston, and means comprising two independent and separate outlets for the port leading into the front end of the cylinder, and means at the control of the operator for closing the outlet of these two outlets of this port that is positioned nearest to the centre of the cylinder, whereby two different strength of blows may be struck by the piston at the will of the operator, substantially as described. 55th. In a rock drilling engine, the combination with the cylinder, the cylinder head and the piston, of a drill bit arranged to be struck by said piston and having lugs, shoulders or projections adjacent to its shank end, a drill holding chuck containing an axial bore adapted to receive the lugs of said drill bit, a sleeve rotatably mounted on said chuck and extending beyond the end of said cylinder head far enough to be grasped by the hand of an operator, and containing a flanged end extending

down over the end of said chuck, an oblong aperture in the end of said chuck sleeve arranged to admit the shank and lugs of said drill shank to pass through said flange into said chuck, when said chuck sleeve is manually turned to bring its drill shank receiving aperture in line with the chuck's drill shank receiving aperture, and having said chuck sleeve arranged to be partially rotated manually on said chuck after the drill shank is admitted to the chuck to a position in which its drill shank receiving aperture will stand crosswise or at substantially right angles to the drill shank receiving aperture of the chuck, and means including steps or abutting surfaces for locking said chuck sleeve's drill shank receiving aperture in its crossed or right angled position relative to the drill receiving aperture of said chuck, substantially as described.

No. 68,999. Envelope. (*Enveloppe.*)



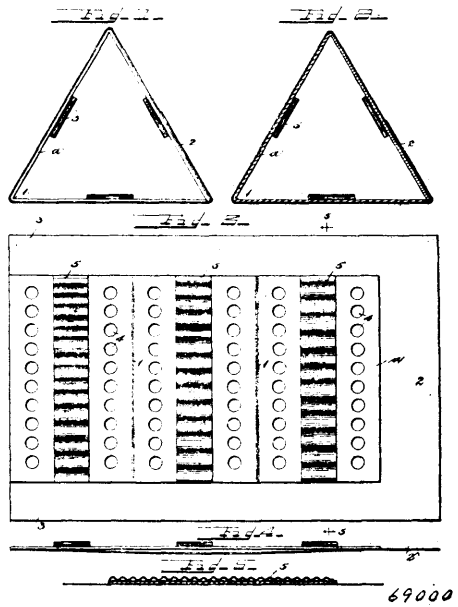
Charles Fouquet Belknap, Philadelphia, Pennsylvania, U.S.A., 16th October, 1900; 6 years. (Filed 20th June, 1900.)

Claim.—1st. An envelope having two rows of perforations, both formed in the same portion of the envelope and extending across said portion, the intervening material being folded so as to form a projecting severing strip or band, substantially as specified. 2nd. An envelope having two rows of perforations, both formed in the same portion of the envelope, and extending across said portion, the intervening material being so folded as to form a projecting severing strip or band with the rows of perforations closely adjacent to, but on opposite sides of the base of said band, substantially as specified. 3rd. An envelope having a flap with two rows of perforations and an intervening severing strip or band formed by folding the material between said rows of perforations, said strip or band being folded against and secured to the flap, and either or both of its ends projecting beyond the edge of the flap, substantially as specified.

No. 69,000. Wrapper. (*Couverture.*)

Earle Hill Callahan, Chicago, Illinois, U.S.A., 16th October, 1900; 6 years. (Filed 21st September, 1900.)

Claim.—1st. A wrapper consisting of a plurality of sides arranged in polygonal form, and composed of continuous layers of stiff and flexible material, which are bent so that the stiff material is on the inside, and the flexible material is on the outside, the outer layer being secured to the inside one, only at the side edges of the latter, and being of such width as to be subjected to transverse strain when the wrapper is formed, substantially as described. 2nd. A wrapper comprising three sides of paste-board material, provided with perforations, and having their interior surfaces furnished with corrugated strips, and an outer covering of wrapping paper secured to said sides under transverse tension, and having an overlapping end portion which overlaps and is secured to one of the sides, substantially as described. 3rd. A wrapper comprising a plurality of sides of stiff material and a cover of flexible material surrounding said sides and subjected to transverse strain, the said cover being slightly wider than the board and secured thereto only at the outer longitudinal edges thereof, substantially as described. 4th. As an article of manufacture, a layer of stiff material adapted to be bent so as to form a structure having a polygonal cross-section, and a layer of flexible material secured to the layer of stiff material along longitudinal lines, and left free from the



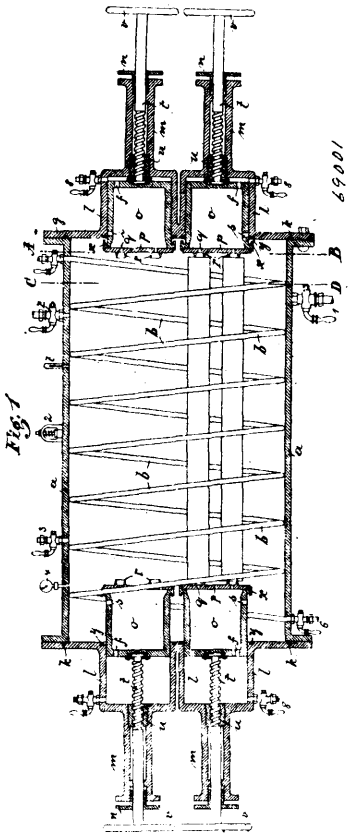
same between such lines of attachment, substantially as described. 5th. As an article of manufacture, a layer of stiff material adapted to be bent so as to form a structure of polygonal cross-section, and a layer of flexible material secured to the layer of stiff material only along the longitudinal edges of the latter, and made slightly wider than the distance between the lines of attachment, but sufficiently narrow to subject the stiff material to transverse compression and the flexible material to transverse tension when the article is formed into a wrapper, substantially as described. 6th. A polygonal wrapper having one side projecting beyond the others for the attachment of stamps and the like, substantially as described. 7th. A polygonal wrapper consisting of inner and outer layers of material bent along longitudinal lines so as to form the sides or walls of the wrapper, the outer layer being attached to the inner layer at such points that when the wrapper is formed, the outer layer tends to crush the inner layer, the inner layer being sufficiently stiff to resist such crushing tendency, and being continuous at the bending lines, substartially as described. 8th. A polygonal wrapper consisting of inner and outer layers of material bent along longitudinal lines so as to form the sides or walls of the wrapper, the outer layer being attached to the inner layer at such points that when the wrapper is formed the outer layer tends to crush the inner layer, and the inner layer being sufficiently stiff to resist such crushing tendency and being appreciably thick and continuous at the bending lines, substantially as described. 9th. As an article of manufacture, a layer of stiff material adapted to be bent so as to form a structure of polygonal cross-section, and a layer of flexible material secured to the layer of stiff material along longitudinal lines but free of sai l stiff material between the longitudinal lines, the flexible material being adapted, when the stiff material is bent to form a structure of polygonal cross-section, to be subjected to transverse strain, substantially as described.

No. 69,001. Apparatus for Impregnating Wood.
(*Appareil pour saturer le bois.*)

George F. Leboida, Boulogne Sur Seine, France, 16th. October, 1900; 6 years. (Filed 7th October, 1899.)

Claim.—1st. An apparatus for impregnating tree trunks or lengthy pieces of wood, comprising a vessel or cylinder *a* having two ends or covers *q* provided with a number of cylindrical excrescences *e* in which there are adjustably arranged hollow cylinders *o* having inserted plates *p* provided with a number of perforations *q* surrounded by annular sharp edged bosses or cutters *r* with the object of enabling tree trunks or long pieces of wood to be held fast between the perforated plates *p* and of facilitating the penetration of the impregating fluid in the direction of the fibres substantially as hereinbefore described. 2nd. In apparatus such as described for impregating wood, providing the adjustable hollow cylinders *o* with openings such as *s* and *f* with the projecting flanges *x* adapted to engage corresponding annular grooves *y* provided in

the ends *g* of the main cylinder, whereby the hollow cylinder *o* may be closed tightly against the said ends *g* of the main cylinder,



where by the hollow cylinder *o* may be closed tightly against the said ends *g* to shut the openings *s*, whilst the openings *f* communicated 8, substantially as hereinbefore described.

No. 69,002. Gold and Silver Extracting Process.
(Procédé pour extrair l'or et l'argent.)

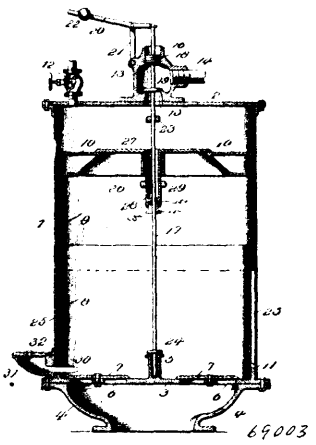
William Lockhead Wallace, John Morrow, and Lulu Philena Gullet, all of Toronto, Ontario, Canada, 16th October, 1960; 6 years. (Filed 6th February, 1899.)

Claim.—1st. The herein described process of extracting gold and silver values from ore consisting in first mixing with the crushed ore in a tank a suitable leaching chemical, and common salt and water sufficient to cover the ore, then boiling and drawing of the liquid and finally evaporating the liquid drawn off as and for the purpose specified. 2nd. The herein described process of extracting gold and silver values from ores consisting in first mixing with the crushed ore in a suitable tank cyanide of potassium and common salt and water sufficient to cover the ore, then boiling and drawing off the liquid and finally evaporating the liquid when drawn off as and for the purpose specified. 3rd. The herein described process of extracting gold and silver values from ore consisting in first mixing with the crushed ore in a suitable tank cyanide of potassium and common salt and water, sufficient to cover the ore, then boiling and drawing off the liquid into a suitable evaporating tank, then covering the ore again with water and bringing it to a boil and drawing off the liquid into the evaporating tank and finally evaporating the combined liquids as and for the purpose specified. 4th. The herein described process of extracting gold and silver values from ore consisting in ffrst mixing with the crushed ore in a suitable tank cyanide of potassium and common salt and water, sufficient to cover the ore, then boiling and drawing off the liquid into a suitable evaporating tank, the covering the ore again with water and bringing it to a boil and drawing off the liquid into an evaporating tank, then rinsing the ore with clear cold water, then drawing off such liquid into the evaporating tank and finally evaporating the combined liquids in the evaporating tank as and for the purpose specified.

No. 69,003. Steam Vacuum Pump. *(Pompe à Vapeur.)*

Augustus Gustivius Kerns, assignee of Edwin Barrett Raynor, both of Piqua, Ohio, U.S.A., 16th October, 1900; 6 years. (Filed 29th August, 1900.)

Claim.—1st. In a steam vacuum pump, and in combination, with the casing, provided with the valve controlled inlet and outlet openings, and a piston mounted for reciprocation within the said casing, a valve casing having a steam inlet and a valve seat and



cylinder upon opposite sides of the said steam inlet, a rod provided with stops to be alternately engaged by means of the piston, a valve and a piston secured to the said rod and adapted to co-operate with the seat and cylinder of the aforesaid valve casing, said valve being of greater superficial area than the piston connected therewith, substantially as and for the purpose specified. 2nd. In a steam vacuum pump, a casing provided at its lower end with valve controlled inlet and outlet openings, and having a guide applied at its lower head, a valve casing applied to the upper head and formed with a steam inlet, a valve seat and a cylinder, a rod passing through the casing and having its lower end co-operating with the guide applied to the lower head thereof, a valve and a piston secured to the upper end of said rod and operating with, respectively, the valve seat and cylinder of the aforesaid valve casing, upper and lower stops secured to said rod, a piston mounted for reciprocation within the casing and having a centrally disposed opening, and a puppet valve for controlling the opening in the piston and having its stem provided with a stop, the supply of the steam being automatically admitted and shut-off by the action of the piston, substantially in the manner specified. 3rd. In a steam vacuum pump, a casing provided with valve controlled inlet and outlet openings, and having a valve controlled steam inlet, a piston mounted for reciprocation within the casing and having a pendent wall to enter an annular space provided at the lower end of the casing and containing a sealing liquid, said piston controlling the admission of the steam and provided with a valve controlled opening, substantially as set forth. 4th. In a steam vacuum pump, a casing provided at its lower end with valve controlled inlet and outlet openings for the water to be elevated, and provided at its upper end with a valve controlled inlet opening for the motive agent, an inner wall secured to the lower portion of the casing and spaced therefrom, said space being adapted to receive a sealing liquid, an annular piston mounted for reciprocation within the casing and having a pendent wall extending into the space formed between the inner and outer walls of the casing, said piston being adapted to alternately open and close the valve regulating the admission of the steam, and a valve applied to the piston for controlling the opening thereof, substantially as set forth. 5th. The herein described steam vacuum pump, comprising a casing, having an annular space at its lower end and provided with controlled inlet and outlet openings, a valve casing applied to the upper head of the casing and formed with an inlet opening, a valve seat and a cylinder, a counterbalanced rod passing through the casing and co-operating with a lower guide thereof, and having upper and lower stops, a piston and a valve secured to the upper portion of said rod and co-operating with the valve seat and cylinder of the said valve casing, an annular piston mounted for reciprocation within the casing, and having a pendent wall extending into the aforesaid annular space of the casing, and a puppet valve applied to said piston, substantially as set forth.

No. 69,004. Process of Sealing and Preserving the Contents of Cans. *(Procédé pour sceler et preserver le contenu des boites en fer blanc.)*

The Armour Packing Company, assignee of Frederick W. Bright, Kansas City, U.S.A., 16th October, 1900; 6 years. (Filed 3rd August, 1900.)

Claim.—1st. A continuous process for preserving and handling canned products in metal packages, which consists in first hermetically sealing said packages in a vacuum, then processing said products in a liquid which does not vapourize appreciately at a temperature of 240 degrees Fahrenheit, said liquid being maintained at approximately said temperature, then automatically washing said packages in a solution of sodium carbonate and hot water then

passing them through a body of hot water, then cooling them in cold water, and further cooling them in a stream or spray of cold

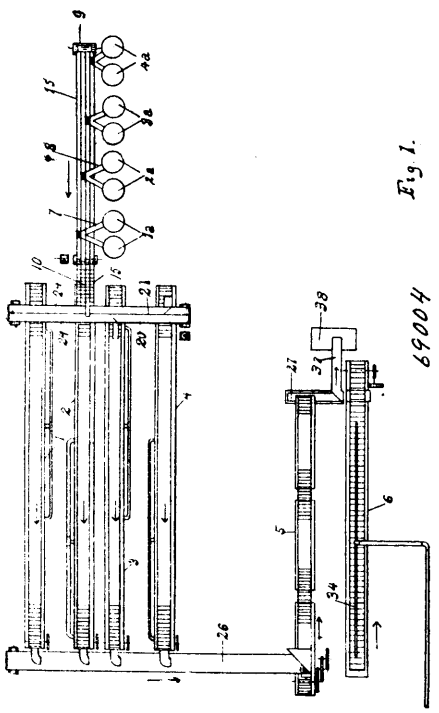


Fig 1.

69004

water, substantially as set forth. 2nd. A process for preserving and handling canned products in tin cans or cases, which consists in first hermetically sealing said cans in a vacuum, then processing the same by passing them through a bath of No. 1 tallow having a temperature of 240 degrees, more or less, Fahrenheit, said temperature being maintained by a volume of steam confined in pipes in said bath of tallow, next in automatically removing the grease from said cans by passing them through three cleaning baths in succession, the first being a strong solution of sodium carbonate in hot water, the next being a weaker solution of the same, and the last consisting of hot water only, finally in automatically passing the cans so cleaned through a body of water and then through a stream of spray of cold water, substantially as set forth.

No. 69,005. Nursing Nipples. *(Suçon.)*

Fig 1

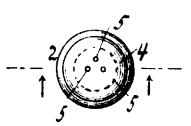
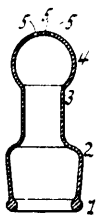


Fig 2.

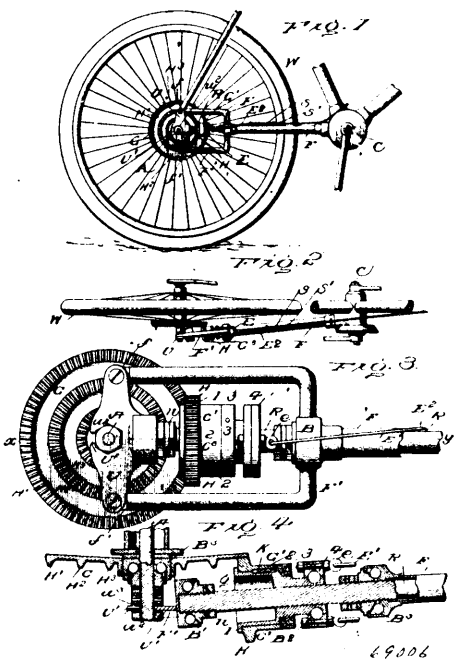


69005

Christian William Meinecke, Jersey City, New Jersey, U.S.A., assignee of Charles Catett, Stunton, Virginia, 16th October, 1900; 6 years. (Filed 26th June, 1900.)

Claim.—1st. As a new article of manufacture, a nursing nipple provided with a single milk passage, three non-aligned perforations leading therefrom, substantially as described. 2nd. As a new article of manufacture, a nursing nipple provided with a single milk passage three non-aligned perforations leading therefrom and placed clear of the apex of the nipple substantially as described.

No. 69,006. Bicycle Gear. *(Engrenage de bicycles.)*



69006

Peter Joseph Scharback, Woodburn Alexander Christie, Portland, and the Prior of Benedictine Priory, all of Oregon, U.S.A., 16th October, 1900; 6 years. (Filed 30th May, 1900.)

Claim.—1st. The combination in a changeable gear for cycles, of a gear disc having a plurality of gears thereon, a gear shaft, a bearing for said shaft, a sliding gear arranged to mesh with the gears on said disc, and having a hollow end, and means for moving said gear on its shaft, the hollow end of the gear passing over said bearing as it nears the end of its movement, substantially as described. 2nd. The combination in a changeable gear for cycles and with the rear wheel thereof having a gear disc provided with a plurality of gears thereon, of a clamp supported by the rear axle, a bearing supported by said clamp, a tube extending rearwardly from the crank hanger, a gear shaft rotating in said tube, and on the aforesaid bearing, a sliding gear arranged to mesh with any of the gears on said disc and having its rear end made hollow, and means for moving said gear on its shaft, the said hollow end of the gear passing over the said bearing when it is moved rearwardly on its shaft, substantially as described. 3rd. The combination in a changeable gear for cycles and with the rear wheel thereof having a gear disc provided with a plurality of gears thereon, of a clamp U secured to the rear axle and having outwardly projecting ends *f*, *f*^{1}, forked tubing F having its forked members connected with the projecting ends of said clamp, a tube T connecting the other end of said forked tubing with the crank hanger, a bearing supported on said clamp, and a bearing supported at the juncture of said forked tubing and the tube T, a gear shaft R rotating said tube T and supported on said bearings, a gear sliding on said shaft R between said bearings and arranged to mesh with any of the plurality of gears on said gear disc, and means for sliding the gear disc on its shaft comprising a casing 4 having ball bearings 2 between it and the said gear, a clevis E^1 secured to said casing, and a rod E^2, substantially as and for the purpose specified. 4th. The combination in a changeable gear for cycles and with the rear wheel thereof having a gear disc G provided with a plurality of cog gears thereon, of a clamp U secured to the rear axle and having outwardly projecting ends *f*, *f*^{1}, a forked out tubing F having its forked members connected with the ends of the said clamp U, a tube T connecting the front end of said forked-out tubing with the crank hanger, and ball bearings connected with said clamp U within the forked-out tubing F, a shaft R rotating within said tube T and having its rear end running on said ball bearings, a sliding gear on said shaft R, arranged to mesh with any of the gears on said gear disc G, and having its rear end hollow to allow it to slide over the aforesaid ball bearing, the other end of said sliding gear having a ball bearing connection with the casing 4, a clevis E^1 connected with said casing, a rod E^2 connected with said clevis, and a spring S operating on said rod E^2 to move the gear clutch in one direction, substantially as and for the purpose specified.

No. 69,007. Iron Refining Process.

(Procédé pour raffiner le fer.)

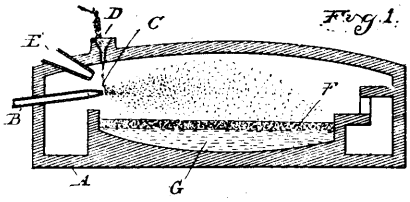
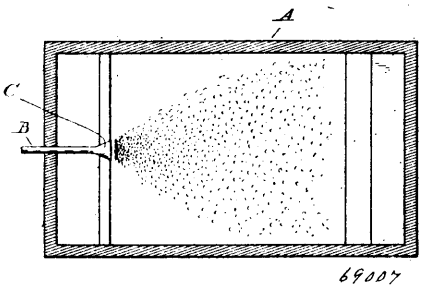


Fig. 1.

Fig. 2.

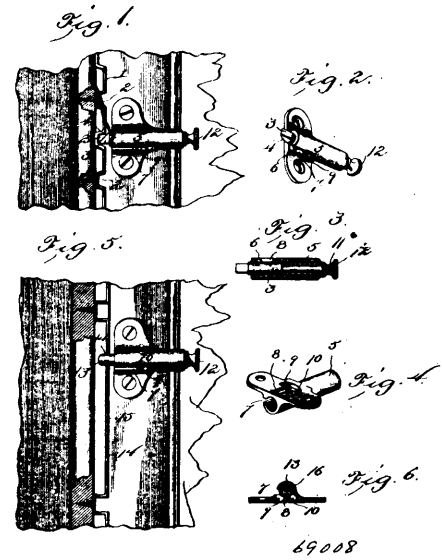


69007

Frederick W. Hawkins, and Charles E. Van Cleve both of Detroit, Michigan, U.S.A., 16th October, 1900; 6 years. (Filed 17th March, 1900.)

Claim.—1st. A method of refining iron consisting in first atomizing or breaking up into minute particles and scattering of the molten metal, and in then filtering the separate particles through a bed of comminuted basic material. 2nd. The herein described method of refining iron consisting in first atomizing or breaking up and scattering the molten metal into minute particles by a blast and in then filtering the separate particles through a heated bed of comminuted basis material.

No. 69,008. Window Fastener. *(Arrête-fenêtre.)*



69008

Melvin R. Drew, Lesburg, Virginia, U.S.A., assignee of Will S. James, Cincinnati, Ohio, 16th October, 1900; 6 years. (Filed 11th August, 1899.)

Claim.—1st. A device of the class described, comprising a casing having a bore and provided at opposite sides with longitudinal slots one of the slots being extended to one end of the casing to form an entrance and the other slot being provided at its inner end with a branch communicating with the entrance slot, and a detachable bolt adapted to engage a ratchet strip and provided with a lug arranged to enter the said slots, substantially as described. 2nd. A device of the class described, comprising a casing having a bore provided at opposite sides with longitudinal slots, one of the slots being extended to one end of the casing to provide an entrance, and the other slot being provided at its inner end with opposite branches communicating with the entrance slot and forming a stop, and a detachable bolt adapted to engage a ratchet strip and provided with a lug arranged to operate in the said slots, substantially as described. 3rd. A device of the class described, comprising a casing having a bore and provided with opposite longitudinal slots and having a transverse branch located at the inner ends of the slots, and a bevelled bolt provided with a projection or lug located at a point between its ends and operating in the said slots, whereby the bolt is adapted to be partially rotated, substantially as described.

No. 69,009. Soup Powder. *(Poudre à soupe.)*

The Merrell Soule Company, assignee of William Buell Gere, all of Syracuse, New York, U.S.A., 16th October, 1900; 6 years. (Filed 27th May, 1899.)

Claim.—1st. The herein described method of preparing vegetable soup powder or meal which consists in cooking the green vegetable substance and reducing the same to a pulp, adding starch and soup stock composed of the soluble ingredients of meat to the pulp, and drying the mixture of pulp starch and soup stock, substantially as set forth. 2nd. The herein described soup powder or meal consisting of cooked vegetable matter combined with starch and soup stock composed of the soluble ingredients of meat, substantially as set forth.

No. 69,010. Typographic Machine.

(Machine typographique.)

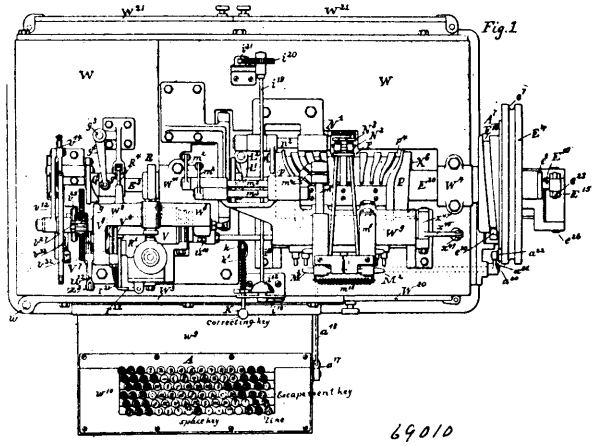


Fig. 1

69010

Isaac Risley and Vincent Franklin Lake, both of Pleasantville, New Jersey, U.S.A., 16th October, 1900; 6 years. (Filed 16th January, 1900.)

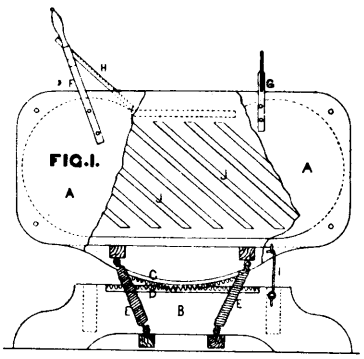
Claim.—1st. In a typographic machine, combination of a key board with a preliminary representation device device having movable pins and power operated means for setting said pins as selected by the keys. 2nd. In a typographic machine, the combination of a key board with a preliminary representation device having movable pins, striker bars to set said pins and a power operated means to act on said striker bars as selected by the keys. 3rd. In a typographic machine, the combination of a key board with a preliminary representation device having movable pins, striker bars to be selected by the keys, power operated means to act on the said striker bars and selecting pins and universal bars between the striker bars and the representation pins, substantially as described. 4th. In a typographic machine, the combination of a preliminary representation device having movable pins with striker bars controlled by the keys and selecting pins and universal bars between the striker bars and representation pins, substantially as described. 5th. In a typographic machine, the combination of a key board with a series of striker bars and a power operated device to act on said striker bars as selected by the keys and means whereby said power operated device can engage the striker bars only after the release of the keys by the operator. 6th. In a typographic machine, the combination of a preliminary representation device and a key board with a series of striker bars controlling the preliminary representation and a power operated device to act on said striker bars as selected by the keys and means whereby said power operated device can move the striker bars only at a certain point in its movement. 7th. In a typographic machine, the combination of a key board with a series of striker bars and a power operated striker to act on said bars as selected by the keys, and means whereby said striker can engage the bars to move them only at a certain point in the movement of the striker and after the release of the keys by the operator. 8th. In a typographic machine, the combination of the key board and a series of striker bars having projections, with a power operated striker to act on said projections of the bars as selected by the keys, but only after the release of the keys by the operator. 9th. In a typographic machine, the combination of a key board with a series of striker bars and a power operated striker to act on said bars as selected by said keys, after the the release of the keys by the operator.

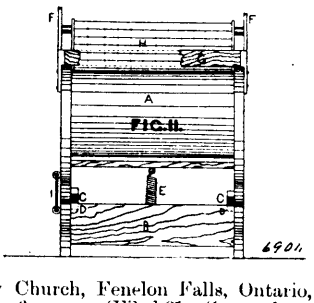
10th. In a typographic machine, the combination of preliminary representation device and a key board with a series of striker bars controlling said preliminary representation device, and a power operated striker to act on said striker bars as selected by the keys after the release of the keys by the operator. 11th. In a typographic machine, the combination of a key board and a series of striker bars having projections and raised portions such as a^{12}, with a power operated striker to act on said projections and raised portions of the bars as selected by the keys. 12th. In a typographic machine, the combination of a key board and spring actuated key rods, with a series of striker bars to be selected by the key rods on the operations of the keys, and a power operated striker to act upon the selected striker bars. 13th. In a typographic machine, the combination of a key board and spring actuated key rods, with a series of striker bars, each key rod having means to engage its striker bar on the downward stroke of the key rod and to lift the bar on its upward stroke, and a power operated striker to act upon the lifted striker bar. 14th. In a typographic machine, the combination of a key board and striker bars controlled thereby, with a power operated device to act on the striker bars, with two sets of selecting pins, universal bars between the two and levers acted on by the second set of selecting pins. 15th. In a typographic machine, the combination of a preliminary representation device having movable pins, a key board and striker bars controlled by the keys with a power operated striker to act on said said bars, two sets of selecting pins, universal bars between the two sets of selecting pins, and levers acted on by the second set of selecting pins to project the pins in the preliminary representation device. 16th. In a typographic machine, the combination of a composing wheel having movable pins, with a setting frame having an escapement connection with the composing wheel and having a row of pins to act on the pins of the composing wheel, with a keyboard and a series of bow levers controlled from the keyboard to act on the pins of the setting frame. 17th. In a typographic machine, the combination of a composing wheel and a setting frame having an escapement connection therewith and a keyboard with a stop device for the keyboard to be brought into action when the setting frame passes beyond a prescribed limit of movement. 18th. A typographic machine, provided with line closing means, and an automatic stop motion operated by the said line closing means. 19th. A typographic machine provided with an automatic stop motion and a unit registering device and means whereby the release of the unit registering device at the close of a line throws the stop motion into action. 20th. A typographic machine provided with stopping and restarting mechanism, and a unit registering device and means whereby the release of the unit registering device, at the close of a line, actuates the stop motion, and on the return of the unit registering device, to its initial position actuates the restarting mechanism. 21st. A typographic machine provided with automatic line closing mechanism, and a stop motion controlled by said automatic line closing mechanism. 22nd. A typographic machine provided with a feed carriage and a stop motion, means for imparting line feed to the carriage, and devices whereby the stop motion is actuated at the line feed. 23rd. A typographic machine provided with a feed carriage, stopping and restarting mechanism, means for imparting line feed to the carriage and devices whereby the stop motion is actuated at the beginning of the line feed and the restarting mechanism is actuated at the close of the line feed. 24th. A typographic machine provided with a stop motion and a release shaft adapted to return the parts to their initial positions and to actuate the said stop motion. 25th. A typographic machine having a representation device, a feed motion therefor, a unit register and means whereby the release of the unit register to return to its initial position at the close of a line stops the feed of the representation device. 26th. A typographic machine provided with a composing wheel and feed motion therefor, a unit register, and means whereby the release of the unit register to return to its initial position at the close of a line automatically stops the said wheel feed, and on the return of the unit register, restarts the said wheel feed, substantially as described. 27th. In a typographic machine, the combination of the main shaft carrying actuating cams, with a driving wheel and intermediate clutch mechanism and line closing devices controlling said clutch mechanism. 28th. In a typographic machine, the combination of a main shaft carrying actuating cams with a driving wheel, intermediate clutch mechanism and a unit register controlling said clutch mechanism. 29th. In a typographic machine, the combination of the main shaft carrying actuating cams, with a driving wheel, intermediate clutch mechanism, a release shaft adapted to return the moving parts of the machine to their initial positions and controlling said clutch, as and for the purpose set forth. 30th. A typographic machine having a main shaft and a clutch mechanism provided with means whereby it is thrown into and out of action at a fixed point in the revolution, as and for the purpose set forth. 31st. In a typographic machine, having a representation device, the combination of a unit register and a word space register with an automatic stop motion controlled by the unit register to stop the feed of the representation device during the return of the unit and word space registers to their initial positions. 32nd. A typographic machine provided with a representation device having movable pins and a correcting key to return wrongly set pins. 33rd. A typographic machine provided with a representation device and a unit register operated from said representation device. 34th. A typographic machine provided with a composing wheel having representation pins with a unit register operated by units pins on said wheel. 35th. In a typographic machine, the combination of a composing wheel having representation pins, units performing levers to be actuated by said pins, means for moving said levers into and out of the path of the pins and a unit register controlled by said levers. 36th. A typographic machine provided with a unit register, feeding devices therefor, and means to positively lock the register at the end of each feed movement to prevent overthrow. 37th. A typographic machine provided with a registering ratchet wheel, a feed pawl therefor and means for locking the pawl into the teeth of the ratchet at the close of each feed movement to prevent overthrow of the register. 38th. A typographic machine provided with a registering ratchet wheel, a feed pawl therefor, a projection on the pawl and a fixed stop to force the nose of the pawl into the ratchet teeth at the end of the feeding stroke. 39th. A typographic machine provided with a registering ratchet wheel and a feed pawl therefor, with a projection on the wheel and a projection on the pawl to engage with each other to cause the register to start from a normal position. 40th. In a typographic machine, the combination of a composing wheel having movable pins with a unit registering device, a feed pawl for the latter, a series of units performing levers controlled by said pins, an arm adapted to be moved to different extents by the different performing levers and controlling the said pawl and a cam to give feed movement to the pawl. 41st. A typographic machine provided with a representation device and a unit register in two parts, one of which can return to its initial position for registry of a new line, while the other holds the registry of the first line. 42nd. In a typographic machine, the combination of an automatic justifying mechanism, with a unit registering device to control the said justifying mechanism and adapted to receive and maintain the units registration of more than one line at a time. 43rd. In a typographic machine, the combination of a representation device and automatic justifying devices with a unit register controlling said justifying devices and additional means for maintaining the unit registration in the justifying devices. 44th. A typographic machine provided with a unit register in two parts with means for holding the second part to maintain the registration and devices on the first part to release the second part near the closing limits of the line. 45th. In a typographic machine, the combination of a units register and means for releasing the same at the closing of a line to return to its initial position, with a catch to temporarily hold said line closing means and a device on the units register to release said catch. 46th. A typographic machine provided with a representation device and a word space register operated from said representation device. 47th. A typographic machine having a composing wheel with movable pins and a word space register controlled from said pins. 48th. In a typographic machine, the combination of a word space register with a composing wheel having word space representation pins with a performing lever to be operated thereby and adapted to act on said word space register. 49th. A typographic machine provided with a word space register in two parts, one to hold the registration while the other returns to its initial position for the registry of the word spaces in the next line. 50th. A typographic machine having a word space register comprising a ratchet wheel and a word space rack, the latter being in two parts, the first of the two parts being fed by the ratchet wheel. 51st. In a typographic machine, the combination of the automatic justifying mechanism, with a word space register in two parts, one of which holds the registry to controlled justifying, while the other returns to its initial position to register the word spaces in a new line. 52nd. In a typographic machine, the combination of automatic justifying mechanism with a word space register and means to maintain the word space registration in the justifying devices after the said register has been released for the registry of a new line. 53rd. In a typographic machine, the combination of automatic justifying devices with word space registering means controlling said justifying devices and adapted to receive and maintain the word space registration of more than a line at a time. 54th. In a typographic machine, the combination of a preliminary representation device and automatic justifying mechanism with a word space register and means to maintain the word space registration in a justifying device after the said register has been released for the registry of a new line. 55th. In a typographic machine, the combination of justifying mechanism with a word space register in parts adapted to receive and simultaneously hold the word space record of more than one line, means for releasing the primary registry for the registration of a succeeding line, and means for subsequently releasing the secondary registers, substantially as described. 56th. In a typographic machine, the combination of a type carrier, slides having plungers and controlling the type carrier and operating cams for the slides, with selecting strikers each having two prongs spaced so that when one prong is opposite a plunger the other will be between the plungers, as and for the purpose set forth. 57th. In a typographic machine, the combination of a type carrier and aligning devices therefor, with slides controlling the type carrier, and having plungers, a cam grooved cylinder to operate the slides, each groove having an aligning section preceding the impression section. 58th. In a typographic machine, the combination of a type carrier, of aligning devices with slides controlling the type carrier and having plungers, a cammed grooved cylinder to operate the slides, each groove having an aligning section followed by an impression section and a section for freeing the alignment. 59th. In a typographic machine, the combination of a type carrier and aligning devices with slides controlling the movements of the type

carrier, and spring connections between the type carrier and slides adapted to yield in both directions. 60th. In a typographic machine, the combination of a type shell having an aligning flange provided with stops facing in opposite directions and an aligning plate having a flange with like stops to operate with the flange on the type carrier, slides to move the type carrier in different directions and yielding connections between the type carrier and slides, as and for the purpose described. 61st. In a typographic machine, the combination of a vibrating casing and a type carrier therein with rods to operate the type carrier in different directions and passing through the trunnions of the vibrating casing. 62nd. In a typographic machine, the combination of the feed carriage and means for imparting to it normal feed with justifying mechanism controlling the carriage in one direction, and a spring controling it in the other. 63rd. In a typographic machine, the combination of a feed carriage, a feed screw shaft therefor and feed mechanism for rotating the said shaft, with a spring controlling the end movement of the shaft in one direction, and justifyidg devices controlling it in the other direction. 64th. In a typographic machine, the combination of a feed carriage, with a pawl and ratchet feeding device therefor, a cam controlling the latter and a stepped stop device determing the action of the cam. 65th. In a typographic machine, the combination of a feed carriage and a pawl and ratchet feeding device, with a cam controlling the latter, a stepped stop device controlling the action of the cam, with a preliminary representation device controlling said stop device. 66th. In a typographic machine, the combination of a feed carriage and feed mechanism therefor, with a segmental lever and word space devices controlling the movement of said segmental lever, a radius rod having an adjustable connection with the said segmental lever and controlling said feed mechanism. 67th. In a typographic machine, the combination of a feed carriage and feed mechanism therefor, with a unit register, a segmental lever, word space devices controlling the movement of said segmental lever, a radius rod having an adjustable connection with said segmental lever and controlling the feed mechanism, and devices whereby the unit register determines the point of connection of the radius rod and segmental lever. 68th. In a typographic machine, the combination of preliminary representation mechanism, a feed carriage and feed mechanism therefor, with a segmental lever, a radius rod having an adjustable connection with said segmental lever and controlling the feed mechanism and devices whereby the unit representation controls the point of connection of the radius rod with the segmental lever. 69th. In a typographic machine, the combination of a feed carriage and feed mechanism therefor, with a segmental lever, a radius arm having an adjustable connection with the said segmental lever and controlling said feed mechanism, word space devices controlling the movement of the segmental lever and devices for automatically determining the point of connection of the radius the rod with the segmental lever according to the units error of the line being composed. 70th. In a typographic machine, the combination of a feed carriage and feed mechanism therefor, with a pair of segmental levers, radius rods having adjustable connections with said segmental levers, one radius rod controlling the feed mechanism and with word space devices controlling the movement of the other radius rod, and means for automatically determining the points of connection of the radius rods with their respective segmental levers according to the units error and word spaces in the line. 71st. In a typographic machine, the combination of a feed carriage and feed mechanism therefor, with a units and word space registers, a pair of segmental levers, a pair of radius rods having adjustable connection with said segmental levers, one radius rod controlling the feed mechanism, word space devices controlling the movement of the other radius rod and means whereby the unit and word space registers determine the points of connection of the radius rods with their respective segmental levers. 72nd. In a typographic machine, the combination of a preliminary representation, a feed carriage and feed mechanism therefor, with a unit register and a segmental lever, a radius rod having an adjustable connection with said segmental lever and controlling the feed mechanism, devices whereby the unit register determines the point of connection of the radius rod with the segmental lever and the word space devices to impart movement to the latter. 73rd. In a typographic machine, the combination of a composing wheel having movable pins to represent word spaces, a feed carriage and feed mechanism therefor, with a segmental lever, a radius rod having an adjustable connection with the said segmental lever determined by the units of the line and controlling the feed mechanism, pawl and ratchet devices controlling the movement of the said segmental lever and controlled by the word space pins. 74th. In a typographic machine, the combination of a feed carriage and justifying lever controlling the feed of said carriage, word space devices controlling the movement of said levers to act upon said carriage and a safety device to stop the movement of said levers at their justifying limit. 75th. In a typographic machine, the combination of a main frame having a hinged door, with a composing wheel and keyboard mechanism mounted upon said hinged door. 76th. A typographic machine, having a preliminary representation means, in combination with automatic line closing devices operated from said preliminary representation means. 77th. A typographic machine provided with a unit register and a preliminary representation means representating the word spaces, in combination with means for returning the register to its initial position by the action of said word space representation within the closing limits of a line. 78th. A typographic machine, provided with registers for the units and for the word spaces and a preliminary representation means in combination with devices for returning the registers to their initial positions by the action of a word space representation within the closing limits of a line. 79th. A typographic machine, having automatic justifying devices and a preliminary representation means in combination with automatic line closing devices operated from said representation means. 80th. In a typographic machine, the combination of justifying mechanism, with automatic line closing devices adapted to release the justifying devices for the justification of a new ine. 81st. A typographic machine, having a representation device and unit and word space registers, with automatic line closing devices controlled by said representation device and registers. 82nd. A typographic machine, having a representation device and unit and word space registers, line closing devices and means controlled by said registers whereby said line closing devices are automatically brought under the control of a represented word space near the closing limits of a line. 83rd. A typographic machine, having a representation device to represent the word spaces and also the end of the line, in combination with means whereby the word space representation within the closing limits of a line sets the line representation. 84th. A typographic machine, having a composing device with word space pins and line pins in combination with means whereby a word space pin automatically sets a line pin within within the closing limits of a line. 85th. In a typographic machine, the combination of a preliminary representation device, and a unit register with a lever having a movable part controlled from the unit register within the closing limits of a line to bring the said movable part into the path of the word space representation to release the register for return. 86th. In a typographic machine, the combination of a preliminary representation device and a unit register, a lever having a movable part controlled from the unit register within the closing limits of a line to bring said movable part into the path of the word space representation to release the register for return and means for maintaining the movable part in its set position until the register reaches its re-starting position. 87th. A typographic machine, provided with a unit register and means for preventing its rebound at the end of its return movement. 88th. In a typographic machine, the combination of a pair of segmental levers and radius rods having adjustable connections therewith, one of said raidius rods controlling the justifying feed with word space devices controlling the other radius rod, and means for automatically raising the raidius rods in the segmental levers at the end of the line. 89th. In a typographic machine, the combination of unit and word space registers and a pair of segmental levers and radius rods adjustably connected to the said levers, and one of said radius rods controlling the justifying feed, with word space devices controlling the other radius rod, means for automatically raising the radius rods in the segmental levers at the end of the line and for permitting them to come to rest upon the unit and word space register devices which have been meantime set for a new line. 90th. A typographic machine, provided with automatic justifying mechanism and means for preventing the operation of said justifying mechanism on short lines. 91st. A typographic machine, having a type carrier provided with a support at its back, opposite the point of impression. 92nd. In a typographic machine, the combination of a feed carriage, and feed mechanism therefor, with a representation device and means controlled by the representation device and means controlled by the representation device for automatically returning the carriage at the end of the line. 93rd. In a typographic machine, the combination of a representation device with means controlled from the representation device for automatically returning the carriage and giving the line feed. 94th. In a typographic machine, the combination of a representation device and automatic justifying mechanism, with means for automatically setting the representation of the end of the line and means for releasing the justifying mechanism by said line representation for the justification of a succeeding line. 95th. A typographic machine provided with means for automatically closing the line at a word space. 96th. A typographic machine provided with a representation device, in combination with means for automatically closing the line. 97th. A typographic machine provided with a representation device, in combination with means for feeding the carriage and means for automatically returning the carriage. 98th. A typographic machine provided with a representation device, in combination with means for automatically feeding the carriage and means for automatically returning the carriage and operating the line feed. 99th. A typographic machine provided with a unit register in combination with justification mechanism and means for automatically closing the line. 100th. A typographic machine provided with a representation device, in combination with justification mechanism and a unit register and means for automatically closing the line. 101st. A typographic machine provided with a word space indicating device and a unit register, in combination with line closing mechanism and means whereby the said word space device, within the closing limits of the line, automatically controls said line closing mechanism. 102nd. A typographic machine provided with a word space indicating device and a unit register and a representation device, in combination with line closing mechanism and means whereby the said word-space device, within the closing limits of the line, automatically controls the said line closing mechanism. 103rd A typographic machine provided with automatic justifying mechanism, in combination with line closing mechanism, and a device act-

ing to indicate the word spaces and adapted to act upon the mechanism to close the line, substantially as described. 104th. A typographic machine provided with a unit register and a word space indicating device, in combination with means for returning the register to its initial position by the action of said word space device within the closing limits of a line. 105th. A typographic machine provided with registers for the units and word spaces and a word space indicating device in combination with means for returning the registers to their initial positions by the action of the word space device within the closing limits of a line. 106th. A machine for typographic purposes, provided with means for automatically closing the line, and devices for measuring or registering the units in the line, in combination with mechanism, controlled thereby, to automatically justify the line. 107th. A machine for typographic purposes provided with means for automatically closing the line, unit registerng devices and word space registering devices, in combination with means, controlled thereby, to automatically justify the line in the word spaces. 108th. A machine for typographic purposes, provided with means for automatically closing the line, devices for making a preliminary representation and means for registering the units in the line, in combination with mechanism controlled by the unit register, to automatically justify the line. 109th. A machine for typographic purposes, provided with means for automatically closing the line, means for making a preliminary representation and devices for registering the units and the word spaces, in combination with means controlled by the unit registers to automatically justify the line in the word spaces. 110th. The combination with a matrix feeding device, of means for automatically closing the line in combination with unit registering devices and means controlled from the said registering devices to vary the space feed between words so as to justify the line. 111th. The combination with a matrix feeding device, of means for automatically closing the line, in combination with unit registering and word space registering devices, and means controlled from registering devices to vary the space feed between words. 112th. A typographic machine provided with mechanism for automatically closing the line, and mechanism for justifying a composed line of matter, in combination with devices for representing each normal word-space at the time of composition, and with means controlled by said representation, to automatically vary the width of said word spaces after composition, whereby the final result is a justified line of matter. 113th. A tpyographic machine is provided with a key-board, unit registering and word-space registering devices controlled from the key-board, and means for automatically closing the line, in combination with feed mechanism, and means controlled from said registering devices to automatically vary the space feed words, so as to justify the line. 114th. The combination in a matrix-forming machine, of the key-board, the character representing mechanism, the space representing mechanism, unit composition register for registering the number of units in the represented line, and means for automatically closing the line, with impressing and feeding mechicanism, acted upon by the representing mechanism, substantially as described. 115th. In a typographic machine, the combination of a rotary cam having centralizing groove and cam grooves with a type-carrier and a controlling slide having plungers, any one of which is adapted to be projectad into a corresponding groove in the cam cylinder, each of the said cam grooves being so formed as to move the slide and carrier the distance required by the selected pin for said groove and to return the carrier to its normal position. 116th. In a typographic machine, the combination of a rotary cam having cam grooves with a type carrier, and a slide controlling the type-carrier, the said slide having plungers adapted to be projected into the cam grooves and an incline on the cam for automatically returning the projected plunger on the completion of the revolution of the the cam. 117th. In a typographic machine, the combination of a rotary cam having a centralizing groove and cam grooves with two slides, each having plungers capable of being projected into corresponding grooves, a type carrier connected to both slides and an incline on the cam for automatically returning the projected plungers on the completion of the revolution of said cam. 118th. In a typographic machine, the combination of a rotary cam having a cam groove with slides having plungers capable of being projected into corresponding grooves, a type carrier controlled by slides, means for automatically returning the projected plungers from their corresponding grooves on the completion of the revolution of said cam, and the means upon said rotating cam for holding the slides in their normal positions after the projected plungers have been returned from the grooves and until other plungers have been projected. 119th. The combination of a rotary cam having cam grooves with slides carrying plungers adapted to be projected into and returned from said groove, and means for normally holding said slides during the time of returning said projected plungers and of projecting other plungers. 120th. The combination of a rotary cam having a centralizing groove and cam grooves, with a slide carrying plungers adapted to be projected into and returned from their corresponding grooves, and means for normally projecting the centralizing plungers into the centralizing groove when no cam groove is selected. 121. In a typographic machine, the combination of a cam having cam grooves, with a type-carrier and a slide controlling the type-carrier, the said slide having plungers and a striker adapted to be moved across in front of different plungers and means for vibrating the strikers to project the plungers into the cam grooves. 122nd. In a typographic machine, the combination of a cam having cam grooves with a type-carrier, the said slide having plungers and a pair of strikers adapted to be moved from their normal central positions in front of different plungers to project the latter into the grooves of the cam. 123rd. In a typographic machine, the combination of a type-carrier, two slides controlling the movement of the type-carrier in two different directions, with a cam having cam grooves, plungers in the slides, and two pairs of strikers adapted to be moved from their normal central positions opposite different plungers and means for actuating the strikers to project the plungers. 124th. In a typographic machine, the combination of a type-carrier, with a cam having cam grooves, plungers in the slides, strikers adapted to be moved opposite the different plungers, means for actuating the strikers to project the plungers, and a key-board controlling the positions of the strikers opposite the different plungers. 125th. In a typographic machine, the combintfion of a preliminary representation device, a type-carrier, slides controlling the positions of the carrier and plungers in the slides with a cam having cam grooves, strikers adapted to be brought opposite different plungers under the dictation of the representation device, and means for actuating the strikers to project the plungers.

No. 69,011. Washing Machine. (*Machine à laver.*)





William Hackley Church, Fenelon Falls, Ontario, Canada, 16th October, 1900; 6 years. (Filed 21st September, 1900.)

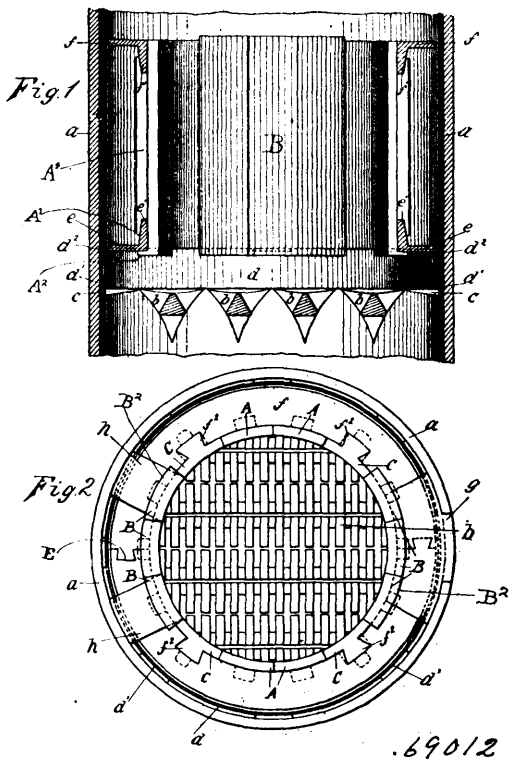
Claim.—1st. A washing machine consisting of an oblong body on rockers to which is attached a curved toothed rack, resting and oscillating on a fixed or stationary base to which is attached a straight toothed rack, the teeth of the curved rack intermeshing and engaging with the teeth of the straight rack as hereinbefore described and illustrated in the drawing. 2nd. The combination with a washing machine oscillating on rockers on a stationary base, of coiled springs under tension for maintaining the equilibrium of the machine and controlling the extent of its motion, as hereinbefore described and illustrated in the drawing. 3rd. The combination with a washing machine oscillating on rockers on a stationary base, of a vertical strip or board for attaching a wringer to, as hereinbefore described and illustrated in the drawing. 4th. The combination with a washing machine oscillating on rockers on a stationary base, of the hinged lid, the under side of which is corrugated so as to form a hand wash board when thrown back and supported at a suitable angle, as hereinbefore described and illustrated in the drawing. 5th. The combination with a washing machine oscillating on rockers on a stationary base, of wooden slats or corrugations on the inner sides of the body set at an angle of 45 degrees, so that those on the opposite side shall be at right angles to them, as hereinbefore described and illustrated in the drawing.

No. 69,012. Fire Pot Lining. (*Doublure de marmites.*)

John F. Hollings, Hartford, Connecticut, U.S.A., 16th October, 1900; 6 years. (Filed 21st September, 1900.)

Claim.—1st. In a furnace fire pot, in combination, a grate a flexible band with interlocking ends supported from said fire pot, a sectional ring supported on said band, staves interlocking with the ring, and a top ring interlocking with said staves, all substantially as described and for the purposes set forth. 2nd. In a furnace fire pot, in combination, a plurality of sectional rings having their sections interlocked by dovetailed joints, an upright rim at the inner

edge of each ring, registering mortises being cut through said rings and rims, and a series of staves extending across within the rims

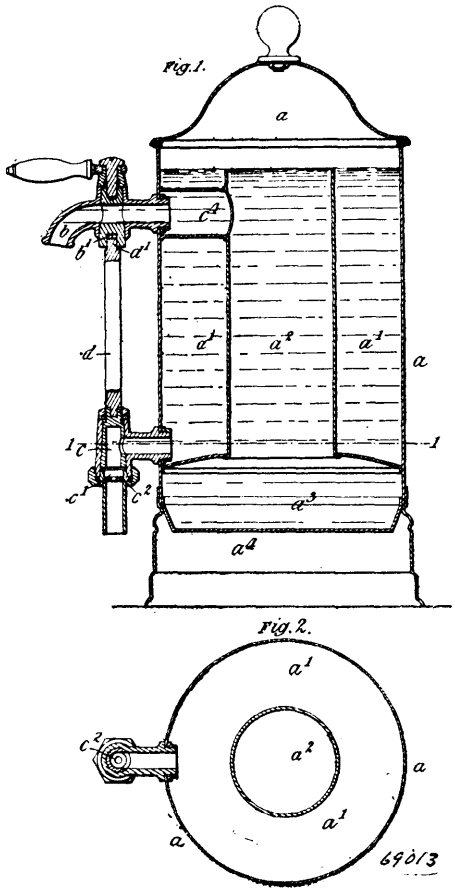


and certain of which have flanges at their ends, webs on their backs, and hooks at the extremities of the webs projecting toward the flanges, certain of said staves also standing across the joints between the ring sections, all parts being proportioned as and for the purposes set forth. 3rd. In a furnace fire pot, in combination, a plurality of rings having upright rims at their inner edges provided with registering dovetailed mortises, a series of staves extending across within the rims and having webs on their outer faces, certain of the webs having outwardly facing hooks at their extremities, and certain other of the staves having webs with dovetailed tenons at their extremities, the lower of which has a stop deeper than the mortise, and the upper of which is cut away at its sides at a point positioned below the throats of the hooks of the staves just mentioned, all constructed and arranged, as and for the purpose set forth. 4th. In a furnace fire pot, in combination, a plurality of rings having upright rims at their inner edges provided with registering dovetailed mortises, a series of staves extending across within the rims and having webs on their outer faces, certain of the webs having outwardly facing hooks at their extremities, certain of the staves having outwardly projecting flanges at their ends in addition to said webs and hooks, and certain other of the staves having webs with dovetailed tenons at their extremities, the lower of which has a stop deeper than the mortise and the upper of which is cut away, all constructed and arranged, as and for the purposes set forth.

No. 69,013. Apparatus for Heating Liquids.
(Appareil à chauffer les liquides.)

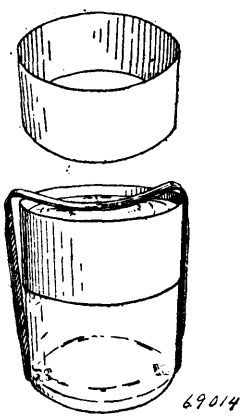
Edwin William Parish, South Knighton, Leicester, England, 16th October, 1900 ; 9 years. (Filed 20th September, 1900.)

Claim.—1st. In a heating apparatus the combination with the outlet therefrom and the inlet thereto of valves or cocks provided with means whereby they are operated simultaneously to enable the quantity of hot liquid withdrawn from the apparatus to be replaced by a corresponding quantity of cool liquid, substantially as described. 2nd. In a liquid heating apparatus the combination with the outlet therefrom and the inlet thereto of valves or cocks connected together by a coupling rod so that the said valves or cocks will be operated simultaneously, substantially as and for the purpose specified. 3rd. In a liquid heating apparatus the combination with the outlet therefrom and the inlet thereto of valves or cocks having their plugs arranged vertically and connected together by a vertical rod having rectangular ends loosely fitting the said plugs so as to permit of a certain amount of free movement longitudinally, substantially as and for the purpose specified. 4th. In a liquid heating apparatus, the combination with the outlet therefrom and the inlet thereto of valves or cocks, of means for enabling said valves or cocks to be operated simultaneously and of means for adjusting the area of the passages in either of said valves or cocks so as to adjust them and permit of an equivalent quantity of liquid to pass through them when they are opened, substantially as and for the purpose specified.



5th. In a liquid heating apparatus the combination with the outlet therefrom and the inlet thereto of the valves or cocks, of means for simultaneously operating said valves or cocks, and of loose rings of varying internal diameter adapted to be fitted into one of said cocks or valves to adjust the area of the passage therein, substantially as and for the purpose specified. 6th. In a liquid heating apparatus the combination with the outlet therefrom communicating with a central upright compartment open at the top and extending from a bottom chamber of the apparatus and with the inlet to said apparatus communicating with the lower part of the compartment surrounding said central upright compartment, of valves or cocks on said outlet and inlet, and means for simultaneously operating said valves or cocks and of means for regulating the area of the passages in said valves or cock, substantially as and for the purpose specified.

No. 69,014. Sterilization Apparatus.
(Appareil à stériliser)



Ludwig Wurzburg, Vancouver, British Columbia, Canada, 16th October, 1900 ; 6 years. (Filed 30th January, 1900.)

Claim.—1st. A band, ring or cap made of rigid material and encircling closely the otherwise exposed surface of a compressible gasket intended for the hermetic closure of jars to prevent the displacement of said gasket. 2nd. A band, ring or cap made of rigid material and encircling closely the otherwise exposed surface of a compressible gasket intended for the hermetic closure of jars to prevent the displacement of said gasket chiefly during the proceess of closing by boiling, steaming, heating or exhausting otherwise the air in the jar. 3rd. A band, ring or cap made of rigid material and encircling closely the otherwise exposed surface of a compressible gasket intended for the hermetic closure of jars to prevent the displacement of said gasket chiefly during the process of closing by boiling, steaming, heating or exhausting otherwise the air in the jar, said band, ring or cap forming an independent temporary attachment separate and distinct from the jar and its lid.

No. 69,015. Lantern. *(Lanterne.)*

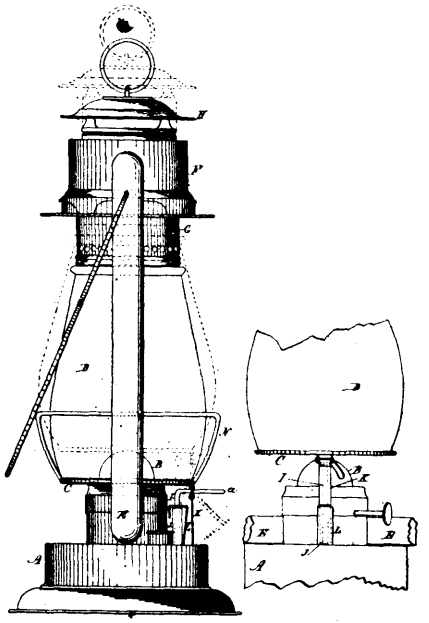


Fig. 1. Fig. 2.

69015

Edwin Thomas Wright, Hamilton, Ontario, Canada, 16th October, 1900; 6 years. (Filed 21st February, 1900.)

Claim.—1st. In combination with a tubular lantern, an oscillating arm or holder plate hinged at the top to the globe disc or its equivalent, and its lower end made to swing inwards to rest upon a projection or rest plate to support the globe and its globe disc above the burner while the latter is being lighted, substantially as and for the purpose specified. 2nd. In a tubular lantern, the holder plate K, hinged to the globe disc C, or its equivalent, and the rest plate J, for supporting the globe and disc, substantially as and for the purpose specified.

No. 69,016. Roofing Composition.

(Composition pour toitures.)

James Cunningham, Montreal, Quebec, Canada, 16th October, 1900; 6 years. (Filed 16th March, 1900.)

Claim.—1st. A composition of matter for roofing and like purposes comprising chrysotile tailings from chrysotile mining, and coal tar in or about the proportions specified. 2nd. A composition of matter for roofing and like purposes comprising chrysotile tailings from chrysotile mining and sufficient coal tar for the asbestos in the chrysotile to absorb the watery part thereof, as and the purpose specified. 3rd. As a new article of manufacture a composition comprising chrysotile tailings from chrysotile mining, and coal tar in or about the proportions specified, spread as a layer and a superimposed layer

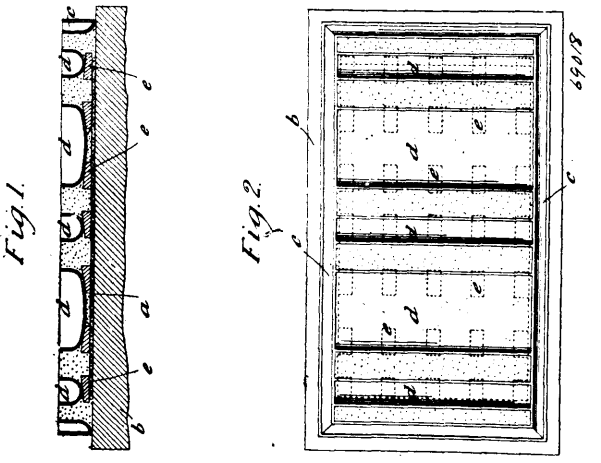


Fig. 1. Fig. 2. 69018

of chrysotile tailings from chrysotile mining, as and for the purpose specified.

No. 69,017. Hide Tanning Process.

(Procédé pour tanner les peaux.)

Raymond Combret, Paris, France, 16th October, 1900; 6 years. (Filed 5th March, 1900.)

Claim.—1st. Process for tanning and treating hides and skins which consists in treating the said hides and skins in solutions or liquors containing small quantities of formic aldehyde in combination with systematically determined quantities of free acids, in particular acetic acid, such treatment being effected either at atmospheric temperature or preferably at a moderate temperature in closed vessels having motion imparted thereto, substantially as herein described. 2nd. In the process for tanning and treating hides and skins as described, the employment for the combined formic aldehyde and free acid solutions, of from $\frac{1}{5000}$th to $\frac{1}{1000}$th parts of formic aldehyde and from $\frac{25}{1000}$ to $\frac{1}{1000}$th p rts of free acid, substantially as described. 3rd. In the process for tanning and treating hides and skins in solutions containing formic aldehyde and free acids as described, the supplemental application of the known liquors, extracts, tanning materials, or dye stuffs for imparting to the hides the desired tints, or for increasing their weight and rendering them similar to leather of existing manufacture, substantially as described.

No. 69,018. Prismatically Ridged Glass.

(Fabrication de verre.)

Malcolm Faulkner Ewen, No. 144 High Holborn, London, England, 16th October, 1900; 6 years. (Filed 22nd May, 1900.)

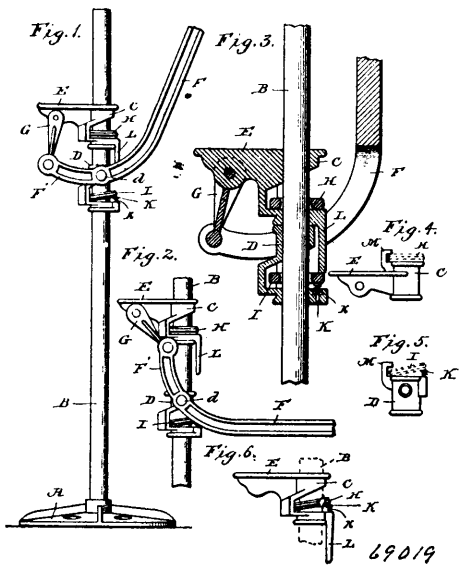
Claim.—1st. The herein described method of manufacturing prismatically ridged glass by bedding the glass flat on suitable cement in a frame having parallel faces and subjecting it to the action of suitable grinding powder and tools pressed upon it, and thereafter to the action of suitable polishing powder and polishing roller. 2nd. In machinery for manufacturing prismatically ridged glass, the ribbed frame for bedding the glass, substantially as described. 3rd. In machinery for manufacturing prismatically ridged glass, the combination with a movable support and frame for the glass, of a set of detachable grinding tools acting by gravity and assisted by weights to bear upon the glass, and a frame for holding and means for adjusting such tools, substantially as described. 4th. Prismatically ridged ground glass sheets, as described.

No. 69,019. Lifting Jack. *(Cric.)*

John Hogarth Osborne, Anderson, Indiana, U.S.A., 16th October, 1900; 6 years. (Filed 14th September, 1900.)

Claim.—1st. In a lifting jack, the combination with a post or standard, of the two sleeves mounted loosely thereon, the clutch rings carried by the said sleeves and encircling said post or standard, and adapted to assume oblique positions thereon, the bifurcated upwardly bent lever and the link connecting the upwardly bent end of the lever with an extension of the upper sleeve, substantially as specified. 2nd. In a lifting jack, the combination with a post or standard, of the two sleeves mounted loosely thereon, one above the other, the upper sleeve having a jack or lift plate which forms a lateral extension of said sleeve, the clutch rings carried by the said sleeves, the spring pin carried by the lower sleeve and upon which the clutch ring of the lower sleeve rests, the upper sleeve being arranged in certain positions to contact with the said ring and depress it against the action of the said pin, the bifurcated lever

embracing the post or standard and fulcrumed to the lower sleeve, and a link connecting the upturned end of said lever with the said



jack or lift plate, substantially as specified. 3rd. In a lifting jack, the combination of the post or standard, the two sleeves loosely mounted thereon, the upper of said sleeves having a jack or lift plate extension, the clutch ring carried by the lower sleeve, the spring pin upon which said ring rests, said upper sleeve being adapted, when in a certain position, to contact with the said ring and depress it against the action of said pin, the bifurcated or slotted lever fulcrumed to the lower sleeve and having the upturned end portion, and the link which connects the said upturned end portion with the plate extension of the upper sleeve, substantially as specified.

No. 69,020. Precipitation of Gold. *(Précipitation de l'or.)*

Frederick William Martino, 107 Montgomery Road, Sharrow and Frederick Stubbs, Edgeate, Osborne Road, both in Sheffield, Yorkshire, England, 16th October, 1900; 6 years. (Filed 24th March, 1899.)

Claim.—1st. In the precipitation of gold from chloride, bromide or permanaganate solutions, the employment of calcium, barium or aluminium carbide to produce a nascent hydro-carbon gas for the purpose of precipitating the gold from the solution, substantially as specified. 2nd. In the precipitation of gold from chloride, bromide or permanganate solutions, passing acetylene or methane gases through the solution, for the purpose of precipitating the gold, substantially as specified. 3rd. In the precipitation of gold from chloride, bromide or permanganate solutions, passing acetylene or methane gases mixed with oxygen through the solution, for the purpose of precipitating the gold, substantially as specified. 4th. In the precipitation of gold from chloride or bromide solutions, which contain free chlorine or free bromine, passing a current of air through the solution to remove the excess of chlorine or bromine and then passing acetylene or methane gas through the solution for the purpose of precipitating the gold, substantially as specified. 5th. In the precipitation of gold from chloride or bromide solutions, which contain free chlorine or free bromine, passing a current of air through the solution to remove the excess of chlorine or bromine and then passing acetylene or methane gas through the solution, for the purpose of precipitating the gold, substantially as specified.

No. 69,021. Machine for Making Matches.

(Machine à faire les allumettes.)

Frank Lester Van Dusen, Ottawa, Ontario, Canada, 16th October, 1900; 6 years. (Filed 7th December, 1898.)

Claim.—1st. The combination with a series of guideways and a series of endless block carriers or chains adapted to travel in the same, of a like series of sprockets and shafts having ratchet discs keyed on their outer ends, pendent levers pivoted on side shafts and having pawls that engage the ratchets, a bar connecting the lower ends of said levers, and having parallel lateral arms, and a rotatable cam arranged between said arms, substantially as set forth and for the purpose specified. 2nd. The combination with the fixed guideways for sliding splint blocks, and an endless splint carrier having perforated slats of the cutter head, having an opening and horizontal guideways, the abutment plate adapted to slide in the latter and having a projecting flange, the cutter plate fixed directly over the abutment plate, the splint guide plate 28 fixed upon the cutter plate and having a series of splint sockets adapted to register with those in the splint carrier, and means for reciprocating the cutter head, whereby the aforesaid abutment plate, cutter plate and splint guide

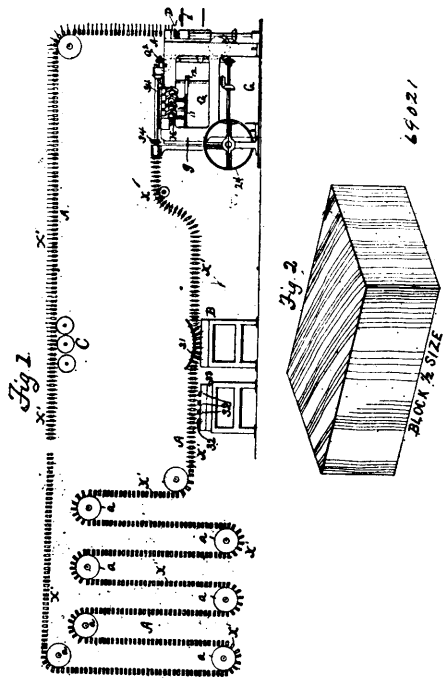
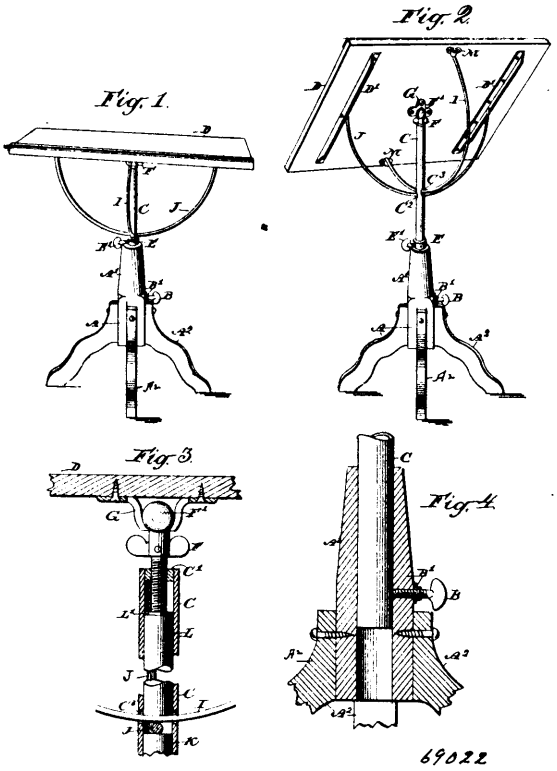


plate are reciprocated together and the limits of movement are the height of the splint block, as shown and described. 3rd. The combination with the block guideways and cutter heads reciprocating as specified, of a crank shaft and pitman, abutment or splint elevating plates arranged in slots in the cutter heads as specified, levers pivoted to said cutter heads and having their lower ends formed as elongated yokes, and cams on said crank shaft which are embraced by said yokes, as shown and described, whereby the levers reciprocate the abutment plates horizontally, while the cutter heads reciprocate vertically, as shown and described. 4th. In a match machine, the endless splint and match carrier, composed of solid slats having sprockets, which extend through the latter, and are triangular in cross section, and made funnel-shaped at both ends, as shown and described. 5th. The combination with a splint and match carrier having match receiving sockets, of a match ejecting mechanism comprising in part a pin guide bar having projections adapted to engage such sockets, and pins working through said bar and adapted to project into the sockets, substantially as shown and described. 6th. The combination with a guide frame and a splint and match carrier composed of slats or bars loosely connected and having a series of match sockets which have funnel-like entrances, of the ejecting mechanism comprising a bar having a series of conical projections coinciding with the aforesaid sockets and adapted to enter the same, pins working through said projections and adapted to enter the sockets, substantially as and for the purpose specified. 7th. The combination with a guide frame and a splint and match carrier composed of slats and bars loosely connected and having a series of match sockets which have funnel-like entrances, of the ejecting mechanism comprising a bar having a series of conical projections coinciding with the aforesaid sockets and adapted to enter the same, a series of pins working through the said projections andadapted to enter the sockets, a guide frame to which said pins are attached, and springs interposed between such frame and the bar having conical projections, as aforesaid, substantially as shown and for the purpose specified. 8th. The combination with a guide frame and a splint and a match carrier composed of slats or bars loosely connected and having a series of match sockets which have funnel-like entrances, of the ejecting mechanism, comprising a bar having a series of conical projections coinciding with the aforesaid sockets aad adapted to enter the same, a box-like guide frame whose top and bottom sides are adapted to embrace a carrier-slat, pins fixed to the bottom of such frame interiorly, and adopted to work through the conical projections and slat sockets, and spiral springs encircling the pins and arranged as shown and described. 9th. The combination with a carrier having slats provided with a series of match sockets, a horizontal slidable plate and a lever and cam shaft for reciprocating said plate, ejecting mechanism proper which is attached to and carried by said plate, and consists of a guide frame, a series of pins, a bar through which said pins work, and a series of springs that encircle the pins and support the said bar, substantially as described. 10th. In a match machine, the combination with a traveling splint and match carrier, having slats provided with sockets, of a series of

devices arranged adjacently in different horizontal planes so as to form collectively an incline over which the matches are carried, substantially as shown and described. 11th. In a match-making machine the combination with an endless traveling splint and match-carrier, having sockets as specified, for reception of the upper ends of splints and of means arranged horizontally and ajacently in different planes, so as to form an incline, as shown and described. 12th. The combination with a travelling match carrier having sockets for matches as specified, of a series of rollers arranged in an inclined plane parallel to each other and beneath the carrier, whereby the shanks of the matches strike first upon the lowest roller, and, riding over it, are forced up in the sockets a certain distance, then successively upon the higher rollers by which they are raised still higher, as shown and described. 13th. In a match machine, the heater for match composition having a series of three or more openings arranged in zig-zag relation a series of composition vats or pans placed and supported in said openings, and a series of rollers arranged one in each pan, as shown and described for the purpose specified. 14th. The combination with a series of splint carriers and a water bath, of a series of composition vats, a series of annular gears surrounding the respective vats and meshing as shown, stirrers attached to the gears and working in the vats, the vats and gears being so connected that both may be raised together from the water-bath, as shown and described. 15th. The combination with a water-bath and splint carriers, of a series of removable composition vats, meshing annular gears surrounding the vats, and having a shoulder that engages a ledge on the vats, stirrers attached to the gears and working the vats and a series of removable composition take-up rules, one for each vat, substantially as shown and described.

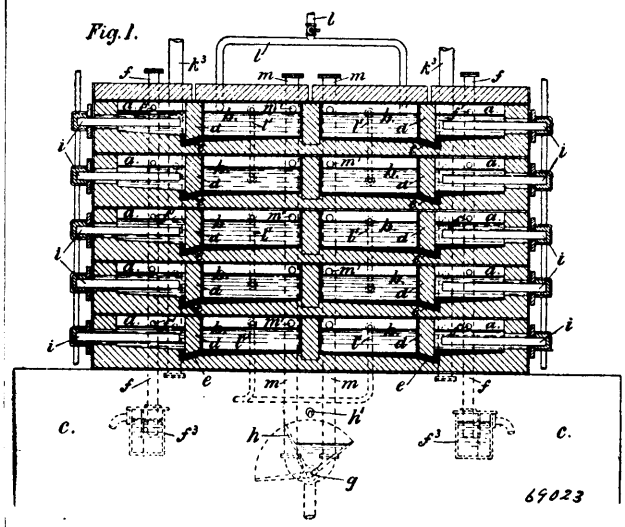
No. 69,022. Table. *(Table.)*



Charles Henry Sanford, Cedar Rapids, Iowa, U.S.A., 16th October, 1900; 6 years. (Filed 24th July, 1900.)

Claim.—1st. In a table, the combination of a table top, a semicircular bail attached to the underside thereof, a shaft to support the table top and forming an abutment against the periphery of the bail, a screw engaging the upper end of said shaft, and a universally jointed connection of the screw with the under side of the table top central to the circle of which the bail forms a part. 2nd. The combination of a table top, a supporting shaft therefor, a screw connecting the table top and shaft by a universal joint, a semicircular bail attached to the underside of the bail concentric to said joint and in the plane of the shaft, abutments on the shaft to engage the periphery of the bail, and braces at right angles to said bail, pivoted to the underside of the table top. 3rd. The combination of a table top, a central shaft to support the same, an adjusting screw in the upper end of said shaft, connecting with the under side of the table by a universal joint, and a pair of semi circular bails pivoted to the underside of the table top, concentric with said joint, and passing through holes in said shaft. 4th. The combination of a table top, a pair of semicircular bails pivoted to the underside thereof, a supporting shaft through which said bails pass, a winged bolt or screw in the threaded upper end of said shaft, and a ball and socket connection of said screw with the table top, central to the circles partially described by said bails. 5th. The combination of a table top, a pair of bails depending therefrom, a shaft to support said table top, through which said bails pass, said shaft being tubular and provided with a screw-threaded hole at its upper end, a screw fitted therein and having a universally jointed connection with the table top, and a plug mounted in the shaft between the end of said screw and said bails, whereby they may be fastened in any desired position, as described. 6th. The combination of a table top, a shaft to support the same, a bolt screwed into the upper end of said shaft and connecting with the table top by a universal joint, a semi-circular bail attached to the underside of the table top concentric to said joint, an abutment on the shaft to bear against the periphery of the bail, and means substantially as described for fastening the bail against slipping along said abutment. 7th. The combination of a table top, a central shaft to support the same, a screw connecting the upper end of the shaft with the table top by a universal joint, a pair of semi-circular bails pivoted to the table top concentric to said joint, and engaging said shaft, a hollow base column to receive said shaft, and means for adjusting the elevation of the table and the securing of the same in any desired position, substantially as described.

No. 69,023. Electrolytic Cell. *(Cellule électrolytique.)*

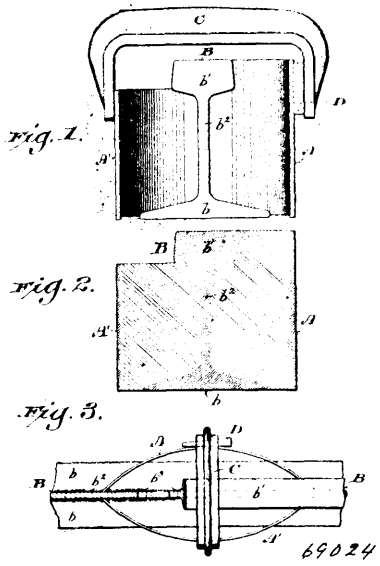


George Bell and George William Bell, both of Liverpool, Lancaster, England, 16th October, 1900; 6 years. (Filed 18th January, 1900.)

Claim.—1st. The herein described method of effecting the alternation of flow of mercury to and from the decomposing and oxydisation chambers of an electrolytic cell, consisting in alternately raising and lowering the pressure on the mercury in one of said chambers. 2nd. The herein described method of effecting the alternation of flow of mercury to and from the decomposing and oxydisation chambers of an electrolytic cell, consisting in alternately accumulating the gas given off in one of the chambers, and raising the pressure thereby, and then releasing the gas, for the purposes set forth. 3rd. An electrolytic apparatus comprising the decomposing chamber *a*, and an oxydising chamber *b*, in substantially parallel planes, connected with each other at the lower part; and having a valve on one of the gas discharge pipes from said chambers, by which the closing and opening of one of the chambers is effected, for the purposes specified. 4th. In an electrolytic apparatus, the arrangement and combination of a series of decomposing and oxydizing chambers *a* and *b* in pile, one directly upon the other, the valve *g* on the gas escape pipes *m*, and an intermittently operating motor actuating device connected with said valve for intermittently opening and closing same, by which the pressure and accumulation of gas in said chambers is intermittently created and released, for the purposes set forth. 5th. In an electrolytic cell in which mercury is employed for the purposes specified, a decomposing chamber and an oxydising chamber substantially in the same horizontal plane, having a pipe arranged and making communication between the lower parts of the two chambers, by which the flow and action of mercury and liquors in the chambers is indicated, substantially as set forth.

No. 69,024. Railway Rail Joint.

(*Joint de rail de chemin de fer.*)

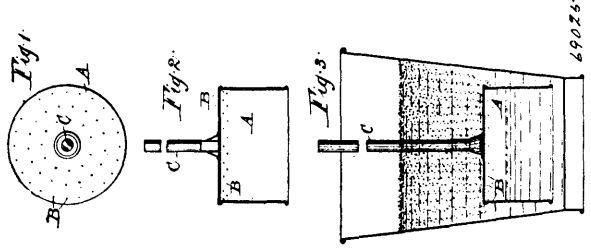


Emery Marion McVicker, Milwaukee, Wisconsin, U. S. A., 17th October, 1900; 6 years. (Filed 22nd September, 1900.)

Claim.—1st. The method of forming rail joints which consists in securing to the sides of the rail ends two metal plates which are fitted at their ends to the rails and are bent or curved outwardly therefrom beyond and extend downward approximately to the base of the rails, closing the openings between said plates and the base of the rails with sand, clay or other suitable material, pouring molten metal into the receptacles thus formed between said plates and rail ends, and causing said metal to fuse therewith, substantially as and for the purposes set forth. 2nd. The method of forming rail joints which consists in securing to the sides of the rail ends two wrought metal plates which are fitted at their ends to the rails and are bent or curved outwardly therefrom beyond and extend downwardly approximately to the base of the rails, closing the openings between said plates and the base of the rails, pouring molten metal into the receptacles thus formed between said plates and rail ends and causing such metal to unite therewith by fusion, substantially as and for the purposes set forth. 3rd. A rail joint composed of metal plates arranged on opposite sides of opposing rail ends with spaces between them open above and below, and cast metal fused with and uniting said rail ends and plates, substantially as and for the purposes set forth. 4th. A rail joint composed of metal plates extending downward on opposite sides of opposing rail ends approximately to the bottom of the base flanges and forming therewith cavities or receptacles which are open at the top, and cast metal filling said cavities or receptacles and fused with and permanently uniting said rail ends and plates, substantially as and for the purposes set forth. 5th. A rail joint composed of metal plates arranged on opposite sides of opposing rail ends and forming therewith cavities or receptacles which are open at the top, and cast metal filling said cavities or receptacles and fused with and permanently uniting said rail ends and plates, substantially as and for the purposes set forth.

No. 69,025. Method of Aerating Liquids.

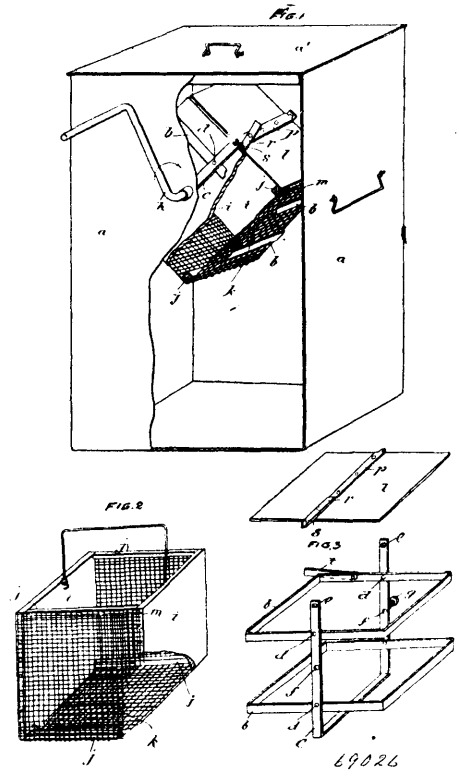
(*Méthode d'aérer les liquides.*)



John Alexander Ellis, Surrey Hills, Victoria, Australia, 17th October, 1900; 6 years. (Filed 15th September, 1900.)

Claim.—A new or improved appliance for aerating milk or other liquids consisting of an inverted vessel, bell, chamber or dome (as A) having numerous small perforations (as B) in or about the top, and means for operating same, substantially as and for the purpose specified, and as illustrated in the drawings.

No. 69,026. Cinder Sifter. (*Crible à cendre.*)



Hermisdas Maynard, Montreal, Quebec, Canada, 17th October, 1900; 6 years. (Filed 13th September, 1900.)

Claim.—1st. A cinder sifter consisting of an enclosing casing, a skeleton frame mounted rotatably in said casing, a crank handle for rotating said skeleton frame, a portable screening box located in said rotary frame and means for retaining said screening box in said rotary frame, substantially as described and for the purpose set forth. 2nd. A cinder sifter consisting of an enclosing casing a skeleton frame mounted rotatably in said casing, a crank handle for rotating said skeleton frame, a portable screening box located in said rotary frame and consisting of an open frame having four open sides, a length of wire cloth stretched over three of said open sides, and a lifting handle, and means for retaining said screening box in said rotary frame, substantially as described and for the purpose set forth. 3rd. A rotary skeleton frame for cylinder sifters consisting of a pair of rectangular hoops, a U-section riveted to said hoops and a cover for closing the space between the ends of said U-section, substantially as described. 4th. A portable screening box consisting of an open rectangular frame having four open sides, a length of readily detachable wire cloth stretched around three of said open sides, and a handle for carrying said box, substantially as described. 5th. In a rotary cinder sifter, means for preventing the rotation thereof in one direction. 6th. A cinder sifter consisting of a casing *a*, having a cover a^1, a rotatable skeleton *b c*, having perforations *e*, a cover *l* having a rigid retaining strip *p* with its ends diminished, a lever *r* bevelled at one end as at *s*, and fulcrumed to said strip, a crank handle *h* and a screw *g* taking through said casing and connected to said skeleton frame, and a screening box, *i*, *j*, *k*, having a handle *n*, all substantially as described and for the purpose set forth. 7th. A cinder sifter consisting of a casing *a*, having a cover a^1, a rotatable skeleton frame *b*, *c*, having perforations *e*, a cover *l* having a rigid retaining strip *p* with its ends diminished, a lever *r* bevelled at one end as at *s*, and fulcrumed to said strip, a crank handle *h* and a screw *g* taking through said casing and connected to said skeleton frame, a short strip *f* pivoted to the side of the skeleton frame, and a screening box *i*, *j*, *k*, having a handle *n*, all substantially as described and for the purpose set forth.

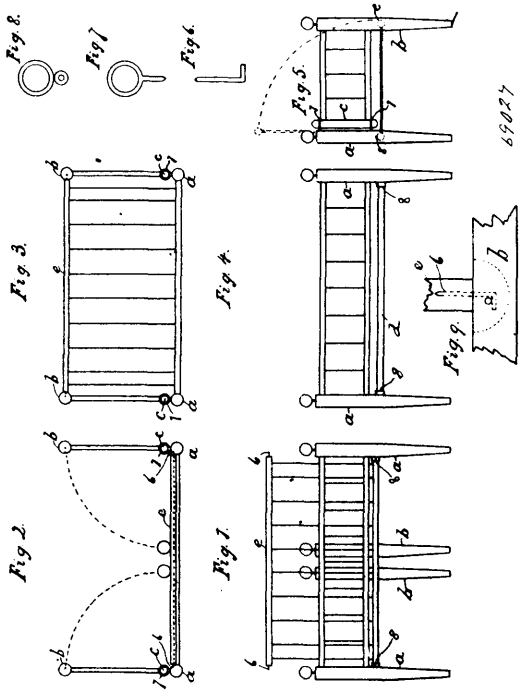
No. 69,027. Infants' Folding Crib.

(*Lit pliant pour enfants.*)

Thomas Hope Churchill, Truro, Nova Scotia, Canada, 17th October, 1900; 6 years. (Filed 12th September, 1900.)

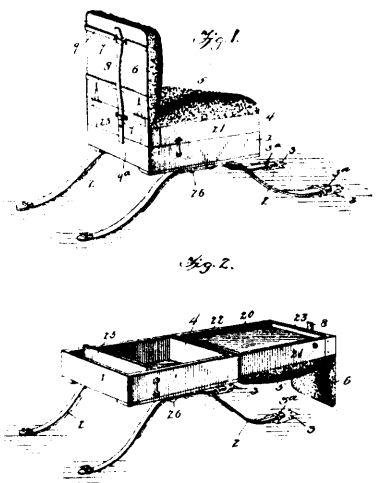
Claim.—1st. An infant's folding crib, consisting of a side frame supporting two end frames, together with a bottom frame, all of which are hinged thereto, in combination with attachments adapted, when unfolded to engage with and mutually support each the other, and to serve as a rest and a support for enfants' bed clothing, substantially as described. 2nd. The combination in an infants' crib of

the end frames unfolding outwards, with a bed bottom frame hinged to the side frame unfolding downwards and interlocking with the



unfolded end frames, substantially as described. 3rd. A folding crib for infants provided with enclosing rails at its two ends and upon one of its sides only, substantially as and for the purpose herein described.

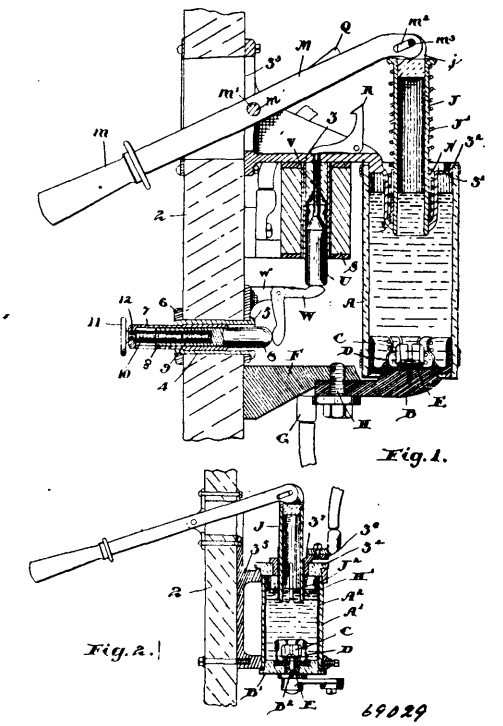
No. 69,028. Locomotive Seat. *(Siège de locomotive.)*



Alexander McLeay, Richmond, Quebec, Canada, 17th October, 1900; 6 years. (Filed 4th September, 1900.)

Claim.—1st. The combination of a receptacle having yieldable supports and a seat hingedly connected with the receptacle and adapted to close the same, said seat comprising a base portion, a back portion hingedly connected with the base portion, and a strap spring connected with the base and having one end engaging the back and the other end projected beyond the base and adapted to engage the receptacle when the seat is in an upright position. 2nd. The combination with a receptacle of leaf springs connected therewith and adapted to yieldably support it, and a seat hingedly connected with the receptacle and adapted to close it, said seat comprising a base having a back hingedly connected thereto, a plate carried by the back, and a strap spring fixed to the seat base and having one end engaging said plate carried by the back, the other end extending beyond the base and adapted to engage the receptacle when the seat is in an upright position. 3rd. The combination with a receptacle of leaf springs fixedly connected therewith, one end of each spring being rigidly connected at one end with a suitable support, the opposite end engaging slidably with plate carried by the support, and a seat hinged to the receptacle and adapted to close it, said seat comprising a base portion having a back hinged thereto, a plate carried by the back, and a strap spring fixed to the base and engaging at one end said plate carried by the back, the other end projecting below the base and adapted to engage the receptacle.

No. 69,029. Electric Circuit Breaker.
(Frein de circuit électrique.)



John Russel Jeffrey, Peterborough, Ontario, Canada, 17th October, 1900; 6 years. (Filed 25th July, 1900.)

Claim.—1st In a circuit breaker or switch, the combination with the base or board, the supporting bracket and the metal end piece and the bolt connecting the end piece to the bracket and the terminal held by such bolt, of the cylindrical casing of insulating material containing the oil, the contact cups located one inside the other on the metal end piece and suitably secured thereto, a suitable support for the top of the cylindrical casing designed to close the top of the same, a contact tube extending through such support into the oil and means for holding the upper contact in contact with the lower cups and for holding such contact cup up when separated from the lower contact cups, as and for the purpose specified. 2nd. In a circuit breaker or switch, the combination with the base or board, the supporting bracket and the metal end piece and the bolt connecting the end piece to the bracket and the terminal held by such bolt, of the cylindrical casing of insulating material containing the oil, the contact cups located one inside the other on the metal end piece and suitably secured thereto, a suitable support for the top of the cylindrical casing designed to close the top of the same, a contact tube extending through such support into the oil, a spring extending between the top of the casing and the top of the tube, an upper terminal suitably connected to the upper contact tube and means for normally holding the upper contact tube in contact with the cups in the oil, as and for the purpose specified. 3rd. In a circuit breaker or switch, the combination with the base or board, the supporting bracket and the metal end piece and the bolt connecting the end piece to the bracket and the terminal held by such bolt, of the cylindrical casing of insulating material containing the oil, the contact cups located one inside the other on the metal end piece and suitably secured thereto, a suitable support for the top of the cylindrical casing designed to close the top of the same, a contact tube extending through such support into the oil, a spring extending between the top of the casing and the top of the tube, an upper terminal suitably connected to the upper contact tube, a lever connected to the top of the upper contact tube and suitably pivoted in the frame and extending through a slot in the board, a trigger secured on the upper support designed to normally engage with the trigger on the lever and electrical means operated by the passage of the current for throwing the lower trigger out of engagement with the trigger on the lever, as and for the purpose specified. 4th. In a circuit breaker or switch, the combination with the base or board, the supporting bracket and the metal end piece

and the bolt connecting the end piece to the bracket and the terminal held by such bolt, of the cylindrical casing of insulating material containing the oil, the contact cups located one inside the other on the metal end piece and suitably secured thereto, a suitable support for the top of the cylinderical casing designed to close the top of the same, a contact tube extending through such support into the oil, a spring extending between the top of the casing and the top of the tube, an upper tarminal suitably connected to the upper contact tube, a lever connected to the top of the upper contact tube and suitably pivoted in the frame and extending through a slot in the board, a trigger secured on the upper support designed to normally engage with the trigger on the lever, a solenoid secured to the upper support comprising a coil and core, a striker attached to and forming part of the core and means for adjusting the striker in relation to the trigger situated above the same as and for the purpose specified. 5th. In a circuit breaker or switch, the combination with the base or board, the supporting bracket and the metal end piece and the bolt connecting the end piece to the bracket and the terminal held by such bolt, of the cylindrical casing of insulating material containiug the oil, the contact cups located one inside the other on the metal end piece and suitably secured thereto, a suitable support for the top of the cylindrical casing designed to close the top of the same, a contact tube extending through such support into the oil, a spring extending between the top of the casing and the top of the tube, an upper terminal suitably connected to the upper contact tube, a lever connected to the top of the upper contact tube and suitably pivoted in the frame and extending through a slot in the board, a trigger secured on the upper support designed to normally engage with the trigger on the lever, a solenoid secured to the upper support comprising a coil and core, a striker attached to and forming part of the core, a bell crank suitably pivoted on the base and designed to come in contact with the bottom of the core and means for adjusting the bell crank as and for the purpose specified. 6th. In a circuit breaker or switch, the combination with the base or board, the supporting bracket and the metal end piece and the bolt connecting the end piece to the bracket and the terminal held by such bolt, of the cylindrical casing of insulating material containing the oil, the contact cups located one inside the other on the metal end piece and suitably secured thereto, a suitable support for the top of the cylindrical casing designed to close the top of the same, a contact tube extending through such support into the oil, a spring extending between the top of the casing and the top of the tube, an upper terminal suitably connected to the upper contact tube, a lever connected to the top of the upper contact tube and suitably pivoted in the frame and extending through a slot in the board, a trigger secured on the upper support designed to normally engage with the trigger on the lever, a solenoid secured to the upper support comprising a coil and core, a striker attached to and forming part of the core, bell crank suitably pivoted on the base and designed to come in contact with the bottom of the core, a plug extending through the switch board, a sleeve fitting the plug, a plug fitting within the sleeve and held in contact with the bell crank and a screw spindle extending into a correspondingly threaded hole in the plug as and for the purpose specified. 7th. In a circuit breaker or switch, in combination the base or board, the supporting bracket and the metal end piece and the bolt connecting the end piece to the bracket and the terminal held by such bolt, said end piece having an upwardly extending flange externally threaded, the cylindrical insulating casing screwed on to such flange, the bottom cups fitting one inside of the other and secured to the metal end piece by a central screw, the top supports for the cylindrical casing having a depending socket extending into the oil vessel, a terminal connecting to such support, the upper contact tube extending into the socket, the sleeve surrounding the same, the spiral spring encircling the upper contact tube and extending between the bottom of the socket and the flange at the top of the tube and means for holding the contact tube down into contact with the cup at the bottom of the oil vessel as and for the purpose specified.

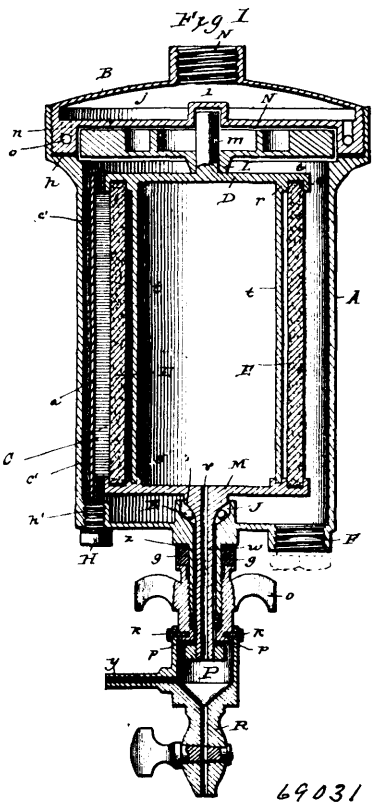
No. 69,030. Process of Recovering Gold.

(*Procédé pour obtenir de l'or.*)

William Kemmis-Betty and Barry Searle, both of near Johannesburg, South African Republic, 17th October, 1900; 6 years. (Filed 14th May, 1900.)

Claim.—1st. The process of precipitating gold from weak solutions of cyanid of potassium, which consists of the following steps:—first, adding a second stronger solution of cyanid of potassium to the gold bearing solution in about the proportions specified; second, filtering the resultant solution through a body of zinc shavings coated with lead, substantially as described. 2nd. The process of precipitating gold from weak solutions of cyanid of potassium, which consists of the following steps:—first, dipping zinc shavings in a solution of a salt of lead, second, adding a stronger solution of cyanid of potassium to the gold bearing solution; third, filtering the resultant solution through the body of zinc shavings so prepared, substantially as described. 3rd. The process of extracting gold from ores, which consists of the following steps:—first, dissolving the gold in the pulp in a weak solution of cyanid of potassium; second, adding a stronger solution of cyanid of potassium to the gold b aring solution in the proportions specified: third, immediately after so strengthening the solution passing the same through a body of zinc shavings coated with lead, substantially as described.

No. 69,031. Water Filter. (*Filtre à eau.*)

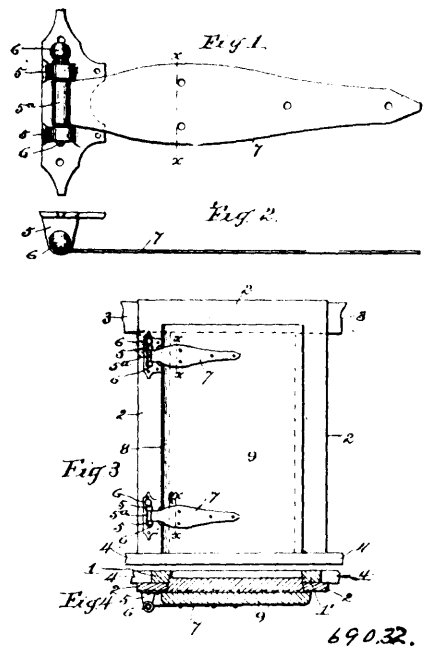


Andrew G. Sheak, Binghampton, New York, U.S.A., 17th October, 1900; 6 years. (Filed 3rd November, 1899.)

Claim.—1st. A filter, comprising an exterior casing provided with upwardly extending flanges forming a way, said casing having an opening located at the bottom of the said way, a brush mounted in the vertical way of the exterior casing and adapted to be passed through the said opening, whereby it is introduced into and removed from the casing, an interior revolving filtering casing having the brush bearing against it, and a water wheel connected with the inner filtering casing and adapted to rotate the same, substantially as described. 2nd. A filter, comprising an exterior casing, an interior rotary filtering casing, a water wheel connected with the inner filtering casing and adapted to rotate the same, and a stationary cleaning device mounted on the exterior casing and located between the inner and outer casings and bearing against the inner one, substantially as described. 3rd. A filter, comprising an exterior casing, a removable hollow cover provided with an opening for the attachment of a supply pipe and having a recess at its bottom, said cover being provided around the recess with tangentially arranged discharge openings communicating with the interior of the cover, a rotary inner filtering casing, and a wheel connected with the same and arranged within the said recess, substantially as described. 4th. A filter, comprising an exterior casing provided with a hollow top portion having an interior recess, said top portion being provided at the walls of the recess with tapering portions having curved inner faces and end shoulders and provided with discharge openings, an inner filtering casing, and a wheel connected with the same and operating in the said recess, substantially as described. 5th. A filter, comprising an exterior casing, a top or cover provided with an interior chamber and having a recess at its lower face forming a depending annular flange having a series of tapering portions presenting inner curved faces and straight substantially radial end faces, said cover or top being provided with openings or passages extending from its interior to the ends of the tapering portions, an interior rotary filtering casing, and a wheel operating in the said recess, substantially as described. 6th. A filter, comprising an exterior casing provided at its bottom with a socket, a hollow cap or cover provided with a socket and having a recess communicating with the interior of the cap or cover, an inner rotary filtering casing journalled in the said sockets, and a water wheel connected with the filtering casing and operating in the said recess, substantially as described. 7th. A filter, comprising an exterior casing, an inner rotary supporting frame composed of top and bottom portions and connecting bars spacing the same, a filtering cylinder secured to the top and bottom portions of the frame, the said connecting bars being of sufficient length to prevent the frame from exerting pressure on the filtering cylinder, and means for rotating the cylinder, substantially

as described. 8th. A filter, comprising an exterior casing, an interior rotary filtering casing, a hollow cap or cover provided with an interior chamber and having discharge openings, a rotary wheel connected with the filtering casing and adopted to rotate the same, a distributing device communicating with the interior of the filtering casing, and means for drawing off the water from the space between the inner and outer casings, substantially as and for the purpose described. 9th. A filter comprising an exterior casing, an interior filtering casing, mounted in suitable bearings of the exterior casing, the latter being provided with an outlet communicating with the space between the outer casings, a cleaning device fied to the outer casing and bearing against the inner casing, a distributing device communicating with the interior of the filtering casing, and a water wheel connected with and adopted to rotate the same, substantially as described. 10th. A filter comprising an exterior casing with a ball bearing socket in the center of its bottom on the interior and a projecting tube on the exterior, an inner revolving filtering cases having a tube extending through the said tube and projecting beyond the same and threaded, and a nut arranged on the projecting end of the inner tube and forming a seat for a packing, substantially as described. 11th. A filter comprising an outer casing, having a depending tube, an inner filtering casing provided with a tube extending through and projecting beyond the said tube and having an exterior seat, an elastic packing mounted on the outer tube, a nut arranged on the latter and interposed between the elastic packing and the said seat, and adapted to compress the former to release the latter, and means for rotating the inner filtering casing, substantially as described. 12th. A filter comprising an outer casing having a depending tube, an inner rotary filtering casing provided with a tube extending through and projecting beyond the said tube, a lower nut arranged on the inner tube, an elastic packing disposed on the outer tube, and an adjustable nut interposed between the said nut and the elastic packing and engaging the same and adapted to compress the latter to release the former, substantially as described. 13th. A filter comprising an exterior casing provided with a vertical groove or way, and having a ball-bearing socket at its bottom, an outer tube depending from the bottom of the casing, a brush arranged in the groove or way and provided with springs, an inner revolving filtering chamber, balls arranged in the bearing socket and supporting the filtering chamber, a hollow removable cover, a water wheel connected with the filtering chamber at the top thereof, an inner tube depending from the filtering chamber and extending through the outer tube, an elastic packing arranged on the outer tube, an adjustable thumb not mounted on the outer tube and engaging the packing, a nut arranged on the inner tube, and a water distributer swivelled to the thunb nut, and provided with a stop cock and a tube, substantially as described.

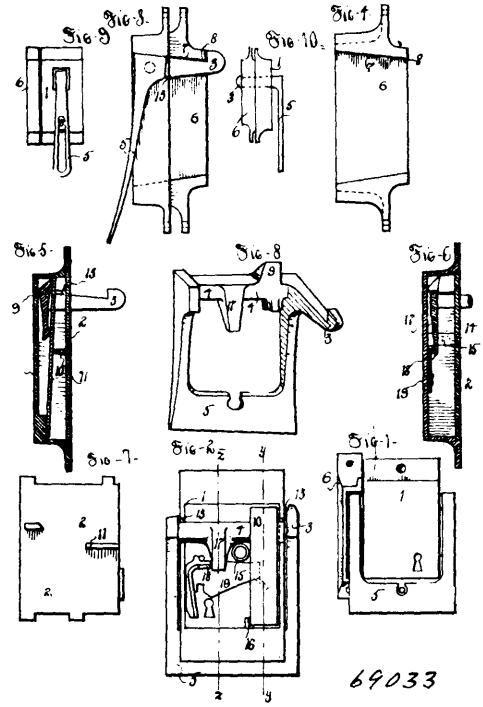
No. 69,032. Hinge. (*Gond.*)



S. Price Stevenson, Chester, Pennsylvania, U.S.A., 17th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1. An elastic hinge adapted to support and swing doors, consisting of a pivotal support, a pivot fitted therein, a spring-plate being made of elastic material and increasing in width from its pivotal attachment to the part applied to the edge of the door for the purpose of distributing the flexure and elastic reaction of the spring throughout the plate, substantially as set forth. 2nd. As an article of manufacture a hinge strap formed from elastic metal plate, having an eye adapted to swing on a pivot, and perforations for the insertion of screws or rivets at a sufficient distance from said eye to permit elastic flexure of the intervening portion, said intervening portion tapering from a greater breadth at the perforated portion to the eye, in such proportions as to distribute elastic flexure equally in the plate, and thus to avoid permanent set in any point thereof.

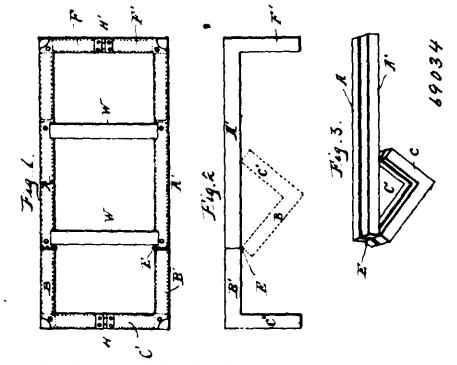
No. 69,033. Lock and Latch. (*Serrure et loquet.*)



S. Price Stevenson, Chester, Pennsylvania, U.S.A., 17th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1st. In a latch for doors and like structures, an inclined surface keeper, having angles adapted to engage a hooked latch, a looped lever handle practically at right angles to said latch, and an arm adapted to engage a plate spring, all formed integrally with said rock shaft, in combination with said spring, and an enclosing case, a projection therein and means of pressing said spring on said projection, all arranged to operate substantially as described. 2nd. In a locking latch for doors, a keeper, a lock case having bearings to support a rock shaft, and bearings for a locking bolt formed thereon, in combination with a rock shaft having a hooked latching arm adapted to engage said keeper, an arm adapted to engage a plate spring, an arm adapted to engage a locking bolt, and a lever handle, practically at right angles to said latching arm, all formed integrally with said rock shaft and a locking bolt, and a spring, and means of forcing said spring against one of said arms, substantially as set forth.

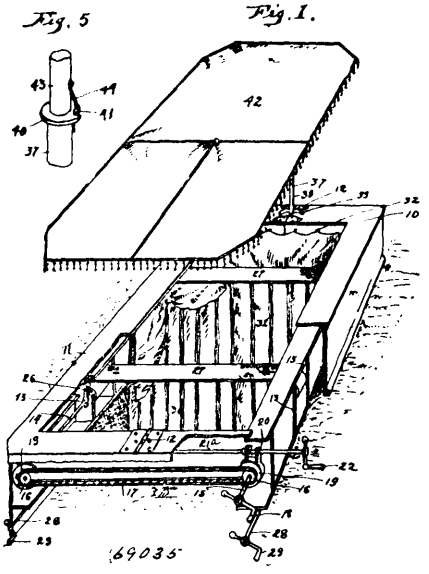
No. 69,034. Casket Lowering Apparatus.
(*Appareil à descendre les cercueils.*)



Emory B. Voorhees, Ovid, Michigan, U.S.A., 17th October, 1900; 6 years. (Filed 15th September, 1900.)

Claim.—A device of the character described, comprising a sectional frame or structure, with the sections of its end pieces joined by a hinge having its axis arranged horizontally and the sections of its side pieces each joined by a hinge having its axis arranged vertically at right angles to the axis of the hinge connecting the end sections, said hinges for the side pieces being coincident when the sides are folded the one upon the other, substantially as described.

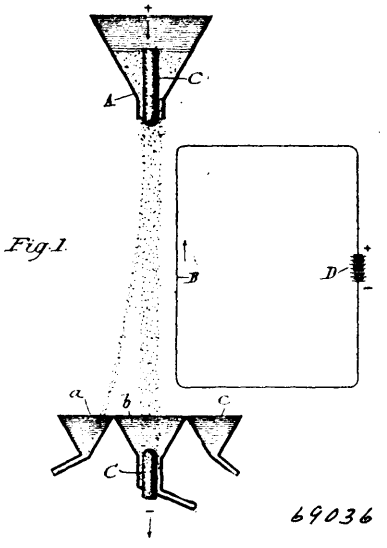
No. 69,035. Burial Apparatus. (*Appareil d'inhumation.*)



Emory B. Voorhees, Ovid, Michigan, U.S.A., 17th October, 1900; 6 years. (Filed 15th September, 1900.)

Claim.—1st. A burial apparatus consisting of a folding frame, a lowering mechanism supported by said frame and adapted to fold therewith, suitable mechanism connecting the revolving shaft in one of the folding sections with the shaft in the other folding section, such connecting mechanism adapted to fold with frame, and a suitable brake for regulating the movement of the revolving shafts. 2nd. A burial apparatus consisting of a folding frame, a lowering mechanism turned in said frame and adapted to fold therewith, suitable mechanism connecting the shaft in one of the folding frame sections with the shaft of the other frame section, such connecting and operating mechanism adapted to fold with the frame, and a suitable brake mechanism in engagement with the lowering mechanism. 3rd. A burial apparatus consisting of a folding frame, a lowering mechanism housed within the members of said frame, and foldable therewith, and a brake mechanism including a jointed operating shaft arranged accross the foldable frame, substantially as described. 4th. A burial apparatus consisting of a sectional jointed frame having its members adapted to fold one upon the other, a lowering mechanism having its connected shafts supported in the respective members of the said frame, brake devices in active relation to the shafts of said lowering mechanism, a sectional brake shaft connected with said brake devices, and a link hinge pivotally attached to, and spanning the space between, the respective members of the brake shaft to couple them together for simultaneous rotation to their aligned positions, said link hinge arranged in a plane co-incident with the hinge connection between the frame members, substantially as described. 5th. A burial apparatus consisting of a sectional frame having its members jointed or hinged together at the upper side thereof and arranged for said members to abut one against the other when unfolded for service, said hinges and frame members being related for the strain of the load to draw the members into abutting relation and against collasping, a lowering mechanism supported by the respective parts of said frame to be folded therewith, brake devices co-operating with the elements of the lowering mechanism, and a sectional brake shaft operatively connected to the brake devices and havingits members jointed or hinged together in a plane coincident with the joint between the members of the foldable frame, substantially as described. 6th. A burial apparatus consisting of a sectional frame having its members joined to fold one upon the other, a lowering mechanism supported in the respective members of the frame, and a curtain shafts journalled in the frame members to be foldable therewith and provided with curtains, the curtain shafts being independent one from the other and adapted to be separately operated and to fold with the lowering mechanism in the folding and unfolding of the frame members, substantially as described. 7th. A bural apparatus consisting of a foldable first sectional frame having its members hinged or jointed to fold one upon the other, a lowering mechanism mounted in the respective members of the said frame to be foldable therewith, curtain shafts journalled in said frame below the lowering mechanism and provided with side curtains, said shafts being disconnected from and operable independently from each other, and end curtains having means for detachably holding the same in position below the frame, substantially as described. 8th. In a burial apparatus, the combination with a frame carrying a lowering mechanism, and a canopy standard connected to said frame, of a canopy having pivotal connnection with said standard, and an automatic locking device between the canopy and standard and arranged for the elements of said device to have interlocking engagement when the canopy assumes a position directly over the frame, said locking device adapted to be released for the canopy to be moved to one side of the frame, substantially as described. 9th. In a burial apparatus, the combination with a frame carrying a lowering mechanism, and a canopy standard, of a canopy having a pivotal post connected to said standard, and a two-part automatic locking device between the standard and the pivotal post, one element of the locking device being yieldable with relation to the other element and said elements arranged to have interlocking engagement automatically when the canopy assumes a horizontal position directly over the frame, substantially as described. 10th. In a burial apparatus, the combination with a frame of a canopy standard connected thereto and provided at its upper end with a notched flange, a canopy having a post fitted to said standard to pivotally connect the canopy thereto, and a locking spring movable with said canopy and adapted to engage with the notched flange, substantially as described. 11th. A burial apparatus consisting of a two-part frame having its members hinged together, a lowering mechanism within said frame, a canopy standard connected detachably to said frame to hold the members thereof against movement relatively one to the other, and a canopy supported by said standard, substantially as described. 12th. A burial apparatus, consisting of a two-part frame having its members hinged together and provided with sockets, a lowering mechanism in said frame, a canopy standard provided with a forked foot adapted to the sockets of said frame for holding the frame members against movement relatively one to the other, and a canopy supported by said standard, substantially as described. 13th. A burial apparatus, consisting of a sectional foldable frame having its members hinged or jointed to fold one upon the other, a lowering mechanism contained therein, and casket guides or rods arranged to depend from the sides of the frame or housing to direct the casket as it is being lowered into the vault, the said rods or guides being flexible at the upperends to facilitate folding the same and adapted to yield for fitting in large or small graves or vaults, substantially as described.

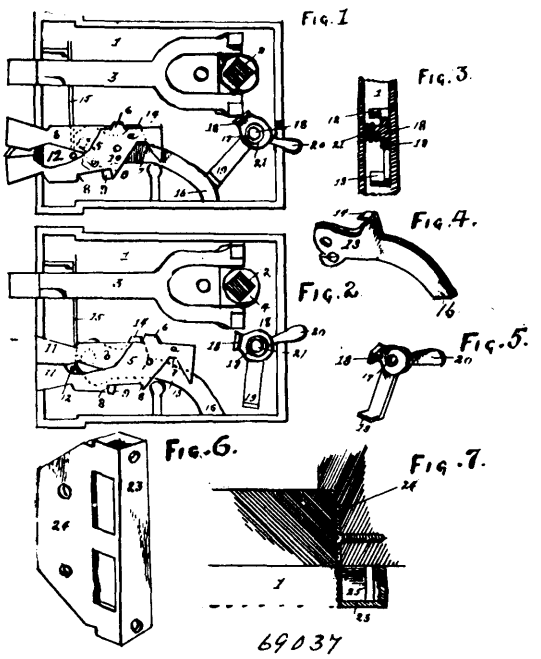
No. 69,036. Machine for Separating Particles of Conducting Material. *Machine pour séparer les parties de matières conductrises.*)



Theodore J. Meyer, Washington, assignee of Elmer Gates, Chevy Chase, Maryland, U.S.A., 17th October, 1900; 6 years. (Filed 10th July, 1900.)

Claim.—The method of separating from a mixture, particles of conductive material which consists in passing an electric current through a moving body of the mixture, and diverting the conducting particles by causing the moving mixture to pass through an auxiliary field of force, substantially as described.

No. 69,037. Door Lock. (*Serrure de poste.*)



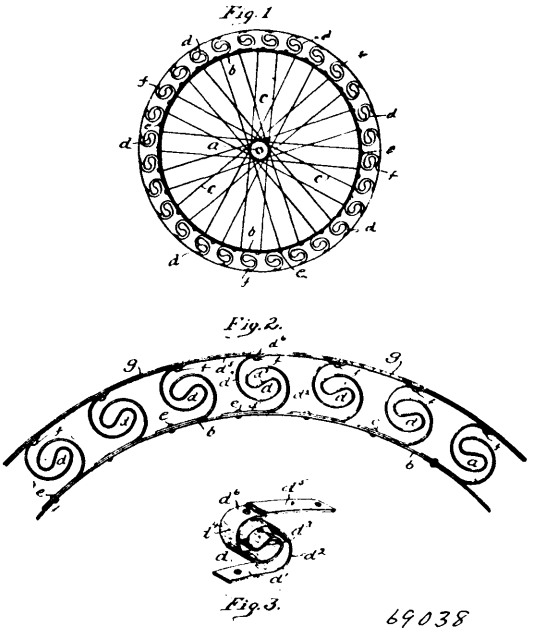
Alexander Armstrong and Rufus J. Childers, both of Moundsville, West Virginia, U.S.A., 17th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—The combination with the casing, of a split key bolt the parts of which are pivoted together and the adjacent edges of which are inclined, one of said parts being provided on its upper edge with a stud and on its lower edge with stop shoulders and with a key slot, a fixed pin located between the inclined faces and serving to spread the sections of the bolt apart while being shot, a fixed stop to be engaged by the stop shoulders, a pivoted tumbler provided with a laterally projecting lug to engage the stud aforesaid and provided with a rearwardly extending arm, a knob-bolt, and a pivoted locking tumbler arranged at the rear of the casing and having two arms, one to engage the rearwardly projecting arm of the first named tumbler and the other to engage the knob bolt and to lock the split bolt and the knob bolt in shot position, substantially as and for the purpose set forth.

No. 69,038. Vehicle Tire. (*Bandage de roue.*)

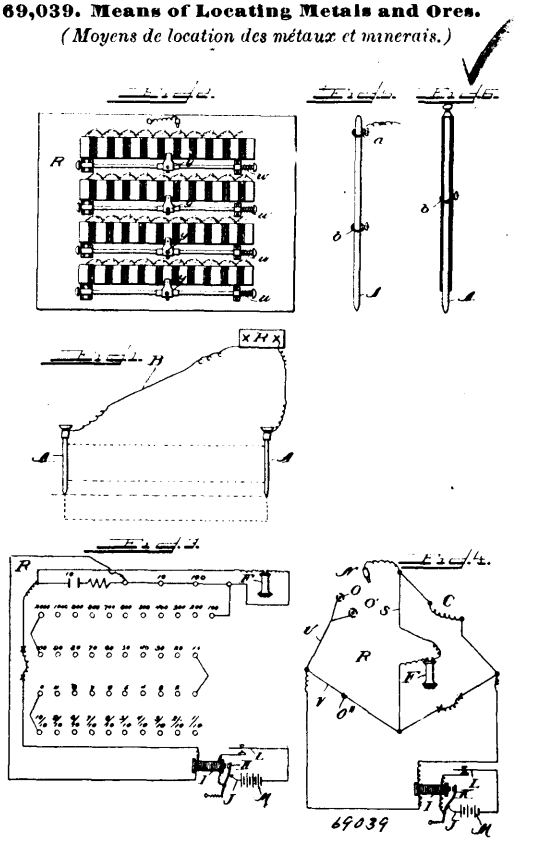
John O'Donovan, assignee of George James Keller, both of Pittsburg, Pennsylvania, U.S.A., 17th October, 1900; 6 years. Filed 12th July, 1900.)

Claim—1st. A vehicle tire comprising a series of circumferentially arranged springs, each of which embodies two reversely coiled spirals, in combination with annular bands to which the free ends of the springs are fastened, substantially as described. 2nd. A vehicle tire comprising a series of circumferentially arranged springs, each of which embodies two reversely inter-coiled spirals rigidly jointed at their inner ends and having their outer ends projecting in opposite directions. 3rd. A vehicle tire comprising a series of circumferentially arranged springs, each of which embodies two reversely inter-coiled spirals rigidly joined at their inner ends and having oppositely projecting outer ends, corresponding ends of adjacent springs being riveted together, thereby forming a continuous circumferential band. 4th. A vehicle tire comprising a series of circumferentially arranged, inter-coiled, double spiral springs, the outer ends of which project in opposite directions and in concentric circumferential lines, the ends lying on the outer circumference being provided with offsets adjacent to the spiral portions, against which the adjacent spring ends abut, said parts being riveted together to form a continuous band. 5th. A vehicle tire comprising a series of inter-coiled double spiral springs, the free end of which project in opposite direction to form concentric rings, the portions constituting the outer ring being offset and riveted together to form a smooth continuous surface. 6th. A vehicle tire comprising a series of double reversely, inter-coiled spirals, the free end of which project in opposite directions to form two concentric rings, the inner one of



which is reinforced by a continuous band and the outer one of which has its adjacent parts riveted together to form a self-sustained continuous band.

No. 69,039. Means of Locating Metals and Ores.
(Moyens de location des métaux et minerais.)

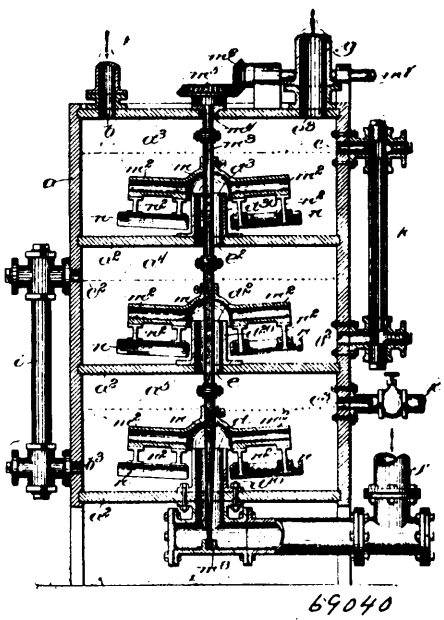


Fred Harvey Brown and Robert Barr, Chalmers, Indiana, U.S.A., 17th October, 1900; 6 years. (Filed 26th March, 1900.)

Claim.—1st. The process of locating metallic or other conducting substances in the earth, which consists in establishing a circuit of alternating current through a definite distance of the earth, and measuring the resistance of such current, then establishing a cir-

cuit of similar current through the same disiance at various other points in the vicinity, and measuring the resistance to such current, and finally comparing such measurements, as and for the purpose set forth. 2nd. The process of locating metallic or other conducting substances in the earth, which consists in establishing a circuit of alterating currents through a definite distance of the earth, and measuring the resistance to such current, then establishing a circuit of similar current through the same distance at various other points in the same vicinity, and measuring the resistance through which such measurements are made, and finally comparing such measurements, as and for the purpose set forth. 3rd. In an apparatus for locating metallic or other conducting substances in the earth, an induction coil, a battery and interpreter arranged in the circuit of the primary of said coil, independently movable electrodes and an indicating device arranged in the circuit of the secondary of said coil, as and for the purpose set forth.

No. 69,040. Apparatus for Subjecting Liquid to the Action of Gas. (*Appareil pour soumettre les liquides à l'action des Gaz.*)

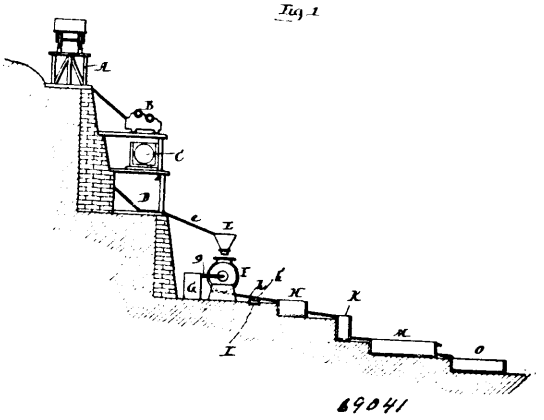


Theodore Phillips Burgess and George Ebenezer Burgess, both of Berlin, New Hampshire, U.S.A., 18th October, 1900; 6 years. (Filed 14th March, 1900.)

Claim.—1st. An apparatus for subjecting liquid to the action of gas, which comprises a tank, horizontal partitions dividing said tank into compartments, one above another, the top and bottom of said tank and each partition in said tank being provided each with an opening to constitute a gas passage, those of said openings which are below the top of said tank being in substantial alignment with each other, a mechanically operated distributing device in each compartment, and situated over the opening in the bottom of said compartment to distribute the gas entering through said opening, a shaft extending through the openings for gas which are below the top of said tank to operate said several distributing devices, a duct, or conduit, for the ingress of said liquid into the top compartment, conduits connecting each compartment with the compartment next below, and constituting a passage for liquid, the upper end of each conduit for liquid being above the inlet orifice of the opening for gas in the bottom of the compartment from which said conduit for liquid leads, and an outlet for liquid gas from the bottom compartment, su stantially as described. 2nd. An apparatus for subjecting liquid to the action of gas, which comprises a tank, horizontal partitions dividing each tank into compartments, one above the other, the top and bottom of said tank and each partition in said tank being provided each with an opening to constitute a gas passage, those of said openings which are below the top of said tank being in substantial alignment with each other, a mechanically operated distributing device in each compartment and situated over the opening in the bottom of said compartment to distribute the gas entering through said opening, an agitating device in each compartment, a shaft extending through openings for gas which are below the top of said tank to operate said several distributing and agitating devices, a duct or conduit for the ingress of liquid to the compartment, conduits connecting each compartment with the compartment next below and constituting a passage for liquid, the upper end of each conduitforliquid being above the inlet orifice of the opening for gas in the bottom of the compartment from which said conduit for liquid leads, and an outlet for liquid from the bottom compartment, substantially as described. 3rd. An apparatus for subjecting liquid to the action of gas, which comprises a tank, horizontal partitions dividing said tank into compartments, one above another, the top and bottom of said tank and each partition in said tank being provided each with an opening to constitute a gas passage, those of said openings which are below the top of said tank being in substantial alignment with each other, a tube constituting a gas passage, projecting upward into each compartment from the opening for gas in the bottom thereof, a mechanically operated distributing device in each compartment and situated over said tube therein, an agitating device located below the distributing device in each compartment for producing upward local currents in the liquid, a shaft extending through the openings for gas which are below the top of said tank to operate said several distributing and agitating devices, a duct or conduit for the ingress of liquid to the top compartment, conduits connecting each compartment with the compartment next below and constituting a passage for liquid, the upper end of each conduit for liquid being above the inlet orifice of the opening for the gas in the bottom of the compartment from which said conduit for liquid leads, and an outlet for liquid from the bottom compartment, substantially as described. 4th. An apparatus for subjecting liquid to the action of gas which comprises a tank, horizontal partitions dividing said tank into compartments, each partition being provided with an opening to constitute a gas passage, said openings being in alignment with each other, a mechanically operated distributing device above each opening to distribute the gas entering through the said opening, a shaft extending through all the said openings to operate said several distributing devices, and conduits connecting each compartment with the compartment next below and constituting a passage for liquid, the ingress end of each conduit being above the inlet orifice of the opening in the bottom of the compartment from which said conduit leads. 5th. An apparatus for subjecting liquid to the action of gas comprising a tank provided with compartments, one above another, a tubular conduit for the ingress of gas projecting upward into each compartment, a duct or conduit for the ingress of liquid to each compartment, an overflow or outlet duct for the egress of liquid from each compartment, the upper end of the tubular conduit for the ingress of gas being substantially below the overflow duct for the liquid, and a distributing device for the gas also below the overflow duct for the liquid, as set forth. 6th. An apparatus for subjecting liquid to the action of gas comprising a tank provided with compartments, one above another, a tubular conduit for the ingress of gas projecting upward into each compartment, a duct or conduit for the ingress of liquid to each compartment, an overflow or outlet duct for the egress of liquid from each compartment, the upper end of the tubular conduit for the ingress of gas being substantially below the overflow duct for the liquid, a distributing device for the gas below the overflow duct for the liquid, and means for producing upward currents of liquid towards said distributing device, as set forth. 7th. An apparatus for subjecting liquid to the action of gas which comprises a receptacle for the liquid, provided with a conduit for the egress of the liquid, a conduit for the ingress of gas below the conduit for the egress of the liquid, but above the bottom of the receptacle, a duct or conduit for the egress of gas above the conduit for the egress of liquid, and means for producing upward currents of liquid, said means being located below the inlet end of the same conduit for the ingress of gas, substantially as described. 8th. The herein described apparatus for subjecting a liquid to the action of gas which comprises a single tank divided by horizontal walls into compartments one above another, means for supplying said compartments with liquid, a tube or conduit for the ingress of gas projecting upward into each compartment, an overflow conduit for the liquid above the upper end of said tube, a distributing device for the gas above each tube and below each overflow conduit for the liquid, agitating devices projecting downward below the end of each tube toward the bottom of the compartment and arranged to produce upward currents of liquid, and a conduit for the egress of gas from each compartment, substantially as described. 9th. The herein described apparatus for subjecting liquid to the action of gas which comprises a tank divided horizontally into compartment, a tubular conduit projecting upward into each compartment, the conduits and compartments thus constituting a continuous vertical passage through the tank, a conduit or duct leading to the uppermost compartment for the admission of liquid thereto, a conduit or duct leading from each compartment to the next below for the transmission of liquid through the tank, the inlet end of each of said ducts being substantially above the tubular upwardly projecting conduit in the same compartment, a distributing device in each compartment comprising a rotatable dome having radial tubular arms, said dome being situated over the upwardly projecting conduit, means for rotating said distributing device, and inclined blades or paddles rotatable with said distributing device to produce upward currents of liquid, as set forth. 10th. The herein described apparatus for subjecting liquid to the action of gas which comprises the tank a, the dividing walls a^2, provided with openings for the passage of gas, a distributing device located above each opening and comprising a dome m, and radial pipes m^2, a vertical rotatable shaft to which said distributing devices are connected, the overflow pipes h, i and k, and the conduits c, c^2, and c^3, communicating therewith and located substantially above the openings in the dividing walls which form the bottom of the chambers from which said overflow pipes lead respectively, as set forth.

No. 69,041. Method of Extracting Metallic Ores.
(Methode d'extraire les minerais.)

Fig. 1



The Illinois Reduction Company, Chicago, Ill., Assignee of Elias Anthon Smith, Anaconda, and Marcus Hartmann Lyng, Butte, Montana, both in the U.S.A., 17th October, 1900; 6 years. (Filed 13th June, 1899.)

Claim.—1st. The method of leaching metallic ores which consists in digesting the wet pulverized ore, under heat and pressure, by means of a suitable oxidizing agent in presence of a free acid and thereafter separating the soluble salts from the refuse gangue, substantially as described. 2nd. In extracting copper from its ores, the method of preparing the electrolyte which consists in digesting the wet pulverized ore, under heat and pressure, with manganese oxide in presence of free sulphuric acid, substantially as described. 3rd. In extracting copper from its ores, the method of preparing the electrolyte which consists in injecting hot air into the wet pulverized ore while digesting the same with a suitable oxidizing agent in presence of a free acid, substantially as described. 4th. In extracting copper from its ores, the method of preparing the electrolyte which consists in injecting hot air into the wet pulverized ore while digesting the same with manganese oxide in presence of free sulphuric acid, substantially as described. 5th. In extracting copper from its ores, the method of preparing the electrolyte which consists in injecting hot air into the wet pulverized ore while digesting the same with a suitable oxidizing agent, such as manganese oxide, in presence of a free acid e.g., sulphuric acid, and separately precipitating the silver from solution by metallic copper or the like, preliminary to electro deposition of the copper salts, substantially as described. 6th. The electrolytic method of extracting copper ores which consists in digesting the wet pulverized ore under heat and pressure, with aid of a suitable oxidizing agent e.g., manganese oxide, in presence of free acid (e.g., sulphuric acid), eliminating the silver if any be in solution, by metallic precipitation, and then electrolysing—with help of insoluble anode—the bath thus prepared, to effect deposition of the copper at the cathode and simultaneously to eliminate the regenerate state, the oxidizing agent from the electrolyte solution, substantially as described. 7th. The method of extracting copper ores which consists in digesting the wet pulverized ore under heat and pressure by means of a suitable oxidixing agent e.g., manganese oxide, in presence of free acid e.g., sulphuric acid, electrolysing the dissolved sulfates thence derived to deposit the copper and precipitate a part of the oxidizing agent in regenerated state, then evaporating the spent electrolyte, crystallizing out the metallic sulphates for subsequent regeneration of the oxidizing agent e.g., by calcination, and saving the mother liquor i.e., the concentrated free acid, for digesting fresh charges of ore, substantially as described. 8th. The wet process of extracting copper from its ores having precious metal therein, which consists in digesting the pulverized ore under action of heat and an oxidizing agent, in presence of sulphuric acid, exposing the dissolved sulphates to metallic copper for precipitation of the silver, treating the filtrate electrolytically to deposit the copper, evaporating the lean electrolyte to concentrate the free acid, and crystallize the metallic sulphates, and finally calcining such crystallize sulphates to properly regenerate them as oxidizing agents for re-use, substantially as desoribed.

No. 69042. Manufacture of Electrical Resistances.
(Fabrication de résistance électrique.)

The Electric Resistance and Heating Company, London, England, assignee of Adolf Vogt, Vienna, Austria, 17th October, 1900; 6 years. (Filed 26th April, 1899.)

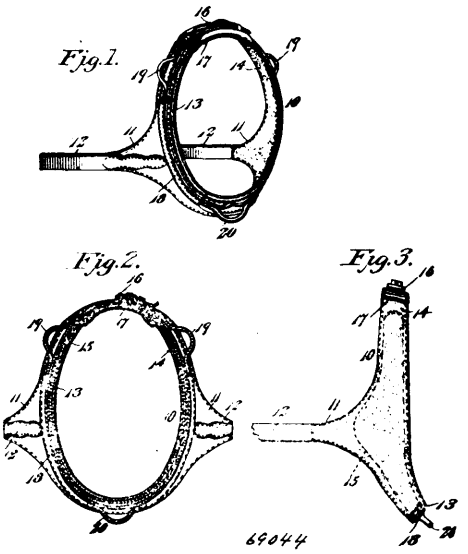
Claim.—1st. The process of manufacturing electrical resistance materials, which consists in forming a plastic mass from a mixture of a conductor and a non-conductor of electricity, moulding or otherwise converting the compound into the shape desired, drying, and embedding the dried article in carbon and heating it to a high temperature, substantially as described. 2nd. The process of manufacturing resistance materials having an approximately invariable degree of conductivity at considerably great variations of temperature, which consists in forming a plastic mass from a mixture of a non-conductor of electricity, graphite and a metallic powder, moulding or otherwise converting the compound into the desired shape, drying, and embedding the dried article in carbon and heating it to a high temperature, substantially as described. 3rd. The process of manufacturing electrical resistance materials, which consists in forming a plastic mass from a mixture of a non- conductor of electricity and a carbonizable substance, moulding or otherwise converting said mass into the desired shape, drying, and embedding the dried article in carbon and heating to a high temperature, for the purpose set forth. 4th. The process of manufacturing resistance materials, which consists in forming a plastic mass from a mixture of a conductor and a non-conductor of electricity and of a metallic compound convertible into a conductive metal, forming or otherwise converting the mass into the desired shape, drying, and embedding the article in carbon and heating it to a high temperature, substantially as described. 5th. The process of manufacturing resistance materials, which consists in intimately mixing a highly refractory oxid or oxids of a metal, as these of the rarer earths, with metal or metals difficult of fusion, as silicium, or silicium and chromium, mixing the silicium in an amorphous state with the non-conductor or with the latter and the chromium, forming a plastic compound therewith converting the same into the desired shape, drying, embedding in carbon and heating the shaped article to a temperature sufficient to convert the amorphous silicium into crystalline silicium, for the purpose set forth. 6th. The process of manufacturing resistance materials, which consists in mixing oxids or salts of conductive metals with a non-conductive material, forming a plastic compound therewith, shaping the same, drying, embedding in carbon and heating the article to a temperature sufficient to alloy the oxids or salts, for the purpose set forth.

No. 69,043. Spirit Lamp. *(Lampe)*

Maurice Solomon, Aldenhove, German Empire, and Aylmer Ellis Hays, London, England, 17th October, 1900; 6 years. (Filed 14th April, 1899.)

Claim.—A spirit lamp in which the fuel is fluid when in use, but in a solid or occluded condition when cold, substantially as hereinbefore described.

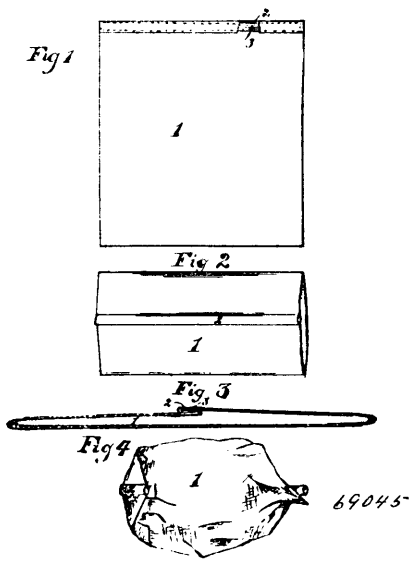
No. 69,044. Horse Collar. *(Collier de cheval.)*



Chester E. Upton, Kansas City, Missouri, U.S.A., 17th October, 1900; 6 years. (Filed 1st October, 1900.)

Claim.—A horse collar comprising a flexible continuous band having ear extensions projecting from the opposite sides of one edge and a pad secured and conforming to, and covering the inner face of said band. 2nd. A horse collar comprising a flexible continuous band having ear extensions progecting from the opposite sides of one edge and arranged at substantially right angles to said band, and a pad secured and conforming to, and covering the inner face of said band. 3rd. A horse collar comprising a flexible continuous band detachably secured at its end edges, a pad secured to the inner side of one end and bridging the joint between said ends, and ear extensions projecting from the opposite sides of one edge of the band to form securing means for the traces.

No. 69,045. Wrapping Case or Bag.
(Enveloppe d'emballage ou sac.)



Alicia Gorman, Butte, Montana, U.S.A., 17th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—A wrapping case having both ends open, consisting of a sheet of flexible wrapping material folded to bring the longitudinal edges thereof opposite each other, both of said longitudinal edges being straight and one of the same being bent inwardly upon itself to form a pocket on its under side and a strip of sheet metal in said pocket, extending the entire length of said case, the overlapping edges of said sheet being pasted or otherwise secured to each other.

No. 69,046. Furnace Draft Device.
(Appareil de tirage de fournaise.)

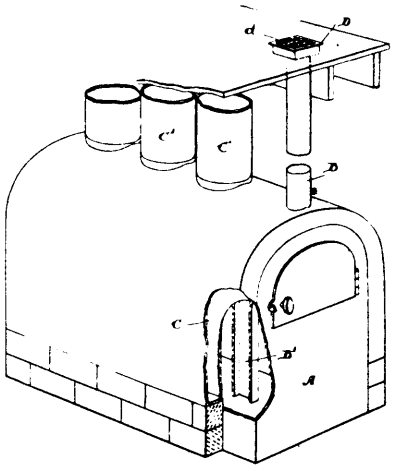


Fig. 1.

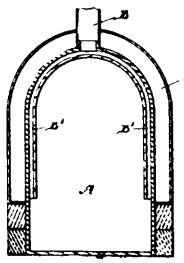
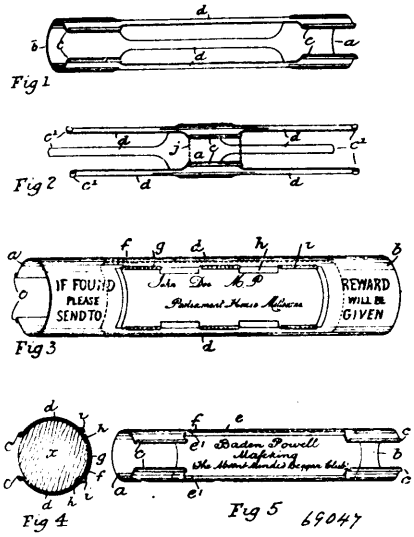


Fig. 2.

Cyrus Witts, Hatchley, Ontario, Canada, 17th October, 1900; 6 years. (Filed 29th September, 1900.)

Claim.—1st. In a furnace, the combination with the fire box, of a draught tube having the bottom extending down towards the lower portion of the fire box and the upper and extending up through the main floor and a suitable damper located to the top of the pipe on the main floor, as and for the purpose specified. 2nd. In a furnace, the combination with the fire box, of a draught tube and branch pipes communicating with the end thereof and extending down into the bottom portion of the fire box, and the upper end extending up through the main floor and a suitable damper located to the top of the pipe on the main floor, as and for the purpose specified.

No. 69,047. Address Clip for Umbrellas, Walking Sticks, etc. *(Porte-adresse pour parapluies, etc.)*



Claude Herbert Underwood, Bairnsdale, Victoria, Australia, 17th October, 1900; 6 years. (Filed 1st October, 1900.)

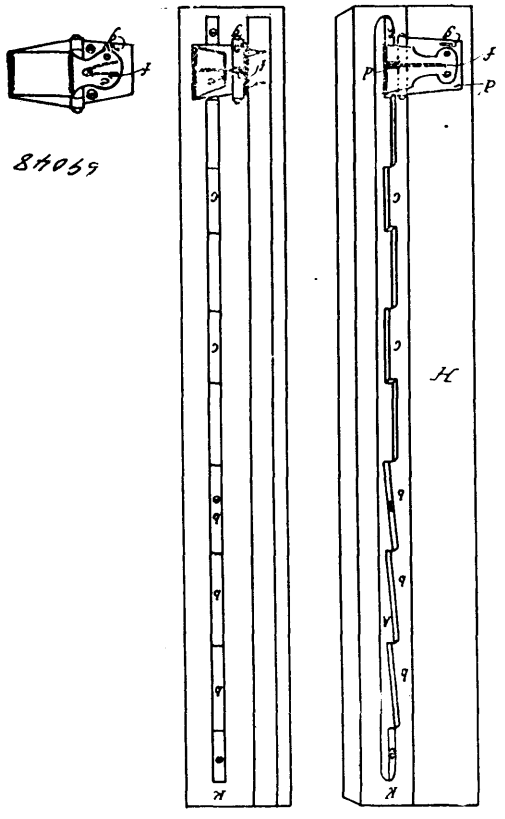
Claim.—1st. The clip, having in combination the curved spring bodies *a* and *b*, extending over about three-quarters of a circle and bearing any appropriate permanent intimation, turned up edges *c*, and connecting arms *d*, substantially as and for the purposes set forth. 2nd. The clip, having in combination the curved spring bodies *a* and *b* extending over about three-quarters of a circle and bearing any appropriate permanent intimation, turned up edges *c*, connecting arms *d*, edges *h* and *i* on the rim of arms *d*, and a transparent flexible sheet *g* held in position by the said edges, all substantially as and for the purposes set forth. 3rd. The clip, having in combination a curved spring body *a* bearing any appropriate intimation, turned up edges *c*, and at each end of said spring body, narrow arms *d*, having turned up ends c^1, all substantially as and for the purposes set forth. 4th. The clip, having in combination the curved spring bodies *a* and *b*, extending over about three-quarters of a circle, and bearing any appropriate permanent intimation, with turned up edges *c* and the arm or connection *e* having turned up edges e^1, whereby a card or intimation may be exhibited, as seen in figure 5.

No. 69,048. Sash Fastener. *(Arrête-fenêtre.)*

John Kerr, North Gower, Carleton, Ontario, 17th October, 1900; 6 years. (Filed 26th September, 1900.)

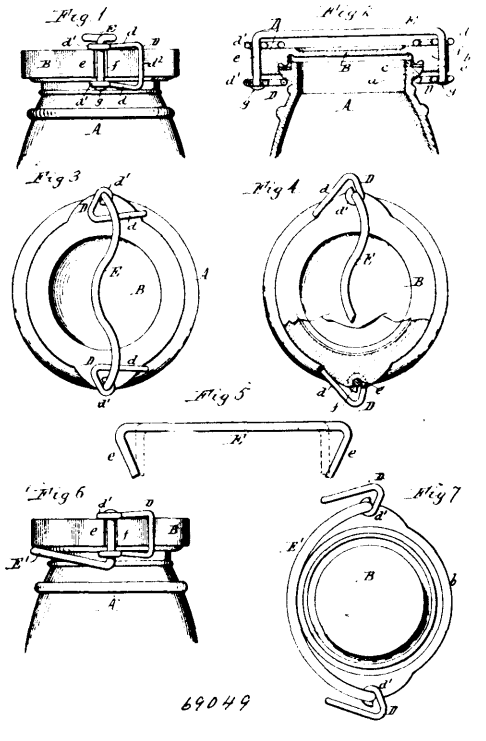
Claim.—1st. In a sash fastener, and sash lock, a flat bar of metal fastened to the frame of the window and having bevel notches in it, to receive the fastener, and square notches to receive the fastener as a lock, as shown and described for the purposes set forth. 2nd.

In a sash fastener and sash lock, two arms hinged together, one provided with a handle, and the other provided with a spring, and



holes to fasten it to the sash, as shown and described for the purposes set forth.

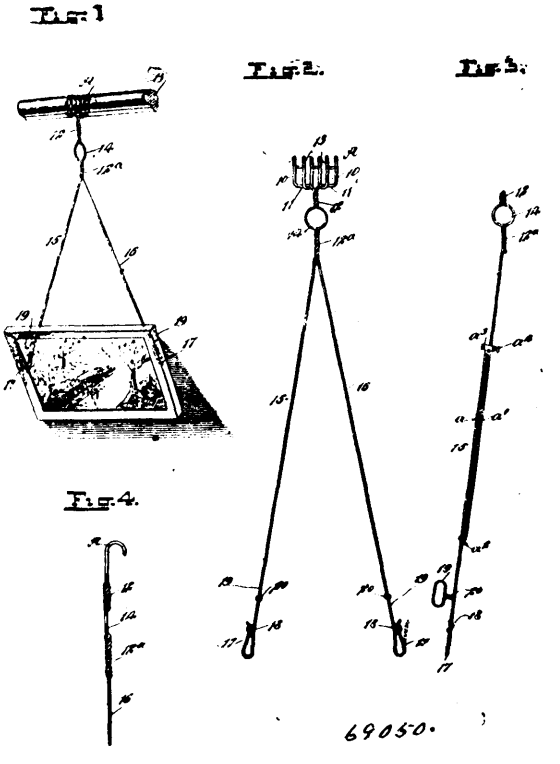
No. 69,049. Jar Cover. (*Couvercle de jarres.*)



Irwin Parker Doolittle, Toronto, Ontario, Canada, 17th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. The combination with a jar or similar vessel provided at its upper end with a projecting rim, of a cap or cover, a yoke or spanner carried by the cover and extending from side to side thereof, and locking clips or fastenings attached to the ends of said yoke and constructed to interlock with the rim of the jar when closed and to clear said rim when moved to their open position, substantially as set forth. 2nd. The combination with a jar or similar vessel provided at its upper end with a projecting rim, of a cap or cover provided at opposite sides with notches, a yoke extending from side to side of the cover and having vertical end portions seated in said notches and forming pivots, and clips or fastenings mounted on said pivots and each composed of a pair of horizontal arms connected together at their outer ends and constructed to interlock with the upper side of the cover and the under side of said jar rim, respectively, substantially as set forth. 3rd. The combination with a jar or similar vessel provided at its upper end with a projecting rim, of a cap or cover provided at opposite sides with notches, a yoke extending centrally across the top of the cover and having vertical end portions seated in said notches and provided between its ends with corrugations, and horizontally swinging clips or fastenings pivoted on the end portions of the yoke and adapted to engage over the cover and under the jar rim, respectively, substantially as set forth. 4th. The combination with a jar or similar vessel provided at its upper end with a projecting rim, of a cap or cover, and a clip or fastening applied to the cover and consisting of an upright pivot arranged on the marginal portion of the cover, and a pair of horizontally swinging arms engaging at their inner ends with said pivot and constructed to bear in their closed position against the upper side of the cover and the under side of said jar rim, respectively, said arms being connected at their outer ends by a vertical cross bar and diverging outwardly toward said bar, substantially as set forth.

No. 69,050. Hanger for Picture Frames.
(*Pendant pour cadres d'images.*)

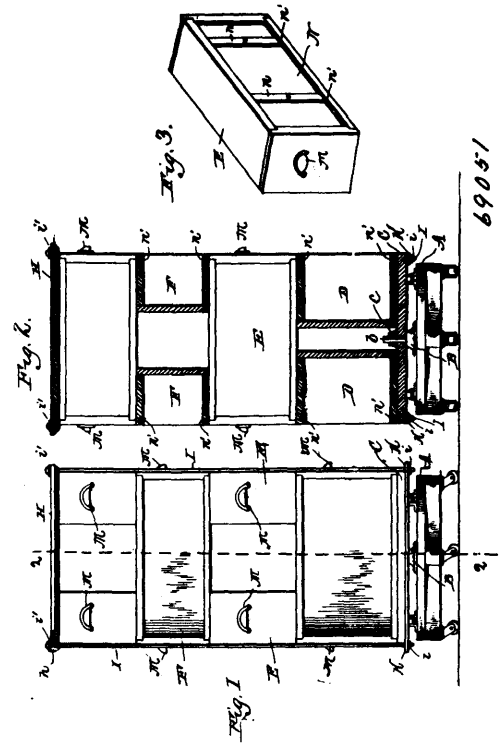


Peter Doble, Centreville, Montana, U.S.A., 17th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. A picture hanger constructed of wire, comprising an upper hook constructed of a multiple of members, a stem below the hook, legs diverging from the stem, having keepers at their lower ends and snaps arranged to enter said keepers, and loops connected with the legs and adapted to engage with the back of a picture frame for the purpose of steadying the same, as described. 2nd. A picture hanger, constructed of wire bent upon itself to form a hook-shaped head, a stiff stem below the head and in which an eye is formed, legs diverging from the said stem, each leg being provided with a snap at its lower end, a keeper for the snap, and a guide loop, the guide loops extending outwardly from the legs. 3rd. A picture hanger, comprising a hook, a stem secured to the hook and formed with an eye and diverging legs secured to the stem, said legs each being provided at its lower end with means for engaging a picture frame to support it and adjacent to said ends

with projections for engaging the back of a picture, substantially as described. 4th. A picture hanger formed of wire bent to form a hook and then twisted together to form a stem having an eye, and from which stem diverging legs extend, the legs at their lower ends being formed with means for engaging a picture frame to support it and adjacent to said ends, with a projection loop for engaging the back of the picture frame, substantially as described. 5th. A picture hanger formed of wire bent to form a hook and then twisted together to form a stem having an eye and from which stem diverging legs extend, the legs adjacent to their lower ends being bent to form loops for engaging the back of a picture below the loops with keepers, and having their extremities bent upward to form snaps adapted to engage the keepers, substantially as described. 6th. A picture hanger, comprising a twisted stem having a hook at its upper end and diverging legs extending from its lower end, the legs being each formed of two members adjustable one upon the other, the lower member of each leg being bent to form a loop to engage the back of a picture frame, a keeper below the loop, and having its extremity bent upward to form a snap adapted to engage the keeper, substantially as described.

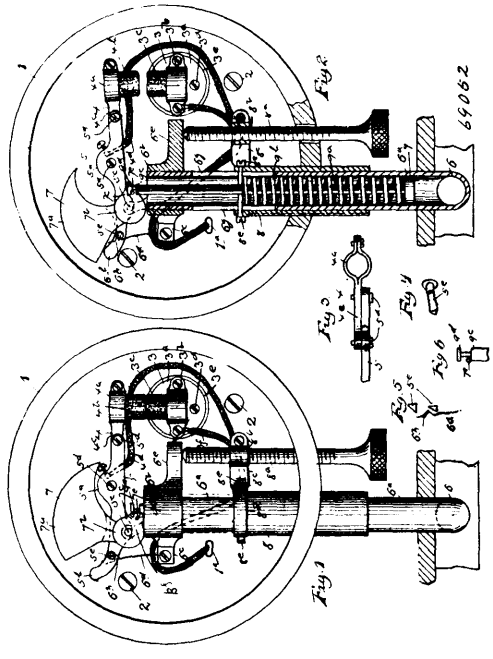
No. 69,051. Book Case. (*Bibliothèque.*)



Charles Merritt Stebbins, Wolcott, Vermont, U.S.A., 17th October, 1900; 6 years. (Filed 25th September, 1900.)

Claim.—1st. A knockdown rotary book case, comprising a rotatable supporting base, boxes stacked upon the supporting base in vertical series, the boxes of each series being disposed at an angle with respect to the boxes of the adjoining series and separated to form additional book compartments, as shown, together with means for rigidly connecting the boxes to the rotatable supporting base. 2nd. A knockdown rotary book case, comprising a rotatable supporting base, boxes stacked thereon in vertical series, the boxes of each series being disposed at an angle with respect to those of the adjoining series and separated from each other to form additional book compartments, a top board placed upon the stack of boxes, and rods connecting the top board and rotatable supporting base to clamp the boxes between them. 3rd. A knockdown rotary book case, comprising a rotatable supporting base, boxes stacked thereon to form book compartments at all sides of the case or cabinet and the boxes of each set or tier separated from each other to form additional book compartments in connection with the adjoining sets of tiers, together with means for rigidly connecting the boxes to the supporting base. 4th. A knockdown rotary book case or cabinet, comprising a base, a board or support rotatably mounted thereon, a cross bar attached to said board and provided with apertured lugs or eyes, open boxes stacked upon said support in vertical series, those of one series being disposed at right angles to those of the adjoining series, and the boxes of each series separated to form additional book compartments, the front of said boxes being open, a top or covering board placed upon the stack and provided at its edges with notches, and threaded rods or long bolts engaging the notches of the top board and the eyes at the ends of the cross bar attached to the bottom board, the said bolts having nuts screwed thereon, as shown and described.

No. 69,052. Fluid Operated Electric Switch.
(*Commutateur électrique.*)



The Auto-Electric Air Pump Company, New York, assignee of Charles August Eck, Newark, New Jersey, U.S.A., 19th October, 1900; 6 years. (Filed 7th August, 1900.)

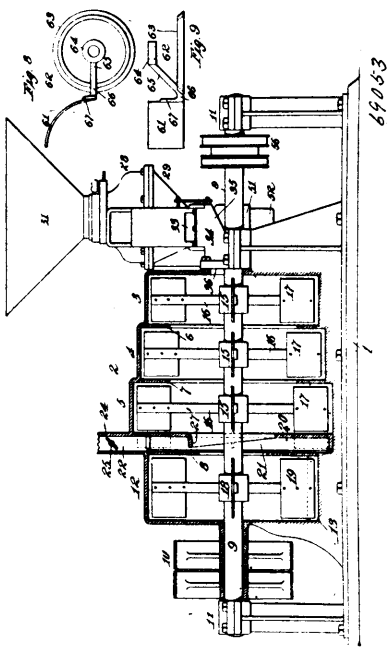
Claim.—1st. In an electric switch, the combination of a stationary electrode, with a movable electrode, an arm carrying said movable electrode loosely pivoted, a tilting weight attached at the same point as the arm, a fluid actuated mechanism adapted to tilt said weight back and forth to effect the movement on a quick action of the movable electrode to and from the stationary electrode, and means whereby the arm carrying the movable electrode is locked when acted upon by the tilting weight to assume its open position, and to be released when the tilting weight acts upon the arm aforesaid to close the circuit, substantially as described. 2nd. In an electric switch, the combination of a stationary electrode, with a movable electrode, an arm carrying said movable electrode loosely pivoted, a tilting weight attached at the same point as the arm and carrying a transverse pin, a vertical tube, a reciprocating piston working in said tube operated by fluid pressure, means for obtaining a predetermined but adjustable mechanical pressure on said piston acting against said fluid pressure, a piston rod on said piston formed with two shoulders or ledges adapted to co-act with the transverse pin on the tilting weight to effect the tilting of said weight for the purposes set forth, substantially as described. 3rd. In an electric switch, a fluid actuated mechanism for operating same comprising a vertical tube formed with a plurality of vertical slots and a horizontal lug, a reciprocating piston, having a piston rod surrounded by a coiled spring, working in said tube, in combination with a guiding sleeve adapted to travel vertically on the tube aforesaid and carrying a plurality of horizontal pins extending through the vertical slots of the tube to press against the coiled spring surrounding the piston rod, and having further a horizontal lug with a screw cut hole, and a hand operated feed screw operating in said screw cut hole and bearing against the horizontal lug of the vertical tube, and adapted to operate to effect the vertical movement of the guiding sleeve upon the vertical tube to regulate the pressure of the coiled spring, substantially as described.

No. 69,053. Pulverizer. (*Pulvérisateur.*)

George O. Eaton, Manhatten, New York, assignee of William Maxwell, Wheildon, Boston, Massachusetts, U.S.A., 19th October, 1900; 6 years. (Filed 17th October, 1899.)

Claim.—1st. A pulverizer comprising a casing, a series of pulverizing blades or paddles rotatably mounted in said casing, a fan or other suction device for drawing air through the casing along the material in course of pulverization, and an additional air supply opening located between the fan chamber and the casing for supplying an added quantity of air to the pulverized material before it is forced to the point of use, substantially as set forth. 2nd. A pulverizer comprising a casing formed of concentric sections of a gradu-

ally increasing diameter from the inlet to the discharge ends, a series of pulverizing blades or paddles rotating at high speed in each of

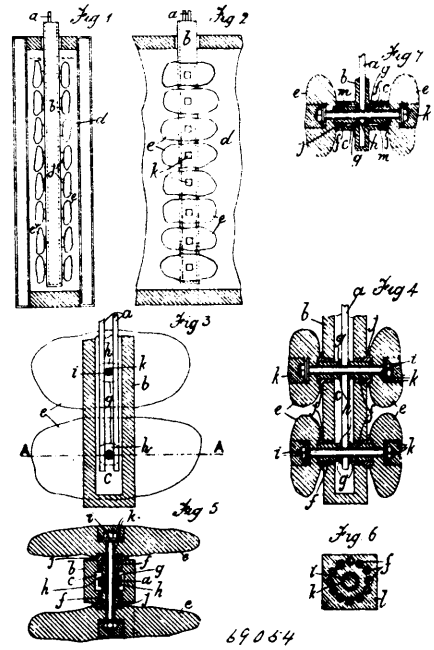


said sections, a fan or other suction device for drawing air through the concentric sections along with the material in course of pulverization, and an additional air supply opening located between the largest section and the fan for supplying an added quantity of air to the pulverized material before it is forced to the point of use. 3rd. combination with a pulverizer, of a tuyere pipe connected with the fan chamber thereof, said tuyere pipe being generally rectangular in cross section with its upper and bottom walls curved towards each other whereby its vertical dimension at the centre will be less than such dimensions at the sides of such tuyere pipe, substantially as and for the purposes set forth. 4th. The employment, in a pulverizer of the type described, of a supplementary diaphragm or partition in the largest pulverizing chamber forming a separate air chamber therein, through which an additional supply of air will be allowed to mix with the pulverized material. 5th. A feeding device for a pulverizer, employing a flat, horizontal table, which is adjustable vertically so as to regulate the supply of material, and a stationary shear working over the top of the table to scrape off a definite quantity of material at each rotation of the table. 6th. A feeding device for a pulverizer, employing a flat, horizontal table which is adjustable vertically so as to regulate the supply of material, a stationary shear working over the top of the table to scrape off a definite quantity of material at each rotation of the table, and a series of agitating arms movable with the table for keeping the material in movement, substantially as and for the purposes set forth.

No. 69,054. Electrical Conductor. (*Conducteur électrique.*)

The General Electrolytic Parent Company, assignee of Luke Hargreaves and William Stubbs, all of Farnworth, Widnes, Lancaster, England, 19th October, 1900; 6 years. (Filed 26th August, 1899.)

Claim.—1st. In electrolytic or similar apparatus, the interposition, between the electrolyte and the electric conductor, of oil or its equivalent, or oil saturated material to prevent access of the electrolyte to the conductor or to its junctions with the anodes or their connections, substantially as set forth. 2nd. In electrolytic or similar apparatus, the combination with anodes and conductors, of oil containing casings or receptacles to prevent access of the electrolyte to the conductor or to its junctions with the anodes or their connections, substantially as set forth. 3rd. The method of making electric connection between anodes and conductors by means of blocks of carbon passing through non-conducting casings, substantially as and for the purpose set forth. 4th. Making electric connection between anodes and conductors by means of blocks of carbon or other conducting material not affected by the electrolyte such blocks passing through non-conducting casings and being pressed against the anodes and conductors by bolting or equivalent means, substantially as set forth. 5th. In electrolytic or similar apparatus having anodes and conductors to be connected, blocks of carbon *f* and bolts and nuts *i* for securing the whole together, substantially as described. 6th. In electrolytic or similar apparatus saturating anodes, at or near their



junctions with conductors, with oil or its equivalent to prevent access of the electrolyte to the conductor or to its junctions with the anodes or their connections, substantially as set forth.

No. 69,055. Method of Extracting Precious Metals.
(*Méthode d'extraire les métaux.*)

The Illinois Reduction Company, Chicago, Illinois, assignee of Elias Anthon Smith, Anaconda, and Markus Hartmann Lyng, Butte, both of Montana, all of the U.S.A., 19th October, 1900; 6 years. (Filed 13th June, 1899.)

Claim.—1st. The method of extracting precious metal from ores which consists in forming a leach liquid by admixture of an alkali metal oxy-chloride solution *e. g.*, sodium oxy-chloride with free sodium chloride, digesting the pulverized ore suspended in such liquid in the presence of a free acid *e. g.*, hydrochloric acid to release the chloride and effect solution of the gold and silver (and copper, if present) precipitating said metals from the separated solution by addition of suitable re-agent and upon removal of such resultant precipitates, electrolytically treating the properly neutralized solution so as to directly convert into oxy-chloride the alkali-metal chloride present in said solution and thus to regenerate it for re-use, substantially as described. 2nd. The method of extracting precious metal from ores which consists in suitably electrolysing an alkali metal chloride solution *e. g.*, sodium chloride to form in part oxy-chloride leaving sodium chloride in excess in the resultant leach liquid, digesting the pulverized ore in suspension with the mixed chloride solution and a free acid *e. g.*, hydrochloric acid to release the chloride and effect solution of the gold and silver (and copper, if present) precipitating said metals from the separated solution by addition of suitable re-agert and upon removal of such resultant precipitates, electrolytically treating the properly neutralized solution so as to directly convert into oxy-chloride the alkali-metal chloride present in said solution and thus to regenerate it for re-use, substantially as described. 3rd. The method of extracting precious metal from ores which consists in suitably electrolysing an alkali metal chloride solution *e. g.*, sodium chloride to form in part oxy-chloride leaving sodium chloride in excess in the resultant leach liquid, digesting the pulverized ores in suspension with the mixed chloride solution and a free acid *e. g.*, hydro-chloric acid to release the chlorine and effect solution of the gold, silver and copper (if present), properly precipitating said metals and after their removal, evaporating the remaining solution for recovery of the alkali metal chloride by fractional crystallization, dissolving the recovered chloride crystals and thereupon treating the same electrolytically to regenerate the chloride to the state of oxy-chloride in readiness for re-use, substantially as described. 4th. The method of extracting precious metal from ores which consists in suitably electrolysing an alikali metal chloride solution *e. g.*, sodium chloride to form in part oxy-chloride leaving sodium chloride in excess in the resultant leach liquid, digesting the pulverized ore in suspension with the mixed chloride solution and a free acid *e. g.*, hydro-chloride acid to release the chlorine and effect solution of the gold, silver and copper (if

present), properly precipitating said metals and after their removal, evaporating the remaining mixed chloride solution, separately recovering by fractional crystallization the alkali metal chloride present, digesting by means of a suitable re-agent (with aid of free steam if necessary) the concentrated mixed chlorides left over as a residue from such fractional crystallization, condensing the vapors of hydrochloric acid thence evolved, separately dissolving the recovered crystals of alkali metal chloride and thereupon treating such solution electrolytically to regenerate the same into state of oxy-chloride for re-use, substantially as described.

No. 69,056. Apparatus for Painting.

(*Appareil à peinturer.*)

FIG. 1

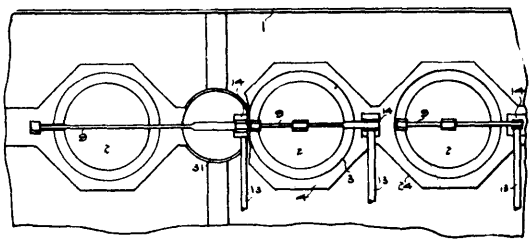
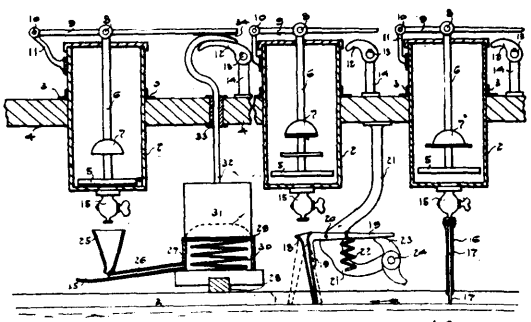


FIG. 2.



69056

John A. Davis, L. L. Merriman, and A. D. Jessurun, and William R. Rummler, all of Chicago, Illinois., U.S.A., 19th October, 1900; 6 years. (Filed 27th March, 1899.)

Claim.—1st. In an apparatus of the class described, the combination of a tank containing a flowing supporting liquid, a paint feeder having its feeding end in contact with the surface of said fluid, and adapted to feed the paint upon said surface in the form of a streaked film, a second feeder having a vibratory motion adapted to throw the paint in scattered drops upon said surface, and a third feeder adapted to throw a fine spray of paint upon said surface, substantially as and for the purposes specified. 2nd. In an apparatus of the class described, the combination of a tank containing a flowing supporting liquid; a paint feeder having its feeding end in contact with the surface of said liquid, and adapted to feed the paint upon said surface in the form of a streaked film, and another feeder having a vibratory motion adapted to throw the paint in scattered drops upon said surface, substantially as and for the purpose specified. 3rd. In an apparatus of the class described, the combination of a tank containing a flowing supporting liquid, a paint feeder having its feeding end in contact with the surface of said liquid, and adapted to feed the paint upon said surface in the form of a streaked film, and another feeder adapted to throw a fine spray of paint upon said surface, substantially as and for the purposes specified. 4th. In an apparatus of the class described, the combination of a tank containing a flowing supporting liquid; a paint feeder having a vibratory motion adapted to throw the paint in scattered drops upon said surface, and a paint feeder adapted to throw a fine spray of paint upon said surface, substantially as and for the purpose specified. 5th. In an apparatus of the class described, the combination of a tank containing a flowing supporting liquid, and a paint feeder having its feeding end in contact with the surface of said liquid, and adapted to feed the paint upon said surface in the form of a streaked film, substantially as and for the purpose specified. 6th. In an apparatus of the class described, the combination of a tank containing a flowing supporting liquid, and a paint feeder having a vibratory motion adapted to throw the paint in scattered drops upon said surface, substantially as and for the purpose specified. 7th. In an apparatus of the class described, the combination of a tank containing a flowing supporting liquid, and a paint feeder adapted to throw a fine spray of paint upon said surface, substantially as and for the purpose specified.

No. 69,057. Coin-Controlled Tephone Register.

(*Règistre de tèlèphone actionné par une piéce de monnaie.*)

Fig. 1

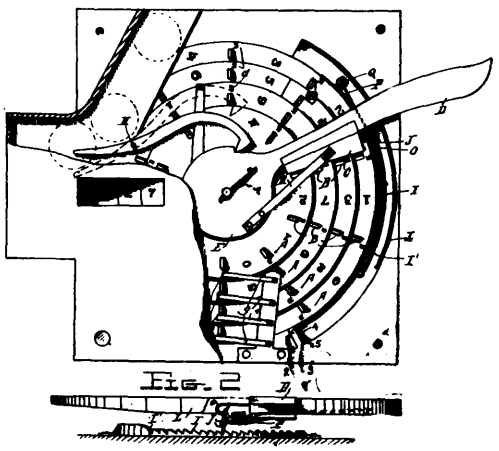
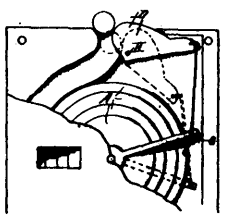


Fig. 2

Fig. 3



69057

Tobin J. Hock, Los Angeles, and Emil Happersberger, San Francisco, both in California, U.S.A., 19th October, 1900; 6 years. (Filed 13th June, 1900.)

Claim.—1st. In an apparatus of the character described, a series of registering discs, a pawl carrying lever fulcrumbed so that by its forward and backward movement it advances to the disc to register the movements, a pawl and ratchet mechanism by which the lever is prevented from returning until the forward motion is completed, a latching lever by which the lever is retained in its normal position when it has been returned thereto, said latching lever being disengaged when a coin is introduced into the apparatus. 2nd. In an apparatus of the character described, a series of registering discs, a pawl carrying lever fulcrumed so that by its forward and backward movement it advances the discs to register the movements, a pawl and ratchet mechanism by which the lever is prevented from returning until the forward movement is completed, a guard plate carried by the lever and forming a closure for the slot through which the lever projects, electrical contacts, one of which is in the line of travel of the guard plate, ahd a switch actuated by said guard plate at the end of its forward movement to close the circuit. 3rd. In an apparatus of the character described, a series of registering discs, a pawl carrying lever fulcrumed so that by its forward movement it advances the discs to register the movement, a stop mechanism carried by the lever, by which the latter is prevented from returning until the forward movement is completed, contact points with which wires from a central office connected, a spring switch plate, one end of which is permanently connected with one of said contact points, and the other end movable in line with the other contact point, a plate connected and reciprocable in unison with the movements of the registering actuating lever, said plate acting to force the free end of the spring plate against said other contact point whereby a circuit is completed and the central office notified after the coin has been introduced and the forward movement of the lever completed.

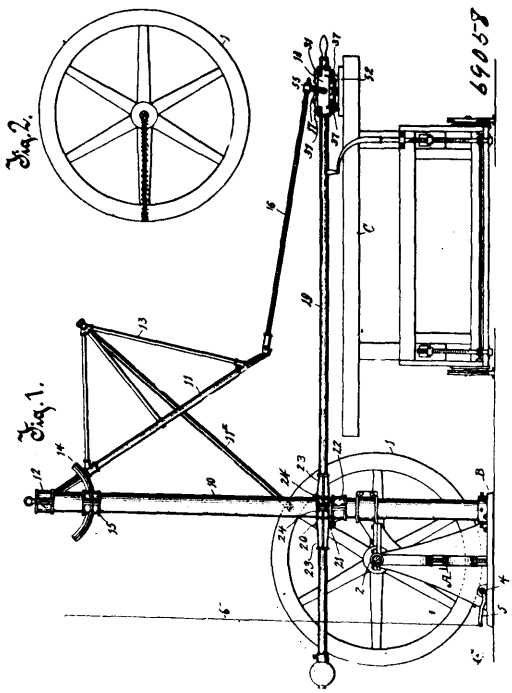
No. 69,058. Abrading or Polishing Machine.

(*Machine à polir et frotter.*)

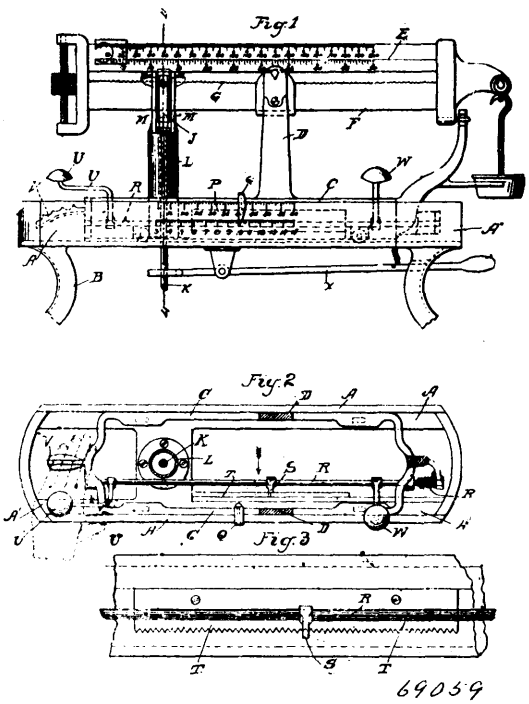
Charles Sheldron Yarnell, Minneapolis, Minnesota, U.S.A., 19th October, 1900; 6 years. (Filed 2nd November, 1899.)

Claim.—1st. In an abrading or polishing machine, the combination with a standard, and a carriage guide bar and a vibrating carriage reciprocating arm mounted on the standard, of a fly wheel mounted on a support independent of the standard but adjacent

thereto near the base thereof, and means connecting the fly wheel operatively with the vibrating arm. 2nd. In an abrading or polishing machine, the combination of a standard, an independent frame, a fly wheel mounted near the floor on the frame, a guide bar mounted tiltably on the standard, a carriage reciprocable on the guide bar, a vibrating arm pivoted on the standard at a point above the fly wheel, a rod connecting the vibrating arm to the carriage and a rod or pitman connecting the fly wheel eccentrically to the vibrating arm. 3rd. In an abrading or polishing machine, the combination with a standard and a vibrating arm pivoted on the standard, of a segmental slotted guide clamped to the standard through which guide the vibrating arm extends and in which it vibrates and by which it is prevented from movement laterally out of the plane of its vibration. 4th. In an abrading or polishing machine, the combination with a standard, of a guide bar swivelled vertically and pivoted horizontally on the standard, and a guard clamped adjustably on the standard projecting to near the guide bar at both sides of its swivelling support on the standard, the guard being adapted to limit and substantially prevent lateral play of the guide bar. 5th In an abrading or polishing machine, the combination with a guide bar, and a carriage reciprocable on the guide bar, of a vibrating arm, a rod connected at one end to the vibrating arm, and a yoke to which the connecting rod is swivelled at its other end, said yoke straddling the carriage and being pivoted thereto at its furcate ends substantially in the line of the horizontal diameter of the carriage. 6th. A carriage in a polishing machine, comprising a tubular body part, a top detachable plate provided with legs, spool-shaped rollers mounted in said legs, and other spool-shaped rollers mounted under the body part in legs thereon, the upper and lower spool-shaped rollers being adapted to travel on the upper and under surfaces respectively of a guiding bar. 7th. In a carriage in an abrading or polishing machine, the combination of a tubular body part, a plate secured above to the body part by bolts in a medial longitudinal line thereof, and screws in pairs one on each side of each of said securing bolts turning in the plate against the body part adapted to adjust the plate tiltably on the body part. 8th. In a carriage in an abrading or polishing machine, the combination of a tubular body part, and spool-shaped rollers mounted one at each end in the upper portion of the body part, said rollers being each provided with an annular rib medially adapted to travel in a groove therefor in a guide bar on which said carriage is reciprocable. 9th. In a carriage in an abrading or polishing machine, the combination of a tubular body part, and spool-shaped rollers mounted one at each end in the tubular body part, said rollers being severally provided with a soft metal band medially forming an adhering tread adapted to travel on the guide bar on which the carriage is reciprocable. 10th. In a carriage in an abrading or polishing machine, the combination with a tubular body part provided with legs in pairs, of rollers severally mounted in a pair of said legs by means of an axle, a sleeve cone in a leg turning by screw thread on the axle, another sleeve cone in the other leg turning by screw threads respectively on the axle and in the leg, ball bearing cups in the ends of the rollers opposite said cones, and bearing balls between the cones and cups. 11th. In an abrading or polishing machine, the combination of a tubular carriage reciprocable on a guide bar, a head block swivelled and tiltable medially on the carriage, and expanding springs inserted one at each side of the tilting connection, between the carriage and the head block. 12th. In an abrading or polishing machine, the combination with a reciprocable carriage, of a thereto pivoted head block, a polisher block having overhanging walls adapted to enter the supporting ways therefor in the head block.



No. 69,059. Price Weighing Scales. *(Balance à bascule.)*

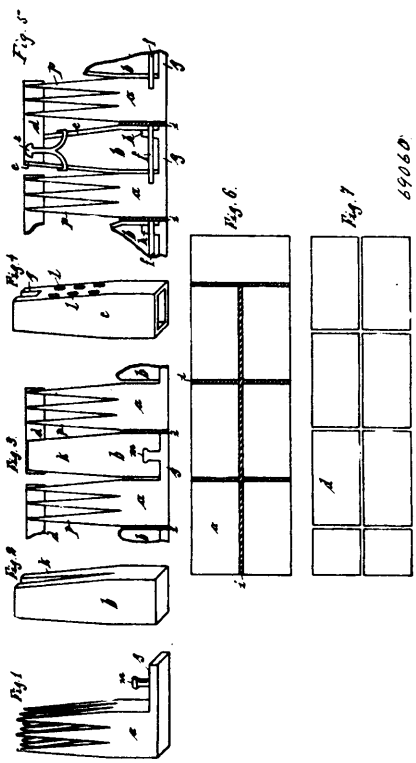


Alpha R. Beal, Pittsburg, Pennsylvania, U.S.A., 19th October, 1900; 6 years. (Filed May 31st, 1900.)

Claim.—1st. The combination with a beam provided with evenly spaced indentations, a load connecting rod, a roller at the upper end of the rod adapted to engage the beam indentations, the roller having play in the direction of the length of the beam, and means for limiting the play of the roller to an extent approximately one half the length of one of the beam indentations, substantially as shown and described. 2nd. The combination of a beam provided with evenly spaced indentations, a load connecting rod, a roller at the upper end of the rod past which the beam moves, the roller having play in the direction of the length of the beam, and stops for limiting the play of the roller to an extent approximately one half the length of one of the beam indentations, substantially as shown and described. 3rd. The combination of an indented beam, a load rod, a horizontally elongated connection between the beam and rod, said connection carrying a roller for engaging the beam indentations and having horizontal pivotal union with the load rod, said pivotal union aligning horizontally with the axial centre of the roller, and means for maintaining the elongated connection normally parallel with the beam, substantially as shown and described. 4th. The combination of a balanced beam, a load connecting rod, a connection between the beam and rod, said connection adapted to vibrate on a horizontal axis, and fixed vertical stops for limiting the vibration of said connection. 5th. The combination of a beam, a load connecting rod, a loose roller connection between the beam and rod, the engagement of the load rod with the roller connection being, when weighing, in the horizontal plane of the axial centre of the roller substantially as shown and described. 6th. The combination of a base, a carriage, a balanced beam on the carriage, a vibratory load connection uniting and co-operating with the beam, and fixed guides raised from the base for limiting the vibrations of the load connection. 7th. The combination of a beam, a load connecting rod, a yoke pivotally mounted on the beam so as to oscillate vertically with relation thereto, and bearings on the yoke with which the load rod has loose engagement, the yoke affording a loose connection between the beam and load rod and serving to maintain the load rod, the bearings on the yoke for said rod and the yoke pivot in a vertical plane when weighing, substantially as shown and described. 8th. In a scale of the character described, the combination of a base, a carriage, carriage locking and releasing mechanism, and a depressible knob shaped handle movable with the carriage for actuating said mechanism, the knob of the handle fitting the operator's hand hollow while the fingers thereof are sustained by the carriage,

whereby the operator maintains perfect control over the carriage movement with one hand, substantially as shown and described. 9th. The combination of a base, a carriage, carriage locking and releasing mechanism, a depressible knob shaped handle at one end of the carriage for actuating said mechanism, and a finger rest positioned at the carriage end inward from the handle, the knob fitting the hollow of the hand, and the rest supporting the fingers thereof while adjusting the carriage, substantially as shown and described. 10th. The combination of a beam, a yoke, a horizontal roller journaled in the yoke and engaging the beam, trunnions projecting from opposite sides of the yoke, the top plane of the trunnions aligning with the axial centre of the roller for the purpose described, and a downwardly pulling load connection mounted on said trunnions.

No. 69,060. Thermo Electrical Battery.
(*Batterie électrique.*)



Joseph Matthias, Stuttgardt, Germany, 19th October, 1900; 6 years. (Filed 31st July, 1899.)

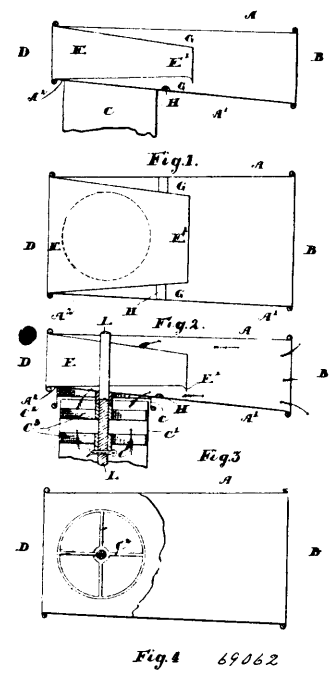
1st. In thermo-electric batteries or piles the arrangement of the fragile and easily melted electrode, which requires protection in such a manner that it rests on a projection of the other electrodes, on the side which is turned towards the source of heat, and in this manner is withdrawn from the direct action of the radiating heat, substantially as described with reference to the drawings. 2nd. In thermo-electric batteries or piles the arrangement of the fragile and easily melted electrodes which requires protection in such a manner that it rests on a projection of the other electrodes, on the side which is turned towards the source of heat, and in this manner is withdrawn from the direct action of the radiating heat, in combination with the arrangement of a strong metallic bridge piece upon the forked ends of electrodes of a pointed form to facilitate cooling, so that it connects each two adjoining elements. 3rd. In thermo-electric batteries or piles the arrangement of the fragile and easily melted electrode, which requires protection in such a manner that it rests on a projection of the other electrode, on the side which is turned towards the source of heat, an in this manner is withdrawn from the direct action of the radiating heat, in combination with a clay cover round an electrode centre piece for the purpose of protecting the sides of the electrodes requiring protection, which clay cover is provided with holes at the side, with which holes passing through the electrode centre piece coincide, together with the connection of the metallic bridge piece, conducting to the next element, with the electrode inside the clay cover in such a manner that the forked branches of a pin situated with its head shaped end inside the bridge piece, are made to pass through the electrode and through the clay walls, on the outside of which they rest with their ends bent over.

No. 69,061. Building Material. (*Matériaux de construction.*)

Alexander Imschenetezky, St. Petersburg, Russia, 19th October, 1900; 6 years. (Filed 17th April, 1899.)

1st. The process of manufacturing refractory material, which consists in first saturating articles made of abestos with an alkaline solution holding free silica in suspension, then treating the same with a bicarbonate solution in order to deposit the silica from the unconverted silica contained therein, substantially as described. 2nd. The process of manufacturing refractory material, which consists in first saturating articles made of asbestos, with a solution of sodium silicate mixed with sodium bicarbonate and then further treating the same with a bicarbonate solution, essentially as and for the purposes described. 3rd. The process of manufacturing refractory material, which consists in first saturating article of asbestoes with a solution of sodium silicate mixed with sodium bicarbonate, then saturating the same first with a sodium-silicate solution, and then with a sodium-bicarbonate solution, substantially as described. 4th. The process of manufacturing refractory material, which consists in first soaking sheets or other forms produced from asbestos-pulp in an alkaline solution holding free silicate in suspension, then drying the same, then impregnating the same with a solution of sodium silicate, and lastly, treating the same with a solution of an akaline bicarbonate, substantially as described. 5th. The process of manufacturing refractory material, which consists in first treating a solution of sodium silicate with a bicarbonate solution sufficiently weak to insure a slow formation of colliodal silica, then saturating bodies made of asbestos with such mixed solutions, and lastly treating said bodies with a bicarbonate solution, substantially as described.

No. 69,062. Ventilator. (*Ventilateur.*)



John Rodger Arnoldi, Toronto, Ontario, Canada, 19th October, 1900; 6 years. (Filed 12th June, 1900.)

Claim.—1st. In an exhaust ventilator, the combination with the uptake and the cowl body open at both ends and arranged so that the entrance of the inlet end is in proximity with the uptake and the major portion of the exit end extends beyond the uptake, said cowl body being horizontal at the top and at the bottom inclined downwardly from the inlet end to the exit end, of the draft tube extending from the inlet end past the uptake towards the exit end of the body, said draft tube being contracted at its exit, as and for the purpose specified. 2nd. In an exhaust ventilator, the combination with the uptake and the cowl body open at both ends and arranged so that the entrance of the inlet end is in proximity with the uptake and the major portion of the exit end extends beyond the uptake, said cowl body flaring outwardly from the inlet end to the exit end and being horizontal at the top and at the bottom inclined downwardly from the inlet end to the exit end, of the draft tube extending from the inlet end past the uptake towards the exit end of the body, said shaft tube being contracted at its exit end, as as and for the purpose specified. In an exhaust ventilator, the combination with the uptake and the cowl body open at both ends and

arranged so that the entrance of the inlet end is in proximity with the uptake and the major portion of the exit end extends beyond the uptake, said cowl body being horizontal at the top and at the bottom inclined downwardly from the inlet end to the exit end, of the draft tube extending from the inlet end past the uptake towards the exit end of the body, said draft tube being contracted at its exit end and having a downwardly extending lip, as shown and for the purpose specified. 4th. In an exhaust ventilator, the combination with the uptake and the cowl body open at both ends and arranged so that the entrance of the inlet end is in proximity with the uptake and the major portion of the exit extends beyond the uptake, said cowl body being horizontal at the top and at the bottom inclined downwardly from the inlet end to the exit end, a rib extending across the bottom of the cowl in proximity to the uptake and towards the exit end, of the draft tube extending from the inlet end past the uptake towards the exit end of the body, said draft tube being contracted at the exit end, as and for the purpose specified. 5th. In an exhaust ventilator, the combination with the uptake and the cowl body open at both ends and arranged so that the entrance of the inlet end is in proximity with the uptake and the major portion of the exit end extends beyond the uptake, said cowl body gradually enlarging from the inlet to the exit end, which end extends for the major portion past the uptake and is provided with an inclined bottom from the inlet end to the exhaust end, a rib extending across the inclined bottom in proximity to the uptake, of a draft tube extending from the inlet end of the cowl body to a point past the uptake and towards the exit end, said exit end of the draft tube being contracted and provided with a downwardly extending lip, as and for the purpose specified.

No. 69,063. Rotary Engine. *(Machine rotatoire.)*

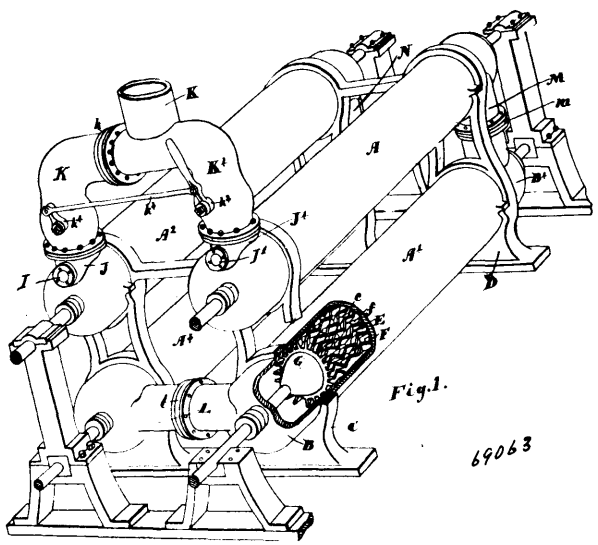


Fig. 1.

69063

Isaac Milton House, Gravenhurst, Ontario, Canada, 19th October, 1900; 6 years. (Filed 13th September, 1898.)

Claim. — In combination a plurality of cylinders parallelly arranged, suitable heads therefor, shafts extending through the cylinders and through the heads, the enlarged drum or cylinder with tapered ends secured to the shaft, a series of rings secured to the internal drum or cylinder and provided with suitably obliquely arranged vanes, a series of rings provided with directing vanes reversely set to the rotating vanes and interposed between them throughout the length of the cylinder, such rings abutting each other and being frictionally held in place by the heads, branches connecting the heads of the series of parallelly arranged cylinders so as to form a continuous passageway through them, suitable inlet and exhaust ports arranged so as to reverse the flow of the steam through the cylinders and suitable standards supporting such cylinders, as and for the purpose specified.

No. 69,064. Voting Machine. *(Machine à voter,)*

John Charles Craig, Kinmouth, Ontario, Canada, 19th October, 1900; 6 years. (Filed 28th July, 1900.)

Claim.—1st. The combination in a voting machine of a base or stand having a platform on which to lay a ballot paper, a plate hinged to said platform to cover the ballot paper, squeezing rollers in a covered way to remove unobservably the ballot paper after being punched, a casing secured to said plate to hold a bell ringing mechanism and bell, a row of keys or levers fulcrumed within the casing and a row of punches, each operated by one of said keys, to punch the ballot paper to indicate the vote of the elector, as set forth. 2nd. A voting machine comprising a stand or platform on which to lay the ballot paper, a plate covering said platform and partly obscuring the ballot paper, a roll or rollers to unobservably

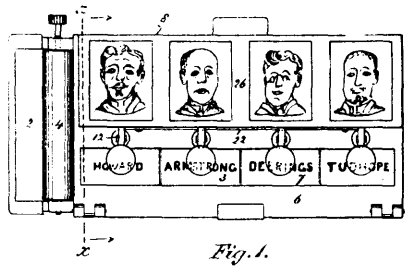


Fig. 1.

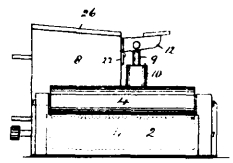


Fig. 2.

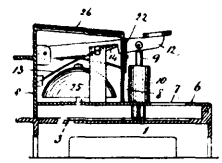


Fig. 3.

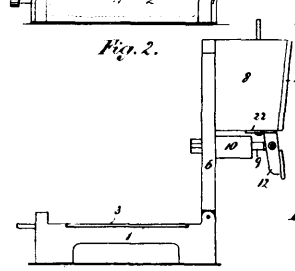


Fig. 4. 69064

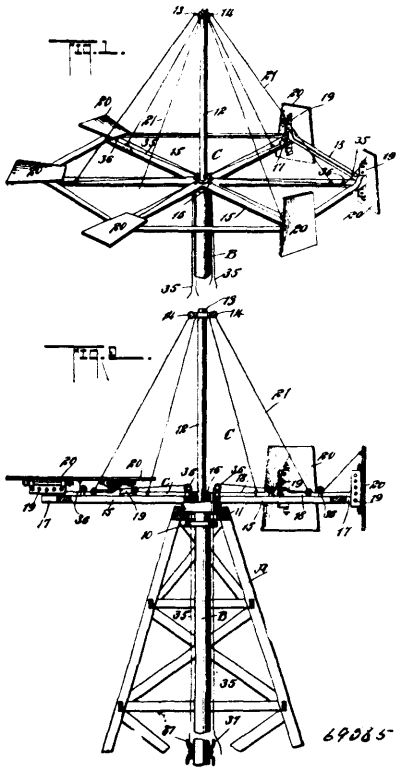
pass the ballot paper from said platform after use into a closed receiver of ballots, a casing secured to said plate in which is mounted a row of keys or levers and containing a bell ringing mechanism operated by either one of said keys when depressed, a row of spring punches operated independently by each of said keys, and a plate attached to said casing to slide longitudinally by the depression of a key to render the other keys inoperative until the depressed key resumes its normal position, whereby only one punch can be operated at a time, as set forth. 3rd. A voting machine, comprising a stand or platform on which to a lay a ballot paper, a plate covering said platform having an observing slot through which the names of the candidates may be read, a roll or rollers to unobservably pass the the ballot paper after use to a closed receiver of ballots, a casing secured to said plate carrying a row of keys or levers, a bell sounded by the operation of one of said keys when depressed, a row of spring punches operated independently by each of said keys to punch the ballot paper, a plate attached to said casing to slide by the depression of a key to render the other keys inoperative, and a frame adapted to hold a portrait of the candidates to indicate to an illiterate elector the punch to be used for each candidate for punching the ballot paper, as set forth.

No. 69,065. Power Wheel. *(Moulin à vent.)*

Thomas Sheppard Barwis, Vancouver, British Columbia, Canada, 19th October, 1900; 6 years. (Filed 9th July, 1900.)

Claim.—1st. A power wheel, adapted for use either in wind or water, consisting of a polygonal frame, wings pivoted at the peripheral angular portions of the frame, and stops for the wings, which stops are so constructed that in different positions of the wheel they maintain the wings in either vertical, horizontal or diagonal positions, as set forth. 2nd. In a power wheel, a support, a shaft carried by the support, a polygonal frame attached to the said shaft, supports pivoted at the peripheral angular portions of the said frame, and wings or sails carried by the said pivotal supports, whereby the wings or sails are capable of occupying a vertical position or of assuming an inclined position, or a horizontal position, in which latter position they lie upon the upper surface of the frame. 3rd. In a power wheel, a shaft, a support in which the shaft revolves, a hexagonal frame secured to said shaft, supports pivoted at the angles of said frame, and wings or sails having inclined side edges, said wings or sails being so mounted that they may lie upon the upper surface of the frame or occupy a position at right angles to the horizontal axis of the frame, as specified. 4th. A power wheel, consisting of opposing heads, the heads being of polygonal contour,

guide frames diagonally secured to the heads adjacent to their angular peripheral portions, and wings pivoted at the peripheral

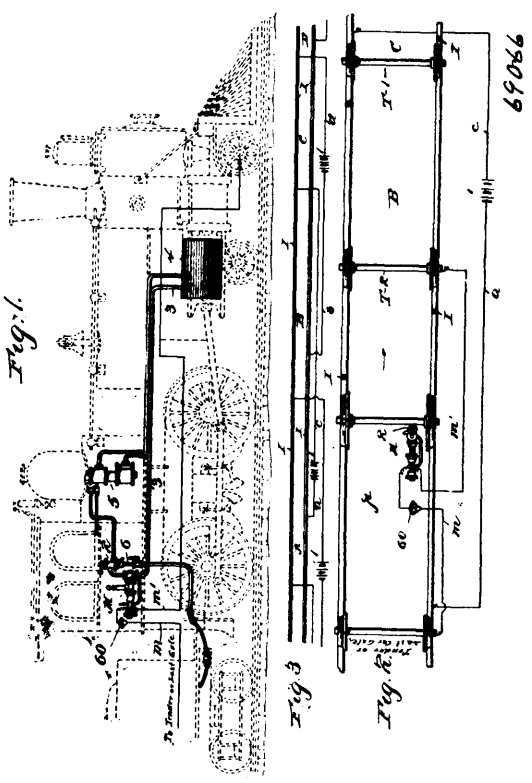


angular portions of the wheel, adapted for engagement with said guide frames, which guide frames control the positions of the said wings.

No. 69,066. Automatic Brake Setting and Signalling Apparatus. (*Appareil automatique de frein et Signal.*)

Charles Bergmann and John E. O'Shea, both of Pittsburg, Pennsylvania, U.S.A., 19th October, 1900; 6 years. (Filed 20th September, 1900.)

Claim.—1st. In an apparatus of the class described, the combination with the engineer's brake valve and main reservoir, of means, interposed between the main reservoir and the engineer's brake valve, for automatically cutting off the excess pressure of said reservoir from the valve and simultaneously releasing the pressure in the train pipe, substantially as set forth. 2nd. In an apparatus of the class described, the combination with the main reservoir and engineer's brake valve of the air brake system, of an air controlling mechanism connected with the pipe between the reservoir and the brake valve, and having means for automatically cutting off communication between the reservoir and said valve, and simultaneously releasing the pressure in the train pipe, substantially as set forth. 3rd. In an apparatus of the class described, the combination with the main reservoir and the engineer's brake valve of an air brake system, of an air controlling mechanism connected with the reservoir pipe between the main reservoir and the brake valve, and having means for automatically cutting off communication between the reservoir and said valve, and simultaneously releasing the pressure in the train pipe and sounding a continuous alarm during such release of the air pressure, substantially as set forth. 4th. In an apparatus of the class described, the combination with the main reservoir and the engineer's brake valve of an air brake system, of an air controlling mechanism interposed between the main reservoir and the said valve, and having means for automatically cutting off communication between the reservoir and the brake valve and simultaneously releasing the pressure in the train pipe, said mechanism also having means for sounding a continuous alarm during the releasing of the air pressure in the train pipe, and a separate alarm or signal upon the restoration of communication between the main reservoir and the engineer's brake valve, substantially as set forth. 5th. In an apparatus of the class described, an air controlling mechanism interposed between the main reservoir and the engineer's brake valve of the air brake system, and having a main valve casing provided with a through passageway and with air escape ports, a pair of cut-off valves arranged respectively to close the through passageway and said air escape ports, and common means for automatically actuating said valves, substantially as set forth. 6th. In an apparatus of the class described, an air controlling mechanism having a main valve casing interposed in the pipe between the main

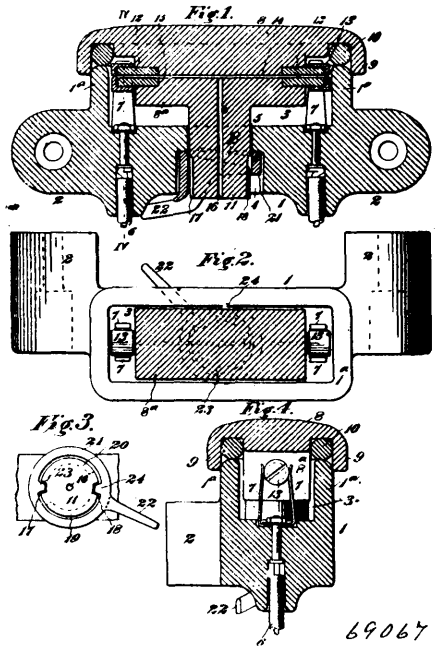


reservoir and the engineer's brake valve of the air brake system, said valve casing being provided with an interior ported seat, and beyond and in the transverse plane of said seat, with their escape ports, a pair of spaced cut-off valves arranged to reciprocate within the valve casing and adapted to respectively cover said ported seat and the air escape ports, and common means for automatically actuating said valves to alternately carry the same to and from their seats, substantially as set forth. 7th. In an apparatus of the class described, an air controlling mechanism having a main valve casing fitted to the main reservoir delivery pipe of the air brake system, and provided with an interior cut-off seat and with lateral escape ports, an air release valve in communication with said ports, and a pair of automatically actuated cut-off valves working within the main valve casing and respectively co-operating with the interior cut-off seat, and said air escape ports, substantially as set forth. 8th. In an apparatus of the class described, an air controlling mechanism having a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with an interior cut-off seat and with lateral air escape ports, an air escape chamber in communication with said air escape ports, an air release valve connected with said air escape chamber, and a pair of automatically actuated cut-off valves working within the main valve casing and respectively co-operating with said interior cut-off seat and the air escape ports, substantially as set forth. 9th. In an apparatus of the class described, an air controlling mechanism having a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with an interior cut-off seat and air escape ports, an air escape chamber in communication with said ports, a combined air release valve and signal device connected with said air escape chamber, and a pair of automatically actuated cut off va ves working within the main valve casing and adapted to alternately cover respectively the interior cut off seat and said air escape ports, substantially as set forth. 10th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with an interior cut off seat, air escape ports, an air escape chamber in communication with said ports, a combined air release valve and signal device connected with said air escape chamber, said combination device being provided with an adjustable air release valve, and a pair of automatically actuated cut off valves working within the main valve casing and respectively co-operating with said interior cut off seat and said air escape ports, substantially as set forth. 11th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with an interior cut off seat and side air escape ports, an air escape chamber in communication with said ports,

automatically actuated cut off valves respectively for the interior cut off seat and said ports and a combined air release and signal device connected with the air escape chamber, said air release and signal device consisting of a casing having at one end a ported seat in communication with the air escape chamber, a blow-off whistle at its opposite end, an air release valve working over the ported seat, and valve regulating means within the casing, substantially as set forth. 12th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with an interior cut off seat and side air escape ports, an air escape chamber in communication with said ports, automatically actuated cut off valves respectively for the interior cut off seat and said ports, and a combined air release and signal device connected with the air escape chamber, said air release and signal device consisting of a sectional casing having a ported seat at one end in communication with the air escape chamber, a blow off whistle at the opposite end, an air release valve working over the ported seat aud having an extended stem, a regulating spring arranged over the valve stem and bearing at one end upon the valve, and a tubular nut adjustably mounted within the casing and coupling the sections thereof together, said nut being arranged to bear upon the spring at one end thereof to regulate its tension, substantially as set forth. 13th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with an interior cut off seat and side air escape ports, cut off valves respectively co-operating with the interior cut off seat and said air escape ports, and means for automatically uncovering the air escape ports and closing the passage way through the main valve casing by the direct pressure of the air from the main reservoir, substantially as set forth. 14th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and having air escape ports, and means for simultaneously uncovering the said air escape ports to place the same in communication with the engineer's brake valve and closing the passage way through the main valve casing by the direct pressure of air from the main reservoir, substantially as set forth. 15th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and having air escape ports, valves for respectively closing the passage way through the main valve casing and the said air escape ports, means for utilizing the direct pressure of air from the main reservoir to uncover the air escape ports and to close the passage way through the valve casing, and an electrically actuated valve for automatically admitting and cutting off the motive supply of air from the main reservoir for actuating the mechanism, substantially as set forth. 16th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with air escape ports, the main valve stem carrying the valve for respectively covering the air escape ports and the main cut-off seat of the valve casing, a piston chamber, a piston working within said chamber and fitted to said valve stem, a by-pass connection with the main reservoir delivery pipe for supplying air to the piston chamber for actuating the valves on one direction, and an electrically operated valve for automatically cutting off and opening up communication with the said by-pass connection, substantially as set forth. 17th. In an apparatus of the class described, an air controlling mechanism having a main valve casing fitted to the main reservoir delivery pipe of an air brake system and provided with air escape ports, a main valve stem carrying a pair of cut-off valves working within the main valve casing, a piston chamber, a valve actuating piston working in said chamber and connected with the main valve stem, separate valve casing connected with the piston chamber and in communication therewith, a by-pass pipe connecting the said separate valve casing with the main reservoir delivery pipe, and an automatically actuated valve working within said separate valve casing and arranged to cut-off and open up communication with said by-pass pipe, substantially as set forth. 18th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and provided with air escape ports, a main valve stem carrying a pair of cut-off valves working in the main valve casing and also carrying at the end opposite said valves, a valve actuating piston, a reducing spring arranged at one side of the said piston, a plunger valve casing in communication with the piston chamber, at one side of the piston therein, a blow-off signal fitted to the plunger valve casing, a by-pass pipe connecting the main reservoir delivery pipe with said plunger valve casing, and an automatically operating and electrically actuated plunger valve working in said plunger valve casing and provided with a longitudinal air passage and separate air inlet and exhaust ducts adapted to respectively communicate with the by-pass pipe and said blow-off whistle, substantially as set forth. 19th. In an apparatus of the class described, an air controlling mechanism comprising a main valve casing fitted to the main reservoir delivery pipe of an air brake system, and having air escape ports, a main valve stem carrying cut-off valves working within the main valve casing, and also carrying a valve actuating piston, a piston chamber housing the said piston, a spring arranged at one side of the piston, a plunger valve casing in communication with the piston chamber, a magnet case connected with the plunger valve casing, a controlling magnet housed within said magnet case and having an armature, a blow-off whistle fitted to the plunger valve casing, a by-pass pipe connecting the plunger valve casing with the main reservoir delivery pipe, a reciprocating plunger valve connected with the armature of the controlling magnet, and provided with a longitudinal air passage and with separate inlet and exhaust ducts adapted to respectively communicate with the blow-off whistle and said by-pass pipe, and a spring arranged to engage with the plunger valve for moving the same on one direction, substantially as set forth.

No. 69,067. Fuse Block for Electric Circuits.

(*Fusée pour circuits électriques.*)



The Westinghouse Electric and Manufacturing Company, assignee of Harry P. Davis, both of Pittsburg, Pennsylvania, U.S.A., 19th October, 1900; 6 years. (Filed 23rd July, 1900.)

Claim.—1st. A fuse block for electric circuits, comprising two separable parts, one of which is provided with circuit terminals and an opening and the other of which is provided with a fuse and fuse terminals and a projection having a blow-out passage and fitting in and extending through said opening, in combination with a clamping device adapted to engage both parts of the block and draw them together. 2nd. In a fuse block for electric circuits, a base portion provided with circuit terminals and an intermediate opening, in combination with a fuse holding cover provided with terminals and having a portion provided with a blow-out passage and projecting through said opening when in operative position, and a device for engaging said base and said cover and clamping them rigidly together. 3rd. In a fuse block for electric circuits, a base provided with spring terminals and an opening, in combination with a cover provided with a fuse and fuse terminals and having a portion which projects through the opening in the base when in operative position, a gasket between said base and said cover, and a device for clamping the cover to said base. 4th. In a fuse block for electric circuits, a base provided with spring terminals and having an opening, in combination with a fuse holding cover provided with removable terminals and having a blow-out chimney projecting through the opening in the base and provided with inclined grooves, and a device provided with projections which co-operate with the chimney grooves to clamp the cover rigidly to the base. 5th. In a fuse block for electric circuits, a base provided with spring terminals and having an opening, in combination with a fuse holding cover provided with removable terminals and having a lateral projection provided with a blow out passage, a gasket between the base and the cover, and a device for clamping the cover to the base.

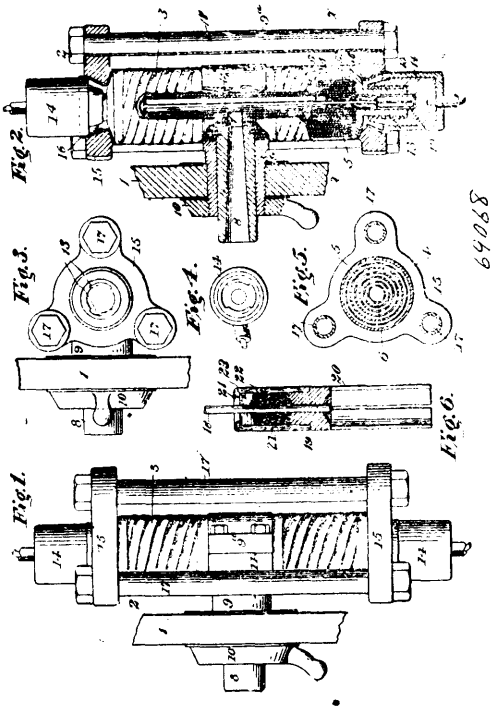
No. 69,068. Electric Circuit Breaker.

(*Frein de circuit électrique.*)

The Westinghouse Electric and Manufacturing Company, Pittsburg, Pennsylvania, assignee of Gilbert Wright, Newark, New Jersey, both in the U.S.A., 19th October, 1900; 6 years. (Filed 13th August, 1900.)

Claim.—1st. In a fuse block for electric circuits, a fuse, provided with end terminals and a protective device so located adjacent to

each terminal as to be forced longitudinally of the fuse chamber against said terminal by the explosive action resulting from the



blowing of the fuse. 2nd. In a fuse block for electric circuits, a fuse provided with end terminals and a cut off valve device so located in the front of each terminal that the air and gas expansion caused by the blowing of the fuse will force said device against the end of the terminal and thus protect the same from the arc. 3rd. A fuse block for electric circuits, having a fuse chamber provided with a blow-out opening, in combination with a fuse having a terminal piece at each end comprising a shell, a filling of loosely packed non-combustible material and a metal base, making removable spring contact with the corresponding end of the fuse block. 4th. In a fuse block for electric circuits, a fuse having a terminal piece at each end comprising a shell, a metal base, a filling of loosely packed non-combustible material and a follower. 5th. In a fuse block for electric circuits, a fuse having a terminal piece at each end comprising a shell, and a metal base, a filling of loosely packed asbestos or similar material and a follower. 6th. A fuse block for electric circuits, comprising a body portion having a longitudinal fuse chamber and a lateral blow-out opening, end plates connected by clamping bolts, and removable terminal heads. 7th. A fuse block for electric circuits, comprising a body portion having a longitudinal fuse chamber and a lateral blow-out opening, a clamping and reinforcing frame and terminal heads having a locking joint connection with the body portion. 8th. A fuse block for electric circuits, comprising a non-conducting body portion having metal ends, a fuse chamber and a blow-out opening, a reinforcing frame, and terminal heads detachably locked to said metal ends. 9th. A fuse block for electric circuits, comprising a hollow non-conducting body portion having metal ends and reinforced both longitudinally and laterally to resist the internally exerted pressure, and terminal heads having an interrupted screw thread locking engagement with said metal ends. 10th. A fuse block for electric circuits, comprising a cylinder built up of alternate wire helices and insulating tubes, and metal ends clamped to said cylinder by a reinforcing frame, in combination with a fuse provided with terminal protecting means and terminal heads detachably locked to said metal ends. 11th. A fuse block for electric circuits, comprising a body portion having a fuse chamber, a blow-out opening and detachable terminal heads, in combination with a fuse having terminal pieces each of which comprises a shell filled with loosely packed non-combustible material, a metal base and a follower. 12th. A fuse block for electric circuits, comprising a wire wound body portion having solid metal ends, a frame for clamping said ends to said body portion, detachable terminal heads and means for clamping the block to a supporting base. 13th. A fuse block for electric circuits, comprising a body portion having a longitudinal chamber and a lateral blow-out opening, auxiliary means for resisting both londitudinally and laterally exerted internal pressure, and detachable terminal heads, in combination with a fuse having terminal pieces provided with protective valve devices.

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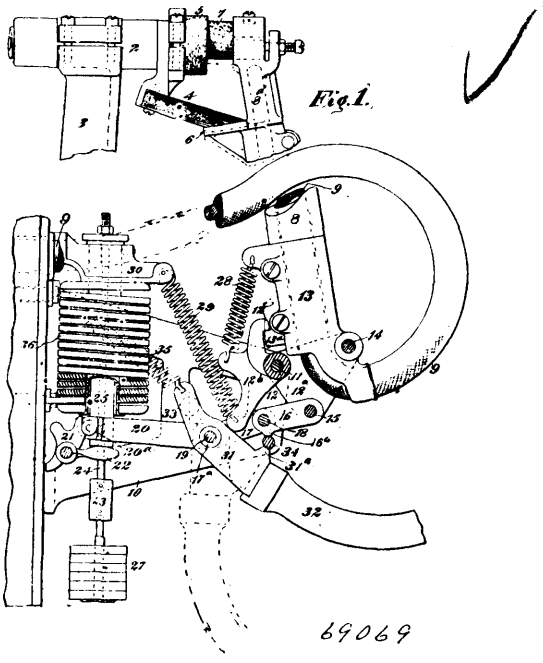
No. 69,069. Electric Circuit Breaker.

(Frein de circuit électrique.)



The Westinghouse Electric and Manufacturing Company, assignee of Harry P. Davis, all of Pittsburg, Pennsylvania, and G. Wright, Newark, New Jersey, all in U.S.A., 19th October, 1900; 6 years. (Filed 24th July, 1900.)

Claim.—1st. In an automatic electric circuit-breaker, the combination with a single stationary laminated contact terminal, of a single stationary carbon terminal, or of a single movable terminal corresponding to each of said stationary terminals, a supporting arm for said terminals having a flexible electrical circuit connection and pivoted to a hinged support, and for actuating said support to swing the carbon contact terminals into engagement and thereafter move the supporting arm longitudinally to bring the main terminals into engagement. 2nd. In an automatic electric circuit-breaker, the combination with a main and a shunt stationary contact terminal and two corresponding movable contact terminals, of a supporting arm for said movable terminals, a flexible conductor for connecting said movable terminals with a circuit, a hinged or pivoted frame to which said arm is pivoted, means for moving said arm and frame on the hinge of the latter to bring the shunt contact terminals into engagement and for thereafter moving said arm longitudinally to bring the main contact terminals into engagement. 3rd. In an automatic electric circuit-breaker, the combination with a single main contact and a single shunt contact in vertical alignment and connected to one circuit-terminal, of a hinged arm having a main and a shunt contact at one end, a flexible connector extending through the arm to the other circuit terminal, and means for moving the arm in the arc of a circle to make and break the shunt circuit and longitudinally to make and break the main circuit. 4th. In an automatic circuit-breaker, the combination with a carbon block and a laminated contact joined to one terminal of a circuit in vertical alignment, of an arm provided with a carbon block and a metal plate and having a double hinge connection with a supporting base and toggle-lever and spring mechanism for actuating said arm to move said block and plate respectively into and out of engagement with the stationary block and laminated contacts. 5th. In an automatic electric circuit-breaker, the combination with a main and a shunt contact terminal, of a hinged frame, a contact bearing arm hinged to one side of said frame and having a spring connection with the other side, a toggle lever for actuating said frame, and a device moving independently of the toggle-lever in one direction and engaging said lever to effect the closing of the circuit breaker when moved in the opposite direction.

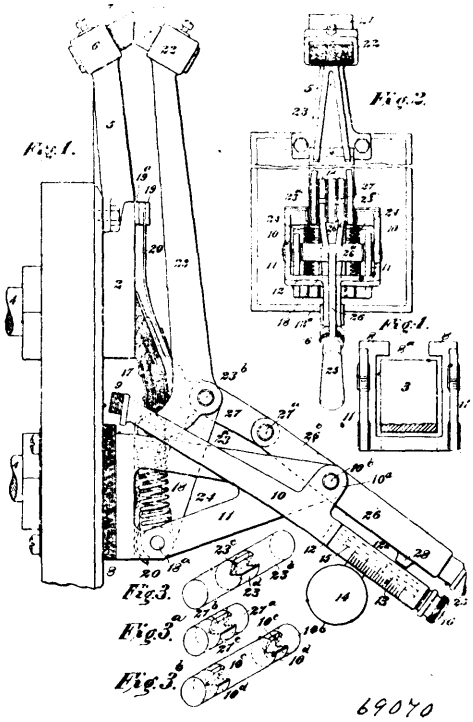
No. 69,070. Electric Circuit Breaker.

(Frein de circuit électrique.)

The Westinghouse Electric and Manufacturing Company, Pittsburg, Pensylvania, assignee of Gilbert Wright, Newark, New Jersey, U.S.A., 19th October, 1900; 6 years. (Filed 13th August, 1900.)

Claim.—1st. In an automatic electric circuit breaker, the combination with the stationary and movable contact terminals, of toggle levers for closing the breaker and constituting the sole means for locking the same, and knife edge bearings for said levers. 2nd. In an automatic electric circuit breaker, the combination with stationary and movable contact terminals, toggle levers for closing the breaker

and constituting the sole for locking the same, knife edge bearings for said toggle levers and electro magnetically actuated means for

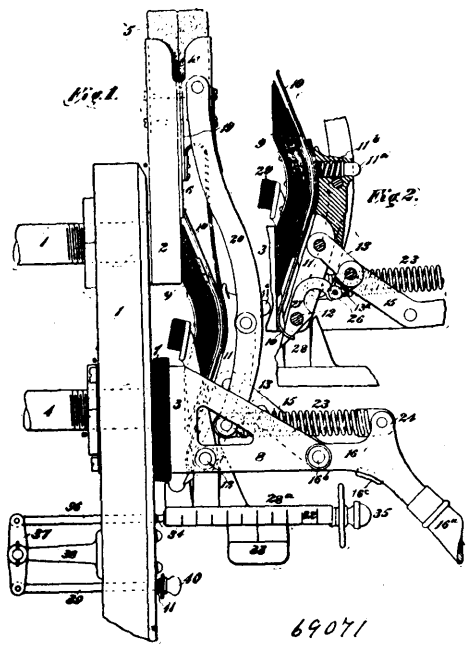


moving the levers out of locking position. 3rd. In an automatic electric circuit breaker, the combination with stationary and movable contact terminals, of toggle levers for supporting and actuating said movable terminals and knife edge bearings for said levers, the toggle levers being so arranged and adjusted that the toggle joint is movable beyond the dead centre to lock the circuit breaker in operative position. 4th. The combination with two relatively movable devices or parts, of a joint therefor comprising a cylindrical pivot or bearing pin having one or more knife edge portions, one or more angular recesses in one of said devices or parts occupied by said knife edge portion or portions, and one or more cylindrical bearings in the other device or part occupied by the cylindrical portion or portions of the pivot or bearing pin. 5th. An anti-friction pivot bearing or joint comprising a part having a cylindrical recess and a part having an angular recess formed by two plane sides and a curved side, and a pivot pin having a cylindrical portion which occupies said cylindrical recess and a knife edge portion which occupies said angular recess and has a curved side of less width than that of the recess. 6th. The combination with two relatively movable devices or parts, of a pivot pin joining said parts and having one or more knife edge portions and a bushing having one or more anguiar recesses occupied but not filled by said knife edge portion or portions.

No. 69,071. Electric Circuit Breaker.
(Frein de circuit électrique.)

The Westinghouse Electric and Manufacturing Company, Pittsburg, Pennsylvania, assignee of Gilbert Wright, Newark, New Jersey, and C. Aalborg, Wilkinsburg, Pennsylvania, U.S.A., 19th October, 1900; 6 years, (Filed 14th August, 1900.)

Claim.—1st. In an automatic electric circuit breaker, the combination with a pair of main stationary contact terminals and a carbon shunt terminal in approximately vertical alignment, of a pivoted laminated contact member for bridging said main terminals, toggle levers for moving said laminated contact member into operative position, a movable shunt contact piece, and a supporting arm therefor pivoted to the laminated contact member. 2nd. In an automatic electric circuit breaker, the combination with a base and stationary main and shunt contact terminals located in approximately vertical alignment thereon, of a movable laminated contact member pivoted to said base, a movable shunt contact member pivoted to said laminated contact member, toggle levers for operating said movable members, means for locking the breaker in locked position, and a tripple device projecting into a magnetic circuit. 3rd. In an automatic electric citcuit breaker, the combination with a base provided with a pair of main contact terminals in approximately vertical alignment and a single shunt contact terminal above the upper main terminal, of a bridging laminated contact member pivoted to the base, a movable shunt contact terminal, a supporting arm therefor pivoted to the laminated contact member, a flexible extension piece for making permanent contact with the lower stationary terminal, toggle lever supporting and operating mechanism for said movable members, locking and tripping devices, and means co-operating with gravity to open the breaker when released. 4th. A circuit breaker having two stationary main contact terminals and a carbon shunt contact terminal located above said main terminals, in combination with a pivotally mounted main contact member and a shunt member eccentrically pivoted to said main member, toggle lever closing mechanism, a latch and electro-magnetic means for tripping said latch when subjected to an excessive current. 5th. In a circuit breaker, the combination with main stationary contact terminals and a stationary shunt terminal located above the same, of a pivoted main contact member, a shunt contact member pivoted to said main member at a distance from its axis of movement, means for yieldingly holding the movable shunt contact in position in advance of the plane of the faces of the main movable member when in open position, toggle lever mechanis · losing the br· ker, latc nd e ctro-magnetically actua ed m ans for tip ing he latch, said toggle l ve , latchi and tripping mech nism being located below both the main and the shunt separable terminals

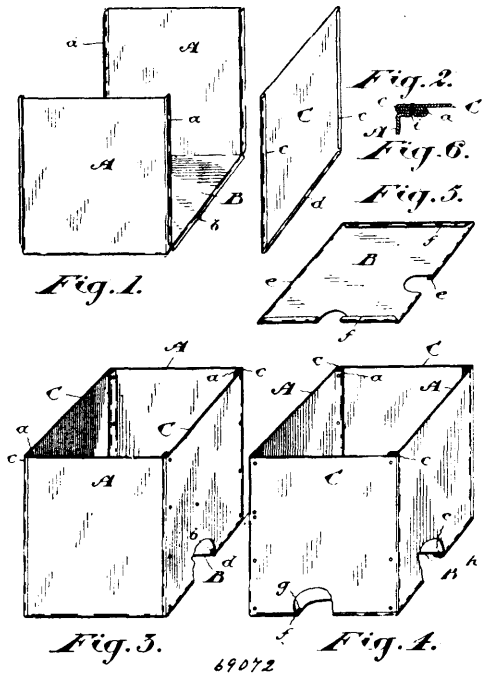


No. 69,072. Sheet Metal Box. *(Boîte de fer blanc.)*

William Tassie Tassie, assignee of Albert E. Donovan, both of Toronto, Ontario, Canada, 19th October, 1900; 6 years. (Filed 15th September, 1900.)

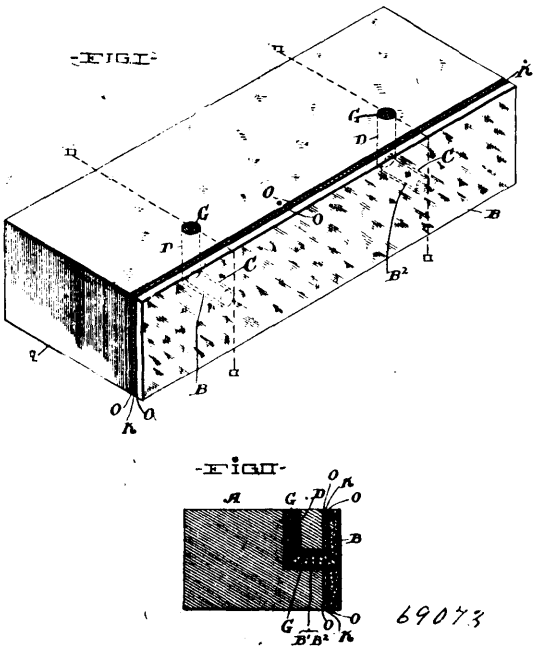
Claim.—1st. In a box, the sides A A, provided with the hooked edges *a a*, in combination with the back and front pieces C C, provided with the hooked edges *c c*, engaging the hooked edges *a a*, substantially as and for the purpose specified. 2nd. In a box, the combination of the sides A A, the hooked edges *a a*, formed thereon, the back and front pieces C C, the hooked edges *c c*, formed thereon and engaging the hooked edges *a a*, the bottom B, having the upwardly turned hooks *f f*, formed on two opposite edges, and the downwardly turned hooks *e e*, formed on the other two edges, and the hooks *g g*, and *h h*, formed on the sides of the box engaging the said hooks *f f*, and *e e*, substantially as and for the purpose specified. 3rd. In a box, suitable side pieces having their lower edges provided with the hooks *g g*, and *h h*, in combination with the bottom provided with the hooks *f f*, and *e e*, substantially as and for the purpose specified. 4th. In a box, the sides A A, provided with the

hooked edes *a a*, in combination with the back and front pieces C C, provided with the hooked edges *c c*, engaging the hooked edges *a a*,



the seams having indentations *i*, formed therein to prevent the hooked edges pulling apart, substantially as and for the purpose specified.

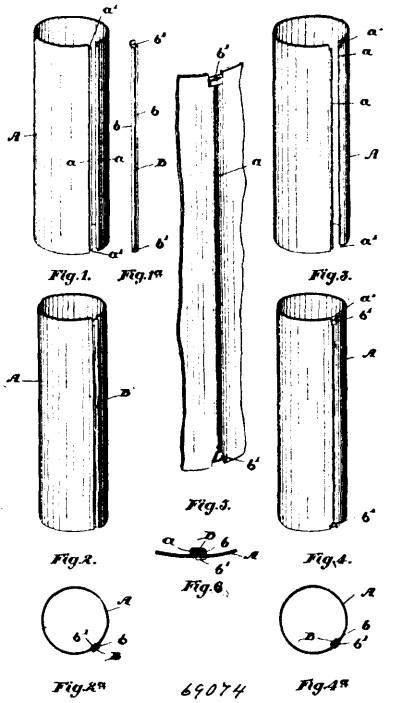
No. 69,073. Building Brick or Block. *(Brique.)*



Michael Joseph Murphy, Akron, and Henry Rosenbaum, Cincinnati, assignee of Charles Myers, of Akron, aforesaid, all in Ohio, U.S.A., 19th October, 1900; 6 years. (Filed 12th May, 1899.)

Claim.—1st. A brick, block, or slab, a body portion, a facing, and a layer of expansible and contractible material between and cemented at one side to the facing, and at the other side, to the body portion. 2nd. A brick, block, or slab, having a body portion, a facing and a layer of elastic material such, for instance, as cork or rubber, between and attached to the facing and body portion. 3rd. A brick, block, or slab, having a body portion composed of argillaceous or earthy material, a glassy or vitreous facing, and cork between and cemented to the facing and body portion. 4th. A brick, block, or slab, having its body portion provided with a facing, and a layer of powdered cork between, and cemented to, the body portion and facing. 5th. A brick, block, or slab, having the following:—a body portion composed of argillaceous or earthy material, a glassy or vitrified facing, and cork between the facing and body portion and cemented to the latter and to the facing by a glue cement having corrosive sublimate and strychnine as ingredients. 6th. A brick, block, or slab, having the following:—a body portion composed of argillaceous or earthy material and holes or recesses, a glassy or vitrified facing provided with tongues or projections extending into the said holes or recesses and cemented to the walls of the said holes or recesses by a sulphur cement containing arsenic as an ingredient. 7th. The method herein described, of attaching a glassy or vitreous facing to an argillaceous or earthy surface, consisting, firstly, in brushing or spreading cement over the said surface, secondly, applying a layer of elastic material to the cement bearing sursace, thirdly, brushing or spreading cement over the back of the facing, and lastly, applying the cement bearing surface of the facing to the elastic layer.

No. 69,074. Steel Metal Pipe. *(Tuyau.)*



James Wesley Kelley, Isabella A. Kelley and James N. McGregor, all of Oakville, Ontario, Canada, 19th October, 1900; 6 years. (Filed 19th September, 1900.)

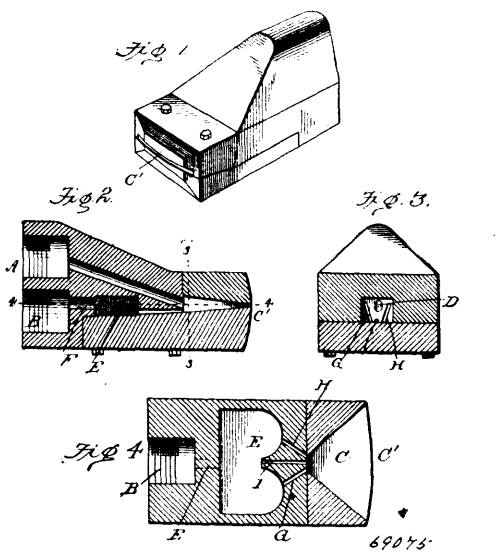
Claim.—1st. The combination with a pipe length having the blank formed with longitudinal edge lips, of a key formed with inturned side lips designed to slip over and straddle the edge lips formed on the opposing edges of the blank and inturned lips at the top and bottom of the key designed to fold over the top and bottom edges of the pipe opposite the ends of the lips, as and for the purpose specified. 2nd. The combination with a pipe length having the blank formed with longitudinal edge lips, and top and bottom notches at each end thereof, of a key formed with inturned side lips designed to slip over and straddle the lips formed on the opposing edges of the blank and inturned lips at the top and bottom of the key designed to fold over the top and bottom edges of the notches opposite the ends of the lips, as and for the purpose specified. 3rd. The combination with a pipe length having the blank formed with longitudinal edge lips designed to be locked together, of notches formed at the top and bottom of the blanks opposite the ends of the lips, and end lips formed at the ends of the longitudinal lips and designed to fold over the top and bottom edges of the notches opposite the ends of the longitudinal lips, as and for the purpose specified.

No. 69,075. Oil Burner. *(Brûleur d'huile.)*

Charles Andrew Hammell, Los Angeles, California, U.S.A., 22nd October, 1900; 6 years. (Filed 22nd June, 1900.)

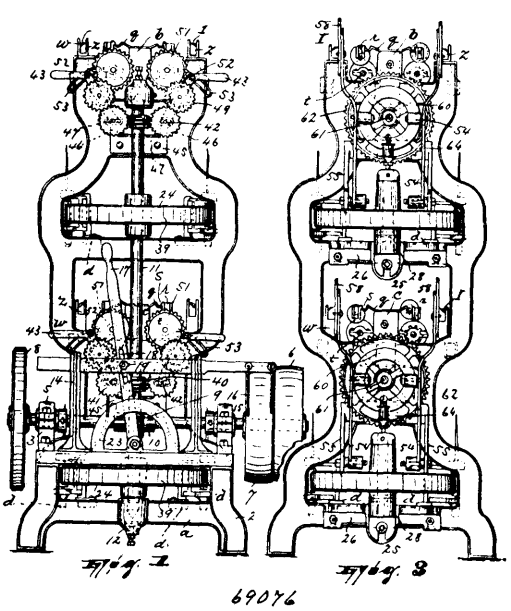
Claim.—1st. A hydro-carbon burner comprising a mixing-chamber, and an oil inlet duct communicating therewith, an expansion-chamber, and converging ducts leading from the expansion-chamber

to the mixing-chamber, and a duct leading from said expansion-chamber to the steam or inlet-pipe, substantially as and for the purpose set forth. 2nd. A hydro-carbon burner comprising the mixing-chomber C opening into the atmosphere, the oil-duct D, the expansion-chamber E, the converging ducts G and H, and the longitudinal ducts I leading from the expansion-chamber to said mixing-chamber, substantially as and for the purpose set forth. 3rd. A hydro-carbon burner provided with the oil inlet orifice A, an air inlet orifice B, a mixing-chamber C opening into the atmosphere, an oil-duct D connecting the oil inlet orifice A and the mixing-chamber C, the expansion chamber E, and ducts G, H and I connecting said mixing and expansion chambers C E, and the duct F extending form said inlet orifice B to the expansion-chamber E, substantially as and for the purpose set forth.



No. 69,076. Spinning Machine.

(Machine à retordre le fil.)

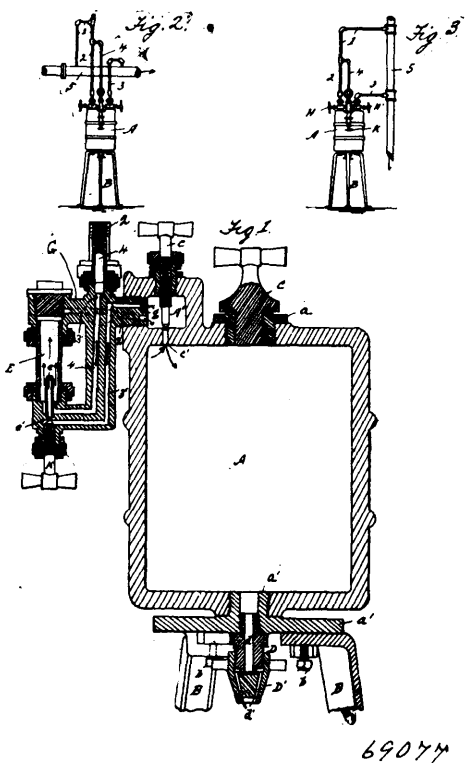


Adolph Haenichen, Patterson, New Jersey, U.S.A., 22nd October, 1900; 6 years. (Filed 6th November, 1899.)

Claim.—1st. In a spinning machine, the combination, with the frame and with sets of aligned revoluble spindles mounted in said frame, of a vertical shaft, bearing-brackets for said shaft projecting from one end of said frame, a rest extending from said end of frame, bearing-blocks mounted on said rest, a drive-shaft journalled on said bearing-blocks, operative connection between said shafts, pairs of sheaves, and belts extending over said sheaves and engaging said spindles, one sheave in each pair being mounted on said vertical shaft, substantially as described. 2nd. In a spinning machine, the combination, with the frame and with sets of aligned revoluble spindles mounted in said frame, of a vertical shaft, bearing-brackets for said shaft projecting from one end of said frame, a rest extending from said end of the frame, bearing-blocks mounted on said rest, a drive-shaft journalled on said bearing-blocks, pulleys carried by said drividg shaft, a belt-shifting mechanism also mounted on said rest, operative connection between said shafts, pairs of sheaves and belts extending over said sheaves and engaging said spindles, one sheave in each pair being mounted on said vertical shaft, substantially as described. 3rd. In a spinning machine, the combination, with the frame and with sets of aligned revoluble spindles mounted in said frame, of a vertical shaft, bearing-brackets for said shaft projecting from one end of said frame, a rest extending from said end of the frame, bearing-blocks mounted on said rest, a drive-shaft journalled on said bearing-blocks, operative connection between said shafts, adjustable bearing-brackets extending from the other end of said frame, pairs of sheaves, one sheave in each pair being carried by one of said last-named bearing-brackets and the other by the vertical shaft, and belts extending over said sheaves and engaging said spindles, substantially as described. 4th. In a spinning machine, the combination, with the frame and with sets of aligned revoluble spindles mounted in said frame, of a verticle shaft, bearing-brackets for said shaft projecting from one end of said frame, a rest extending from said end of the frame, bearing-blocks mounted on said rest, a drive-shaft journalled on said bearing-blocks, operative connection between said shafts, adiustable bearing-brackets extending from the other end of said frame, pairs of sheaves, one sheave in each pair being carried by one of said last-named bearing brackets and the other by the vertical shaft, belts extending over said sheaves and engaging said spindles, roller-carrying shafts journalled in said frame, and operative connection between said roller-carrying shafts and the vertical shaft, substantially as described. 5th. In a spinning machine, the combination, with the frame and with sets of aligned revoluble spindles mounted in said frame, of a vertical shaft, bearing-brackets for said shaft projecting from one end of said frame, a rest extending from said end of the frame bearing-blocks mounted on said rest, a drive-shaft journalled on said bearing-blocks, operative connection between said shafts, adjustable bearing-brackets extending from the other end of said frame, pairs of sheaves, one sheave in each pair being carried by one of said last-named bearing-brackets and the other by the vertical shaft, belts extending over said sheaves and engaging said spindles, roller-carrying shafts journalled in said frame, adjustable frames carried by the main frame, and gearing operatively connecting said vertical shaft with the roller-carrying shaft, a portion of said gearing being mounted in said adjustible frames, substantially as described. 6th. In a spinning machine, with the frame and with roller-carrying shafts and sets of spindles journalled therein, of a vertical shaft having bearings in said frame, belts driven by said shafts and eagaging said spindles, gears carried by said roller-carrying shafts, worms mounted on said vertical shaft, adjustable frames mounted in the main frame, and gearing carried by said last-named frame and adapted to engage and connect said worms and the gears, substantially as described. 7th. In a spinning machine, the combination with the frame and the roller shafts and sets of spindles journalled tnerein, of a vertical shaft having bearings in said frame, belts driven by said shaft and engaging said spindles gears carried by said roller carrying shafts, worms mounted on said vertical shaft, a bracket projecting from said frame, arc-shaped guides secured to said frame, L-shaped frames adjustably mounted in said bracket and the guides, and gearing carried by said last-named frame, adapted to engage and connect said worms and the gears, and comprising an interchangeable member or members, substantially as described. 8th. In a spinning machine, the combination with a frame including spindle rails, of a suitably driven shaft vertically arranged in said frame at one end thereof, adjustable brackets projecting from the other end of said frames, pairs of sheaves, one sheave in each pair being journalled on a bracket and the other being carried by said vertical shaft, belts extending over said sheaves, spindles journalled on said spindle rails and engaging said belts, bobbin sustaining brackets arranged in said frame, roller carrying shafts also journalled in said frame in proximity to said brackets, operative connection between said roller carrying shafts and the vertical shaft, reciprocating thread guide carrying rails arranged in said frame, levers operatively engaging said thread guide carrying rails, and operative connection between said levers and the roller carrying shafts, substantially as described. 9th. In a spinning machine, the combination with the frame, of a sheave carrying bracket comprising two members, one of which is secured to the frame and is provided with a slot and the other of which is mounted on said first-named member and is provided with a bolt engaging said slot, said members having downwardly projecting lugs, a set screw connecting said lugs, a shaft carried by said last-named member, a sheave journalled on said shaft, antifriction bearings disposed between the hub of said sheave and the sheave carrying member of the bracket, said shaft being penetrated by a lubricant duct, and a lubricating device controlling said duct and mounted on the sheave, substantially as described. 10th. A spindle supporting device, consisting of two hinged members, an elastic connection between them, one of said members being adapted to be secured to the spindle rail or other sustaining means and the other of said members being adapted to provide bearings for the spindle both sides of the point of applying the driving

power thereto, and a stop carried by said first-named member and adapted to engage the other member to secure the same against movement under actuation of said elastic connection, substantially as described. 11th. A spindle supporting device, consisting of two hinged members, a spring connecting them, one of said members being adapted to be secured to the spindle rail or other sustaining means and the other of said members being adapted to provide bearin s for the spindle both sides of the point of applying the driving power thereto, and a clip projecting from said first-named member and having a hooked extremity adapted to engage the other member to secure the same against movement under actuation of said spring, substantially as described. 12th. The combination with a spindle, of a substantially fork shaped bracket having a flat body portion adapted to rest upon and be secured to a spindle rail, a bolt or pin connecting and penetrating the extremities of said fork-shaped bracket, an H-shaped auxiliary bracket having one pair of its extremities disposed between the extremities of said fork-shaped bracket and penetrated, and pivotally supported, by said pin or bolt, the other pair of extremities of the H-shaped bracket providing step and bolster bearings and said spindle being journalled in said step and bolster bearings, a drive whirl mounted on said spindle between said bearings, and a spiral spring coiled about said pin or bolt and having one of its extremities engaging forked-shaped bracket and the other of its extremities engaging the connecting portion of the H-shaped bracket, substantially as described.

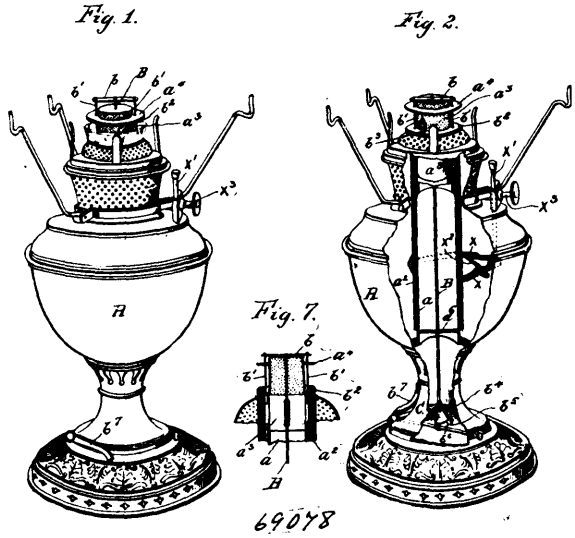
No. 69,077. Lubricator. (*Graisseur.*)



John F. Lewis, Scranton, Pennsylvania. U.S.A., 22nd October 1900; 6 years. (Filed 18th July, 1900.)

Claim.—1st. A lubricator of the kind described having a displacement circulation and a conveying circulation, in combination with a condensing pipe or chamber supplying condensation water for said circulations from a common point or level whereby equality of pressure is maintained in the said displacement circulation, substantially as described and for the purpose set forth 2nd. A lubricator of the kind described using condensation water for displacing and conveying of lubricant to the point required and having a main oil receptacle or reservoir into which displacement water is conducted, in combination with a supplemental chamber or r servoir through which the entrance of said displacement water and and exit of lubricant are made, a substantially vertical passage between the said two reservoirs, a valve by means of which said passage may be closed so as to suspend the passage of condensation water into the main reservoir during replenishment of the same and the said supplemental reservoir adapted to receive the displacement circulation and continue the flow of lubricant during the said operation of replenishment, substantially as specified. 3rd. In a lubricator of the kind described a displacement circulation and a conveying circulation, and a common condensing pipe or chamber adapted to supply both circulations, an oil chamber adapted to receive the condensation water of the said dispacement circulation as it displaces the oil, and a passage from said chamber adapted to conduct the displaced oil into said conveying circulation, and the head or pressure of said displacement circulation adapted to be maintained at an equality by overflow into the conveying circulation from the common condensing pipe aforesaid, substantially as specified. 4th. In a lubricator of the kind described a displacement circulation, a secondary circulation adapted to convey the oil or lubricant and provide an overflow for surplus condensation water the said secondary circulation and displacement circulation being conducted from a common level in a common condensing chamber or pipe, a condensing chamber adapted to provide condensation water for said circulation, a main reservoir and supplemental reservoir the displacement circulation aforesaid enters the main reservoir and a valve controlled passage between the said reservoirs whereby the said displacement circulation may be shut off from the main reservoir for the purpose of replenishment without suspending the flow of lubricant, substantially as described. 5th. In a lubricator of the kind described a displacement circulation and a separate circulation conveying the said circulations originating in a common condenser for supplying said circuiations, and means for suspending the said displacement circulation by deflecting the surplus condensation water into the conveying without raising the level or pressure of the head therein, substantially as specified. 6th. In a lubricator, the combination of a main reservoir and a supplemental reservoir, a passage connecting the same and a valve *c*, extending through the supplemental reservoir and adapted to close the said passage with means for conducting condensation water into and oil out of the said reservoirs, substantially as specified. 7th. In a lubricator, the chamber A and supplementary chamber A, with a passage *c* connecting them, together with means of conducting water into and oil out of said main chamber, and means for closing said passages so as to permit of a similar circulation of oil and water in the supplementary chamber during the refilling of the main chamber, substantially as and for the purpose set forth. 8th. In a lubricator the combination of a bracket having passages for condensation water and lubricant, a supplemental chamber with which said passages communicate, said supplemental chamber communicating with a main chamber through a passage adapted to be closed without suspending circulations aforesaid, together with a main chamber or receptacle for lubricant and means for conveying the same to the place where required, substantially as specified.

No. 69,078. Lamp. (*Lampe.*)

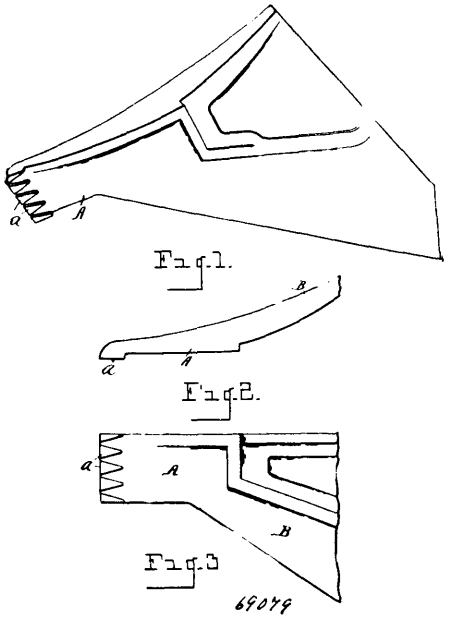


George A. Smith, and Francis H. Stirling, both of Alberni, British Columbia, Canada, 22nd October, 1900; 6 years. (Filed 12th January, 1900.)

Claim.—1st. A lamp, comprising a tube, a wick operatively supported thereby, a rod slidably mounted in said tube, a ring rotatably connected with said rod and adapted to cover all but a portion of said wick, and means for raising and lowering said ring into and out of contact with said wick, substantially as described. 2nd. A lamp, comprising a tube, a wick operatively supported thereby a rod slidably mounted in said tube, a ring rotatably connected with said rod and adapted to cover all but a portion of said wick, a plate closing said tube and having a flange against which the said ring is adapted to closely fit in its raised position, and means for lowering and raising said ring into and out of contact with said wick, substantially as described. 3rd. A lamp, comprising a tube, a wick operatively supported thereby, a rod slidably mounted in said tube, a spring for forcibly lowering said rod, a ring

rotatably connected with said rod and adapted to cover all but a portion of said wick, a plate closing said tube and having a flange against which aid ring is adapted to closely fit in its raised position, and means for lowering and raising said ring into and out of contact with said wick, substantially as described. 4th. The combination with a lamp, provided with the usual burner, reservoir and standard, of an attachment therefor, comprising a tube integral with said standard and adapted to operatively support a wick, a perforated cylinder secured in the upper portion of said tube, a rod slidably mounted in said tube, a ring rotatably connected with said rod and adapted to cover all but a portion of said wick, a plate closing the top of said cylinder and having a flange against which the said ring is adapted to closely fit in its raised position, and means for raising and lowering said ring into and out of contact with said wick, substantially as described. 5th. An attachment for lamps, comprising a tubular extension adapted to snpport the wick, a rotatable cap slidably mounted in the top of said extension and provided with an opening whereby all but a portion of said wick may be covered, a spring operated plate adapted to cover and uncover said perforation when the said cap is respectively in its raised and lowered position, and means for lowering and holding said cap upon the wick, substantially as described. 6th. An attachment for lamps, comprising a tubular extension adapted to support tne wick, a rotatable cap slidably mounted in the top of said extension and adapted to cover all but a portion of said wick, and means for lowering and holding said cap upon the wick, substantially as described. 7th. An attatchment for lamps, comprising a tubular extension adapted to support a wick, a rotatable cap slidably mounted in the top of said extension, a flange integral with said cap and having a perforation, and means for lowering and holding said cap upon the wick, substantially as described. 8th. An attachment for lamps, comprising a tubular extension adapted to support a wick, a rotatable cap slidably mounted in the top of said extension, a flange integral with said cap and provided with a perforation, a spring pressed rod connected with said cap and provided with an operating handle, and means for locking the said rod in its retracted position, substantially as described. 9th. The combination with a lamp provided with the usual burner, reservoir and standard, of an attachment therefor, comprising a tubular extension integral with the standard and connected at its upper end with a burner, a wick slidably mounted in said tubular extension, means for adjusting said wick, a rotatable cap slidably mounted in the top of said extension, a flange integral with said cap and provided with a perforation, a spring pressed rod connected with said cap and extending downwardly through said extension and provided with an operating handle, and means for locking said rod in its retracted position, substantially as described. 10th. A lamp, comprising a tube, a wick operatively supported thereby, a rod slidably mounted in said tube, a ring rotatably connected with said rod and having an opening whereby it is adapted to cover all but a portion of the wick, a spring operated plate adapted to cover and uncover said opening, and means for lowering and raising into and out of contact with said wick, substantially as described.

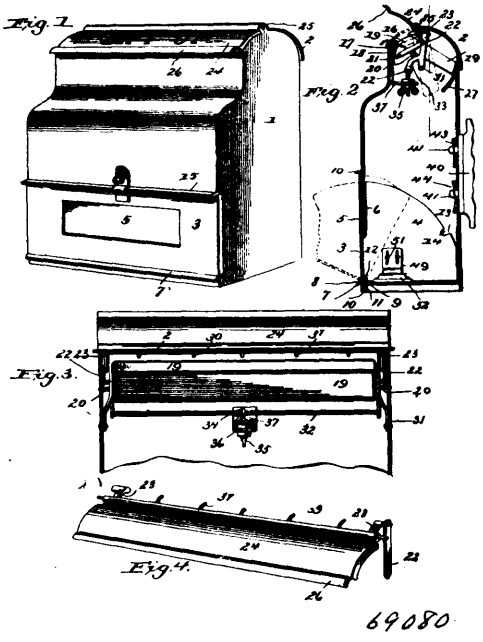
No. 69,079. Plough Point. *(Soc de charrue.)*



Delmer H. Moore and George R. Slawson, both of Greenville, Michigan, U.S.A., 22nd October, 1900; 6 years. (Filed 11th September, 1900.)

Claim.—1st. A plough point, provided at the extreme or cutting edge of the point thereof with a series of depending lugs tapering in form whose greatest width lies forward in line with said cutting edge and whose reduced area extends rearwardly from said edge. 2nd. As an article of manufacture, a plough point provided on its under face with a series of tapering or triangular lugs projecting below the under face of said point, the bases of said lugs lying at the cutting edge of said point and nearly contiguous, and said lugs diminishing in the rear to a point.

No. 69,080. Street Letter Box. *(Boite à lettres.)*



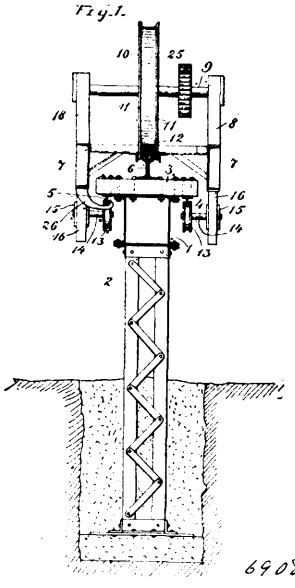
Geo. H. Cray, Toledo, Ohio, U.S.A.; assignee of Joseph N. Clouse, St. Louis, Mo., 22nd October, 1900; 6 years. (Filed 10th September, 1900.)

Claim.—1st. In combination with a box having a receiving opening and adjusting device pivotally mounted within the box, said device having a section adapted to extend under the opening of the box, a threaded pin swivelled to said device, a recessed nut engaging the said pin, a bracket fixed to a stationary point within the box, said bracket having a horizontal portion provided with recess, the recess of the bracket adapted to receive the recess of the nut. 2nd. In a box having a receiving opening, an adjusting device pivotally mounted within the box, said device having a section located under the receiving opening, arms extending from said device, a horizontal rod connecting said arms, a threaded pin having an eye, the eye of said pin receiving said horizontal rod, a nut adapted to work upon the said threaded pin, said nut having a recess, a bracket fixed to a stationary point within the box, said bracket having an elongated recess, the recess of the bracket adapted to receive the recess of the nut. 3rd. In combination with a box, a means for securing the box to a post, consisting of studs fixed to the posts, registering perforations located in the back of the box, the studs in the back of the box, the studs adapted to pass through said perforations, the under sides of the heads of the studs being bevelled, plates having elongated perforations, enlarged perforations entering said elongated perforations, the heads of the studs adapted to pass through said enlarged perforations, inclined surfaces located at the sides of the elongated perforations, said inclined surfaces adapted to engage the bevelled under side of the heads of the studs and drive down to tighten the back of the box against the post. 4th. In combination with a box, a means for securing the box to a post, consisting of studs attached to the post, registering perforations in the back of the box, the studs adapted to pass through said perforations, plates having elongated perforations, enlarged perforations entering said elonged perforations, the heads of the studs adapted to pass through said enlarged perforations, the under sides of the heads of the studs being bevelled, inclined surfaces located at the sides of the elongated perforations of the plate, the thickness of the plate being increased at the base of the enlarged perforation. 5th. In combination with a box, a registering device, consisting of a die attached to the bottom of the box, the box having a hinged door, the door having at its edge a plate, a die attached to said plate, the two said dies adapted to co-act with each other in impressing suitable characters on a strip. 6th. In combination with a box having a hinged door, a plate located at the

end of said door, a registering device consisting of a casting, said casting being secured to the bottom of the box, said casting having a suitable die, forwardly and inwardly extending guides attached to said casting, said guides adapted to receive a strip and hold the same above the die of the casting, an arm attached to the plate of the door, a horizontal die carried by said arm, the two said dies adapted to co-act with each other in impressing suitable characters on the strip. 7th. In combination with a box having a hinged door, a plate attached to the end of said door, a registering device consisting of a casting adapted to be attached to the bottom of the box, said casting having a suitable die and a suitable means for retaining strip, an arm having elongated perforations, screws passing through said perforations and securing said arm to the plate of the door, a die carried by said arm, the two said dies adapted to co-act with each other in impressing suitable characters on the strip.

No. 69,081. Mono-Railway System.

(Système de rail de chemin de fer.)



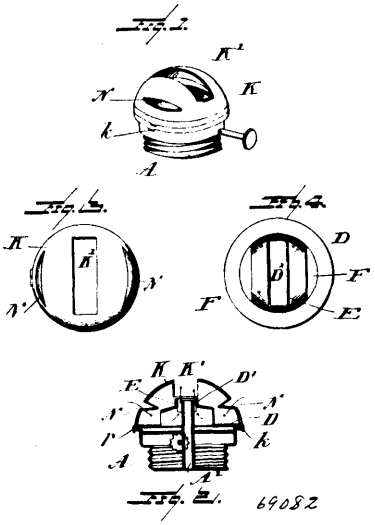
The American Railway Company, New York City, assignee of Lina Beecher, Batavia, both in New York, 22nd October, 1900; 6 years. (Filed 14th September, 1900.)

Claim.—1st. In a mono railway system, a mono rail secured to ties mounted upon a continuous longitudinal stringer, the ties projecting therefrom upon either side, rails secured upon both sides of the mono-rail and, pendent from the ties, a car frame, supported from axles having mounted thereon the driving wheels, which are adapted to run over the mono-rail, and a plurality of wheels pendently journalled in position from the frame of the car, adapted to be held in contact with the rails located upon either side of the mono-rail, whereby the car is held in position by the guide wheels at low velocity or when at rest. 2nd. In a mono-railway system, a continuous longitudinal stringer, ties secured thereto projecting upon either side of the stringer and having secured upon their tops in a central position, a continuous rail, guide-rails secured to the ties upon either side of the mono-rail and, pendant from the under side of the ties, a car frame supported from the axle of the driving-wheels, having secured thereto a plurality of brackets, wherein are movably mounted bearings having journaled therein, axles, wheels secured to the axles adapted to roll upon the guide rails, a means for yieldingly holding, the guide wheels in contact with the guide rails during the oscillation of the car upon either side. 3rd. In a mono-railway system, a mono-rail supported upon ties secured to a continuous longitudinal stringer, guide rails pendent therefrom, adapted to conduct an electrical fluid to the motive power in the car, and a carframe pendently secured to the axle of the driving wheels and pendently secured to the frame, a plurality of hangers, axles journaled therein, having mounted thereon wheels adapted to be held in continual rolling contact with the electrical conductors.

No. 69,082. Lamp Burner. *(Bec de lampes.)*

William E. Thompson, Nevada, Missouri, U.S.A., 22nd October, 1900; 6 years. (Filed 31st March, 1900.)

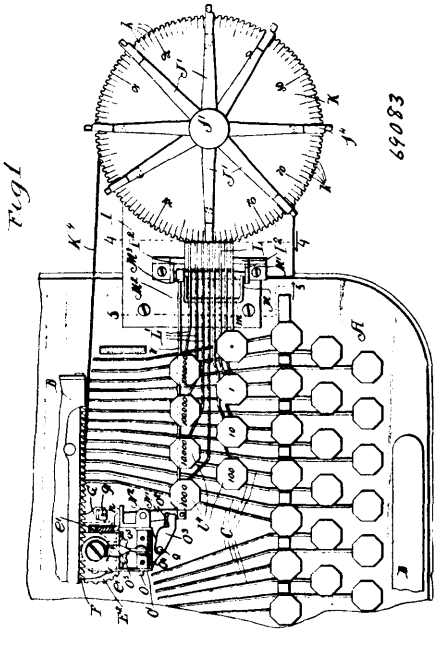
Claim.—In combination with the body of the burner, the cap D having a central elongated aperture with an upright flange about the same, and two elongated apertures upon opposite sides of the said central aperture, the cap K having an elonged aperture registering with the flanged aperture in tne cap D, oppositely dis-



posed elongated apertures, N N in the annexed surface of the cap K, substantially as described.

No. 69,083. Tabulating Device for Typewriters.

(Appareil tabulaire pour clavigraphes.)



Thomas Oliver, Woodstock, Illinois, U.S.A., 22nd October, 1900; 6 years. (Filed 17th July, 1899.)

Claim.—1st. A tabulating attachment for typewriting machines, comprising a stop having a movement corresponding with that of the carriage, a plurality of auxilliary keys which act to arrest the movement of said stop at varying distances from a predetermined point, each of said keys operating to establish temporary operative connection between the space key and a part of the movement which effects the release of the carriage from the letter spacing mechanism. 2nd. A tabulating attachment for typewriting machines, comprising a stop which has movement corresponding with that of the paper carriage, a plurality of stops on the machine frame, a plurality of auxiliary keys which act to throw said stops on the frame into the path of the stop which moves with the carriage, and means operated by the auxiliary keys for temporarily connecting the spacing key with a movable part of the letter spacing mechanism whereby the latter is disconnected from the carriage in the depression of the spacing key, and is again engaged with the

carriage when the key arises. 3rd. A tabulating attachment for typewriting machines, comprising a stop mechanism for arresting the carriage at varying distances from a predetermined point and connections between said stop mechanism and the letter spacing mechanism, effecting the release of the carriage from the letter spacing mechanism in the initial movement of the said letter spacing mechanism, and the re-engagement of said carriage with the letter spacing mechanism. 4th. A tabulating attachment, comprising a stop mechanism for arresting the carriage at various distances from a predetermined point and connections between said stop mechanism and the letter mechanism affecting the release of the carriage from the letter spacing mechanism upon the placing of the stop mechanism in position to arrest the carriage, through the initial movement of the letter spacing mechanism and the re-engagement of the carriage with the letter mechanism and restoration of the stop mechanism to its inactive position upon the final movement of said letter spacing mechanism. 5th. A tabulating attachment for typewriting machines, comprising a stop which has movement corresponding with that of the paper carriage, a plurality of stops on the machine frame, a plurality of auxiliary keys acting to throw said stops on the frame into the path of the stop which moves with the carriage, a disconnecting de vice for releasing the letter spacing mechanism from the carriage, which is connected with the auxiliary keys, and is adapted by the actua tion of either of said keys to be thrown into position for engagement with a part which is moved in the depression of the spacing key, retaining mechanism by which the disconnecting device is temporarily held in position for engagement with said part, which is moved by the spacing key and releasing means operated in the rising of the spacing key, acting to effect the release of said disconnecting device from said retaining means. 6th. A tabulating attachment for typewriting machines, comprising a stop which has movement corresponding with that of the paper carriage, plurality of stops on the machine frame, a plurality of auxiliary keys acting to throw said stops on the frame into the path of the stop which moves with the carriage, a lever pivoted to oscillate in two planes at right angles to each other, having operative connection with the several auxiliary keys and which is connected with a part of the letter spacing mechanism, and is adapted by the actuation of either of said keys to be thrown into position for actuation by a part which is moved in the depression of the space key and which on the depression of the space key moves said part to release the carriage from the spacing mechanism, holding means acting to retain said lever in position for engagement with said part which is moved in the depression of the space key, and means acting to effect the release of said lever when the space key is allowed to rise and the lever is returned to a position permitting re-engagement of the spacing mechanism with the carriage. 7th. A tabulating attachment for typewriting machines, comprising a stop which has movement corresponding with the paper carriage, a plurality of stops on the machine frame, a plurality of auxiliary keys acting to throw said stops on the frame into the path of the stops which moves with the carriage, a rock shaft acting on a part or the letter spacing mechanism to release the carriage therefrom, a lever pivoted to said rock shaft and adapted to be swung into engagement with and free from a part which is moved by the spacing key and which acts on the lever in a direction to turn the rock shaft, a movable detent constructed to engage said lever when in position for engagement with said part, a stationary contact surface located in position to retain the said lever in position for engagement with said part when said lever is swung away from said detent on the depression of the space key, but which holds the lever in position to engage and move the detent out of its path when said lever is swung clear of said stop surface in the rising of the spacing key. 8th. A tabulating attachment for typewriting machines, comprising a stop mechanism constructed to arrest the carriage at varying distances from a predetermined point, means for temporarily locking the stop mechanism in position to arrest the carriage, and means for temporarily disconnecting the carriage from the letter spacing mechanism. 9th. A tabulating attachment for typewriting machines comprising a stop which moves with the paper carriage, a plurality of stop lugs on the machine frame, a plurality of auxiliary keys operating to throw said stop lugs into the path of the movable stop, means controlled by the said auxiliary keys and operated by the spacing key for temporarily disconnecting the carriage from the spacing mechanism, and means for temporarily locking the stop lugs in position for engagement with the movable stop. 10th. A tabulating attachment for typewriting machines, comprising a stop movable with the paper carriage, a plurality of auxiliary key levers on the machine frame having integral stop lugs, either of which lugs is adapted to be moved into the path of said movable stop, means for temporarily locking either of said stop lugs in position for engagement with the movable stop, and means controlled by said auxiliary key levers and operated by the spacing keys for temporarily disconnecting the carriage from the letter spacing mechanism. 11th. A tabulating attachment for typewriting machines, comprising a stop movable with the paper carriage, a plurality of stop lugs on the machine frame either of which is adapted to be moved into the path of the movable stop, means for locking either of said lugs in its operative position, said locking means being constructed to prevent movement of the remaining lugs until the first-mentioned lug has been restored to its inactive position, and connections between the said stop lugs and the letter spacing mechanism. 12th. The combination with the carriage and letter spacing mechanism of a typewriting machine, the latter embracing an escapement lever, of a stop movable with the carriage, a series of stop lugs either of which is adapted to be moved into the path of the movable stop, and connections between said stop lugs and letter spacing mechanism for temporarily disconnecting the carriage from said spacing mechanism, embracing an oscillatory lever which is adapted for engagement with the escapement lever. 13th. The combination with the carriage and letter spacing mechanism of a typewriting machine, the latter embracing an escapement lever, of a stop movable with the carriage, a series of stop lugs, means far moving either of said lugs into the path of the movable stop and locking the same in said position, an oscillatory lever adapted for engagement with the escapement lever, connections between said oscillatory lever and the stop lugs which act when one of the stop lugs is moved into the path of said movable stop to swing one end of said oscillatory lever into engagement with the escapement lever, and means connected with the other end of said oscillatory lever constructed to effect the disengagement of the letter spacing mechanism from the carriage when said letter spacing mechanism is operated. 14th. The combination with the carriage and letter spacing mechanism of a typewriting machine, the latter embracing an escapement lever, of a stop movable with the carriage, a series of stop lugs, means for moving either of said lugs into the path of the movable stop and locking the same in said position, an oscillatory lever adapted for engagement with the escapement lever, connections between said oscillatory lever and the stop lugs which act when one of the stop lugs is moved into the path of said movable stop to swing one end of said oscillatory lever into engagement with the escapement lever, means connected with the other end of said oscillatory lever constructed to effect the disengagement of the letter spacing mechanism from the caariage when said letter spacing mechanism is operated, and means for moving said oscillatory lever out of engagement with the escapement lever and releasing the locking mechanism of the stop lug. 15th. The combination with the paper carriage and letter spacing mechanism of a typewriting machine, which latter embraces an escapement lever, a rack on the carriage and a pinion engaging said rack, of a stop movable with the carriage, a series of stop lugs, means for moving either of said lugs into the path of said movable stop, an oscillatory lever, connections between one end of said oscillatory lever and the stop lugs which act when one of said stop lugs is moved into the path of the movable stop to swing the other end of the lever into engagement with the escapement lever, and connections between said oscillatory lever and the said pinion. 16th. The combination with the paper carriage and the letter spacing mechanism of a typewriting machine, the latter embracing an escapement lever, a rack on the carriage and a pinion engaging said rack, of a stop movable with the carriage, a series of stop lugs, means for moving either of said stop lugs into the path of the movable stop, an oscillatory lever pivoted to swing in a plane parallel with the plane of movement of the escapement lever, and pivoted also to swing in a plane perpendicular thereto, connections between said lever and the stop lugs, and connections between said lever and pinion. 17th. The combination with the paper carriage and the letter spacing mechanism of a typewriting machine, the latter embracing an escapement lever, a rack on the carriage and a pinion engaging said rack, of a stop movable with the carriage a series of stop lugs, means for moving either of said lugs into the path of the movable stop, a rock shaft, an oscillatory lever pivoted to said rock shaft to swing in a plane perpendicular to the axis of rotation of said shaft, and connections between one end of the lever and the stop lugs which act to move the opposite end of said lever into engagement with the escapement lever when one of the lugs is moved into the path of the movable stop, a detent adapted to engagement with the lever to hold it in engagement with the escapement lever, and a holding lug adapted to engage the said lever when the same is swung away from the detent. 18th. The combination with the paper carriage and the letter spacing mechanism of a typewriting machine, of a stop movable with the carriage, a pivoted lever which carries a stop lug which is adapted to be moved into the path of the movable stop, a pivoted yoke engaging said lever, connections between said yoke and the letter spacing mechanism, a lug on said lever adapted for engagement with the yoke and locking means for the yoke whereby the lever is held in position to maintain the lug in the path of the movable stop. 19th. The combination with the paper carriage and letter spacing mechanism of a typewriting machine, the latter embracing an escapement lever, of a stop movable with the carriage, a stop lug on the machine frame, a lever adapted to move said stop lug into the path of the stop which moves with the carriage, a pivoted lever adapted for temporary engagement at one end with the escapement lever, a pivoted yoke adjacent to the stop lug lever, a bar connecting said yoke and pivoted lever and a lug on said stop lug lever adapted for engagement with the yoke when the pivoted lever is engaged with the escapement lever. 20th. The combination with the paper carriage of a typewriting machine, a carriage actuating spring and letter spacing mechanism, of a movable stop connected with the carriage, a spring applied to move said stop and which acts against the tension of the carriage actuating spring, a stop lug which is adapted to be moved into the path of said movable stop, and operative connections between said stop lug and the letter spacing mechanism. 21st. The combination with the paper carriage of a typewriting machine, an actuating spring therefor, and letter spacing mechanism, of a

rotary part connected with the carriage, a stop on said rotary part, a spring applied to said rotary part which acts against the tension of the carriage actuating spring, a stop lug which is adapted to be moved into the path of the rotary stop, and connections between said stop lug and the letter spacing mechanism. 22nd. The combination with the paper carriage of a typewriting machine, an actuating spring therefor, and letter spacing mechanism, of a shaft, a disc on the shaft which is connected with the carriage, a spring applied between said disc and the shaft, and which operates against the tension of the carriage spring, a stop arm on said shaft which projects beyond the disc, a stop lug adapted to be moved into the path of the stop arm, connections between said lug and the letter spacing mechanism, and means for turning the shaft to vary the tension of said stop spring. 23rd. The combination with the paper carriage of a typewriting machine, an actuating spring therefor, and letter spacing mechanism, of a rotative disc provided with peripheral notches, a spring applied to said disc which acts against the tension of the carriage actuating spring, a spring metal stop arm which is mounted on the disc and projects beyond the edge of said disc and is provided with a lug adapted for engagement with the notches thereon, a stop lug adapted to be moved into the path of said stop arm, and connections between the lug and the letter spacing mechanism.

No. 69,084. Lamp Burner. (*Bec de lampes.*)

Fig. 1.

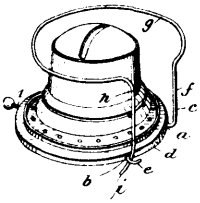
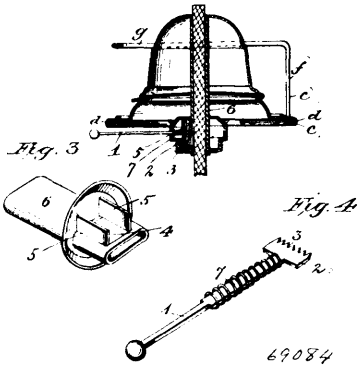


Fig. 2



Harry Greenwood, Barnesboro, Pennsylvania, U.S.A., 22nd October, 1900; 6 years. (Filed 3rd July, 1900.)

Claim.—1st. The combination with the lamp burner provided with an opening in its vertical wall and with a longitudinal slot in its wick tube, the sides of said slot being bounded by parallel vertical projecting guide flanges which extend from said wick tube at angles thereto, of a claw bar extending through said opening and provided with a shouldered head, said head being provided with teeth in position to engage the wick through the slot in the tube, and a coil spring around the bar, one end of which engages with the wall of the burner and the other end engages with the shoulder of the head, substantially as and for the purpose set forth. 2nd. The combination with a lamp burner, of a horizontally projecting bar secured at the base thereof, one end of said bar terminating in a hook, and the other end of said bar projecting upwardly and formed with a spring bow, the end of which projects downwardly and is provided with a co-acting hook, substantially as and for the purpose set forth.

No. 69,085. Railway Switch. (*Aiguille de chemin de fer.*)

Pettibone, Mullikin & Company, Chicago, Illinois, assignee of Axel Albin Strom, Austin, Illinois, U.S.A., 22nd October, 1900; 18 years. (Filed 29th September, 1900.)

Claim.—1st. In a switch rail adjustment, the combination with the clip part fastened to the switch rail, of an eccentric part pivotally connecting the clip with the tie bar and adapted to be adjusted by turning, a series of stops arranged about the eccentric on one of said parts, one or more stops on the other said parts to engage with a stop in said series for lock ng the eccentric in its adjusted position, and a dial on the eccentric having a progression of numbers extending part way about it in one direction from a given point and another progression of numbers extending part way about it in the contrary direction from said point, whereby the user shall be guided in turning the eccentric alternately in contrary directions for effecting different extents of the adjustment, substantially as described. 2nd. In a switch rail adjustment, the combination with the clip part fastened to the switch rail, of an eccentric part pivotally connecting the clip with the tie bar and adapted to be adjusted by turning, a series of stops arranged at intervals denoting a progression of fractions of an inch for the adjustment, and extending in one direction about said eccentric from a given point, a series of stops arranged at intervals denoting another progression of fractions of an inch for the adjustment, alternating with those in the other series and extending from said given point in the contrary direction about said eccentric, a stop on the other said part to engage with a stop in either of said series for locking the eccentric in its adjusted position, and a dial on the eccentric carrying radially arranged characters in series extending in contrary directions about its centre from a given point, the characters in each series denoting a progression of intervals of adjustment alternating with those in the other series, substantially as and for the purpose set forth. 3rd. In a switch rail adjustment, the combination with the clip fastened to the switch rail and provided with an opening and with a series of stop openings arranged about said opening, substantially as described, of an eccentric confined in said clip opening and having a pin extending through its opening and through said tie bar to connect said bar and clip pivotally together, a flange about said eccentric carrying one or more stops to engage with said stop opening, and a dial on said eccentric having a series of radially disposed odd numbers extending at intervals from zero in one direction about its centre and a series of radially disposed even numbers extending at intervals from said zero in the contrary direction about its centre, said numbers in regular succession indicating the predetermined intervals through which to turn the eccentric for adjusting the switch rail and at which to lock the eccentric in its adjusted position, substantially as and for the purpose set forth.

Fig. 1.

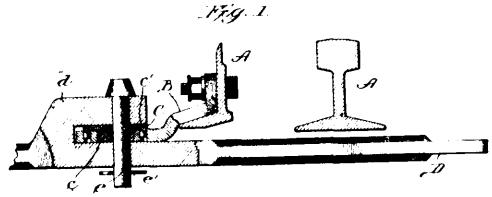


Fig. 2

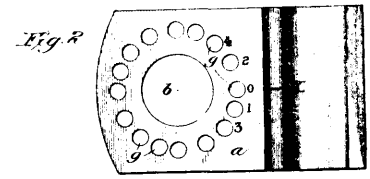


Fig. 3.

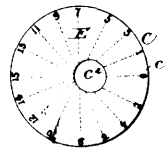
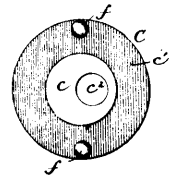


Fig. 4



69085

No. 69,086. Paste Powder. (*Poudre.*)

Samuel Schweitzer, Chicago, Illinois, U.S.A., 22nd October, 1900; 6 years. (Filed 29th December, 1899.)

Claim.—1st. As a new article of manufacture, a powder for making adhesive flour paste which is free from a digestant or converting agent, said powder consisting of glutinous flour having mixed therewith, in dry condition, a preservative agent in sufficient quantities to prevent fermentation in paste made from said powder. 2nd. As a new article of manufacture, a non-fermentative homogenous powder for making adhesive flour paste which is free from a digestant or converting agent, said powder consisting of glutinous flour having mixed therewith, in dry condition, a neutral preservative agent in sufficient quantities to prevent fermentation in paste made from said powder, said preservative agent having no converting action upon said flour. 3rd. As a new article of manufacture, a powder for making adhesive flour paste which is free from a digestant or converting agent, said powder consisting of glutinous flour having mixed therewith, in dry condition, a neutral germicidal agent in sufficient quantities to prevent fermentation when said powder is mixed with water and boiled to produce paste. 4th. As a new

article of manufacture, a powder for making adhesive flour paste which is free from a digestant or converting agent, said powder consisting of glutinous cereal flour impregnated with a neutral preservative agent in sufficient quantities to render said powder non-cohesive in its dry condition and to prevent fermentation when said powder is mixed with water and boiled to produce paste.

No. 69,087. Fuel Oil Burner.

(*Bruleur pour huile combus ible.*)

Fig. 1.

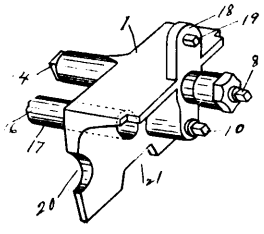


Fig. 2.

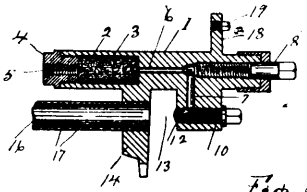
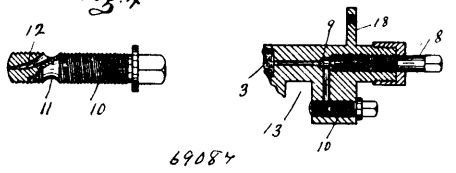


Fig. 3.

Fig. 4.



69084

Nathaniel H. Bledsoe, Fort Wayne, Indiana, U.S.A., 22nd October, 1900; 6 years. (Filed 10th May, 1900.)

Claim.—1st. A burner of the class specified, consisting of a chambered casting having a fuel supply pipe fixed therein, an asbestos chamber adjacent to the inner end of the supply pipe and above the burner tube, a conduit in alignment with and leading from the said chamber and closed at its inner end by an inlet valve, a second conduit leading from the chamber of said valve to a screw plug chamber, a screw plug mounted in said plug chamber having at its inner end an outlet port leading to mixing chamber, and a burner tube fixed in said casting in co-operative relation with the said supply pipe and mixing chamber. 2nd. A burner consisting of a chambered casting having an asbestos chamber at its inner end closed by a screw plug and adapted to secure the inner end of the supply pipe, a valve chamber connected to the asbestos chamber by a conduit, an inlet valve arranged in said chamber and adapted to close the outer end of said conduit, a screw plug chamber connected with the said valve chamber by a second conduit, a removable screw plug mounted in said plug chamber and provided upon its inner end with an outlet port opening into the mixing chamber, and a burner tube communicating with the said mixing chamber. 3rd. In a burner of the class specified, the combination of a chambered casting having a fuel supply pipe fixed therein, and provided with an asbestos chamber as described, a valve chamber communicating with the asbestos chamber, an inlet valve mounted in said valve chamber, a lower chamber communicating with both the valve chamber and the mixing chamber, a removable screw plug arranged in said lower chamber and prrovided with an outlet port as described. 4th. In a burner of the class specified an asbestos chamber adjacent to the fuel supply pipe and communicating therewith, an inlet port, a removable screw plug having an outlet port upon its inner end in communication with the inlet valve and with the burner tube. 5th. In a burner for fuel oils a chambered casting having an asbestos chamber and an inlet valve adapted to regulate the fuel supply at the inlet port and a removable screw plug having at its inner end an outlet port in communication with the inlet valve and the burner tube, for the purpose described. 6th. The combination in a burner of a chambered casting having a mixing chamber, communicating with the burner tube, and an asbestos chamber communicating with the supply pipe as shown, an inlet valve adapted to regulate the fuel supply at the inlet a removable screw plug having an education port for the fuel vapor and communicating with the said valve chamber, and a burner tube fixed in said casting as described.

No. 69,088. Lantern. (*Lanterne.*)

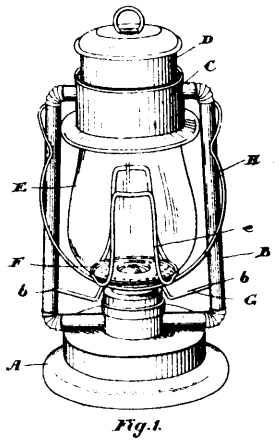


Fig. 1.

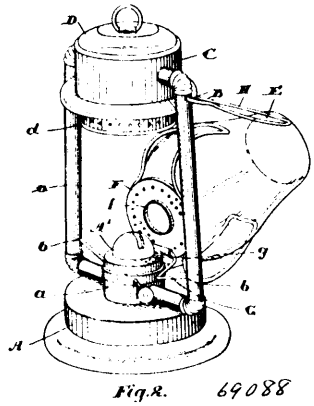


Fig. 2. 69088

William Arthur Kemp, Toronto, Ontario, Canada, 22nd October, 1900; 6 years. (Filed 5th May, 1900.)

Claim.—1st. In a lantern, the combination with the bowl, tubes, cowl and tubular top and globe, the perforated supporting plate and guards for the globe secured to the same, of a determinate length of bail suitably pivoted and arranged to form a fulcrum for lifting the globe and designed to extend underneath the guards and plate to form a support for the globe when lifted and means for guiding the globe vertically when being lifted, as and for the purpose specified. 2nd. In a lantern, the combination with the bowl, tubes, cowl and tubular top and globe, the perforated supporting plate and guards for the globe secured to the same, of a determinate length of bail suitably pivoted and arranged to form a fulcrum for lifting the globe and designed to extend underneath the guards and plate to form a support for the globe when lifted, the lift wire suitably connected to the bottom of the perforated plate support for the globe and having lateral extensions pivotally socketed in holes in the tubes as and for the purpose specified. 3rd. The combination with the bowl, tubes, burner supported on the collar of the bowl, the globe and perforated bottom plate support for same, of the lift wire hinged to the bottom of the perforated plate and provided with a U shaped central portion designed to straddle the burner and lateral extensions pivotally socketed in holes in the tubes as and for the purpose specified. 4th. The combination with the bowl, tubes, burner supported on the collar of the bowl, the globe and perforated bottom plate supporated for same, of the lift wire suitably hinged to the perforated plate and having off-sets formed on each side of the hinged designed to form stops for the plate to abut when the globe is swung back and having U shaped and laterally extending portions, the ends of which are socketed in the holes in tne tube as and for the purpose specified. 5th. In a lantern, the combination with the bowl, tubes, jacket and tubular top and globe and the supporting plate for the globe, of a bail of a determinate length designed to swing underneath the supporting plate of the globe when such globe has been raised and means for guiding the globe vertically when being raised as and for the purpose specified.

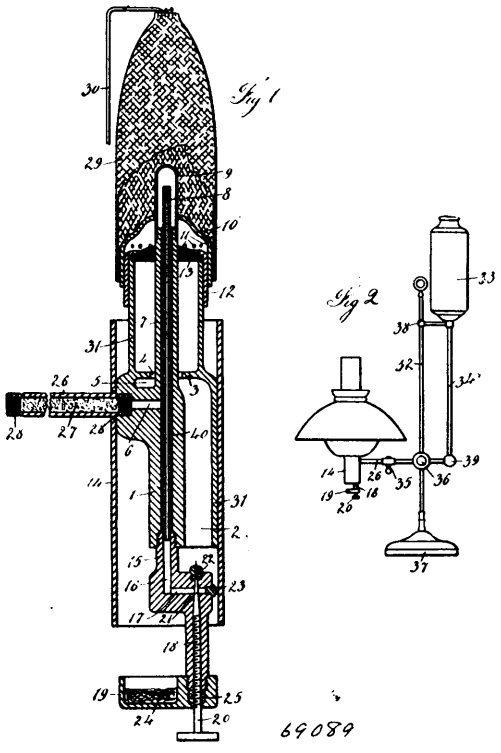
No. 69,089. Hydro Carbon Burning Lamp.

(*Lampe à hydro-carbure.*)

George Frank Pierce, Omaha, Nebraska, U.S.A., 22nd October, 1900; 6 years. (Filed 2nd April, 1900.)

Claim.—1st. In a lamp of the character described a reservoir, a valved supply pipe extending from said reservoir, a burner secured

to said supply pipe, said burner comprising a vertical tube having a duct therein, a pipe within said duct communicating below with a



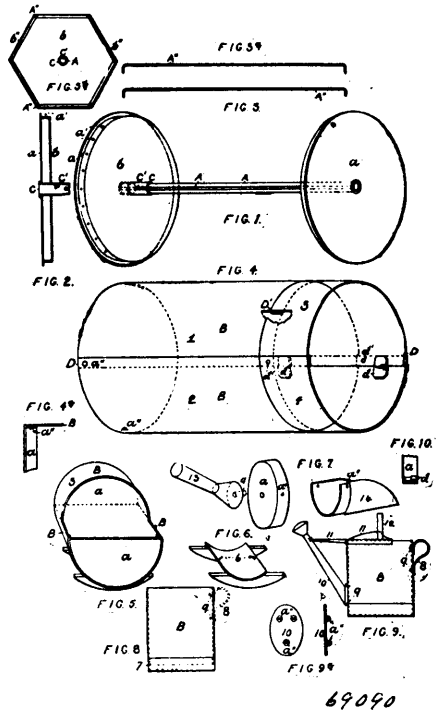
valved exit way, an open ended sleeve surrounding said tube said tube extending beyond said sleeve, a burner tip closing the upper end of said sleeve, and a mantel surrounding said tip. 2nd. In a lamp of the character described, a reservoir having a valved pipe, of a burner secured to said pipe, said burner comprising an open ended sleeve, a tube within said sleeve extending beyond the upper end thereof entering into said tube, a pipe within said tube extending beyond the upper end of said sleeve, a valve communicating with said pipe below and emptying into said sleeve, a tip surrounding the upper end of said open ended sleeve, and a mantel surrounding said tip, the projecting ends of said tube and pipe being surrounded by said mantel. 3rd. In a lamp of the character described a suitable support of the reservoir 33 provided with the valved supply pipe 34, of the extension 26 the burner secured to said extension comprising the tube 1, 7, communicating with said extension by means of the duct 6, the open ended sleeve 31 surrounding said tube sections 1 and 7, the pipe 8 within said tube 1, 7, the valve 21 threading into said tube, and communicating with said pipe 8 and emptying into said open ended sleeve, said pipe 8 and tube 7 projecting beyond the upper end of said sleeve 31, the gauze shield 13 closing the upper end of said sleeve, the perforated tip 10 surrounding said upper end, the dome 9 continuing from said tube section 7 projecting beyond said tube 10, and a suitable mantel surrounding said tip 10.

No. 69,090. Apparatus for Teaching Drawing.

(*Appareil à enseigner le dessins.*)

Peter Edward Trainer, assignee of William Bridge, Didsbury Road, Heaton Norris and Peter Edward Trainer, Brook Road, all near Manchester, Lancaster, England, 22nd October, 1900; 6 6 years. (Filed 20th February, 1900.)

Claim.—1st. In a device of the character described, a central rod forming the axis of the device, planes slidably mounted thereon, and thin yieldable strips connecting the perimeters of the planes to form outlines, substantially as described. 2nd. In a device of the character described, a central rod forming the axis of the device, planes slidably mounted thereon, and wires connecting the perimeters of the planes to form outlines, substantially as described. 3rd. In a device of the character described, a central rod forming the axis of the device, end planes mounted thereon, intermediate planes slidably mounted on the rod, and thin strips connecting the perimeters of the planes, substantially as described. 4th. In a device of the character described, a central rod forming the axis of the device, planes slidably mounted thereon and thin strips connecting the perimeters of the planes to form outlines, substantially as described. 5th. In a device of the character described, a hollow central rod forming the axis of the device, a plane mounted thereon and provided with a perforated shoulder and thin strips connecting the said perforations with the end of the hollow rod, substantially as described. 6th. In a device of the character described, a central



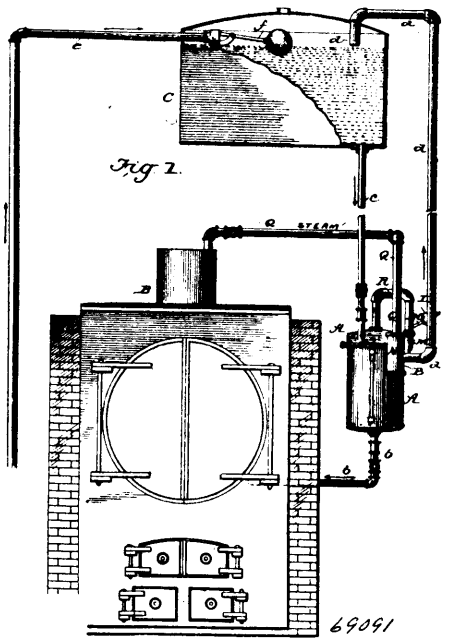
rod forming the axis of the device, a plane mounted thereon and provided with a perforated shoulder, thin strips engaging said perforations at one end and means for engaging the other ends of said strips, substantially as described. 7th. In a device of the character described, a central rod forming the axis of the device, end planes mounted thereon and provided with shoulders, and means for connecting the shoulders of the said planes, substantially as described. 8th. In a device of the character described, a central rod forming the axis of the device, end planes mounted thereon and provided with shoulders, means for connecting the shoulders of the said end planes and intermediate planes mounted on the central rod, substantially as described. 9th. In a device of the character described, a central rod forming the axis of the device, end planes mounted thereon and provided with perforated shoulders, an intermediate plane slidably mounted on the rod and thin strips engaging the perforations of the two end planes, substantially as described.

No. 69,091. Boiler Feeder. (*Alimentateur de chaudières.*)

Henry Jackson Davis, Playfair Goodwin Ault, Wilbur Wheeler Bailey and James Hardy Wideman, all of Birmingham, Alabama, U.S.A., 23rd October, 1900; 6 years. (Filed October 5th, 1900.)

Claim.—1st. In an apparatus of the character described, the combination, with a steam boiler and water tank duly connected therewith, of two valve cylinders arranged side by side, valves therein, passages or ports connecting the same, a displacing weight in the water tank, and means connecting it with one of said valves for controlling the action of the main steam valve automatically, substantially as shown and described. 2nd. In an apparatus of the character described, the combination with a steam boiler, water tank and pipes duly connecting the same, of a water displacing weight or float in said tank, a main valve controlling the admission of steam from boiler to tank, and provided with a piston head, and another valve, and ports connecting it with the main valve, and tappet mechanism operated by the weight as it rises and falls, and adapted to actuate the last named or controlling valve, substantially as shown and described. 3rd. In an apparatus of the character described, the combination, with the steam boiler, the water tank and pipes duly connecting the same, of a displacing weight or float arranged in said tank, a rock shaft arranged at the upper portion of the tank and provided with a weighted arm for balancing the displacing weight, and a shiftable hammer or weight operated by said rock shaft, a main valve controlling the admission of steam to the tank, and a controlling valve duly connected by ports or passages with said main valve, such controlling valves being suitably arranged to admit of its actuation, substantially as shown and described. In an apparatus of the character described, the combination with the water boiler and the tank having pipe connections substantially as specified, of a displacing weight or float arranged in the tank, a rock shaft arranged on the upper portion of the latter

and having a counterbalancing weight as described, a main valve controlling the admission of steam to the tank, a smaller valve having ports connecting it with the main valve cylinder and serving to control the position of the main valve, a hammer or weight mounted on the shaft and adapted to be shifted when the latter is rocked, and a tappet lever connected with the stem of the controlling valve and upon the opposite end of the tappet lever, whereby as said hammer is shifted from one side to the other, it alternately depresses and raises the valve corresponding with the rise and fall of the flow in the tank, substantially as shown and described. 5th. In an apparatus of the character described, the combination with the steam boiler, the water tank, a main valve cylinder, a controlling valve cylinder and valves arranged therein, pipes connecting the boiler and tank with the main valve cylinder, of the displacing weight or float arranged in the water tank and having a counterbalance as specified, a rock shaft arranged transversely at the top of said tank, a disc which is fast on said rock shaft and provided with lateral projections, a hammer or weighted arm journalled loosely on said shaft and adapted to engage the projections of said disc alternately, and a tappet lever mounted loosely on said shaft and connected with the stem of the controlling valve substantially as shown and described, whereby as the displacing weight rises and falls, the said shaft and disc are rocked, and the hammer thereby shifted from right to left and left to right alternately, thus striking the stem of the controlling valve to depress it and opposite end of the tappet lever for raising said valve, alternately, substantially as shown and described. 6th. In an apparatus of the character described, the combination, with the boiler, the tank, a displacing weight in the latter, and mechanism connected therewith for operating the controlling valve, of a main valve arranged in a cylinder duly connected with the boiler and tank, the controlling valve arranged in an adjacent chamber of cylinder, and long and short ports or passages connecting the end chambers of the main valve cylinder with the chambers in the smaller valve chamber, which chambers are separated by a partition traversed by the valve stem having a port or passage for steam, substantially as shown and described. 7th. In an apparatus of the character described, the combination, with the steam boiler, the water tank, and a displacing weight arranged in the latter, a valve operating mechanism connected with said weight, of a main valve chamber, and a controlling valve chamber adjacent to the tank, pipes connecting the head and side of the main valve chamber with the boiler and tank respectively, the main valve adapted to seat upward and downward and provided with a piston, steam passages connecting the ends or end chambers of the main cylinder with the other cylinder, the controlling valve arranged to pass above and below the exit of one of said passages, a port leading from the chamber of such controlling valve to the chamber above, which port is closed when the valve is seated upward, substantially as shown and described.

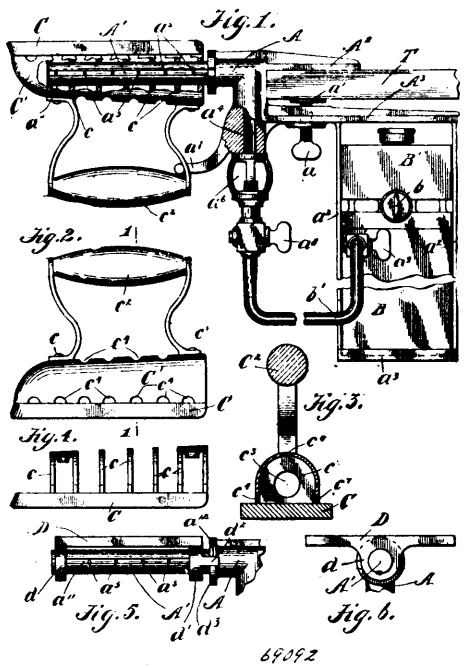


No. 69,092. Flat Iron Holder and Heater.

(*Porte fer à repasser et chauffeur.*)

Amalie Von Chigor, New York City, New-York, U.S.A., 23rd October, 1900; 6 years. (Filed 1st October, 1900.)

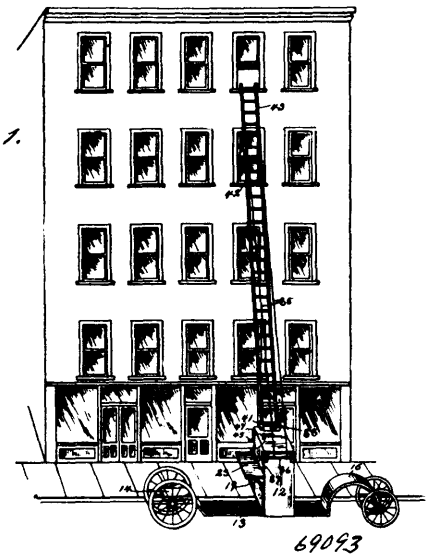
Claim.—1st. A bracket adapted to be secured to the edge of a table or ironing board and provided with an air inlet, an air passage and an outwardly extending hook, a hollow tube or supporting arm extending outwardly from and formed integrally with the said bracket, the said hollow tube or supporting arm having a series of minute holes along its side, and a flat iron adapted to engage and rest upon the aforesaid hollow tube or supporting arm, and a handle formed upon the said flat iron and adapted to engage with the said hook, substantially as described. 2nd. A bracket adapted to be secured to the edge of a table or ironing board and provided with an air inlet and gas outlet co-operating with said inlet and having an outwardly extending hook formed integrally with said bracket, in combination with a Bunsen burner tube having a series of holes along its side, and a flat iron adapted to engage upon the said Bunsen burner tube and be heated thereby through the impignment of the Bunsen flame at the bottom of the flat iron, substantially as described. 3rd. A bracket adapted to be secured to the edge of a table or ironing board and supporting a Bunsen burner tube and having an air inlet passage and gas outlet, in combination with the Bunsen burner for supporting a flat iron, recesses formed upon the said flat iron for receiving the Bunsen burner tube, substantially as described. 4th. A bracket adapted to be secured to the edge of a table or ironing board for supporting a Bunsen burner and having a shoulder formed at the base of the said Bunsen burner and provided with a recess for receiving a finger, and a gas passage leading into the burner, in combination with the Bunsen burner tube for heating and supporting a flat iron provided with a recess for receiving the burner, substantially as described. 5th. A bracket having an air passage, a gas passage and a hook, in combination with a Bunsen burner tube and a supporting plate adapted to engage upon said Bunsen burner tube and having a finger adapted to enter a recess formed upon a shoulder at the base of the said Bunsen burner tube and adapted to securely hold the said plate in position, substantially as described. 6th. A bracket having bearing and supporting arms, a thumb screw engaging through said supporting arm and adapted to securely fasten the said bracket to the edge of a table or ironing board, the bracket having also gas and air passages and carring a hook adapted to engage the handle of a flat iron which rests upon a Bunsen burner tube formed integrally with the said bracket, in combination with the said flat iron formed to receive the Bunsen burner tube, substantially as described. 7th. A bracket having gas and air passages and carrying a hook and Bunsen burner tube mounted on said bracket, in combination with a flat iron recessed to receive said Bunsen burner tube when the iron is in an inverted position and having a handle to contact with the hook, substantially as described. 8th. A bracket for supporting a Bunsen burner and having a bracket, recess, loop and passage, in combination with the Bunsen burner tube for supporting the flat iron provided with a recess for receiving the burner, substantially as described. 9th. A bracket having a passage, recess and outwardly extending hook and gas outlet for supporting a Bunsen burner tube, in combination with the Bunsen burner and flat iron having a recess, stanchions, screw lugs and handle support to hold the flat iron in a reverse position, substantially as described. 10th. A bracket having a passage, a recess, an outwardly extending hook and gas outlet, in combination with a Bunsen burner tube and flat iron having a hook provided with holes and the handle support, substantially as



described. 11th. A bracket having a passage, a recess and Bunsen burner, in combination with a plate having rings adapted to engage the said Bunsen burner, and a finger adapted to engage a recess in a shoulder formed at the base of the said Bunsen burner, substantially as described. 12th. A bracket having a passage, a recess, extending hook and gas outlet, in combination with a Bunsen burner tube and flat iron, a hood formed upon the said flat iron and provided with suitable vent holes, substantially as described. 13th. A bracket adapted to be secured to the edge of a table or ironing board and provided with an air inlet, an air passage and an outwardly extending hook, a hollow tube or supporting arm extending outwardly from and formed integrally with the said bracket, the said hollow tube or supporting arm having a series of minute holes along its side, and a flat iron adapted to engage and rest upon the aforesaid hollow tube or supporting arm, and a handle formed upon the said flat iron and adapted to engage with the said hook, all in combination with a gas generator and reservoir mounted upon and held within a depending frame secured to the under side of the aforesaid bracket and suitably connected by a flexible tube to the passage leading to the hollow tube for the purpose of supplying gas to the said hollow tube and thereby affording a means for heating the said flat iron, substantially as described. 14th. A bracket having a passage, a recess, extending hook and gas outlet, a Bunsen burner, a shoulder having a recess formed at the base of said Bunsen burner, in combination with a plate having rings adapted to engage the said Bunsen burner, and a finger adapted to engage in the recess formed upon the said shoulder, and a gas generator and reservoir mounted upon and held within a depending frame secured to the under side of the aforesaid bracket and suitably connected by a flexible tube to the passage leading to the hollow tube for the purpose of supplying gas to the said hollow tube and thereby affording a means for heating the said flat iron, substantially as described.

No. 69,093. Ladder. (*Echelle.*)

Fig. 1.



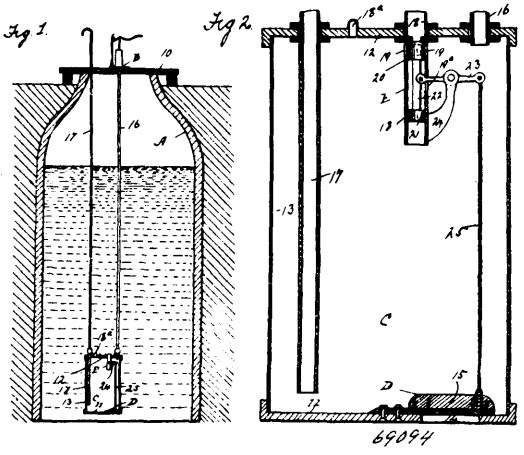
Cyrus Coplantz, Joliet, Illinois, U.S.A., 23rd October, 1900; 6 years. (Filed 6th October, 1900.)

Claim.—1st. In a ladder, the combination with the reel, having the connected jointed sections wound thereon, and each section being provided with teeth thereon forming a rack bar, of gear pinions meshing with said teeth, and means for rotating said pinions to positively raise and lower the sections, and positive gearing connecting said pinions and said reel, said gearing being so arranged that the rate of movement of the reel will be automatically varied if necessary, while the sections are being extended or retracted. 2nd. In a ladder, the combination with the reel, having the connected jointed sections wound thereon and each section being provided with teeth thereon forming a rack bar, of gear pinions meshing with said teeth, and means for rotating said pinions to positively raise and lower the sections, and positive gearing connecting said pinions and said reel, said gearing being so arranged that the rate of movement of the reel will be automatically varied if necessary, while the sections are being extended or retracted, said positive gearing including a gear pinion rotated at a uniform rate during the passage of the ladder, and the spiral rack moving with the reel with which said pinion meshes. 3rd. In a ladder, the combination with the reel, and the jointed sections wound thereon, of mechanism co-operating directly with said sections to extend them, and connections between said mechanism and the reel, whereby the rate of movement of the reel may be varied while the sections are being operated upon, said connections comprising a gear pinion provided with a collar forming a circumferential groove and rotated at a uniform rate during the passage of the ladder, and a spiral rack moving with the reel with which said pinion meshes and provided with a flange co-operating with the groove of the pinion, substantially as and for the purpose described. 4th. In a ladder, the combination with the reel, and jointed sections wound thereon, of mechanism co-operating directly with said sections to extend them, and connections between said mechanism and the reel for rotating said connections comprising a shaft rotated at a uniform rate as the ladder is extended the reel as the ladder is extended, a pinion splined upon said shaft to rotate therewith but longitudinally movable thereon, a spiral rack moving with the reel with which said pinion meshes, and means for holding said pinion in mesh with the rack. 5th. In a ladder, the combination with the reel, and jointed sections wound thereon, of mechanism co-operating directly with said sections to extend them, and connections between said mechanism and the reel for rotating the reel as the ladder is extended, said connections comprising a shaft rotated at a uniform rate as the ladder is extended, a pinion splined upon said shaft to rotate therewith but longitudinally movable thereon, a spiral rack moving with the reel with which said pinion meshes, and means for holding said pinion in mesh with the rack, said means comprising a circumferential groove connected to the pinion and co-operating with a flange on the edge of said rack. 6th. In a ladder, the combination with the reel, and the jointed sections wound thereon having a rack formed on each section, of a shaft having a pinion thereon meshing with said rack, connections between said shaft and the reel for rotating the reel whereby its movement will be varied in accordance with the length of the sections being operated upon, and means for rotating said shaft. 7th. In a ladder, the combination with the reel, and the jointed sections wound thereon having a rack formed upon each section, of a pinion on a shaft meshing with said rack, and connections between said shaft and the reel for rotating said reel whereby its movement will be varied in accordance with the length of the sections being operated upon said connections comprising a gear pinion rotated at a uniform rate by the rotation of said shaft, and a spiral rack moving with the reel, and with which said pinion meshes. 8th. In a ladder, the combination with the jointed sections, of means for feeding out said sections to extend the ladder, locking mechanism for said sections comprising overlapping portions upon the adjacent sections, bolts adapted to pass transversely through said overlapping portions, and means for automatically shifting said bolts to lock the sections as they are extended and to unlock them as they are retracted, said means comprising cam flanges co-operating with the ends of said bolts. 9th. In a ladder, the combination with the jointed sections, of means for feeding out said sections to extend the ladder, locking mechanism for said sections comprising overlapping portions on each section, bolts adapted to pass transversely through said overlapping portions, means for automatically shifting said bolts to lock the sections as they are extended and to unlock them as they are retracted, and means for yieldingly holding said bolts in either position. 10th. In a ladder, the combination with the jointed sections, of means for feeding out said sections to extend the ladder, locking mechanism for said sections comprising overlapping portions on each section, bolts adapted to pass transversely through said overlapping portions, means for automatically shifting said bolts to lock the sections as they are extended and to unlock them as they are retracted, and means for yieldingly holding said bolts in either position, comprising a pair of notches in each bolt and a spring co-operating with the notches. 11th. In a ladder, the combination with the jointed sections, of means for feeding out said sections to extend the ladder, locking mechanism for said sections comprising overlapping portions on each section, bolts adapted to pass transversely through said overlapping portions, cam flanges co-operating with the ends of said bolts to automatically shift them to lock the sections as they are extended and to unlock them as they are retracted, and means for yieldingly holding said bolts in either position. 12th. In a ladder, the combination with the jointed sections, of means for feeding out said sections to extend the ladder, locking mechanism for said sections comprising overlapping portions on each section, bolts adapted to pass transversely through said overlapping portions, cam flanges co-operating with the ends of said bolts to automatically shift them to lock the sections as they are extended and to unlock them as they are retracted, and means for yieldingly holding said bolts in either position, said means comprising a pair of notches in each bolt and a spring co-operating therewith. 13th. In a ladder, the combination with the jointed sections, of means for feeding out said sections to extend the ladder, a chute through which said sections pass as they are extended, locking mechanism for said sections comprising overlapping portions on each section, L-shaped bolts adapted to pass transversely through said overlapping portions, and cam flanges upon said chute co-operating with the L portions of said bolts for automatically shifting them to lock the sections as they are extended and to unlock them as they are retracted. 14th. In a device of the class described, the combination of the reel, with the sections wound thereon, a guide chute through which said sections pass as they are extended, and means for taking up the sag of the sections between the reel and the chute consisting of a spring pressed cross-piece co-operating with said sections. 15th. In a device of the class described, the combination of the reel, with the sections wound thereon, the guide chute through which said sections pass as they are extended, and means for taking up the sag of the sections between the reel and the chute consisting of the springs 40 carrying

the roller 39 journalled thereon and co-operating with said sections. 16th. In a device of the class described, the combination of the reel, a casing in which said reel is located, the ladder sections wound upon said reel, and a chute at one end of said casing through which the sections are fed, the inner sections being of a length to be wound on the reel, and an outer section of a length substantially equal to that of the casing, substantially as and for the purpose described. 17th. In a device of the class described, the combination of the reel, a casing in which said reel is located, with the ladder sections wound on said reel, and a chute at one end through which said sections are fed, the inner sections being of a length suitable to be wound on the reel, the outermost section being of a length substantially equal to the height of said casing, and the next adjacent section being of a length substantially equal to the length of the casing, substantially as and for the purpose described. 18th. In a device of the class described, the combination of the reel, a casing in which said reel is located, with the ladder sections wound on said reel, and a chute at one end through which said sections are fed, the inner sections being of a length adapted to be wound upon the reel, the adjacent sections being somewhat longer, and two outer sections of a length, substantially equal to the length and height of the casing.

No. 69,094. Compressed Air Water Elevator.

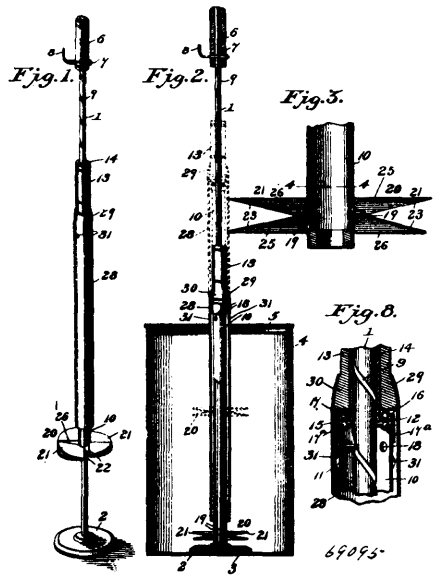
(Elevateur à air comprimé.)



William Henry Shaffner, Louisana, Missouri, U.S.A., 23rd October 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. In compressed air water elevator, a tank or chamber adapted to be located below the water level of a well or the like, said tank or chamber being provided with a water inlet valve in its bottom, said valve opening inward by the inward pressure of the entering water, an air escape valve at the top, a connection between the inwardly opening water inlet and the air valve, a water discharge pipe, and an air supply pipe adapted to receive air under pressure, the water inlet valve being closed by the air pressure acting on the water in the tank or chamber, for the purpose specified, 2nd. In a compressed air water elevator, a supply tank or chamber adapted to be located within the well or cistern below the normal level of the water, said tank or chamber being provided with a water inlet valve in its bottom, said valve opening inward by the inward pressure of the entering water, an air relief valve at its top, a connection between water inlet valve and the air relief valve, and means for introducing air under pressure into the tank and means for conducting the water therefrom, the water inlet valve being closed by the air pressure acting on the water in the tank or chamber, as and for the purpose specified. 3rd. In a compressed-air water elevator the combination with a tank or chamber provided with a water inlet valve in its bottom, said valve opening inwardly, an air escape valve located at the top portion of said tank or chamber, said valve consisting of a casing provided with ports within said tank, the casing having an outlet above the top of the tank, a piston mounted to slide in the casing and close the ports, a lever connected with the piston, and a connection between the lever and the inlet valve, of a standpipe, extending through the upper portion of the tank or chamber to a point near its bottom, an air-pump and a pipe connection between the air-pump and upper portion of said tank or chamber, for the purpose specified. 4th. In a water elevating apparatus, a tank or chamber having an water inlet and an outlet, means for supplying air under pressure to the tank, a valve commanding the water inlet, said valve being held closed by the interior pressure in the elevator, on air valve commanding the air outlet, and a connection between the water valve and the air valve, to actuate the air valve by the movement of the water inlet valve.

No. 69,095. Churning Device. *(Baratte.)*

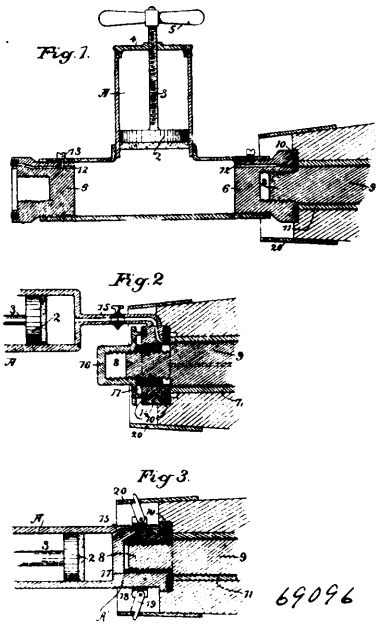


George Avery Norcross and Robert Anderson Holloway, Henderson Kentucky, U.S.A., 23rd October, 1900; 6 years. (Filed 1st October, 1900.)

Claim.—1st. A churning device comprising a revoluble dasher in the form of a screw disc, air supplying means, and mechanical means for imparting a positive rotation to the dasher and simultaneously reciprocating the same in a vertical direction, said dasher having an unobstructed vertical clearance therethrough at both the upper and lower sides of the same to permit of its passage through the liquid without displacement thereof, substantially as set forth. 2nd. A churning device comprising a revolving dasher in the form of a screw disc and having hollow air distributing blades in communication with the outer air, and mechanical means for imparting a positive rotation to the dasher and simultaneously reciprocating the same in a vertical direction, substantially as set forth. 3rd. A churning device comprising a revolving dasher in the form of a split screw disc having a pair of duplicate hollow air distributing blades in communication with the outer air, and mechanical means for imparting a positive rotation to the dasher and simultaneously reciprocating the same in a vertical direction, substantially as set forth. 4th. A churning device comprising a revolving dasher in the form of a split screw disc having a pair of duplicate hollow air distributing blades in communication with the outer air, and mechanical means for imparting a positive rotation to the dasher alternately in reverse directions, and simultaneously reciprocating the same in a vertical direction, substantially as set forth. 5th. A churning device comprising a revolving dasher consisting of a split screw disc having a pair of duplicate oppositely located hollow blades, disposed obliquely and in reverse relation to each other, each of said blades having at their inner sides air inlet ports in communication with the outer air and open at their peripheries, and mechanical means for imparting a positive rotation to the dasher alternately in reverse directions, and simultaneously reciprocating the same in a vertical direction, substantially as set forth. 6th. A churning device comprising a dasher consisting of a split screw disc having a pair of duplicate oppositely located hollow blades, disposed reversely to each other and oblique to a horizontal plane, each of said blades comprising upper and lower spaced walls unconnected at their outer edges, means for conducting air to each of said blades, and mechanical means for imparting a positive rotation to the dasher alternately in reverse directions, and simultaneously reciprocating the same in a vertical direction, substantially as set forth. 7th. A churning device comprising a dasher consisting of a split screw disc having a pair of duplicate reversely arranged blades disposed obliquely to a horizontal plane, each of said blades being open throughout and provided intermediate its ends at its upper and lower sides with transverse interior impact shoulders, and with air inlet ports at each side of said interior impact shoulders, the upper and lower impact shoulders of the blades being reversely arranged with relation to each other, means for conducting air to said ports, and mechanical means for imparting a positive rotation to the dasher alternately in reverse directions, and simultaneously reciprocating the same in a vertical direction, substantially as set forth. 8th. A churning device comprising a dasher consisting of a split screw disc having a pair of reversely arranged hollow air distributing blades, each having intermediate the ends thereof and at its upper and lower sides, transverse deflected portions producting interior impact shoulders and interior agitating shoulders, each of said blades having air ports at each side of the shoulders thereof, and being open at their outer edges, means for conducting air to the ports of said blades, and mechanical means for imparting a positive rotation

to the dasher alternately in reverse directions and simultaneously reciprocating the same in a vertical direction, substantially as set forth. 9th. A churning device comprising an air conducting tube, an air distributing dasher carried by the tube and having hollow blades in communication therewith, a standard on which the tube and dasher are slidably and revolubly fitted, and a reciprocative operating device engaging with the standard and with the tube for simultaneously rotating said tube and dasher and causing the latter to reciprocate vertically within the churn receptacle, as set forth. 10th. A churning device comprising a single upright supporting standard, a reciprocative and revoluble dasher loosely mounted on said standard to work freely thereon, and a single operating means slidably supported by the standard and operatively related to the dasher for giving the reciprocative movements simultaneously and rotative thereto, as set forth. 11th. A churning device comprising a single supporting standard having a weighted base which is disconnected from the churn vessel and is adapted to sustain the standard in an upright position, a revoluble and reciprocative dasher mounted on the standard, and a dasher operating means also mounted on the standard, as set forth. 12th. A churning device comprising a single supporting standard provided at the lower end thereof with a weighted base and at its upper end with a hard grip, a reciprocative and revoluble dasher mounted for free movement on the standard between the base and the hand grip thereof, and a dasher operating means also supported by the standard, as set forth. 13th. A churning device comprising a single upright standard provided at its lower end with a weight base and at its upper end with a removable hand grip, a bolt for detachably fastening the grip in place, said bolt being provided at one end with an offstanding rest hook for the hand, and churning mechanism mounted upon the standard, substantially as set forth. 14th. A churning device comprising a single upright supporting standard provided therein with a spiral groove, an air conducting tube having a lug slidably engaging in said groove and air distributing reciprocative and revoluble dasher carried by the air conducting tube and in communication therewith, and a non-rotating operating handle mounted to reciprocate upon the standard and having a swiveled connection with the upper end of said tube, substantially as set forth. 15th. A churning device comprising an upright supporting standard, a reciprocatory rotatable air conducting tube carrying an air distributing dasher, an operating handle mounted to reciprocate upon the standard and having an operative connection with the tube, and a splash guard, said splash guard consisting of a sleeve detachably suspended at its upper end from the operating handle to hang over the said air conducting tube, substantially as set forth. 16th. A churning device comprising a single upright supporting standard, a reciprocatory revoluble air conducting tube working over the standard, an air distributing dasher carried by the tube and in communication therewith, a non-rotating operating handle mounted to reciprocate upon the standard, and having a flanged lower end loosely engaging within one end of the air conducting tube, and anti-friction balls arranged above and below the flange at the lower end of said handle, substantially as set forth.

No. 69,096. Axle Lubricator. *(Graisseur.)*

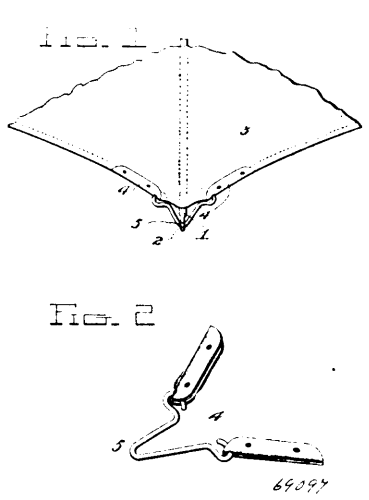


69096

Jacob Elmer Ludwig, San Francisco, California, U.S.A., 23rd October, 1900; 6 years. (Filed 20th July, 1900.)

Claim.—1st. An axle lubricating device comprising a removable, readily attachable, lubricant containing cylinder having a piston and means whereby said piston is operated, means carried by the cylinder and forming an end socket adapted to enclose the end of the axle after the securing nut is removed, said cylinder having a passage connecting its interior with the space surrounding the axle, and means whereby a tight joint is formed between the socket end of the cylinder and the parts to be lubricated. 2nd. The combination with a lubricant container and means for forcing the lubricant therefrom, means carried by the container and having sockets to be aligned with and adapted to receive the threaded end of the axle when the securing nut is removed, said means provided with a passage connecting the interior of the container with the parts to be lubricated, and washers adapted to be compressed by an endwise movement of the container to form a tight joint, substantially at the place when the lubricant is applied. 3rd. An axle lubricating device consisting of a lubricant containing cylinder, a plunger and means by which it is advanced, said cylinder having means connecting its interior with the space between the axle and its box, a washer forming a tight joint between the connecting end and the wheel hub, and a compressible sleeve surrounding the screw-threaded end of the axle, said sleeve being thickened and expanded by compression to make a joint around the screw-threads and prevent accumulations of lubricant. 4th. An axle lubricating device consisting of a lubricant containing cylinder, a plunger or piston movable therein, means connecting the inner end of the cylinder with the axle hub consisting of a screw-threaded ring through which the corresponding threads upon the cylinder may be advanced, radially disposed bracing arms projecting outwardly from the ring and engaging the inner periphery of the projecting hub band, washer forming joints respectively between the inner end of the cylinder and the hub and around the screw-threaded end of the axle to prevent the leakage of lubricant at these points, and a passage from the lubricant pressure chamber to a space between the axle and its box.

No. 69,097. Umbrella or Parasol. *(Parapluie ou parasol).*



69097

Frank Walter Carmelich, Mobile, Alabama, U.S.A., 23rd October, 1900; 6 years. (Filed 17th September, 1900.)

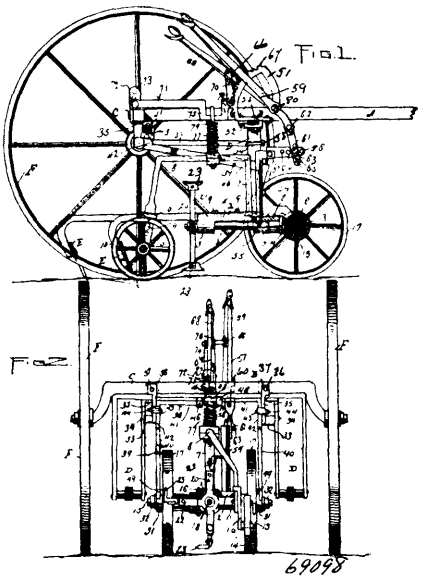
Claim.—The combination with a rib provided with an eye and a cover, of a fastening consisting of two strips bent upon themselves to form clamping jaws to engage the edge of the umbrella covering, and a link passing through the eye of the rib and connected to the inner or adjacent ends of the series, substantially as set forth.

No. 69,098. Cultivator and Cotton Chopper.
(Cultivateur et hache coton.)

Frank J. Blaschke, Rice's Crossing, Texas, U.S.A., 23rd October, 1900; 6 years. (Filed 3rd October, 1900.)

Claim.—1st. In combination with a sulky frame, a truck having revoluble hoes and operating mechanism therefor, a rocking frame connecting said sulky frame, with said truck, levers and connections between the same and the truck, to raise and lower the latter, substantially as described. 2nd. In combination with a sulky frame, a truck having revoluble hoes and operating mechanism therefor, connections between said truck and sulky frame, whereby draft is imparted to the former, levers and connections to raise and lower said truck under the draft frame and the tension spring bearing downward on said truck, for the purpose set forth, substantially as described. 3rd. In combination with a truck having revoluble hoes and operating mechanism therefor, draft bars adapted to be detachably secured to a sulky frame, a rocking frame pivotally connected to said draft bars and to said truck, a lever having a support adapted

to be detachably secured to the sulky frame, and connections between the lever and the truck whereby the latter may be raised and

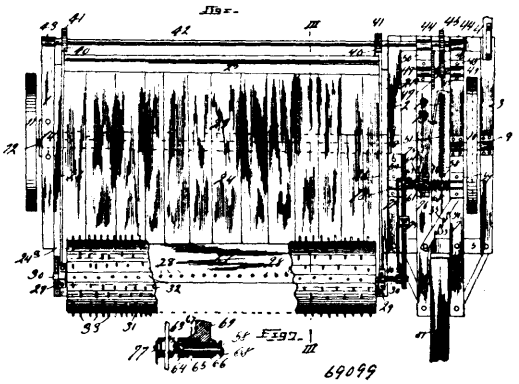


lowered, substantially as described. 4th. In a cotton chopper, the combination of a frame having longitudinal and transverse bearings, an axle shaft in the transverse bearing and having supporting, traction wheels, a shaft in the longitudinal bearing, gears connecting said shafts, and a revoluble chopper secured to the longitudinal shaft, substantially as described. 5th. In a cotton chopper, the frame having supporting traction wheels, the revoluble chopper and means to rotate the latter, and the trail bar extending rearward from said frame and having the trail wheel, in combination with means for connecting said frame to a sulky plough frame, and means for raising and lowering said frame, substantially as described. 6th. In combination with a cotton chopper mechanism on an independent truck, draft bars secured to a sulky frame, a rocking frame connecting said truck to said draft bars, a link lever, means including a depressing spring connecting said truck to said link lever, and levers for raising and lowering said truck, one of said levers being connected to said link lever, substantially as described. 7th. In combination with a sulky or draft frame, a cotton chopper comprising an independent truck having revoluble cotton chopper hoes and operating means therefor, connections between said truck and said sulky or draft frame, a spring bearing downward on the truck, and flexible connections between said lever and said truck whereby the latter is rendered capable of independent vertical movement, for the purpose set forth, substantially as described. 8th. In combination with a cotton chopper comprising a truck and cotton chopper mechanism, draft bars adapted to be detachable secured to a sulky frame, as of a sulky cultivator plough, a rocking frame pivotally connected to said draft bars and also connected to the truck of the cotton chopper, substantially as described. 9th. In combination with a cotton chopper comprising a truck and cotton chopping mechanism, draft bars adapted to be detachably secured to a sulky frame, as of a sulky cultivator plough, and a rocking frame connected to said truck and to said draft bars, said rocking frame being expansible laterally whereby it may be widened or narrowed for the purpose set forth, substantially as described. 10th. In combination with a cotton chopper, comprising a truck and cotton chopping mechanism, means for connecting said truck to a sulky frame, as of a sulky plough, the segment rack frame 51 adapted to be detchable secured to the sulky frame, levers connected to said frame 51, and removable from the sulky frame therewith, and connections, substantially as described, between said levers and the truck of the cotton chopper, for the purpose set forth, substantially as set forth.

No. 69,099. Seed Harvester. (*Moissonneuse de graines.*)

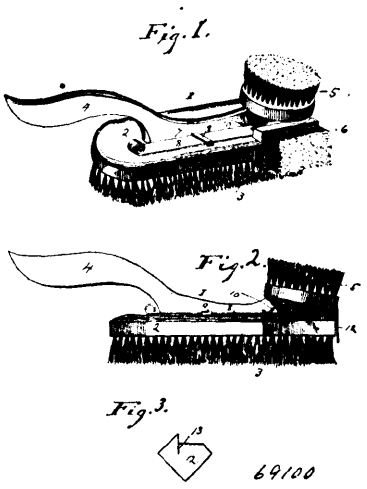
Robert Snell Pence, Kearney, Missouri, U.S.A., 24rd October, 1900; 6 years. (Filed 23rd October, 1900.)

Claim.—1st. A seed harvester, comprising a wheeled frame, a shaft thereon and geared to one of the carrying wheels of the frame, a seed receptacle pivoted to said frame, a stripping cylinder carried by said receptacle, a sprocket wheel mounted on the shaft of said sylinder, a sprocket wheel mounted on the shaft of said cylinder, a sprocket wheel upon the first named shaft, a chain connecting said sprocket wheels, a pair of bars pivoted together, and one of them pivoted upon the stripping wheel shaft and the other to a fixed point near the first named shaft and provided with a plate engaging said chain, and means to pivotally operate said seed receptacle, substantially as described. 2nd. A seed harvester, comprising a wheeled frame, a shaft thereon and geared to one of the carrying wheels of the frame, a seed receptacle pivoted in said frame, a stripping



cylinder carried by said receptacle, a sprocket wheel mounted on the shaft of said cylinder, a sprocket wheel upon the first named shaft, a chain connecting said sprocket wheels, a pair of bars pivoted together, and one of them pivoted upon the stripping wheel shaft, and the other to a fixed point near the first named shaft and provided with a plate engaging said chain, means to pivotally operate said seed receptacle, and means to throw said last named sprocket wheel in or out of engagement with first named shaft, substantially as described. 3rd. In a seed harvester, a stripping cylinder embodying a circularly arranged series of strips or staves, a hoop or band within said series of strips or staves, bolts projecting outward through said hoop or band and said strips or staves at their juncture points, washers upon said bolts and overlapping the adjacent strips or staves, clamping nuts engaging the outer ends of said bolts, and a hoop or band mounted concentrically within and secured to the first named hoop or band, and bearing against the headed ends of said bolts, substantially as described.

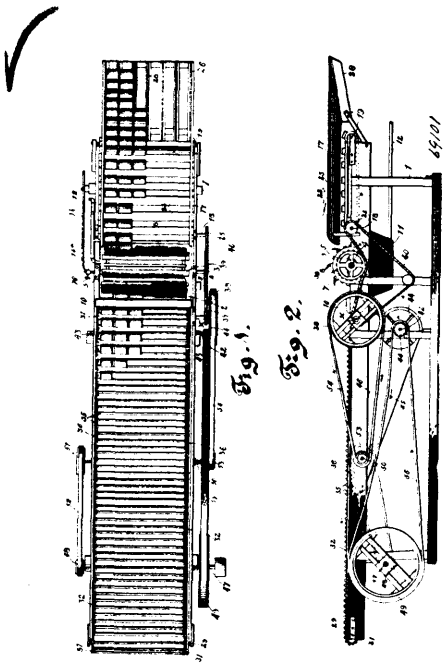
No. 69,100. Blackening Brush. (*Brosse à chaussures.*)



Edward P. LeCompte, Park City, Utah, U.S.A., 23rd October, 1900; 6 years. (Filed 3rd October, 1900.)

Claim.—1st. In a blackening brush, the combination with the block, polishing brush and handle, of the dauber, a mud brush, a movable scraper a spring secured to the dauber and having its ends bearing upon the scraper, and a guide secured to the block for supporting the movable scraper. 2nd. In a blacking brush, the combination with the block, the polishing brush, the handle, the dauber and the mud brush, of the movable scraper bar, having an enlarged rectangular head at the outer end slitted and bent at a right angle to the bar, the guide, and the spring secured to the dauber with its ends bearing upon said bar, substantially as described.

No. 69,101. Lacquering Machine.
(Machine à vernir en laque.)



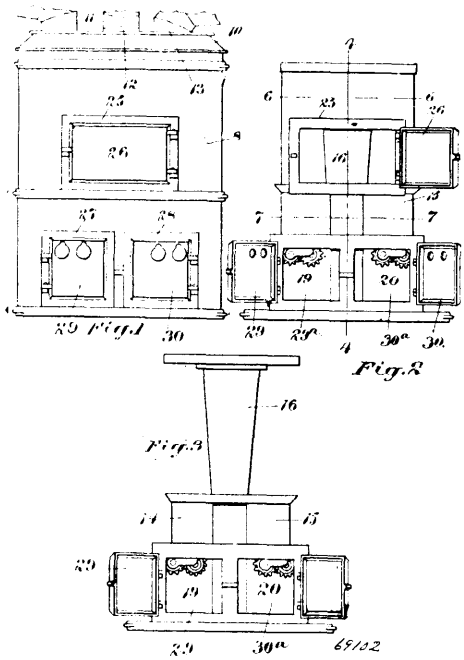
Joseph A. Hughlett, Blaine, Washington, U.S.A., 23rd October, 1900; 6 years. (Filed 4th October, 1900.)

Claim.—1st. In a can lacquering machine, an endless travelling delivery carrier having revoluble supports on which the cans are carried, and means to rotate said supports and hence rotate the lacquered cans while the same are being dried, substantially as described. 2nd. In a can lacquering machine, the combination with a lacquering tank, of means to dip cans therein and raise the same therefrom, an endless travelling carrier to deliver the lacquered cans from the machine, and means for drying the lacquer on the cans, while the latter are on said carrier, substantially as described. 3rd. In a can lacquering machine, the combination with a lacquer and means to dip cans therein, of a blast fan and an endless travelling carrier for the lacquered cans, said carrier traversing the path of the fan blast, substantially as described. 4th. In a can lacquering machine, the combination of a lacquer tank in which the cans are dipped, and means to heat the latter in said tank, substantially as described. 5th. In a can lacquering machine, a delivery carrier comprising sprocket wheels, endless chains connecting said sprocket wheels, revoluble supporting rods connecting said chains and means to rotate said supporting rods, substantially as described. 6th. In a can lacquering machine, the combination of a lacquer tank, means to dip cans therein, and means to rotate the cans and dry the same while thus rotating, substantially as described. 7th. In a can laquering machine, a lacquer tank, and endless movable element to dip cans therein, an endless movable feed carrier conducting to said dipping element and a feeder, down which the cans roll to the feed carrier, said feeder having longitudinally disposed space flanges for the purpose set forth, substantially as described.

No. 69,102. Hot Air Furnace. *(Fournaise à air chaud.)*

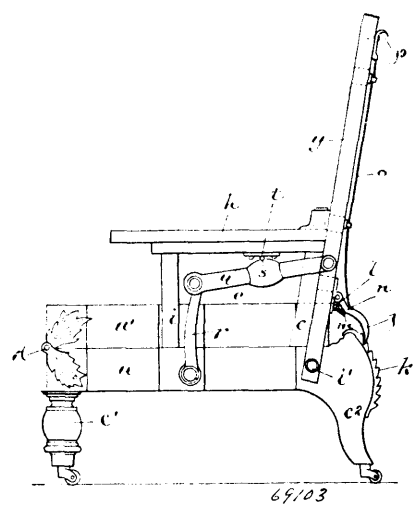
Samuel A. Cheney, Newburyport, Massachusetts, U.S.A., 23rd October, 1900; 6 years. (Filed 4th October, 1900.)

Claim.—1st. In a hot air furnace, the combination with two separate ash pits, two separate fire boxes, of a combustion chamber common to both fire boxes an air flue extending vertically between the ash pits, fire boxes, and through the combustion chamber, substantially as described. 2nd. In a hot air furnace, the combination with two separated ash pits, two separated fire boxes above the same, a common fuel door for said boxes, of a combustion chamber common to both of the said boxes, an air flue extending vertically between the ash pits, fire boxes and through the combustion chamber, and as air chamber surrounding the combustion chamber, substantially as described. 3rd. In a hot air furnace, the combination with two separated ash pits, two separated fire boxes above the same, a common fuel door for said boxes, of a combustion chamber common to both of said boxes, an air flue extending vertically between the ash pits and fire boxes and through the combustion chamber, a jacket surrounding the whole, an air space above the combustion chambers, and in communication with said jacket, an extension leading from



the combustion chamber and ash pits respectively through the jacket and each provided with suitable doors, a smoke pipe and hot air flues leading from the furnace, substantially as described.

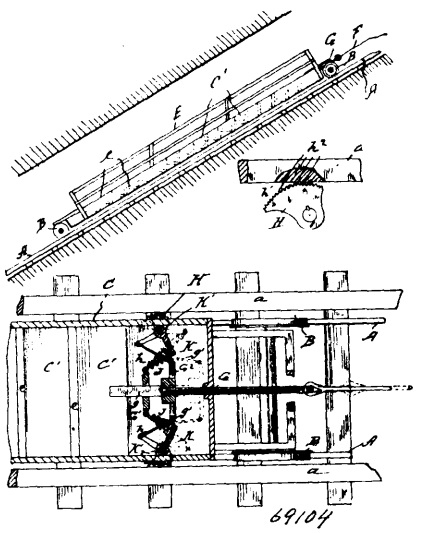
No. 69,103. Chair and Couch. *(Chaise et canapé.)*



Adolph Grenier, North Grenier, North Cambridge, Masschusetts, U.S.A., 23rd October, 1900; 6 years. (Filed 4th October, 1900.)

Claim.—A combined folding chair and bed or cot comprising in its construction a bottom made in two parts hinged together, the two parts being adapted to be folded to form the chair seat, and to be opened to form the bed bottom, a back adapted to be adjusted from substantially vertical to substantially horizontal position, toothed segments connected with the bottom portion, pawls to engage the teeth of the said segments means connected with the adjustable back for controlling the pawls, a chair arm frame provided with lugs, and notched jointed bars connecting the back with the bottom, the construction and arrangement being such that when the device is folded the lugs will drop in the notches of the bars.

No. 69,104. Mine Elevator. *(Elevateur pour Mines.)*



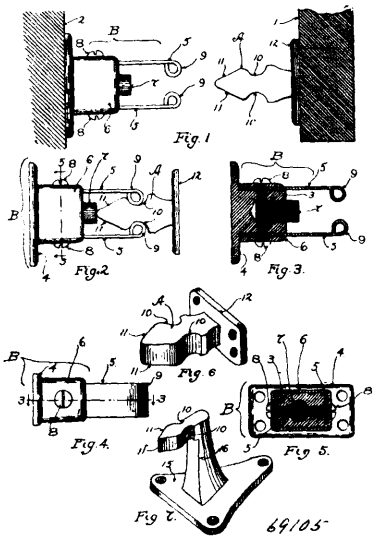
John Muirhead, Laurium, Michigan, U.S.A., 23rd October, 1900; 6 years. (Filed 3rd October, 1900.)

Claim.—1st. The combination with a mine shaft, a car movable up and down the said shatt, a draw head carried by the car and arranged longitudinary of the shaft, a car propelling cable operatively connected with the draw head, and a beam arranged longitudinally of the shafts, out of the way of the path of the car, of a cam shaped brake, having a serrated face provided with several pointed teeth projecting beyond the serrations, supported from the car and arranged as required to render it capable of biting or clutching the said beam upon oscillating it in one direction, two arms rigid with said cam shaped brake, and projecting laterally from the axis of said brake and arranged at right angles, or at approximately right angles to each other, a link operatively connecting one of the said arms with the draw head, and a spring connected at one end to the other arm, and having its opposite end attached to the car, all arranged and operating as described and for the purpose set forth. 2nd. The combination with a mine shaft, a car movable up and down the said shaft, a draw head carried by the car and arranged longitudinally of the shaft, the car propelling cable operatively connected with the draw head, of a beam arranged longitudinally of the shaft out of the way of the path of the car, an oscillating cam supported from the car and arranged as required to render it capable of biting or clutching the said beam, upon oscillating it in one direction, two arms rigid with said cam, and projecting laterally from the cam's axis and arranged at right angles or approximately at right angles to each other, a link operatively connected one of the arms of said cam with the draw head, and a spring connected at one end, to the other arm and having its opposite end attached to the car, all arranged and operating substantially as shown, for the purpose specifie d. 3rd. The combination with a mine shaft, a car movable up and down in said shaft, a draw head carried by the car and arranged longitudinally of the shaft, the car propelling cable operatively connected with the draw head, of two beams arranged at opposite sides, respectively, and longitudinally of the shaft, two oscillating cams supported from the car and arranged as required to render them capable of biting or clutching the different beams, respectively, upon oscillating them in one direction, two arms rigid with each cam, and projecting laterally from the cam's axis and arranged at right angles or approximately at right angles to each other, a link operatively connecting one of the arms of each cam with the draw head, and a spring connected at one end, to the other arm of each cam and having its opposite end attached to the car all arranged and operating substantially as shown, for the purpose specified.

No. 69,105. Door Stop and Holder. *(Arrête-porte.)*

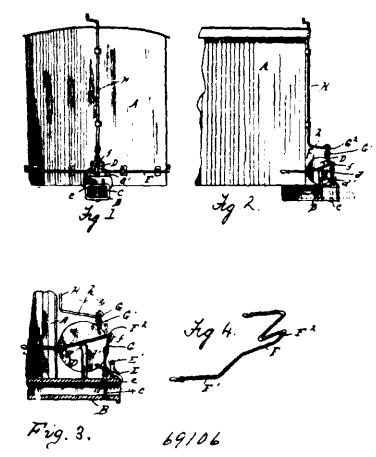
Bernard Almonte, Boston, Massachusetts, U.S.A., 23rd October, 1900; 6 years. (Filed 4th October, 1900.)

Claim.—A door stop and holder comprising a male and a female member, one of which is attached to a door and the other to a fixed support and which interlock with each other when the door is open, the female member comprising a bed-lock, a rubber buffer inserted in a socket therein, two plate springs on opposite sides of the block with projecting outer ends which receive the male member and with their inner ends resting against the base of the block, a reinforcing collar which surround said block and said springs and screws which



pass through said collar and said springs and into the block and impinge on said buffer, substantially as described.

No. 69,106. Car Coupler. *(Attelage de chars.)*



Robert Putnam Norton, St. Thomas, North Dakota, U.S.A., 23rd October, 1900; 6 years. (Filed 4th October, 1900.)

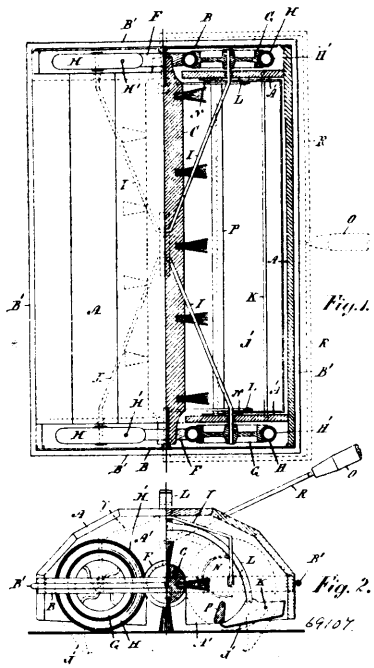
Claim.—In a car-coupler, the combination with a draw-head, of a pin operating therein, and means for raising and lowering said pin comprising an operating-wheel, connections between the pin and said wheel, means for rotating said wheel, and means for limiting the rotary movement of said wheel, comprising catch-fingers carried by the wheel adapted to engage the draw-head, substantially as described.

No. 69,107. Carpet Sweeper. *(Balayeuse de tapis.)*

Charles James Shirreff, Brockville, Ontario, Canada, 23rd October, 1900; 6 years. (Filed 3rd October, 1900.)

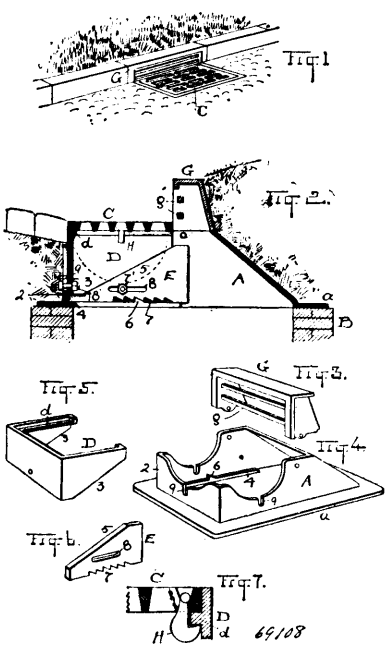
Claim.—1st. In a carpet sweeper, the brush having at the ends driving wheels provided with a half-round peripheral groove, ground wheels having a half-round peripheral groove and perforated hollow soft rubber tires round in cross-section fitting into the groove in said ground wheels and frictionally engaging the brush wheels, the perforations in said tires permitting inlet and outlet of air to allow tread of the tires to yield more or less to pressure. 2nd. In a carpet sweeper, a casing having two dust pans hung pivotally in the brush chamber to face each other, a bifurcated foot lever connected to said pans to dump them simultaneously, and springs reacting said lever to return the pans to their normal position, both pans discharging toward one another. 3rd. In a carpet-sweeper, two V-shaped wire springs secured near the convergent ends to the top of the brush chamber internally, the free ends projecting through slots in the

ends of the casing, said spring ends bent parallel, and ground wheels mounted on said parallel ends to permit the brush casing to yield to



pressure on the handle in sweeping, whereby the rotary brush may be pressed more or less forcibly against the carpet to be swept.

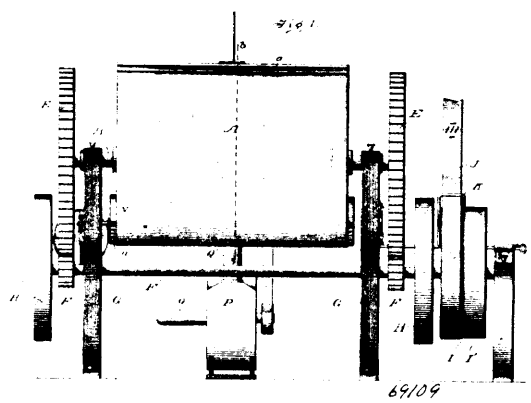
No. 69,108. Catch Basin. *(Bassin.)*



James Banwell and Charles W. Nokes, both of Cleveland, Ohio, U.S.A., 23rd October, 1900; 6 years. (Filed 4th June, 1900.)

Claim.—1st. A casing for a catch basin open across its rear except at its bottom and closed across its front, the rear edges of its side walls inclined outwardly and upwardly their full depth and constructed on their inner sides to carry a separate grate support. 2nd. A catch for catch basins, having a cross bar at its rear and bottom with an outwardly inclined rear surface, and side walls with their rear edges parallel to the outer surface of said cross bar and lugs on said bar, and a separate wall member adapted to close the rear end of th casing and resting on said lugs. 3rd. A casing for catch basins, having parallel side walls, a plate on each wall constructed to be adjusted horizontally thereon, a grate support carried by said plates and a grate on said support, said parts constructed to afford an overflow inlet for the water through the casing at the rear of said grate. 4th. The casing, substantially as described, a grate support therein having inclined edges, and adjusting pieces for said support having their edges inclined to match the support and constructed to be moved back and forth and locked on the casing to fix the elevation of said support. 5th. The casing, having ledges on the lower portion of its sides, a grate support between said sides and adjusting plates resting on said ledges and constructed to raise or lower said support when moved back or forth on the said ledges and bolts to fasten said plates. 6th. The casing, having ledges at its bottom inside, adjusting plates with inclined edges movable on said ledges, and said parts having notches and projections to lock the plates in any given position, and a grate support with inclined edges matching the inclined edges of said plates and resting thereon. 7th. The casing for a catch basin inlet, having its rear end open from side to side and constructed from its bottom upward to support a separate wall in the outwardly inclined position, in combination with a separate wall extending across the said open and inclined end and closing the rear of said casing, and a grate on the casing apart from said wall at its rear to afford an overflow passage in front of said wall. 8th. The main casing having ledges at its bottom, a separate inner member constructed to be raised and lowered and separate substantially triangular pieces resting on said ledges and serving as a support for said separate inner member, and the said triangular pieces and the casing constructed to hold the grate support in adjusted position on the ledges. 9th. In catch basins, the main casing constructed with internal horizontal ledges and an inclined rear portion, in combination with the separate inner member having its bottom edges outwardly inclined, adjustable pieces with like inclined edges to support said separate member and resting on the aforesaid ledges, and an inclined wall across the rear of said casing.

No. 69,109. Machine for Working Dough.
(Machine à pâte.)



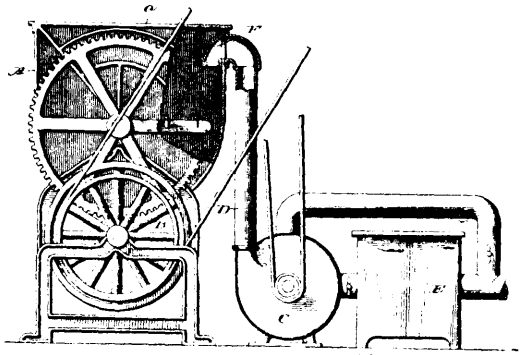
William Stephen Corby, Charles Israel Corby, and Theodore Jacob Mayer, all of Washington, District of Columbia, U.S.A., 23rd October, 1900; 6 years. (Filed 26th December 1899.)

Claim.—1st. In a machine for making and manipulating dough, the combination with a casing and a revolving beater mounted therein of the herein described mechanism for driving the beater steadily and at a high speed, it consisting of gear wheels E arranged at the opposite ends of the beater axis, other gear wheels meshing therewith and mounted on a counter shaft, balance wheel on the said counter shaft adjacent to the said gearing and means whereby power is applied to the counter shaft, substantially as set forth. 2nd. In a dough working machine, the combination of the rotary beater, and a casing in which the beater is mounted, having an eccentric bulge or pocket, substantially as set forth. 3rd. In a dough working machine, the combination of a revolving beater and a casing in which the beater is mounted formed with an eccentric pocket or bulge arranged in the lower, forward part of the casing, substantially as set forth. 4th. In a dough working machine, the combination of a revolving beater, mechanism for driving the beater at a relatively high speed, and a casing having a bulge or pocket eccentric to the axis of rotation of the beater, and arranged below the axis thereof, and longitudinally on the side toward which the lower portion of the beater moves in its rotation, substantially as set forth. 5th. In a dough working machine, the combination of a rotary beater, and a casing having a pocket or bulge opening inward and eccentric to the path of the beater, the wall of the casing on either side of the said pocket or bulge approaching close to the path of the beater, substantially as set forth. 6th. In a dough working machine, the combination of a rotary beater having a series of longitudinally arranged beater bars, and a casing in which the

beater is mounted, the casing being formed with a longitudinal pocket or bulge outside of the circular path of the beater bars, the said bugle or pocket terminating along longitudinal lines, *o* and o^1, of the inner casing wall, arranged close to the path of the outermost beater bars, substantially as set forth. 7th. In a dough working machine, the combination of a rotary beater and a casing in which the beater is mounted, the inner wall or surface of the casing, on one side of the beater, being eccentric to the circular path of the beater, and flaring or expanding from such path, substantially as set forth. 8th. In a dough working machine, the combination of a rotary beater, and a casing in which the beater is mounted, having the portion of its inner wall below the axis of the beater, and on that side where the beater bars move downward eccentric to the beater, and flaring or expanding in a direction opposite to the path followed by the beater bars, substantially as set forth. 9th. In a dough working machine, the combination of a rotary beater, a casing in which the beater is mounted, and an air duct leading into the casing, the inner wall of the casing being eccentric to the path of the beater, adjacent to the opening of the air duct thereinto, substantially as set forth. 10th. In a dough working machine, the combination of a rotary beater, a casing in which the beater is mounted, and an air duct leading into the casing, the inner wall of the casing being eccentric to the path of the beater adjacent to the opening of the air duct, and flaring or expanding toward the said opening, substantially as set forth. 11th. In a dough working machine, the combination with the beater, of a casing in which the beater is mounted, the interior wall of the casing along the longitudinal lines *o* and o^1 being disposed close to the outermost path travelled by the beater, and the wall between the said lines on one side being formed into a pocket or eccentric bulge O, and on the opposite side from said bulge being eccentric and converging toward the path of rotation of the beater, substantially as set forth. 12th. The combination, in a dough working machine, of a casing, a rotary beater mounted therein, means for forcing air into the casing, and means for directing the air after it enters the casing, whereby it is caused to be distributed through all parts of the casing, substantially as set forth. 13th. In a dough working machine, the combination of a casing, a beater mounted upon a horizontal axis within the casing, means for rotating the beater, means for forcing air into the upper part of the casing and means within the casing for directing such air into the lower parts thereof, substantially as set forth. 14th. In a machine for working dough, the combination of a casing, a rotary beater mounted therein, means for forcing air into the casing, and means for giving such air, after entering the casing, a direction of movement similar to that of the beater, substantially as set forth. 15th. In a dough working machine, the combination of a casing, means situated therein for working the dough, means for forcing air into the casing, and a cooler within such air, substantially as set forth. 16th. In a dough working machine, the combination of a casing, a rotary beater mounted therein, a fan or blower connected with the interior of the casing, and means for running such fan, whereby constantly renewed quantities of air are forcibly supplied to the interior of the casing, substantially as described. 17th. In a dough working machine, the combination of a casing and a single, high speed, centrifugal beater arranged within the casing to revolve on a horizontal axis, the beater having spiders or arms at its ends arranged to travel close to the end walls of the casing, and bars extending between said spiders or arms, such bars being bent rearward near their ends where they join with the spiders or arms, as at *d*, substantially as and for the purposes set forth.

No. 69,110. Method of Making Dough.

(*Méthode de faire la pâte.*)



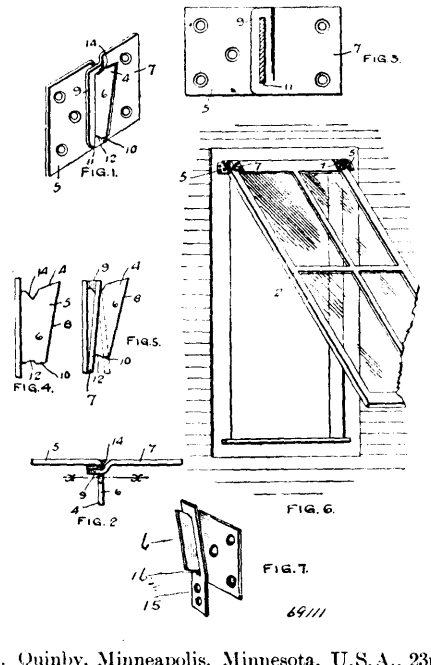
69,110

William Stephen Corby, Charles Israel Corby and Theodore Jacob Mayer, all of Washington, District of Columbia, U.S.A., 23rd October, 1900; 6 years. (Filed 15th October, 1900.)

Claim.—The herein described improvement in the art of making dough, which consists of intermingling the constituents of the dough to form a coherent mass, and, after such mass has been formed, rapidly drawing out the said mass into sheets, shreds or membranes, and blowing or forcing air into the dough until sheets, shreds or membranes are being formed, substantially as described. 2nd, The interscribed improvement in the art of making dough, which consists in manipulating the dough, supplying air to the dough during such manipulating, and cooling the air before it is supplied, substantially as set forth. 3rd. The herein described improvment in the art of making dough, which consists in manipulating the dough in the presence of air supplied thereto at a temperature lower than the temperature at which the dough should be maintained during such manipulation, substantially as described. 4th. The herein described improvement in the art of making fermented dough, which consists in intermingling the contsituents of the dough, including a yeast or other ferment, to form a moist, coherent mass, manipulating said such dough mass, and during such manipulation supplying air, whereby the dough mass may be permeated therewith, and carrying of the air at substantially the same rate as it is supplied, whereby it may serve as a medium to prevent overheating of the dough, substantially as set forth.

No. 68,111. Hinge for Storm Sashes.

(*Penture de contrevent.*)



Edward C. Quinby, Minneapolis, Minnesota, U.S.A., 23rd October, 1900: 6 years. (Filed 4th October, 1900.)

Claim.—A separable hanger and hinges, comprising a hook-member adapted to be secured to the outside of a window frame, and an eye-member adapted to be secured to the outside of a sash, said eye-member being provided with an off-set inclined flange, with a slot formed in said flange, substantially as described. 2nd. A separable hanger and hinge, comprising a hook member adapted to be secured to the outside of a window frame, and having a vertical hook portion, with a V-shaped recess in its upper edge, an eye-member having an off-set inclined flange, the wall at the upper end of said slot being adapted to rest in said recess, for the purpose set forth. 3rd. The combination in a separable hanger and hinge, with the hook member 5, adapted to be secured the to outer surface of the window frame, and having the vertical hook portion at right angles the main portion of the member, with the eye-member 7 adapted to be secured to the outer surface of the sash and having the inclined off-set flange 9, provided with a slot 11 adapted to engage said hook-portion of the other member, substantially as described. 4th. A separable hanger and hinge, comprising a hook member adapted to be secured to the outside of a window frame and having a vertical hook provided with a V-shaped recess in its upper edge, and an eye member adapted to be secured to a sash and having a slot to receive said vertical hook, the upper edge of said slot resting in said recess when the device is in use.

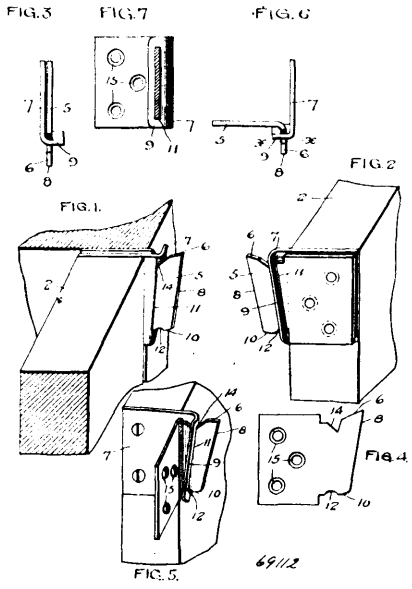
No. 69,112. Hinge for Awning Blinds.

(*Penture pour abrivents.*)

Edward C. Quinby, Minneapolis, Minnesota, U.S.A., 23rd October, 1900; 6 years. (Filed 4th October, 1900.)

Claim.—1st. A separable hinge, comprising a hook-member, and an eye member, having an inclined flange, with a slot formed in said flange, whereby the turning point between the two members of the hanger is forward of the surface to which the hanger is attached, for the purpose set forth. 2nd. The combination in a

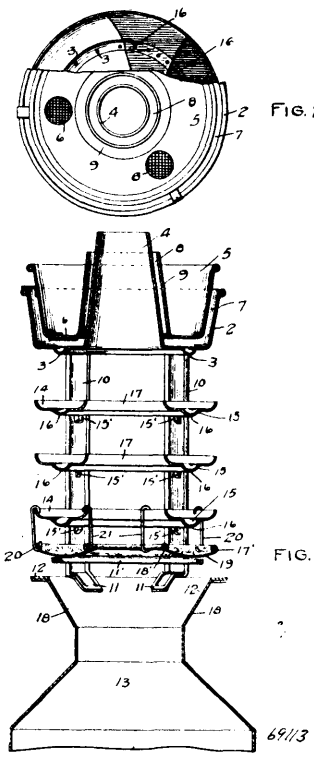
separable hinge, with the hook member 5 having the vertical hook portion, with a V-shaped recess in the upper edge of the eye member having an inclined flange, and a vertical slot in said flange, for the purpose set forth. 3rd. The combination, in a separable hinge, with the hook member 5 having a vertical hook portion, with a recess in the lower edge of the the eye-member, having a flange inclined from the top towards the bottom, and a slot 11 in said flange, for the purpose set forth. 4th. In a separable hinge, the combination, with an eye member, having a slotted flange, of a hook member having a vertical hook portion to enter said slot, said hook portion being provided with a lower edge to engage the lower edge of said slot and lock said hook therein, substantially as described. 5th. The combination, with a window frame and sash, of a separable hinge comprising two plates or members provided between the edge of the sash and frame a hook portion provided on one of said members to interlock with an eye portion provided on the other member and said hook and eye portions projecting outside the plan of said sash and frame.



No. 69,113. Milk Cooler. (*Réfrigerant à lait.*)

Edward G. Fullerton, Montevideo, Minnesota, U.S.A., 23rd October, 1900; 6 years. (Filed 28th September, 1900.)

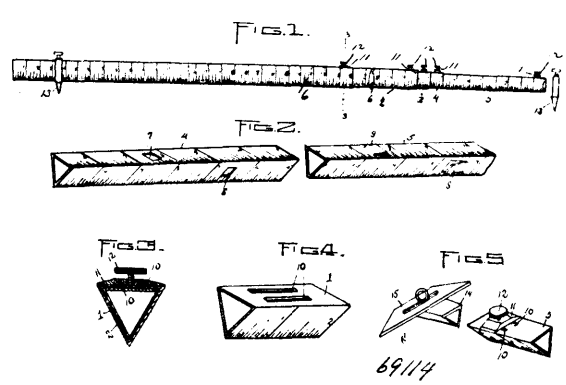
Claim.—1st. The combination, with a reservoir provided with openings in its bottom, of one or more shallow trays, pans or rings arranged beneath the same to receive milk therefrom and from one another, each of said pans or trays having openings in its bottom, and a removable strainer comprising concentric rings 17^1 and 18^1, a strainer cloth 19 and hooks 20 and 21, whereby the device is suspended from the pan above, substantially as described. 2nd. In a milk cooler, the combination, with a reservoir having a central tube and provided with openings in its bottom, of on or more shallow trays, pans or rings 14, independently arranged beneath said reservoir to receive milk therefrom and from one another, each of said pans or trays having openings 16, in its bottom and a larger central opening 17, whereby when the central tube becomes heated, a current of air will be maintained by a natural draft through the falling streams of milk between the pans up through the central openings therein and up through the central tube, and a strainer supported beneath the lower pan of the series, substantially as described. 3rd. A milk cooler, comprising legs 10 having lower ends adapted to rest upon the top of the can, a reservoir supported upon said legs and provided with a central tube 4, and a series of holes 3, one or more pans or trays 14 supported one above another by said legs beneath said reservoir to receive milk therefrom and from one another, each pan being disconnected from the other pans and from said reservoir and independently removable, and each pan having a central opening 17 and a series of smaller openings or holes 16, whereby as the milk flows down through said holes 3, in the reservoir and from one pan to the next through said holes 16, a circulation of air will be established across the falling streams of milk between the pans up through the central openings in said pans and through said central tube 4, substantially as described. 4th. In a milk cooler, the combination with legs or standards adapted to rest upon the top of the can, of a reservoir supported upon said legs and having a central tube and a series of holes in its bottom around the base of said tube, one or more pans or trays also supported by said legs one above another beneath said reservoir in position to receive milk therefrom and from one another said pans being disconnected from one another and independently removable from their support, and each pan having a large central opening and a series of smaller openin surrounding the same, whereby as the warm milk is poured into the reservoir and the central tube becomes heated a circulation of air by natural draft will be established through the stream of milk as it falls from one pan to another up through the central openings in said pans and up through said central tube, substantially as described. 5th. In a milk cooler, the combination, of a reservoir having a central tube and provided with outlet openings in its bottom, with one or more shallow trays, pans or rings 14 arranged beneath said reservoir to receive milk therefrom and from one another, each of said pans or trays having openings 16 in its bottom and also having a large central opening 17, whereby when the central tube becomes heated a current of air will be maintained by natural draft upward through the falling streams of milk between the pans, through the central openings in said pans and through the tube of said reservoir.



No. 69,114. Measuring Rule. (*Règle.*)

William B. Taylor, Walla Walla, Washington, U.S.A., 23rd October, 1900; 6 years. (Filed 24th July, 1900.)

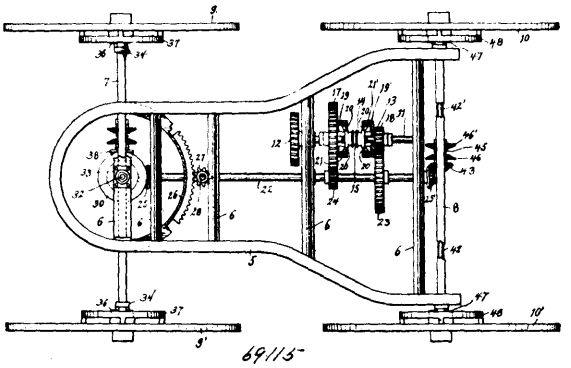
Claim.—1st. An extensible measuring rule, consisting of a plurality of graduated, telescopic sections, each enclosing section having a stop slot and a counter stop slot and each inclosed section having a spring stop to prevent the accidental separation of the sections, and a counter spring stop to hold the sections fully extended. 2nd. An extensible measuring rule, consisting of a plurality of graduated telescopic sections each inclosing section having a stop slot and a counter stop slot and each inclosed section having a spring stop to



prevent the accidental separation of the sections and a counter stop to hold the sections fully extended, and clamping means for holding and locking the sections when partially extended. 3rd. An extensible measuring rule, consisting of telescopic sections, each section having slots to provide a yielding part between them, a clamping bar arranged across the slots, and a set screw for clamping and holding the sections in adjusted position.

No. 69,115. Motor Vehicle. (*Vehicule à moteur.*)

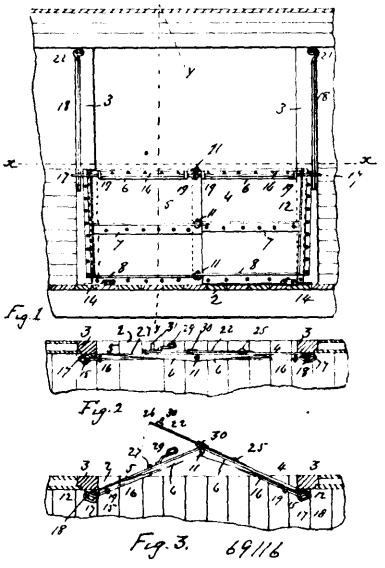
Fig. 1.



Thomas Croil, Milwaukee, Wisconsin, U.S.A., 23rd October, 1900; 6 years. (Filed 21st July, 1900.)

Claim.—1st. In a motor vehicle, the combination of a frame, non-rotatable axle, traction wheels mounted loosely thereon, means for swinging the axle, a horizontally wheel mounted wheel carried in line with the pivotal point of the axle, means for rotating said wheel, bearings so connected as to be swung with the axle, a shaft mounted in said bearings, said shaft having a wheel mounted thereon, means for transferring the rotation of the horizontal mounted wheel to the wheel of the shaft, whereby said shaft is rotated, wheels on opposite ends of the shaft, and means for transferring the rotation of said wheels to the traction wheels. 2nd. In a motor vehicle, the combination of a frame, a front non-rotatable axle, traction wheels mounted loosely on the axle, a bolt on which the axle is adapted to swing, a wheel mounted horizontally on the bolt, means for rotating said wheel, bearings so connected as to be swung with the axle, a shaft mounted in said bearings, said shaft having a wheel mounted thereon, means for transferring the rotation of the horizontally mounted wheel to the wheel of the shaft, whereby said shaft is rotated, wheels on opposite ends of the shaft, and means for transferring the rotation of said wheels to the traction wheels. 3rd. In a motor vehicle, the combination of a frame, a non-rotatable axle, traction wheels mounted loosely on the axle, means for swinging the axle, a horizontally mounted gear wheel carried in line with the pivoted point of the axle, means for rotating said wheel, bearings so connected as to be swung with the axle, a shaft mounted in said bearings, said shaft having a gear wheel mounted thereon which is in mesh with the horizontally mounted gear wheel, whereby said shaft is rotated, wheels on opposite ends of the shaft, and means for transferring the rotation of said wheels to the traction wheels. 4th. In a motor vehicle, tne combination of a frame, a non-rotatable axle, traction wheels mounted loosely on the axle, means for swinging the axle, a horizontally mounted gear wheel carried in line with the pivoted point of the axle, a main shaft having a gear wheel in mesh with the horizontally mounted gear wheel, bearings so connected as to be swung with the axle, a shaft mounted in said bearings, said shaft having a gear wheel mounted thereon which is in mesh with the horizontally mounted gear wheel, whereby said shaft is rotated, wheels mounted on opposite ends of the shaft, and means for transferring the rotation of said wheels to the traction wheels. 5th. In a motor vehicle, the combination of a frame, a non-rotatable axle, traction wheels mounted loosely on the axle, means for swinging the axle, a horizontally mounted wheel carried in line with the pivotal point of the axle, means for rotating said wheel, bearings so connected as to be swung with the axle, a shaft mounted in said bearings, said shaft having a wheel mounted thereon, means for transferring the rotation of the horizontally mounted wheel to the wheel of the shaft, whereby said shaft is rotated, wheels on opposite ends of the shaft, means for transferring the rotation of said wheels to the traction wheels, and mechanism adapted to cause the traction wheels to turn with a unitary rotary motion when the machine is moving along in a straight line, or to turn with relatively different peripheral velocities when the machine is moving in a curved path. 6th. In a motor vehicle, the combination of a frame, front and rear axles, traction wheels mounted loosely thereon, means for the swinging the front axle, a main shaft having gear wheels on opposite ends thereof, a horizontally mounted gear wheel carried in line with the pivotal point of the front axle, said wheel being in mesh with the gear wheel at the forward end of the main shaft, bearings so connected as to be swung with the front axle, a shaft mounted in said bearings, said shaft having a wheel mounted thereon, means for transferring the rotation of the horizontally mounted wheel of the front shaft, whereby said front shaft is rotated, wheels on opposite ends of the front shaft, means for transferring the rotation of said to the front traction wheels, a rear shaft having a gear wheel mounted thereon, said gear wheel being in mesh with the gear wheel on the rear of the main shaft, whereby said rear shaft is rotated, wheels on opposite ends of the rear shaft, and means fer transferring the rotation of said wheels to the rear traction wheel.

No. 69,116. Grain Door. (*Porte à grain.*)

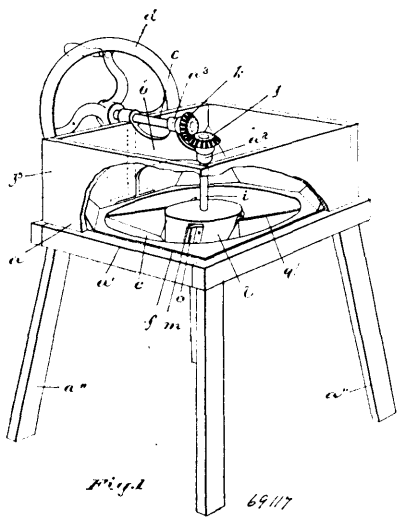


Eugene Jacquemen, Minneapolis, Minnesota, U.S.A., 23rd October, 1900; 6 years. (Filed 3rd October, 1900.)

Claim.—1st. A grain door, composed of two or more jointed sections, each section comprising a sheet metal plate, and angle iron bars secured together, and means for retaining said sections in position within a car door opening, substantially as described. 2nd. A sectional grain door, comprising plates and angle iron bars secured thereon, the horizontal flanges of said bar at their abutting ends being pivotally connected and the outer vertical edges of said plates being inclined or bevelled, causing said door to be tapered or wedge-shape in form, sockets being provided on the side of the car to receive the ends of the door, and said sockets converging or tapering from top to bottom to permit the door to be wedged therein, for the purpose set forth. 3rd. A grain door comprising several sections hinged together, means for locking said sections against outward movement, the rods 18 being provided on the side of the car, the rods 16 being provided on said sections and having looped ends engaging said rods 18, substantially as described. 4th. A grain door comprising several sections hinged together means for locking said sections against outward movement, rod 18, the rods 16 being provided on said door and engaging said rods 18, lugs 15, and hooks 14, provided on said sections and engaging said lugs 15. 5th. A sectional grain door precomprising plates having over lapping inner edges and angle iron bars secured to said plate, the horizontal flanges, at the inner ends of said bars being overlapped and pivoted together, and sockets on the side of the car for the ends of said door, substantially as described. 7th. A sectional grain door, comprising plates and angle iron bars, secured thereto, said bars having the horizontal flanges at their inner ends pivoted together, vertical rods provided on the side of the car, and horizontal rods 16 supported by said angle iron bars and having their outer ends connected to said vertical bars, substantially as described. 7th. A locking device for sectional grain doors, comprising bars 22, 23 and 24 pivoted to one of the sections, lugs 27 provided upon the opposite sections in in position to be engaged by the free ends of said bars, a bar 26, connecting the free ends of the said bars and a lever 29, whereby said bars may be simultaneously disengaged from said lugs, substantially as described. 8th. In a grain door composed of two sections ninged together, the horizontally slidable rods 16 connected at their inner ends, rods 19, provided on said sections having openings 20 wherein said rods are slidable, and fixed supports provided at the ends of the door and whereto said rods are connected at their outer ends, substantially as described. 9th. A metallic grain door, comprising two or more sections hinged together, means for locking said sections against outward movement, the plates 12 secured to the side of the car and having flanges 13 forming horizontally wedge-shaped sockets with the sides of the car there to receive the ends of

said door, and said sockets extending from the bottom to the top of said door whereby grain tight joints are formed, substantially as described. 10th. A grain door, comprising sheet metal plates or sections hinged together, in combination, with sockets, wedge-shaped in horizontal cross section, provided on the sides of the car to receive the outer ends of said sections and permit them to be horizontally wedged therein, substantially as described. 11th. In a grain door composed of sections hinged together, slidable rods or bars supported on said sections, and having their inner ends pivotally connected, and fixed supports provided at the ends of the doors and whereto the outer ends of said rods are loosely connected, substantly as described. 12th. The combination, with a vertically movable grain door, composed of several sections hinged together, of longitudinally movable rods or bars supported on said sections and having their ends pivotally connected and upright supports provided at the ends of the door and whereto the outer ends of said rods are loosely connected and whereon they are vertically slidable, substantially as described. 13th. A grain door composed of two or more jointed sheet metal sections, bracing or strengthening angle iron bars provided on said sections, the horizontal flanges of said angle irons being cut away or tapered from their inner toward their outer ends, for the purpose specified.

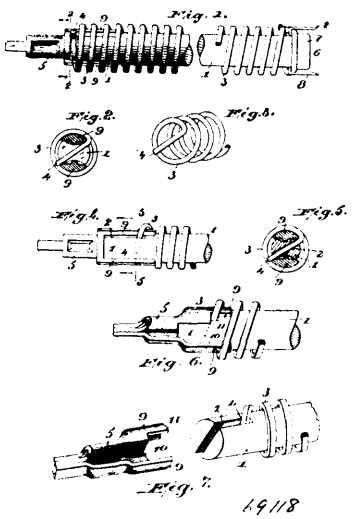
No. 69,117. Machine for Chopping Apples and Roots.
(*Hache pommes et legumes.*)



George H. Preston, Shortsville, and George W. Hamlin and Ward H. Preston, both of Manchester, all in the State of New York, U.S.A., 23rd October, 1900; 6 years. (Filed 21st August, 1900.)

Claim.—1st. A machine for chopping apples or roots, embracing in its construction a frame, a chopping bowl mounted on the frame having an open bottom, a hollow open bottom cutter head revolvable within the chopping bowl, slots in the cutter head, knives connected to the cutter head opposed to the slots, a shaft for the cutter head, a shaft journalled in the frame counter to the cutter head shaft, gearing for imparting motion from the countershaft to the cutter head shaft, substantially as specified. 2nd. A machine for chopping apples and roots, embracing in its construction a frame, a truncated cone-shaped chopping bowl mounted in the frame having an open bottom, a hollow open bottom cutter head revolvable within the chopping bowl, slots in the cutter head, knives connected to the cutter head opposed to the slots, a vertical shaft for the cutter head, provided at its lower end with open bearings, a horizontal shaft journalled in the frame counter to the cutter head shaft, gearing connected to the horizontal shaft and the counter head shaft, and a hopper, mounted on the frame surrounding the top of the chopping bowl, substantially as specified. 3rd. A machine for chopping apples and roots, embracing in its construction a frame, a chopping bowl mounted in the frame having an open bottom, a hollow open bottom cutter head revolvable within the chopping bowl, slots in the cutter head, knives connected to the cutter head opposed to the slots, a shaft for the cutter head, a shaft journalled in the frame counter to the cutter head shaft, gearing for imparting motion from the countershaft to the cutter head shaft, and inwardly directed partitions attached to the sides of the chopping bowl, substantially as specified. 4th. A machine for chopping apples or roots, embracing in its construction a frame, a chopping bowl, mounted in the frame having an open bottom, a hollow open bottom cutter head revolvable within the chopping bowl, slots in the cutter head, knives connected to the cutter head opposed to the slots, a shaft for the cutter head, a shaft journalled in the frame counter to the cutter head shaft, gearing for imparting motion from the countershaft to the cutter head shaft, and inwardly directed partitions attached to the sides of the chopping bowl, curved towards the knives and set at an inclination to the plane of the top, substantially as specified. 5th. A machine for chopping apples and roots, embracing in its construction a frame, a truncated cone-shaped chopping bowl mounted in the frame having an open bottom, a hollow open bottom cutter head revolvable within the chopping bowl, slots in the cutter head, knives connected to the cutter head opposed to the slots, a vertical shaft for the cutter head, a horizontal shaft journalled in the frame counter to the cutter head shaft, gearing connected to the horizontal shaft and cutter head shaft, a hopper mounted in the frame surrounding the top of the chopping bowl, open bearings connected to the bottom of the chopping bowl for the lower end of the cutter head shaft, the upper end of the cutter head shaft being journalled in bearings, connected to the hopper, and inwardly directed concaved partitions attached to the sides of the chopping bowl curved towards the knives and set at an inclination to the plane of the top, substantially as specified.

No. 69,118. Spring Shade Roller.
(*Rouleau d'abat jour à ressort.*)

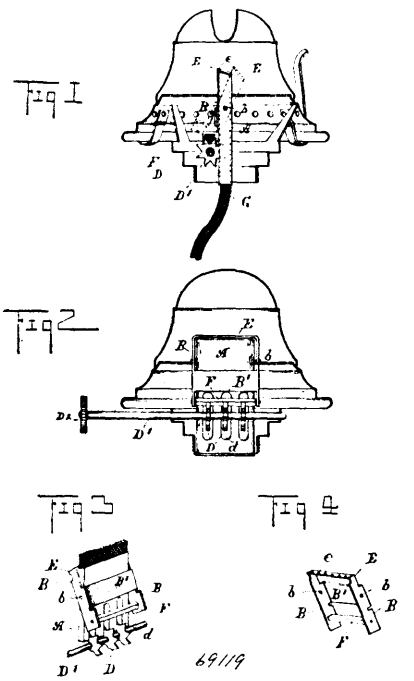


The Stewart Hartshorn Company, East Newark, assignee of Edmund Fisher Hartshorn, Newark, both in New Jersey, U.S.A., 27th October, 1900; 18 years. (Filed 2nd October, 1900.)

Claim.—1st. In a spring shade roller, in combination, a spindle, a metallic end member attached thereto provided with forked projections by which it is secured to the end of the spindle, and a spring mounted on the spindle, one end of which is adapted to be secured to the roller, and the other end of which is connected to the spindle, and held and rests between the forked ends of the end member whereby the spring impinges and bears against the diagonally opposite edges of the forked projections, substantially as and for the purpose described. 2nd. In a spring shade roller, in combination, a spindle 1, a spindle-tip 5 provided with the forked projections 9 whereby it is secured to the end of the spindle, and a spring 3 mounted on the spindle, the inner end of which is adapted to be secured to the roller, and the outer end of which is connected to the spindle, and held and rests between the forked projections 9 of the spindle-tip, whereby the spring impinges and bears against the diagonally opposite edges of the forked projections, substantially as and for the purpose described. 3rd. In a spring shade roller, in combination, a spindle 1, having the cleft 2 in one end, an end member attached thereto provided with forked projections 9 whereby it is secured to the end of the spindle and a spring mounted on the spindle, one end of which is adapted to be secured to the roller, and the other end of which rests in the cleft 2 in the spindle, and is held between the forked projections 9 of the end member, whereby the spring in the cleft impinges and bears against the diagonally opposite edges of the forked projections, substantially as and for the purpose described. 4th. In a spring shade roller, in combination, a spindle 1, having the cleft 2 in one end, an end member attached thereto, provided with forked projections 9 and an inner web 10 adapted to engage with the cleft 2 in the spindle, whereby the member is secured to the spindle, and a spring mounted on the spindle, one end of which is adapted to be secured to the roller, and the other end of which rests in the cleft 2 in the

spindle, and is held between the forked projections 9 of the end member, whereby the spring in the cleft impinges and bears against the diagonally opposite edges of the forked projections, substantially as and for the purposes described.

No. 69,119. Lamp Burner. *(Bec de lampe.)*



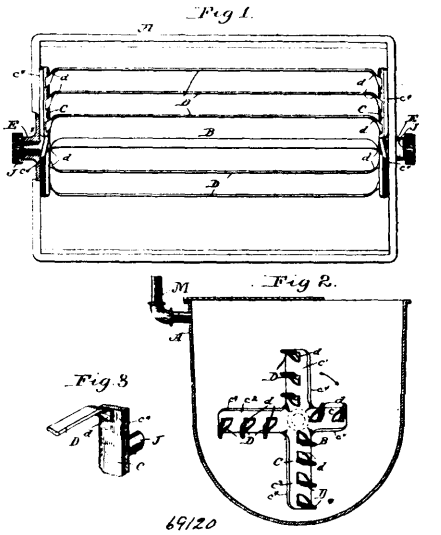
Hartwell A. Crosby and William C. Renne, both of Calais, Maine, U.S.A., 27th October, 1900; 18 years. (Filed 13th November, 1899.)

Claim.—1st. In a lamp burner, the combination of a wick tube, and a wick elevating device, comprising a revoluble toothed wheel outside of the wick tube and adapted to engage the wick, with a frame pivoted upon the wick tube and having a number adapted to swing over and cover the end of said tube, and a triangular bar journalled in the lower end of the frame and adapted to be engaged by the ratchet wheel, whereby the frame is swung and the end of the wick tube is uncovered when the wheel is turned in one direction, and the wheel is locked against turning in the opposite direction as soon as the frame is permitted to swing back by the dropping of the wick, substantially as described. 2nd. In a lamp burner, the combination of a wick tube and wick elevating device, comprising a revoluble toothed wheel outside of the tube and adapted to engage the wick, with a frame pivoted upon the wick tube and having a perforated number adapted to swing over and cover the end of said tube, said frame having a cross bar in its lower part adapted to be engaged by the toothed wheels to swing the frame and to uncover the wick tube, and also forming a stop, preventing downward turning of the wick when the wick tube is covered, substantially as described.

No. 69,120. Process of Making Dough.
(Procédé pour faire la pâte.)

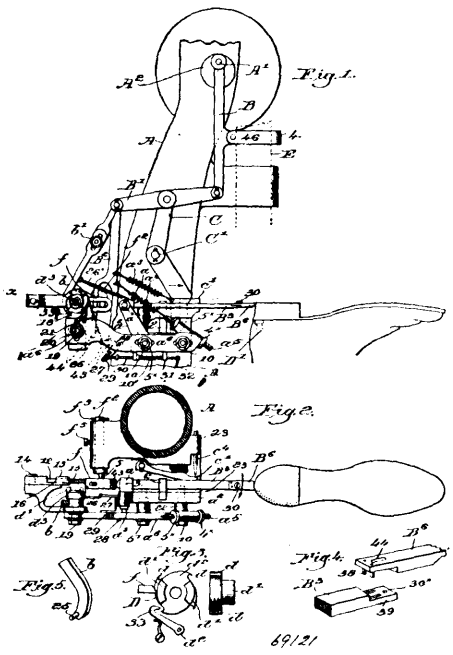
William Stephen Corby, Charles Iseral Corby and Theodore Jacob Mayer, all of Washington, District of Columbia, 27th October, 1900; 6 years. (Filed 17th July, 1899.)

Claim.—1st. In the art of making dough for fermented bread, the herein described process, which consists in intermingling the constitutents of the dough to form a moist dough mass, and, after such mass has been formed, rapidly drawing out or separating from the dough mass portion after portion of such mass, and combining such portions with the main mass, and continuing such operations until the drawn-out portions assume sheet-like and shred-like forms of great tenacity, at whatever stage in the process, after the ingredients are formed into a moist mass of dough, such drawing-out operation takes place, substantially as set forth. 2nd. In the art of making dough for fermented bread, the herein described process, which consists in completing the combination of substantially every particle of the gluten forming constituents of the flour with the liquid, prior to any substantial breaking down or deleterious action taking place in the dough, and simultaneously disseminating the ferment, whereby there is effected a practically complete hydration of the gluten and dissemination of the ferment while the gluten retains its strength, substantially as set forth. 3rd. In the art of making dough for fermented bread, the herein described process, which consists in mechanically bringing into contact with the liquid



employed all of the gluten particles of the flour, thereby completing the hydration of the gluten, and simultaneously disseminating the yeast within the said hydrated gluten, at one initial operation, and prior to the dough being allowed to rise under the influence of the ferment, substantially as set forth. 4th. In the art of making dough for fermented or leavened bread, the herein described method of mixing the dough ingredients and dydrating substantially all of the glutenous constituents of the flour simultaneously and at one initial operation, prior to the dough being allowed to rise under the influence of the yeast or ferment, which consists in repeatedly shredding or drawing out into shred, sheet, or membranous form of extreme thickness, the mass of dough, and recombining the partitions thus shredded or sheeted, substantially as set forth. 5th. In the art of making dough for fermented bread, the herein described process of treating dough, which consists in repeatedly drawing out or shredding the mass of dough into sheets or membranes, and, when these sheets become highly tenacious, folding them one upon another, thereby confining air between them, and recombining them into the main dough mass, whereby the entire mass becomes aerated, substantially as set forth. 6th. The herein described process of dough treatment, which consist, first, in mingling the ingredients to form a moist dough mass, second, in rapidly moving such mass, or portions thereof, successively, around an axle of rotation, with a centrifugal speed, until sheet-like and shred-like sub-masses are formed, third, in recombining such sub-masses into the general dough mass, and, fourth, continuing said sheeting and shredding and recombining operations rapidly to completely and quickly distribute the ferment and hydrate the gluten, substantially as set forth. 7th. In the art of making dough, the herein described process, consisting, first, in mingling together the ingredients of the dough and partially hydrating the gluten, forming a coherent dough mass, and then causing the said mass, or portions thereof, to move rapidly around an axis of rotation with a centrifugal speed, and throwing off, by centrifugal force, masses or portions of dough, recombining these into the general dough mass, and repeating said operations to complete the hydration of the gluten, substantially as set forth. 8th. In the art of making dough for fermented or leavened bread, the herein described process, which consists in mixing the flour and water, with the other ingredients of the dough, in the proportions of 100 parts, by weight, of flour to approximately 87 parts, by weight, of water, and then, after they have become a coherent mass, completing the hydration of substantially all the gluten, and simultaneously disseminating the yeast or ferment within this hydrated gluten at one initial and continuous operation, and prior to the dough being allowed to rise under the influence of the yeast or ferment, substantially as set forth. 9th. In the art of making dough for fermented or leavened bread, the herein described process, which consists in mechanically completing the intermingling of substantially all of the gluten of the flour with water, thereby completing the hydration of the gluten, and simultaneously disseminating the yeast or ferment within the said hydrated gluten, at one initial operation, and prior to the dough being allowed to rise under the influence of the yeast or ferment, then permitting the dough so made to rise, and then sub-dividing and baking the same before any breaking down or decomposition of the nigrogenous elements of the flour takes place under the action of the ferment, substantially as set forth.

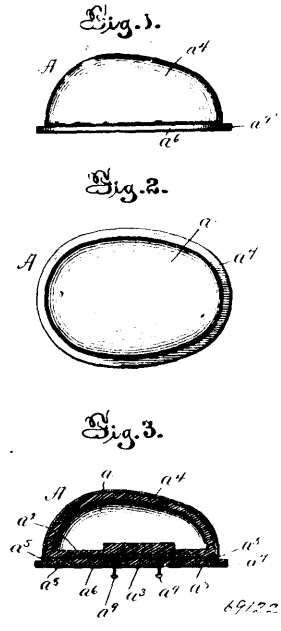
No. 69,121. Machine for Inserting Metallic Fastenings.
(*Machine pour insérer des chevilles metalliques.*)



The United Shoe Machinery Company, New Jersey, assignee of Charles Henry Smith, New Bedford, Massachusetts, U.S.A., 27th October, 1900; 6 years. (Filed 5th October, 1900.)

Claim.—1st. In a machine of the class described, means to drive fastenings or slugs, a device to engage and feed the stock, and means for controlling said device whereby the stock is positioned to receive the slugs alternately in different rows. 2nd. In a machine of the class described, means to drive fastenings or slugs, a device to engage and feed the stock, means for controlling said device whereby the stock is positioned to receive the slugs alternately in different rows, and means to insure that the first slug shall be driven in the row nearest the edge of the stock. 3rd. In a machine of the class described, means to drive fastenings or slugs, a device to engage and feed the stock, means for controlling said device whereby the stock is positioned to receive the slugs alternately in different rows, and means to position said parts to drive the first slug in such row as the operator may desire. 4th. In a machine of the class described, a driver, a feeding device, means to actuate it to feed the stock, and means for varying automatically the position of said feeding device to cause fastenings to be inserted alternately in different rows. 5th. In a machine of the class described, a driver, a device to contact with the edge of the stock and feed it, yielding means to force said feeding device toward the operator, stops to determine the position of said device as the operator presses it back with the stock, and means controlling the operation of said stops whereby the shoe is positioned to receive the slugs or fastenings alternately in different rows. 6th. In a machine of the class described, means to drive a fastening or slug, a device to feed the stock, and means controlling said feeding device whereby the stock is positioned to receive slugs alternately in different rows. 7th. In a machine of the class described, a feeding device a pattern cam, means to operate it, a cam leg, a follower engaged by said leg and co-acting with said cam to change the position of said leg and provide for the insertion into the stock of slugs at different distances from the edge thereof. 8th. In a machine of the class described, a feeding device, a pattern cam, means to operate it, a cam leg, a follower engaged by said leg and co-acting with said cam to change the position of said leg and provide for the insertion into the stock of slugs at different distances from the edge thereof, and means to actuate said feeding device to move the stock and space the slugs at the proper distances apart along the edge of the stock. 9th. In a machine of the class described, a feeding device a pattern cam, means to move it, a cam leg acting upon the inner end of said feeding device, and means to control the position of said cam leg with relation to the center of said pattern cam to thereby place the acting end of the feeding device alternately in different operative positions. 10th. In a machine of the class described, a feeding device, a pattern cam, a follower actuated by said pattern cam, and a cam device interposed between the feeding device and the follower. 11th. In a machine of the class described, a feeding device, a pattern cam, a follower actuated by said pattern cam, and a cam device interposed between the feeding device and the follower, combined with a spring acting normally to move the feeding device toward the center of the pattern cam. 12th. In a machine of the class described, a feeding device, a pattern cam, a follower actuated by said pattern cam, and a cam device interposed between the inner end of the feeding device and the follower, combined with a spring acting normally to move the feeding device toward the center of the pattern cam, and a stop to control the extent of each movement of the feeding device. 13th. In a machine of the class described, a pattern cam, a feeding device, a leg having a member provided with a cam, and adapted in its movements to permit the feeding device to retire from contact with the shoe heel preparatory to the return of said feeding device into its starting position, means intermediate said leg and said pattern cam to ensure two operative positions for said leg to thereby ensure two operative positions for the acting end of said feeding device. 14th. In a machine of the class described, a feeding device, a leg instrumental in determining the operative positions of the acting end of said feeding device, a spring connected with said leg, and an adjusting device to change the tension of said spring. 15th. In a machine of the class described, a feeding device, a leg instrumental in determining the operative positions of the acting end of said feeding device, a spring connecting with said leg, combined with a second spring connecting said feeding device with said leg. 16th. In a machine of the class described, a feeding device, a pattern cam, means to move it to put the acting end of the feeding device in either of a plurality of operative positions, and means to adjustably support said pattern cam. 17th. In a machine of the class described, a feeding device, a pattern cam, a follower, a spring acting normally to put said follower out of the range of movement of the said pattern cam and thereby place the end of the feeding device in its normal position to ensure the insertion of a slug in a row nearest the edge of the stock, a device interposed between said follower and the inner end of the feeding device, and a stop to limit the extent of backward movement of the feeding device by the operator pressing the stock against the acting end of said feeding device. 18th. In a machine of the class described, a feeding device, a pattern cam, actuating means to operate it intermittingly to change the operative position of the acting end of the feeding device, and a device under the control of the operator to turn said pattern cam independently of its actuating means.

No. 69,122. Truss. (*Bandage herniaire.*)

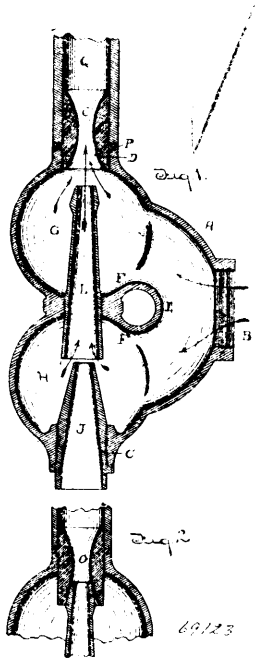


The Rorick Air Cushion Truss Company, assignee of Rollo William Browne, Washington, Columbia, U.S.A., 27th October, 1900; 6 years. (Filed 30th July, 1900.)

Claim.—1st. The combination with a truss pad, substantially as specified, of a shield made of a non-corrosive metal, the same being conformed to the pad and having underturned edges bearing upon the rear wall of the pad, but detatched therefrom, and a plate secured to such rear wall and serving the double function of holding the shield in place, and also of forming a means of attachment of the truss spring, substantially as described. 2nd. A truss pad comprising a hollow, permanently inflated rubber pad, the rear wall of which is provided with a metallic plate, a metallic shield inclosing the convex side of the pad, and having its edges turned under the bearing against the rear wall of the pad, and a plate slightly larger, circumferentially, than the rear of the pad, between which plate and the rear wall and the pad the flange of the shield may work, substantially as described. 3rd. A truss pad comprising a hollow, permanently inflated, rubber pad, the rear wall of which is provided with a metal-

lic plate, a metallic shield inclosing the convex side of the pad, and having its edges turned and bearing against the rear wall of the pad, and a plate slightly larger, circumferentially, than the rear of the pad, and having its inner face channeled out to provide space in which the flange of the shield may work, substantially as described.

No. 69,123. Ejector. *(Éjecteur.)*



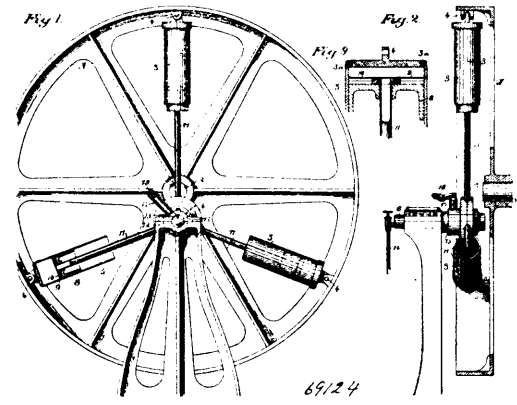
William D. Labadie, South Bend, Indiana, and Joseph George Duck, Milwaukee, Wisconsin, both in the U.S.A., 27th October, 1900; 6 years. (Filed 29th September, 1900.)

Claim.—1st. In an ejector, a body or frame provided with a horizontal partition which divides the frame or body into two separate and distinct chambers, from each of which the water is ejected, substantially as shown. 2nd. In an ejector, a body or frame provided with a horizontal partition F, which extends substantially in a line with the centre of the water inlet, and which partition divides the body or frame into two separate and distinct chambers from both or only one of which the water is ejected by the pressure of the steam, substantially as described. 3rd. In an ejector, a body or frame provided with a partition which divides it into two separate and distinct chambers, combined with a tube which is screwed into and through the partition, a steam ejector tube, and a discharge nozzle, substantially as set forth. 4th. In an ejector, a reversable discharge nozzle, combined with the tube through which both the water and steam are forced, substantially as specified. 5th. In an ejector, a reversible discharge nozzle, and the body or frame into which one end of the nozzle is screwed and which is provided with a horizontal partition, combined with the tube L and the steam ejector tube J, substantially as shown. 6th. In an ejector, a discharge nozzle provided with a flange near one end and which is screw threaded its entire surface upon each side of the flange, the pipe Q into which one end of the nozzle is screwed, and the frame provided with a horizontal partition which divides the frame into two separate and distinct chambers, from one or both of which the water may be ejected, and which partition extends in a line with the inlet for the water, and the tube L which extends through and is supported by the partition, combined with the steam tube J, substantially as set forth.

No. 69,124. Revolving Cylinder Engine.
(Cylindre de machine à vapeur.)

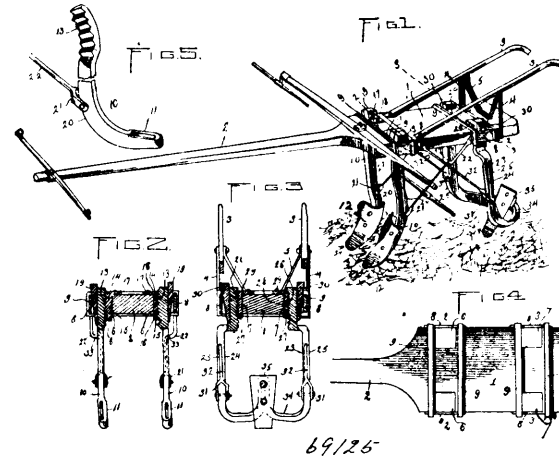
James D. McFarland and John Bruckman, both of San Francisco, California, U.S.A., 27th October, 1900; 6 years. (Filed 2nd October, 1900.)

Claim.—1st. The combination in an engine of radially disposed cylinders, a wheel and a central shaft with relation to wh ch it is turnable, with the rim of which wheel the cylinders are connected, a second shaft having inlet and outlet passages for the propelling medium, rings enclosing the shaft with which rings the hollow piston rods of the cylinder connect, a sleeve interposed between the rings and the shaft having slots which coincide periodically with the passages in the shaft and those leading to the hollow piston rode whereby the propelling medium is admitted and exhausted, and mechanism whereby said sleeve may be turned to change the position of the slots with relation to the inlet and outlet passages and the engine be reversed. 2nd. In an engine, radially disposed cylinders closed at both ends, hollow piston rods extending through stuffing boxes



and connecting with a source of supply eccentric to the centre about which the cylinders are revoluble, said piston rods having independent passages longitudinally through them, one of said passages communicating with the cylinder space, upon one side of the piston, and the other with the cylinder space upon the opposite side. 3rd. The combination in an engine of radially disposed cylinders having closed ends, a wheel, a central shaft with relation to which it is turnable, and with the rim of which wheel the cylinders are connected, a second shaft eccentrically located with relation to the first shaft having inlet and outlet passages for the propelling medium, rings enclosing the shaft, hollow piston rods extending through stuffing boxes in the inner heads of the cylinders and having independent passages therethrough communicating respectively with the cylinder chambers upon opposite sides of the piston, rings enclosing the supply shaft with which rings the hollow piston rods connect, a sleeve interposed between the rings and the shaft having slots which coincide periodically with the passages in the shaft, and thus leading to the hollow piston rods whereby the propelling medium is alternately admitted and exhausted from the opposite sides of the piston.

No. 69,125. Plough. *(Charrue.)*



Philip S. McRae, Morven, Georgia, U.S.A., 27th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1st. In a device of the character set forth, the combination of a bed beam having pairs of openings therethrough at the front and rear extremities, separate standards adjustably mounted in the front pair of openings and having cultivating devices thereon, and a yoke standard having portions thereof adjustably mounted in the rear pair of openings and also provided with a cultivating device. 2nd. In a device of the character set forth, the combination of a bed-beam having front and rear openings therein, dogs with depending portions extending into the said openings and provided with clutch teeth, separate standards provided with clutch teeth on the upper extremities thereof to adjustably coincide with the teeth on the depending portion of the said dogs and provided with cultivation devices, a rear yoke standard having portions similarly adjustable in the rear openingsand with dogs having a like construction as those on the front openings and a cul-

tivating device carried by the said yoke standard. 3rd. In a device of the character set forth, the combination of a bed beam having front and rear pair of openings therein separate standards carrying cultivating devices adjustably mounted in the said front pair of openings, a rear yoke standard having opposite portions adjustably mounted in the rear pair of openings and provided with a cultivating device, said parts being movable and interchangeable, and means for bracing the standards. 4th. In a device of the character set forth, the combination of a bed beam, front and rear standards adjustably and removably mounted therein, and brace rods movably attached to opposite sides of bed beam and the said standards. 6th. In a device of the character set forth, the combination of a bed beam having front and rear standards adjustably and removably mounted therein, opposite rods removably connected to the sides of the bed beam and the standards and having angular deflections at intermediate points, and other side rods connected to the opposite portions of the rear standards and the sides of the bed beam, the said latter rods crossing the first mentioned ones. 6th In a device of the character set forth, the combination of a bed beam having front and rear pairs of opening extending therethrough, plates forming the outer end walls for the said openings metallic bands surrounding the said bed beam an dengaging the opposite extremities of the plate, and standards adjustably mounted in the said openings and having cultivating devices thereon.

No. 69,126. Incombustible Lampwick.

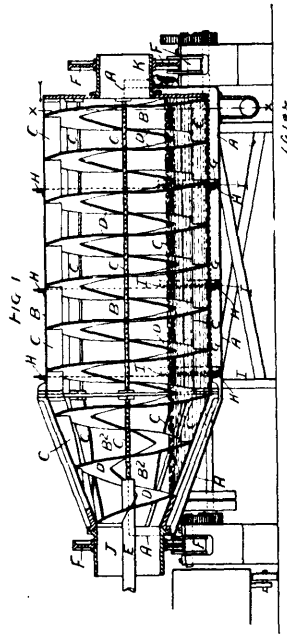
(*Mèche de lampe.*)

Adoft Albrecht, 4 Grimm street, Berlin, Prussia, 27th October, 1900; 6 years. (Filed 31st January, 1900.)

Claim.—A process for rendering lamp wicks incombustible and increasing the suction powers of the same, which consists in first saturating the wick with a solution of a magnesium salt, then treating the same with a solution of an alkaline salt and thus producing a precipitation of an insoluble salt of magnesium on the fibres of the wick, substantially as described,

No. 69,127. Apparatus for Washing Fibrous Materials.

(*Appareil à laver les matières fibreuse.*)



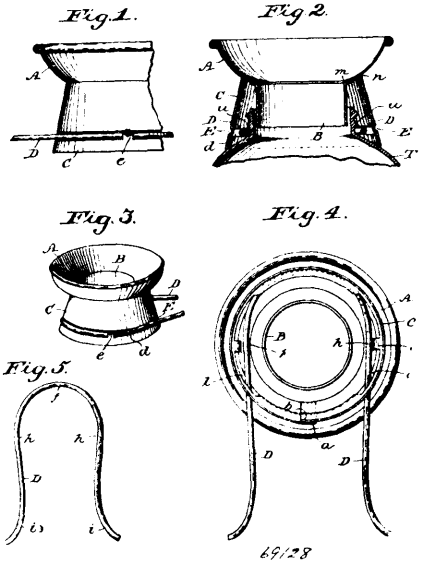
James Hunter Annadale, Polton, Midlothian, Scotland, 27th October, 1900; 6 years. (Filed 19th February, 1900.)

Claim.—In combination, a trough, a drum mounted therein, means for rotating the drum, ribs projecting from said trough and leather rings carried by the drum to press firmly against said ribs and prevent the passage of water, substantially as described.

No. 69,128. Fruit Jar Filler. (*Entonnoir pour jarres.*)

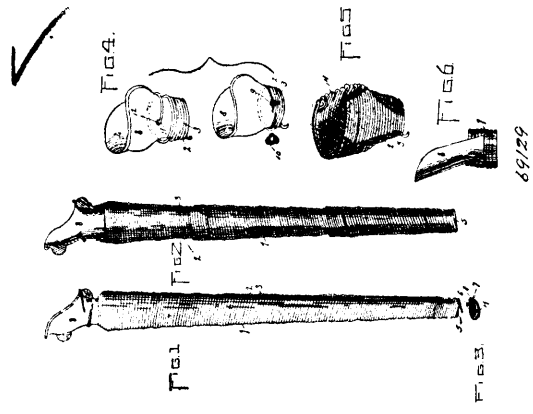
John H. Ashbaugh, and Cheever L. Webster, both of Indianapolis, Indiana, U. S. A., 27th October, 1900; 6 years. (Filed 24th September, 1900.)

Claim.—1st. A fruit jar filler including a funnel, a base provided with apertures extending circumferentially, and a clamp mounted movably in the apertures of the base. 2nd. A fruit jar filler including a funnel provided with an apertured base and a funnel tube within the base, and a clamp working in the apertured base, whereby the filler may be connected to a jar and the jar carried thereby. 3rd. A fruit jar filler including a funnel having a funnel tube, a



base provided with circumferentially disposed apertures and surrounding the funnel tube, and a substantially U shaped clamp extending through and working in the apertures of the base whereby to engage a jar neck. 4th. A fruit jar filler consisting of a funnel including a funnel tube, a base attached to the funnel and surrounding funnel to the tube and provided with apertures therein, and a spring clamp working in the apertures in the base. 5th. The combination with a funnel, of a base provided with circumferentially disposed apertures and extending below the apertures as a gauge for a clamp, and a clamp mounted in the apertures and extending into the interior of the base so as to engage a jar neck, when the base encloses the same. 6th. A fruit jar filler consisting of a bowl apertured at the bottom thereof, a tube attached to the bottom of the bowl at the aperture thereof, a base provided with circumferentially disposed apertures and secured to the bowl and surrounding the tube, and a substantially U-shaped spring clamp extending through the apertures in the base to the interior thereof and projecting through at opposite sides of the base.

No. 69,129. Grain Drill Tube. (*Tube pour semoirs.*)

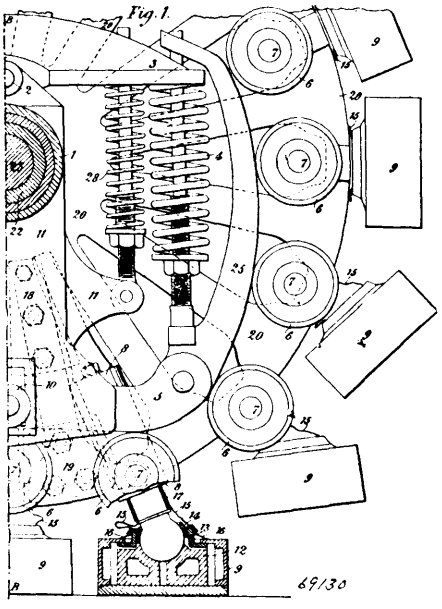


John W. Poindexter, Cynthiana, Kentucky, U.S.A., 27th October, 1900; 6 years. (Filed 19th September, 1900.)

Claim.—1st. A combined grain drill tube and cup made of wire coiled spirally to form the tube, and the cup, being formed by loops in the wire, the wire strands lying in contact, substantially as described. 2nd. A grain drill tube formed of wire coiled spirally and the adjacent coils lying in contact with each other, the discharge end of the tube being of greater flexibility than the upper end, substantially as described. 3rd. A grain tube formed of spirally coiled wire, a flap valve secured to the discharge end of the said tube, said valve consisting of a disk hinged to the outer coil of the tube, substantially as described. 4th. A combined grain drill tube and cup formed of wire coiled spirally to form the tube and the cup being

ormed by loops of wire in larger gauge than the wire from which the ube is formed, substantially as described. 5th. A grain drill tube made of wire coiled spirally and having the adjacent coils in contact with other, the receiving end of the tube being flared, as and for the purpose set forth. 6th. The combined grain drill tube and cup comprising the coiled wire tube and the semi-cylindrical cup held by the resilient upper coils of the tube, substantially as described. 7th. A grain drill tube made of wire coiled spirally with an agitator and protector, substantially as described.

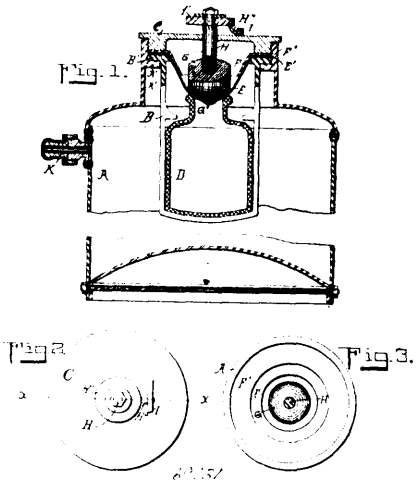
No. 69,130. Traction Engine. (*Locomobile à traction.*)



Bramah Joseph Diplock, 53 Asley Gardens, Westminster, Middlesex, England, 27th October, 1900; 6 years. (Filed 18th July, 1900.)

Claim.—1st. The combination of a vehicle body, an oscillating rail pivotted to it, feet carried by it, means for placing the feet successively on the ground and rollers pivotted to the feet and supporting the rail. 2nd. The combination of a vehicle body, an axle and a rail carried by it, a disc pivotted on the axle, guides on the disc, spokes working in the guides, feet pivotted to the spokes, means for placing the feet successively on the ground and rollers pivotted to the feet and supporting the rail. 3rd. In a foot for suping a vehicle, the combination of a box, a block free to move inside the box, a spoke and a universal joint connecting the spoke to the block. 4th. In a foot for supplying a vehicle, the combination of a box, a block having a spherical recess in its top free to move inside the box, an inverted cup resting on the block and also free to move in the box, a second cup inside the first, a spoke and a ball on the end of the spoke fitting inside the recess and the inner cup. 5th. The combination of a vehicle body, a lever pivotted to the body and and supporting it, a rail, spring connections between the lever and rail, feet carried by the body, means for placing the feet successively on the ground and rollers pivotted to the feet and supporting the rail. 6th. The combination of a vehicle body, a lever pivotted to the body and supporting it, a rail, spring connections between the lever and rail, a disc pivotted to the body, guides on the disc, spokes working in the guides, springs tending to draw the spokes inwards, feet pivotted to the spokes, rollers pivotted to the spokes and means for forcing the rollers outwards as the feet approach approach the ground and guiding them beneath the rail. 7th. The combination of a vehicle body, a lever pivotted to the body and supporting it, a guide fixed to the body, a rail, a pivot at the middle of the rail working in the guide, spring connections between the lever and rail, feet carried by the body, means for placing the feet successively on the ground and rollers pivotted to the feet and supporting the rail. 8. The combination of a vehicle body, a lever pivotted to the body and supporting it, a guide fixed to the body, a rail, a pivot at the middle of the rail working in the guide, spring connections between the lever and rail, a disc pivotted to the body, guides to the disc, spokes working on the guides, springs tending to draw the spokes inwards, feet pivotted to the spokes, rollers pivotted to the spokes and means for forcing the rollers outwards as the feet approach the ground and guiding them beneath the rail. 9th. The combination of a vehicle body, a lever pivotted to the body and supporting it, a rail, spring connections between the lever and rail, a disc pivotted to the body, guides on the disc, spokes working in the guides, springs tending to draw the spokes inwards, universal joints at the ends of the spokes, feet carried by the joints. rollers pivotted to the spokes, and means for forcing the rollers outwards as the feet approach the ground and guiding them beneath the rail. 10th. The combination of a vehicle body, a lever pivotted to the body and supporting it, a guide fixed to the body, a rail, a pivot at the middle of the rail working in the guide, spring connections between the lever and rail, a disc pivotted to the body, guides on the disc, spokes working on the guides, springs tending to draw the spokes inwards, universal joints at the ends of the spokes, feet carried by the joints, rollers pivotted to the spokes and means for forcing the rollers outwards as the feet approach the ground, and guiding them beneath the rail. 11th. The combination of a vehicle body, a lever pivotted to the body and supporting it, a rail, spring connections between the lever and rail, feet carried by the body, means for placing the feet successively on the ground, rollers pivoted to the feet and supporting the rail, and spring connections between the and the body lever. 12th. The combination of a vehicle body, a lever pivoted to the body and supporting it, a rail, spring connections between the lever and rail, a disc pivotted to the body, guides on the disc, spokes working in the guides, springs tending to draw the spokes inwards, feet pivoted to the spokes, rollers pivoted to the spokes, means forcing the rollers outwards as the feet approach the ground and guiding them beneath the rail, and spring connections between the body and the lever. 13th. The combination of a vehicle body, a lever pivoted to the body and supporting it, a guide fixed to the body, a rail, a pivot at the middle of the rail working in the guide, spring connections between the lever and rail, feet carried by the body, means for placing the feet successively on the ground, rollers pivoted to the feet and supporting the rail, and spring connections between the body and the lever. 14th. The combination of a vehicle body, a lever pivoted to the body and supporting it, a guide fixed to the body, a rail, a pivot at the middle of the rail working in the guide spring connections between the lever and rail, a disc pivotted to the body, guides on the disc, spokes working in the guides, springs tending to draw the spokes inwards, feet pivoted to the spokes, rollers pivotted to the spokes, means for forcing the rollers outwards as the feet approach the ground and guiding them beneath the rail, and spring connections between the body and the lever. 15th. The cobination of a vehicle body, a lever pivotted to the body and supporting it, a rail, spring connections between the lever and rail, a disc pivoted to the body, guides on the disc, spokes working in the guides, springs tending to draw the spokes inwards, universal joints at the ends of the spokes, feet carried by the joints, rollers pivoted to the spokes, means forcing the rollers outwards as the feet approach the ground and guiding them beneath the rail, and spring connections between the body and the lever. 16th. The combination of a vehicle body, a lever pivoted to the body and supporting it, a guide fixed to the body, a rail, a pivot at the middle of the rail working in the guide, spring connections between the lever and rail, a disc pivoted to the body, guides on the disc, spokes working in the guides, springs tending to draw the spokes inwards, universal joints at the ends of the spokes, feet carried by the joints, rollers pivoted to the spokes, means for forcing the rollers outwards as the feet approach the ground and guiding them beneath the rail, and spring connections between the body and the lever.

No. 69,131. Fire Extinguisher. (*Extincteur d'incendie.*)

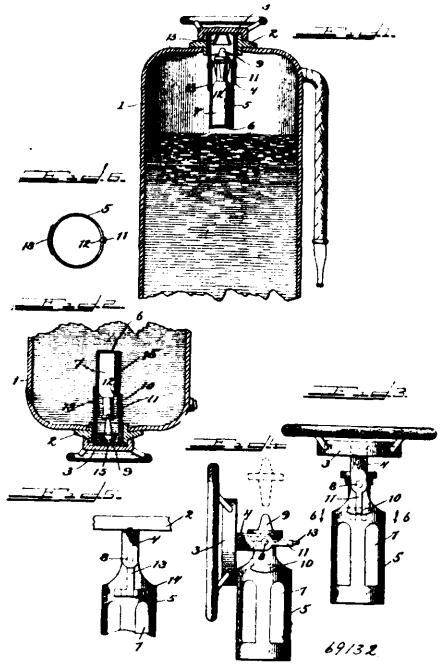


Mancelia Eugene Ogden, Newark, New Jersey, U.S.A., 27th October, 1900; 6 years. (Filed 10th March, 1900.)

Claim.—1st. An invertible fire extinguisher comprising a solution vessel, an acid receiver suitably supported in a vertical position within the solution vessel, a funnel shaped yielding diaphragm arranged within the solution vessel with its apex normally in close

proximity to the mouth of the acid receiver, means for retaining said diaphragm in position within the solution vessel, and a weight situated wholly within and fixed to the diaphragm at the apex thereof, the said weight being capable under normal conditions of seating the apex of the diaphragm upon the mouth of the acid reciver to close and seal the same, and of unseating the apex of said diaphragm from the mouth of the acid receiver upon the extinguisher being inverted or upset, as herein specified. 2nd. In an invertible fire extinguisher, the combination of a solution vessel, a funnel shaped diaphragm of yielding material within the solution vessel, a cap for the solution vessel, the said cap being provided with a catch, as I, and a central orifice, and adapted to hold said diaphragm in place within the solution vessel, a weight situated wholly within the diaphragm and secured to the apex thereof, a rod rigidly secured to and projecting upward from said weight through the central orifice of the cap, and a button rotatably mounted on the outer end of said rod, the said button having a member adapted to engage said catch upon said button being suitably rotated, substantially as herein specified. 3rd. In an invertible fire extinguisher, the combination of a solution vessel having a neck provided with an interior annular ledge, a funnel shaped yielding diaphragm having a flange at its upper edge adapted to engage said ledge, a detached guard let into said diaphragm and having an annular flange adapted to engage the flange of the diaphragm, the said guard being suitably shaped to admit of inward and outward folding of the apex portion of the diaphragm and outward folding only of the upper portion of said diaphragm, a weight situated wholly within and fixed to the apex of the diaphragm, and means for retaining said diaphragm and said guard relatively in place within the solution vessel, substantially as herein specified.

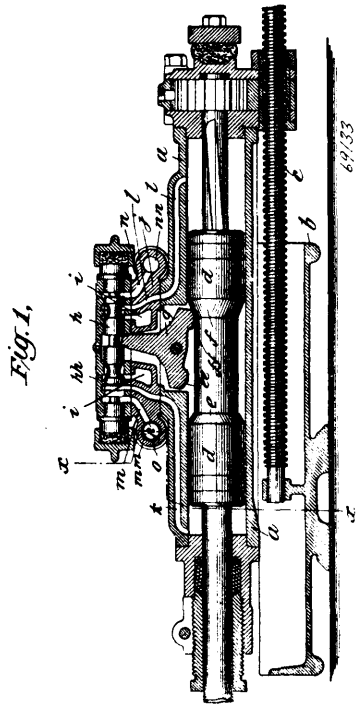
No. 69,132. Fire Extinguisher. (*Extincteur d'incendie.*)



The Fire Extinguisher Manufacturing Company, New York City, assignee of Ernest Frederic Steck, Chicago, Illinois, U.S.A., 27th October, 1900; 6 years. (Filed 11th June, 1900.)

Claim.—1st. In a fire extinguisher the combination of a tank, a chemical bottle, a two parl bottle basket or holder located in said tank and having its members hinged together near the uppor end of the bottle in said bottle basket and means operated by the movement of one of said members for holding the bottle in place in the other member, substantially as set forth. 2nd. In a fire extinguisher the combination of a tank, a chemical bottle, a bottle basket having a hinged bale provided with a projection adapted to come against a part of the bottle when the bale is in its normal position, for holding the bottle in place when the tank is inverted, substantially as set forth. 3rd. In a fire extinguisher, the combination of a tank, a chemical bottle, a two part bottle basket or holder one of which parts is provided with a slot and the other with a projection adapted to enter said slot and engage with the bottle when the members of the basket are in their normal position, substantially as set forth. 4th. In a fire extinguisher, the combination of a tank, the cap 3, having the stopper guide 15 on the under side thereof, the hangers 4 depending from said cap and having the projections 11 and 13 respectively, the lug 12 on the projection 11, a basket hinged to said hangers 4 and having the slot 10 for receiving the lug 12, a bottle in said basket engaged by said lug 12, the catch 14 on said basket for engaging the projection 13 and the stopper 9, substantially as set forth.

No. 69,133. Rock Drill. (*Machine à percer.*)

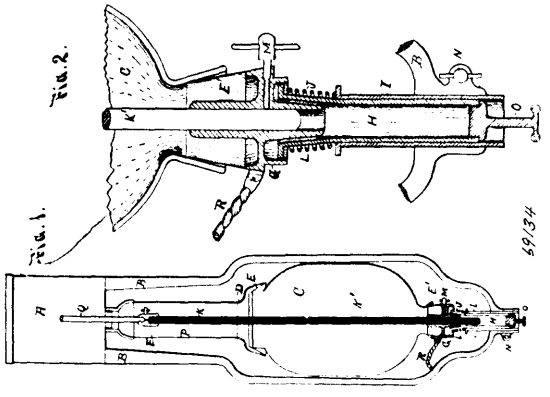


The Rand Drill Company, New York City, assignee of Robert L. Ambrose, North Tarrytown, both of New York, U.S.A., 27th October, 1900; 6 years. (Filed 18th January, 1900.)

Claim.—1st. In a rock drill, the combination with a cylinder, a piston, and a valve for controlling the admission and exhaust of the motive fluid thereto, of mechanism for reversing the position of the valve at or near the end of each stroke of the piston, and an independent short stroke contrivance forming a cushioning device by means of which the position of the valve may be reversed at a point in the stroke intermediate of the points at which reversal of the valve by the main valve operating means is produced, substantially as specified. 2nd. In a rock drill, the combination with a cylinder, a piston, and a valve for controlling the admission and exhaust of the motive fluid thereto, of means operated by the piston to move the valve at or near the end of a full ttroke of said piston, and an elactic pressure controller, by the manipulation of which, pressure is applied to move the valve intermediate of the full stroke of the piston, substantially as specified. 3rd, In a rock drill, the combination with a cylinder, a piston, and a valve for controlling the admission and exhaust of the motive fluid thereto, of a rocker or tappet operated by the piston to move the valve at or near the end of a full stroke of the piston, and an elastic pressure conrroller, by the manipulation of which, pressure may be applied to the valve to move same intermediate of a full stroke of the piston, substantially as specified. 4th. In a rock drill, the combination with a cylinder, a piston, and a valve for controlling the admission and exhaust of the motive fluid thereto, of a rocker or tappet operated by contact with the piston to move the valve at or near the end of a full stroke of the piston, and an elastic pressure controlled by the manipulation of which pressure, applied by the movement of the piston, may be applied, independently of the action of the said piston on the rocker, to the valve to move same intermediate of the full stroke of the piston, substantially as specified. 5th. In a rock drill, the combination with a cylinder, a piston, and a valve controlling the admission and exhaust of the motive fluid thereto, of means operated by the piston at the end of its stroke to move the valve in one direction, and means whereby an elastic pressure may be applied to move the valve in the opposite direction prior to its completion of a full stroke and immediately upon its release from the action of the piston operated means, substantially as specified. 6th. In a rock drill, the combination with a cylinder, a piston, and a valve for controlling the admission and exhaust of the motive fluid thereto, of a rocker or tappet operated by the piston at the end of its stroke to move the valve in one direction, and means whereby an elastic pressure may be applied to move the valve in the opposite direction, prior to its completion of a full stroke and immediately upon its release from the action of the tappet, subrtantially as specified. 7th. In a reciprocating engine, the combination with a cylinder, a piston and a distributing valve, of ports for the admission and ex-

haust of the motive fluid to and from the cylinder and means for closing the exhaust at one end of the cylinder independently of the distributing valve, whereby the compression of the motive fluid will move the said distributing value, substantially as specified. 8th. In a reciprocating engine the combination with a cylinder, a piston and a reciprocating valve, of ports for the admission and exhaust of the motive fluid to and from the cylinder, controlled by said valve and an independent valve arranged in the exhaust port whereby the said exhaust port may be closed independent of the reciprocating valve to shorten the stroke of the engine, substantially as specified. 9th. In a reciprocating engine, the combination with a cylinder and a piston of an inlet for the motive fluid, two admission ports for admitting the motive fluid to the front or rear of the said piston in the cylinder as the said ports are alternately connected with the said inlet, two exhaust ports for exhausting the said motive fluid as the said exhaust ports are alternately connected with the respective admission ports, a reciprocating valve for alternately connecting the said admission ports with the inlet, and with the exhaust, and an independent valve provided in one of said exhaust ports, whereby the compression of the motive fluid will move the said reciprocating valve, substantially as specified. 10th. In a reciprocating engine, the combination with a cylinder, a piston and a reciprocating valve, of ports for the admission and exhaust of the motive fluid to and from the cylinder controlled by said valve, an independent valve arranged in the exhaust port whereby the compression of the motive fluid will move the said reciprocating valve and stops for limiting the movement of the valve whereby sufficient opening is left when the valve is in closed postion to permit the escape of superfluous motive fluid, substantially as specified. 11th. In a reciprocating engine, the combination with a cylinder, a piston, a valve chamber having a cylindrical bore, a cylindrical piston valve adapted to reciprocate therein, and admission and exhaust ports, of an independent valve arranged in one of said exhaust ports, and a communication between the said exhaust port and the vavle chamber in front of the cylindrical piston valve whereby the compression of the motive fluid will move said cylindrical valve, substantially as specified. 12th. In a reciprocating engine, the combination with a cylinder, a piston, a valve chamber having a cylindrical bore, a cylindrical piston valve adapted to reciprocate therein, and admission and exhaust ports, of a rocker operated by the said piston to move the valve at or near the end of a full stroke of the piston, and an independent valve arranged in one of the said exhaust ports whereby the compression of the motive fluid will move the said cylindrical piston valve independently of said rocker, substantially as specified. 13th. In a rock drill, the combination with a cylinder, a piston, a valve chamber having a cylindrical bore, a cylindrical piston valve adapted to reciprocate therein, and admission and exhaust port, of a rocker operated by the said piston to move the valve at or near the end of a full stroke of the piston, and an independent valve, arranged in one of the exhaust ports, said valve being spring actuated in one direction whereby same is normally held open, but adapted to be closed against the tension of said spring when desired to close the said port independently of the said rocker, substantially as specified. 14th. In a rock drill, the combination with a cylinder, a piston and a vavle for control'ing the admission and exhaust of the motive fluid thereto, of means operated by the piston to move the valve at or near the end of a full stroke of said piston, an elastic pressure controller, by the manipulation of which, pressure is applied to move the valve intermediate of the full stroke of the piston, and means for automatically returning the elastic pressure controller to its normal out of operation position. 15th. The combination in a rock drill with a cylinder, a piston, a distributing valve and valve gear for same, of a short stroke device having means for automatically throwing it out of operation when released.

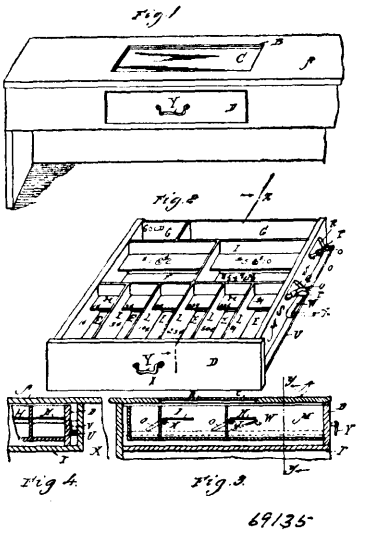
No. 69,134. Arc Lamp. (*Lampe à arc.*)



Edwin B. Jones, Chatham, Ontario, Canada, 27th October, 1900; 6 years. (Filed 12th May, 1900.)

Claim.—1st. In an attachment for arc lamps, the combination of the flexible joints, E and E¹, with the open ends of the glass globe C, the upper joint support D, and the lower joint support G, substantially as and for the purposes specified. 2nd. In an attachment for arc lamps, the combination with the globe C, the flexible joints E and E¹, and the frame B, having any suitable clutch for the tube I, the tube I, the tube H, within the tube I, the spring J, between the flanges of the tubes I and H, and the carbon holder G, all substantially as described.

No. 69,135. Money Drawer. (*Tiroir à monnaie.*)



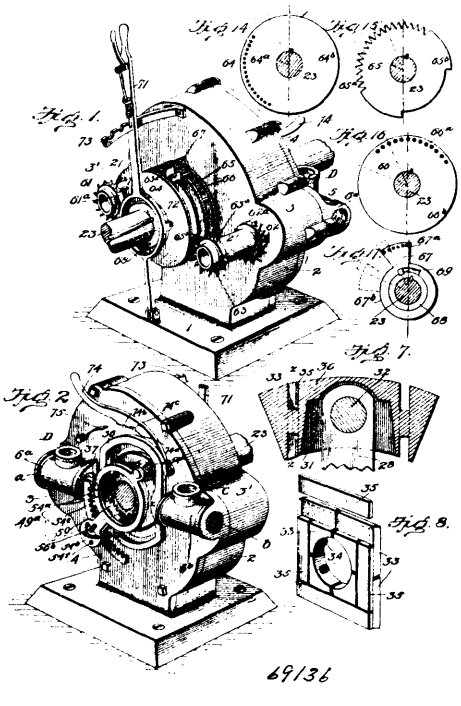
Samuel Collins Anderson, Springfield, Ohio, U.S.A., 27th October, 1900; 6 years. (Filed 23rd July, 1900.)

Claim.—1st. The combination with a money drawer, of a tabl pivotally supported therein and adapted to receive purchase money thereon, means for normally holding said table in a substantially horizontal plane, and means operated by the drawer for moving said table out of said plane on opening the drawer, whereby money is placed upon the table may remain therein until the drawer is pulled out, all substantially as shown and described. 2nd. The combination with a money drawer, divided into receptacles for different denominations of money, of a table for each receptacle pivotally mounted therein, means for normally holding said tables in a substantially horizontal plane, and means for moving each of said tables out of a horizontal plane by opening said drawer, such tables being adapted to receive purchase money thereon and hold the same thereon until moved out of a horizontal plane, thereby discharging such money into its respective receptacle, all substantially as shown and described. 3rd. The combination with a money drawer, divided into receptacles for different denominations of money, of a table mounted in each receptacle upon which the money for its receptacle is adapted to be deposited, said tables also holding the money deposited thereon until the drawer is opened, and means to discharge the money into proper compartment by opening said drawer, all substantially as shown and described. 4th. The combination with a money drawer divided into receptacles for different denominations of money, of a table for each of said receptacles and mounted therein, one or more pivoted rods to which said tables are secured and means for rocking said rods by the opening of said drawer before purchase money may be placed upon any of said tables, thereby discharging money previously placed upon any of them into its respective receptacle, all substantialy as shown and described. 5th. The combination with a counter, of a money drawer adapted to slide therein, a transparent cover over said drawer, a double row of receptacles in said drawer, one row of receptacles being for money of smaller denominations while the other row of receptacles is for money of larger denominations, a rod for each row of receptacles, said rods each having a crank, a table for each receptacle adapted to be secured to the rod for such receptacle, a guide strip upon which said cranks normally rest, means to normally hold said cranks in such position and to return them thereto after being partially rotated, a spring supported at one end by said counter above said guide strip and at its other end resting upon said guide strip in the path of said cranks, whereby when said drawer is pulled out the cranks will ride over said spring and partially rotate said tables, and when said drawer is pushed in said cranks will ride under said spring without moving said tables. 6th. The combination with a counter, of a money-drawer slidingly mounted therein, said drawer being divided into suitable receptacles for various denominations of money, of a swinging table for each of said receptacles, a rod extending through said

receptacles, a weighted lever connected with said rod to normally hold said tables in their normally raised position, and an inc med spring for raising said crank and partially rotating said tables, whereby money placed upon the tables will be deposited in its proper receptacle, all substantially as shown and described. 7th. In a money drawer, a series of longitudinal receptacles and a series of transverse receptacles, a rod adapted to extend through said transverse receptacles and having its bearings in the partitions between them, a table for each of said receptacles secured to its respective rod, a crank for each of said rods, a weight upon each of said cranks and adapted to operate upon said cranks to normally hold said tables in their normally raised position, and an inclined spring adapted to operate each of said cranks to partially rotate said tables when said drawer is pulled out and adapted to yield to permit said cranks to pass beneath it when the drawer is pushed in, all substantially as shown and described.

No. 69,136. Rotary Steam Engine.

(*Machine à vapeur rotatoire.*)



John Bunyon Kelly, Portland, Oregon, U.S.A., 27th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. In a rotary steam engine, the combination with an annular steam chamber, one of the walls of which is provided with an annular slot, said chamber being provided with inlet and exhaust ports, a suitably mounted drive shaft, an arm carried by said drive shaft and extending through said slot, a piston carried by said arm, a ribbon or band located within said chamber and closing said slot, said arm having a sliding engagement with said ribbon or band, and impact heads having rotary movements across the path of movement of said piston within said chamber, substantially as and for the purpose set forth. 2nd. In a rotary steam engine, the combination with the annular steam chamber provided with inlet and exhaust ports, of a rotary piston, impact heads, and means for rotating the impact heads a complete revolution with variable movements at predetermined intervals across the path of movement of said piston in said chamber, substantially as and for the purpose set forth. 3rd. In a rotary steam engine, the combination with the annular steam chamber provided with inlet and exhaust ports, of a rotary piston, impact heads provided with supplemental exhaust passages, and means for rotating the impact heads a complete revolution with variable movements at predetermined intervals across the path of movement of said piston in said chamber, substantially as and for the purpose set forth. 4th. In a rotary steam engine, the combination with the annular steam chamber provided with impact head chambers and with alternately acting inlet and exhaust ports and with segmental guide blocks, of valve chests communicasing with said ports, valves located in said chests, means for simultaneously actuating said valves, and impact heads located in their respective chambers and provided with auxiliary passages, and means for rotating said impact heads across the steam chamber, substantially as and for the purpose set forth. 5th. In a rotary steam engine, the combination with an annular steam chamber, one of the walls of which is is provided with an annular slot, said chamber being provided with inlet and exhaust ports, a suitably mounted drive shaft, an arm carried by said drive shaft and extending through said slot, a piston carried by said arm, a ribbon or band located within said chamber and closing said slot, said arm having a sliding engagement with said ribbon or band, and impact heads having rotary intermittent variable movements across the path of movement of said piston within said chamber, substantially as and for the purpose set forth. 6th. The combination with a drive shaft of a rotary steam engine, impact heads arranged to cross the path of movement of the engine piston, shafts extending from said impact heads, segmental pinions on each shaft, a segmental opening gear carried by the drive shaft and adapted to engage one set of the aforesaid segmental pinions and rotate the impact heads from their position across the steam space of the engine three-quarters of a revolution, and a segmental closing gear rotating with said shaft and adapted to engage the other set of the aforesaid segmental pinions and rotate the impact heads one quarter of a revolution, substantially as and for the purpose set forth. 7th. The combination with a drive shaft of a rotary steam engine, impact heads arranged to cross the path of movement of the engine piston, shafts extending from said impact heads, segmental pinions on each of said shafts, a segmental opening gear carried by said drive shaft and adapted to engage one set of pinions in the movement of the piston in one direction, a stopping segmental gear adapted to engage said last-named set of pinions in the stopping of the engine, a reverse segmental opening gear adapted to engage said latter set of pinions in the reverse movement of the engine, and a segmental closing gear connected to the drive shaft to turn therewith and to have a limited rotary movement with respect to the same, said segmental gear adapted to engage the other set of segmental pinions in either the forward or reverse movement of the engine, substantially as and for the purpose set forth. 8th. In a valve regulating mechanism, the combination with a rotary drive shaft, of a positive valve shifter mounted to turn with said shaft and having an independent radial movement with respect to the same, a variable valve shifter loosely mounted on said shaft to turn independently of the same and in a smaller arc of a circle, a governor weight pivoted eccentrically to the positive valve shifter and geared to the variable valve shifter to rotate the same independently of the drive shaft, substantially as and for the purpose set forth. 9th. In a valve regulating machanism, the combination with a rotary drive shaft, of a positive valve shifter mounted to turn with said shaft and having an independent radial movement with respect to the same, a variable valve shifter loosely mounted on said shaft and provided with a segmental gear, a governor weight pivoted eccentrically to the positive valve shifter and provided with a curved rack, and a pinion hung from the drive shaft and in mesh with the curved rack and with the segmental gear, substantially as and for the purpose set forth. 10th. In a valve regulating mechanism, the combination with the rotary drive shaft, of a positive valve shifter mounted to turn with said shaft and having an independent radial movement with respect to the same, a variable valve shifter loosely mounted on said shaft and provided with a segmental gear, a hanger fixed to turn with said positive valve shifter, a governor weight pivoted eccentrically to the positive valve shifter by a pivot pin and provided with a curved rack, a pinion journalled eccentrically to the pinion hanger and engaging said curved rack and the segmental gear, and a spring having one end connected to the pivot pin and the other end to the governor weight, substantially as and for the purpose set forth. 11th. In a valve regulating mechanism, the combination with the rotary drive shaft, of a lock keyed thereto and provided with a hooked head and a supporting collar or ledge, a positive valve shifter supported upon said collar by an interposed spring and having an iedependent radial movement with respect to the shaft, a pinion hanger mounted on said shaft, a pinion, a pin upon which the pinion is mounted, said pin passing through an ear of said hanger and engaging a notch a said positive valve shifter, a variable valve shifter mounted to loosely turn upon said shaft and provided with a segmental gear which meshes with said pinion, a governor weight provided with a curved rack to engage said pinion, a pin pivotally connecting the governor weight with the positive valve shifter and having its inner end engaging the hooked head of the lock, and a spring having one end connected with the outer end of said latter pin and its other end connected to the governor weight, substantially as and for the purpose set forth. 12th. The combination with the reciprocating valves and a connecting yoke, of a rotary drive shaft, a positive valve shifter mounted to turn with said shaft and engage the yoke, and having an independent radial movement with respect to the shaft, a variable valve shifter loosely mounted on said shaft to turn independently of the same and in smaller arc of a circle and to engage the yoke, a governor weight pivoted eccentrically to the positive valve shifter and geared to the variable valve shifter to rotate the same independently of the drive shaft, substantially as and for the purpose set forth.

No. 69,137. Hay Carrier. (*Monte-foin.*)

William Loudon, Fairfield, Iowa, U.S.A., 27th October, 1900; 6 years. (Filed 13th October, 1900.)

Claim.—1st. The combination of a track, a carrier adapted to run thereon, a stop secured to said track, an inclined flange on said stop and an abruptly inclined shoulder on the under side of said flange, a dog adapted to move up and down in the frame of the carrier and be held in elevated position therein, an upper lug on said dog adapted

to slide up on said inclined flange, and a lower lug adapted to catch against said shoulder, substantially as set forth. 2nd. The com-

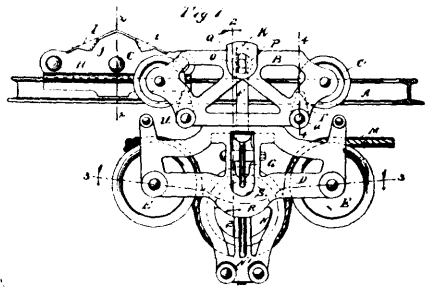


Fig 3

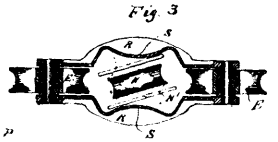
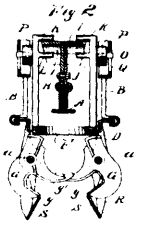


Fig 2



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bination of a track, a carrier adapted to run thereon, a stop secured to said track, doubly inclined flanges on said stop and abruptly inclined shoulders on the lower sides of each of said flanges, a dog adapted to move up and down in the frame of the carrier and be held in elevated position therein, upper lugs on said dog adapted to slide up said inclined flanges and lower lugs adapted to catch against said shoulders, substantially as described. 3rd. In hay carriers, and in combination with a vertically movable dog having upper and lower lugs, a stop having inclined flanges on its upper edge, and abruptly inclined shoulders on the lower side of said flanges, the upper faces of said flanges being cut away opposite said shoulders, substantially as shown and described. 4th. In hay carriers, a dog having a vertical movement in recesses in the frame of the carrier, said dog having lugs thereon for the engagement of a track stop, bosses or axles on the outer sides of said dog, and rollers mounted on said bosses and adapted to run in said recesses to relieve the dog of friction therein, substantially as described. 5th. In hay carriers, a dog having vertical movement in recesses in the frame of the carrier, said dog having lugs thereon for the engagement of a track stop, bosses or axles on the outer side of said dog, and rollers mounted on said bosses and adapted to run in said recesses to relieve the dog of the friction therein, said bosses being extended out beyond said rollers, and adapted to move in slots in the frame of the carrier, substantially as set forth. 6th. In hay carriers, a dog having vertical movement in recesses in the frame of the carrier, said dog having lugs thereon for the engagement of a track stop, upper and lower bosses on the outer sides of said dog and rollers mounted on said bosses and adapted to run in recesses in the frame of the carrier, substantially as set forth. 7th. A hay carrier having a frame with an open mouth for the admission of an elevating pulley, the central portions of said frame on each side of said mouth being contracted to fit the pulley and the ends of the mouth being expanded to accommodate the lateral movement of the edges of the pulley frame, substantially as described. 8th. A hay carrier having a frame with an open mouth for the admission of an elevating pulley, the central portions of said frame being extended downwardly and contracted inwardly so as to form a guide for the pulley, substantially as described. 9th. A hay carrier having a frame with an open mouth for the admission of an elevating pulley, rope wheels mounted at each end of said mouth and the sides of the frame between said pulley being extended downwardly to form guides for the pulley, substantially as described. 10th. In hay carriers an upper swivel frame composed of two side pieces and two end pieces joining the side pieces together, the side pieces being fitted with pockets and the end pieces with points to enter said pockets, and bolts holding the lower ends of said pieces together, substantially as described.

No. 69,138. Rotary Steam Engine.

(Machine à vapeur rotatoire.)

Birger Lyungstrom, Stockholm, Sweeden, 27th October, 1900; 6 years. (Filed 12th October, 1900.)

Claim.—1st. In rotary engines, having a number of radial cylinders surrounded by a casing and containing pistons, which are acted upon by the driving fluid and carry rollers, running on a surrounding curved track, the connection of said track and the casing in such

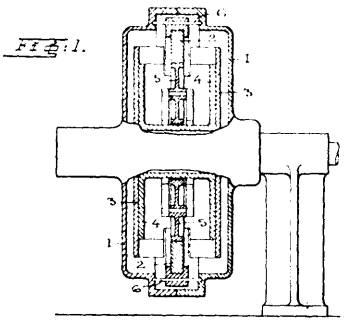

Fig. 1.

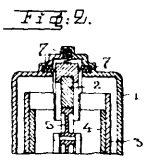

Fig. 2.

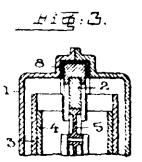

Fig. 3.

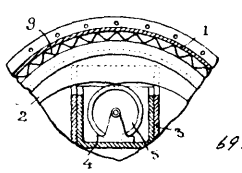

Fig. 4.

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a manner, that the rotation of the track is prevented, and that the radial vibrations of it at the rotation of the engine are taken up by the connecting parts without transmitting them to the casing in any essential degree, for the purpose of preventing noise from arise during the rotation of the engine. 2nd. In rotary engines, having a number of radial cylinders surrounded by a casing and containing pistons, which are acted upon by the driving fluid and carry rollers, running on a surrounding curved track, the combination with said track of springing cross pins 6, attached to the casing and supporting the track. 3rd. In rotary engines, having a number of radial cylinders surrounded by a casing and containing pistons, which are acted upon by the driving fluid and carry rollers, running on a surrounding curved track, the combination with said track of springs 7, mounted between it and the casing. 4th. In rotary engines having a number of radial cylinders surrounded by a casing and containing pistons, which are acted upon by the driving fluid and carry rollers, running on a surrounding curved track, the combination with said track of an elastic packing 8, 9, mounted between it and the casing. 5th. In rotary engines, having a number of radial cylinders, surrounded by a casing and containing pistons, which are acted upon by the driving fluid and carry rollers, running on a surrounding curved track, the combination with said track bolts passing obliquely through the casing and at their inner ends being joined to the track their outer ends being joined to the casing. 6th. In rotary engines, having a number of radial cylinders, surrounded by a casing and containing pistons, which are acted upon by the driving fluid and carry rollers, running on a surrounding curved track, the combination with said track of turnable, non-radial links 13, connecting the track and the casing. 7th. In rotary engines, having a number of radial cylinders, surrounded by a casing and containing pistons, which are acted upon by the driving fluid and carry rollers, running on a surrounding curved track, the combination with said track or casing of lugs, which are guided in the casing or curved track in such a manner, that the said track may vibrate freely in radial direction.

No. 69,139. Facsimile Telegraph. *(Télégraphe.)*

William P. Dun Lany, co-inventor with and assignee of Herbert R. Palmer, both of Cleveland, Ohio, U.S.A., 29th October, 1900; 6 years. (Filed 11th September, 1899.)

Claim.—1st. The combination of a platen, an electro-magnet, a hammer adapted to strike against material on the platen under the influence of the electro-magnet, said hammer consisting of a very small wheel having around its circumference very fine and very closely placed teeth, there being approximately two to four teeth to a hundredth of an inch of circumference, substantially as described. 2nd. In a fac-similie telegraph instrument, in combination, the platen, the arm l, the stylus point L, the block l^1 from which said point projects, said block being pivoted in the bifurcated end of the arm l and guided by having its sides in contact with the inner surfaces of such arms, and the spring l^2 pressing the block toward the

platen, substantially as described. 3rd. In a fac-similie telegraph instrument, a rotating head or shaft adapted to receive cylinders of

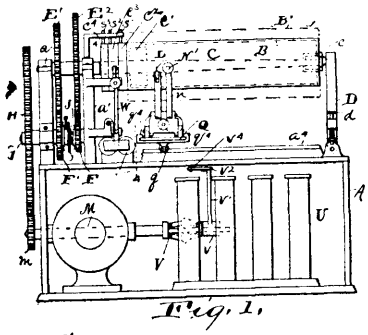

Fig. 1.

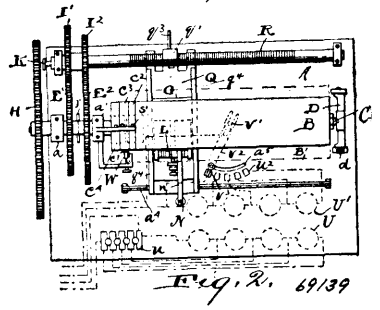

Fig. 2. 69139

different diameters, a receiving hammer or transmitting stylus, means for causing it to travel along the cylinder, there being provided a plurality of cylinders of different diameter and there being means for varying the speed with which the hammer or stylus moves by the cylinder in the proportion of said diameters, substantially as described. 4th. In a fac-simile telegraph instrument, a pair of rings, one having a conductor interrupted by a relatively small non-conductor and the other a non-conductor interrupted by a relatively small conductor, a lug c^7 rigid with said rings, in combination with a lever W with which said lug is adapted to engage, a lever W^2 normally holding said lever W in the path of said lug, and a magnet W^1 adapted to withdraw said lever W^2 from said lever W, and brushes contacting with the said small non-conducting and conducting parts of said rings at the time said lug is in engagement with said lever W, substantially as described. 5th. In a fac-simile telegraph instrument, in combination, a shaft, means for rotating it and means for removably supporting a cylinder by it, a carriage, mechanism for causing the same to travel along the cylinder, a movable frame carried by said carriage and adapted to be moved crosswise thereon, a receiving hammer or a transmitting stylus carried by said frame and adapted to engage with the cylinder whereby said hammer or stylus may stand in a plurality of positions, and a plurality of cylinders of different sizes, each adapted to be carried by the revolving shaft and engaged by said hammer or stylus, substantially as described. 6th. In a fac-simile telegraph instrument, the combination with a cylinder, of means for revolving the same, a stylus adapted to trace over said cylinder, said cylinder having a slot through its surface, a pair of rollers within the cylinder near the slot, one of said rollers being adjustable with reference to the other, means for so adjusting said roller and means for turning one of the rollers on its axis, substantially as described. 7th. In a fac-simile telegraph instrument, the combination of a cylinder, a pair of rollers y and y^1 within the same, one of said rollers having its axis extended beyond the cylinder and having a head thereon for turning it, arms y^3 supporting one of said rollers, thumb screws y^5 adapted to force the roller carried by said arms into gripping engagement with the other roller, substantially as described. 8th. In a fac simile telegraph instrument, the combination of a shaft, a pair of gears loose thereon, an intermediate member between said gears, said intermediate member being screw threaded on the shaft, circular dish-shaped springs secured to the inner faces of said gears and having openings which loosely surround the shaft, whereby said intermediate member by being rotated one way or the other may frictionally clamp either gear, and a set screw carried by said intermediate member and adapted to lock it in the desired position, substantially as described.

No. 69,140. Typewriting Machine. (*Clavigraphe.*)

The Wagner Typewriter, New York City, assignee of Franz Xavier Wagner, New York City, both in the State of New York, U. S. A., 29th October, 1900; 6 years. (Filed 8th March, 1900.)

Claim.—1st. In a device of the character specified, the combination of a carriage, feed mechanism for said carriage, a "blank" key and means controlled by the operation of said "blank" key for automatically locking the mechanism out of operation when the

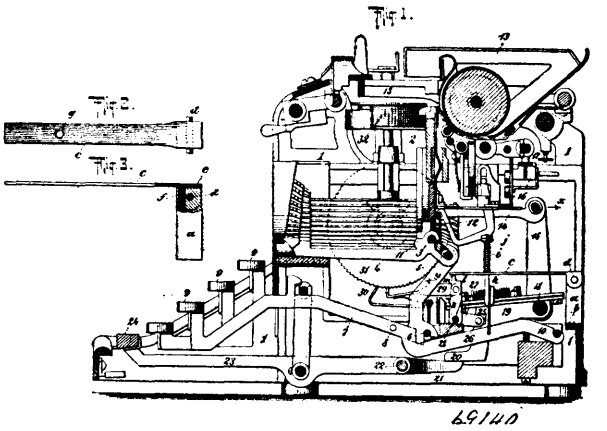

Fig. 1.

Fig. 2.

Fig. 3.

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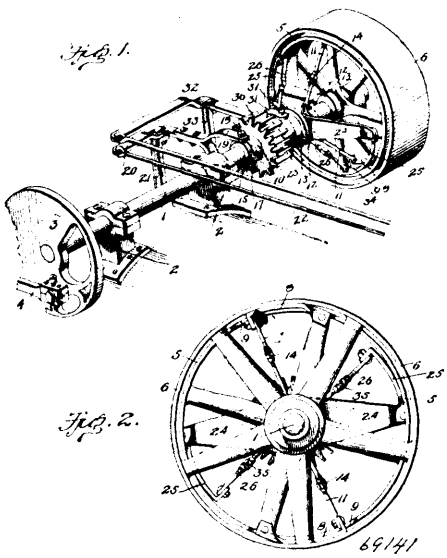
"blank" key is operated. 2nd. In a device of the character specified, combination the of type carriers, keys for operating said type carriers, a carriage, feed mechanism for said carriage, a "blank" key and means controlled by the operation of said "blank" key for automatically locking the feed mechanism out of operation when the "blank" key is operated, the feed mechanism and locking means co-operating to effect a release of the locking means when any of the keys of the type carriers are operated. 3rd. In a device of the character specified, the combination of type carriers, keys for operating said type carriers, a carriage, feed mechanism for said carriage, a spacing key for operating said spacing mechanism, a "blank" key, means controlled by the operation of said "blank" key for automatically locking the feed mechanism out of operation when the "blank" key is operated and mechanism for automatically effecting the release of the locking means by a depression of any of the keys of the type carriers or by the depression of the spacing key. 4th. In a typewriting machine, the combination of a detachable locking dog support, a locking dog carried thereby, means for operatively connecting said dog to a writing key, a locking abutement co-operating with the locking dog and adapted to be moved at each operation of the finger or spacing kep. 5th In a typewriting maching, the combination of a movable spring-pressed locking dog, means for operatively connecting said dog to a writing key, and a locking abutement co-opperating with the locking dog, said locking abutment being operatively connected to the spacing mechanism and adapted to be moved at each operation of said spacing mechanism. 6th. In a typewriting machine, the combination of a movable spring-pressed locking dog, flexible means for operatively connecting said dog to a writing key, the tension of said flexible means being sufficient to overcome the tension of the spring of the locking dog, and a locking abutment co-operating with the locking dog, said locking abutment being operatively connected to the spacing mechanism and adapted to be moved at each operation of said spacing mechanism. 7. In a typewriting machine, the combination of a movable spring-pressed locking dog, a spring-pressed connection between said locking dog and a writing key, a locking abutment with which said locking dog co-operates, means for moving the locking abutment at each operation of a writing or spacing key, and means carried by the locking abutment to retain the locking dog against movement. 8. The combination of a feed dog, a rack, means for moving one of said elements laterally with relation to the other, a plurality of writing keys and locking means operatively connected to one of said writing keys for automatically locking the movable feed element against movement when the key to which the locking means are connected is operated. 9th. The combination of a feed dog and rack, means for moving one of said elements laterally with relation to the other, a plurality of writing keys, a spacing key, locking means operatively connected to one of said writing keys for automatically locking the movable feed elements against movement in one direction when the key to which the locking means are connected is operated and means for automatically releasing said locking means upon the operation of any of the other keys.

No. 69,141. Traction Engine. (*Machine à traction.*)

Hugh Malachi Ash and Joseph Wouters, both of the Agricultural College, North Dakota, U.S.A., 29th October, 1900; 6 years. (Filed 17th September, 1900.)

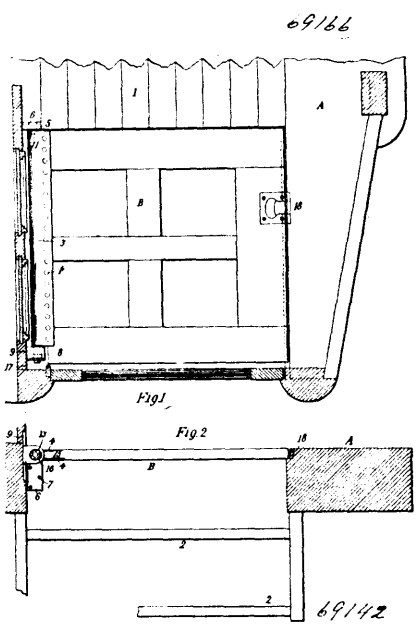
Claim.—1st. The combination with a power shaft, of a loose and fixed wheel carried thereby, friction shoes carried by the fixed wheel, and means for forcing them into frictional contact with the loose wheel to lock said latter wheel to the shaft to turn in unison therewith, substantially as set forth. 2nd. The combination with a power shaft, of a loose and fixed wheel carried thereby, a drive

gear loosely mounted on the power shaft, frictional shoes to engage the fixed wheel to lock said gear to turn in unison therewith, fric-



tional shoes carried by the fixed wheel and adapted to frictionally engage the loose wheel and lock said loose wheel to the fixed wheel, and means for operating said frictional shoes, substantially as set forth.

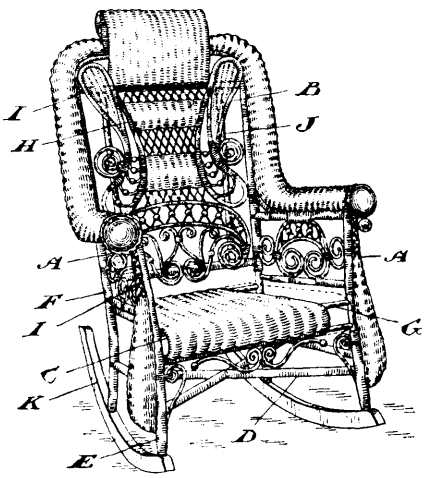
No. 69,142. Car Extension Platform.
(*Marche de char à rallonge.*)



Oliver Murray Edwards, Syracuse, New York, assignee of George Edward Seymour and Ferdinand Kahler, both of Eew Albany, all of the U.S.A., 29th October, 1900; 6 years. (Filed 12th October, 1900.)

Claim.—1st. The combination with a car, substantially as set forth, of an extension platform, journal bearings by which the platt form is attached to the car and on which it turns, one member of one of such bearings being hollow, and a spring secured at one end to the platform and connected to the car at the other end through the hollow member of such journal bearing. 2nd. The combination with a car, substantially as set forth, of an extension platform, journals attached to said platform, one of which is hollow, sockets attached to the car and adapted to receive the journals, a spring secured at one end to the platform and connected to the car at the other end through the hollow journal, and means for adjusting the tension of the spring. 3rd. The combination with a car substantially as set forth, of an extension platform, journals secured to the platform by a strip to which the journals are first attached, one of which journals is hollow, sockets attached to the car and adapted to receive the journals, and a spring secured at one end to the platform and connected to the car at the other end through the hollow journal. 4th. The combination with a car, of a platform extension, a tube secured to one end of said platform extension, journals at the ends of the tube, a spring secured in the tube and projecting threfrom and means for regulating the tension of said spring. 5th. The combination with a car, of a platform extension, a tube secured to one edge of the platform extension and having journals at its ends, a spring secured at one end in the tube and projecting at its other end beyond the tube, a ratchet wheel secured to the end of the spring and means for preventing the turning of said ratchet wheel in one direction. 6th. The combination with a car platform, of an extension for said platform, a tube having flanges secured to one edge of the extension, journals at the ends of said tube, bearings for said journals, a torsional spring disposed in said tube and secured at one end in one end of the tube and projecting beyond the other end of the tube, a ratchet wheel secured to the projecting end of the spring and having an angular extension and a pin or pawl to engage the teeth of said ratchet wheel.

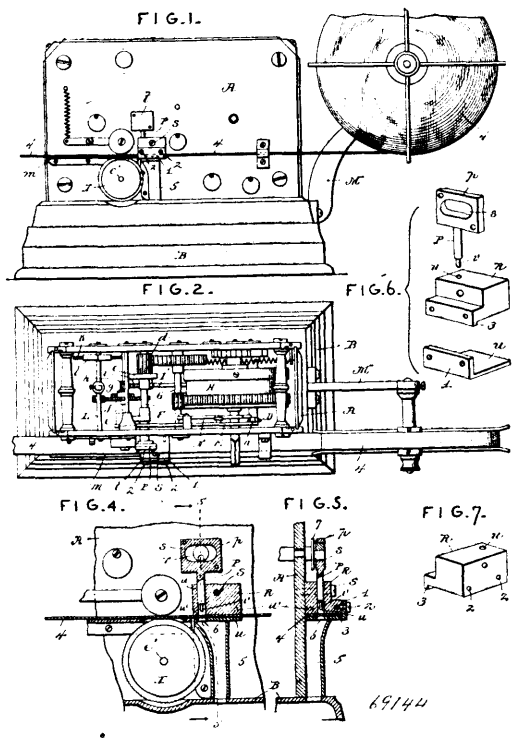
No. 69,143. Wicker Chair. (*Chaise.*)



The Gendron Manufacturing Company, assignee of Christian Werthner, all of Toronto, Ontario, Canada, 29th October, 1900; 6 years. (Filed 13th October, 1900.)

Claim.—1st. In a chair, side sections comprising front and rear standards suitably connected, in combination with a seat comprising front and rear cross bars suitably connected, and a back panel provided with cross bars suitably connected, the standards of the side sections having holes formed therein to receive the ends of the cross bars of the seat and back panel, substantially as and for the purpose specified. 2nd. In a chair, side sections comprising front and rear standards suitably connected, in combination with a seat comprising front and rear cross bars suitably connected, cross braces below the seat, and a back panel provided with cross bars suitably connected, the standards of the side sections having holes formed therein to receive the ends of the cross bars of the seat, the cross braces and back panel, substantially as and for the purpose specified. 3rd. In a chair, side sections comprising front and rear standards suitably connected, and a seat detachably connected to the side sections in combination with a back panel comprising the wicker back proper and a supporting frame comprising wooden cross bars and suitable connections, the rear standards of the side sections having holes formed therein to receive the ends of the cross bars of the frame of the back panel, substantially as and for the purpose specified. 4th. In a chair, side sections provided with front and rear standards, in combination with an independent seat and an independent back panel detachably secured between the sections substantially as and for the purpose specified. 5th. In a chair, side sections comprising front and rear standards suitably connected, in combination with a seat comprising front and rear cross bar suitably connected, and a back panel provided with cross bars suitably connected, the standards of the side sections having holes formed therein to receive the ends of the cross bars of the seat and back panels by mortise and tenon connections, substantially as and for the purpose specified.

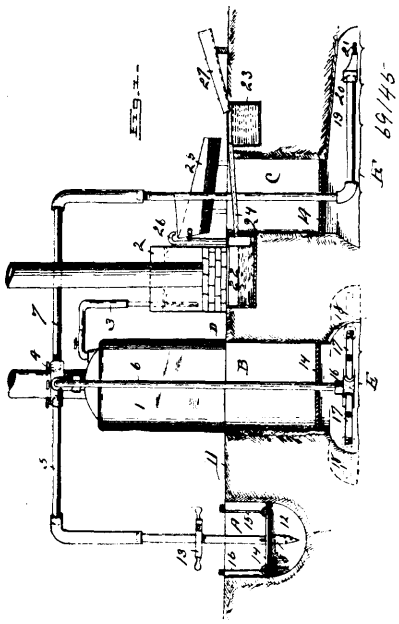
No. 69,144. Punching Register. *(Régistre à emporte-pièce.)*



Charles Berst, New Albany, Indiana, U.S.A., 29th October, 1900; 6 years. (Filed 16th July, 1900.)

Claim.—1st. In a punching register, the combination with continuous tape feeding mechanism, and intermittently acting gear, in connection with a main spring wheel, of a postive return punch, substantially as specified. 2nd. In a punching register, the combination with an electro-magnet and armature lever, of a trip device controlling the punching gear, the main spring wheel, the continuous feed devices, and the positive return punch, substantially as specified. 3rd. In a punching register, the combination with the case and gearing, and the punch operating shaft, of the slotted punch head, the flanged eccentric, the guide block, and the die plate, substantially as specified. 4th. In a punching register, the combination with the case and gearing and the punch operating shaft, of the slotted punch head, the eccentric, the perforated guide block, the die plate, and the punching tube, substantially as specified. 5th. In a punching register, the combination with the case, and the punch operating shaft and eccentric of the studs of the case, the rebated guide block, the flanged die plate, the slotted punch head, and the fastening devices, substantially as specified. 6th. In a punching register, the combination with the case and the punch operating shaft, and flanged eccentric, of the slotted punch head, its face plate, the punchings tube, the flanged die plate, the rebated guide block, the guides of the case, and the fastening device, substantially as specified. 7th. In a punching register, the combination with a train of gear in connection with a main spring wheel in positive connection with a punch operating shaft, of an electro-magnet and armature lever, a trip in connection with the latter, continuous feed mechanism, an eccentric on the punch operating shaft, a slotted punch head, removable guide block, and flanged die plate, substantially as specified. 8th. In a punching register, the combination with a case, having guide studs, of a slotted punch head, a rebated guide block a flanged die plate, and a fastening screw, whereby said punch head guide block and die plate are connected to the case, substantially as specified. 9th. In a register of the class described, the combination of a registering device, a main spring and gear train for operating the registering device, a lock for said train, a trip lever for controlling the operation of said lock, an electro magnet, an armature, and an armature lever for controlling the operation of said trip lever, a spring for returning said armature and armature lever to normal position after operation, means connected with said trip lever for limiting the movement of said armature lever under the action of its spring, and for locking said armature lever in normal position snpporting the trip lever and against movement under the action of its spring, paper feeding devices, and means for operating the same through the action of said gear train when released, substantially as specified. 10th. In a register of the class described, the combination of a registering device, a main spring and gear train for operating the registering device, a lock for said train, a trip lever for controlling the operation of said lock, an electro-magnet, an armature and an armature lever for controlling the operation of said trip lever, said armature lever having a lug, a spring for returning said armature and armature lever to normal position after operation, a pivoted arm having a connection with said trip lever, and operating in connection with the lug of said armature lever to limit the movement thereof under the action of its spring, and to lock said armature lever in normal position against movement under the action of its spring, paper feeding devices, and means for operating the same through the action of said gear train when released, substantially as specified. 11th. In a register of the class described, the combination of a registering device, a main spring and gear train for operating the same, a lock for said train, a trip lever for controlling the operation of said lock, an electro-magnet, an armature and an armature lever for controlling the operation of said trip lever, said armature lever having a lug projecting laterally thereof, means for returning said armature and armature lever to normal position after operation, a pivoted arm having a beveled end portion terminating at its lower extremity in an inwardly offset shoulder, said arm having a link connection with said trip lever, paper feeding devices, and means for operating the same through the action of said gear train when released, substantially as specified. 12th. In a register of the character described, the combination of a registering device, a main spring and gear train for operating the same, a lock for said train, a trip lever for controlling the operation of said lock, and having a laterally projecting lug at its free end portion, an electro-magnet, an armature and an armature lever for controlling the operntion of said trip lever, said armature lever having a lateral notch at its upper or free extremity, a spring for returning said armature and armature lever to normal position after operation, means connected with said trip lever for limiting the movement of said armature lever under the action of its spring, and for locking said armature lever in normal position supporting the trip lever and against movement under the action of its spring, paper feeding devices and means for operating the same through the action of said gear train when released, substantially as specified. 13th. In a register of the class described, the combination with a registering device, a main spring and gear driven thereby for operating the registering device, a lock for said gear train, a trip device for controlling said lock, and an electro-magnet for controlling said trip device, of paper feeding devices, a spring for actuating the same, and means whereby said spring is automatically re-wound by the operation of the main gear train, substantially as specified. 14th. In a register of the class described, the combination of a punch, a shaft, a cam or eccentric carried by said shaft, and arranged to operate said punch, a main spring and gear train for operating said shaft, a lock for said gear train, a trip lever for controlling said lock, and a magnet for controlling said lever, together with paper feeding devices, a spring for actuating the same, and means whereby said spring is automatically re-wound by the operation of the main gear train, substantially as described. 15th. In a register of the class described, the combination with a punch, a shaft for actuating the same, a main-spring and gear train for actuating said shaft, a lock for said train, a trip lever for controlling the operation of said lock, and an electro-magnet and an armature which control the operation of said lever, of paper feeding devices, a spring for actuating the same, and means whereby said spring is automatically re-wound by the operation of the main gear train, substantially as specified. 16th. In a register of the character described, the combination of a punch, a main spring and gear for operating the same, a lock for said gear, electrically controlled means for releasing said lock, paper-feeding devices, a spring for actuating said devices, and meads whereby said spring is automatically re-wound, or put under tension by the operation of said main-spring and gear when released, substantially as specified. 17th. In a register of the class described, the combination with a punch, a main spring and gear for operating the punch, and means controlled by the signal current impulse for controlling the operation of said spring gear, of paper feeding devices, consisting of a feed wheel, a gear for actuating the same, a spring for actuating said gear, and means whereby said spring is automatically re-wound by the operation of the main spring and its gear, substantially as specified. 18th. In a register of the character described, the combination with a punch, the main spring and gear train for operating the punch, and electrically controlled means for controlling the operation of said spring, said gear train including a shaft, and a cam on said shaft, of paper feeding devices, gear for actuating the same, a toothed segment or sector plate which actuates said gear and which is arranged to be moved in one direction by said cam, without affecting the gear train, and a spring fastened to said plate at one end and fixed at its opposite end, substantially as specified. 19th. In a register of the class described, the combination with a punch, a spring, and gear train for actuating the same, and electrically controlled means for controlling the operation of said spring and gear train, the latter including a shaft having a cam thereon, of a paper feeding wheel, a gear for driving the same, escapement devices for regulating the operation of said gear, a toothed sector or segment plate which engages said gear, and which is arranged to be moved in one direction by said cam, and a spring for actuating said plate in the opposite direction, substantially as specified. 20th. In a register of the class described, the combination of a punch, a shaft, an eccentric carried by said shaft and arranged to operate the punch, a slotted lug or guide for the punch, and a removable perforated die secured to said guide, substantially as specified.

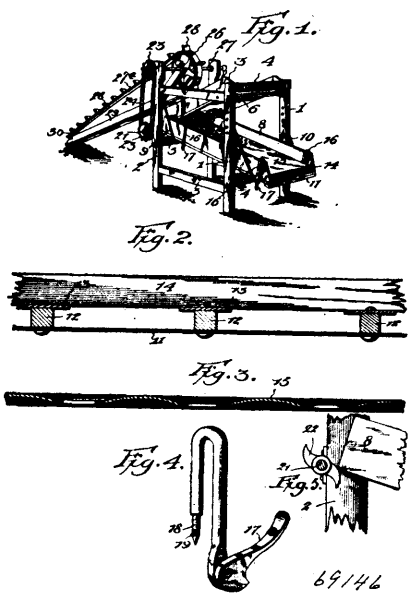
No. 69,145. Apparatus for Mining Precious Metals.
(Appareil pour miner les métaux precieux.)



Samuel R. Stambaugh, Chattanooga, Tennessee, U.S.A., 29th October, 1900; 6 years. (Filed 29th May, 1900.)

Claim.—1st. In a mining apparatus, the combination with a steam generator, of a shaft sinker, consisting of an open pipe, an excavation closure through which the pipe loosely passes, a flexible pipe connecting the shaft sinker to the steam generator which permits lateral and vertical movement of the shaft sinker when in use, means for manipulating the shaft sinker in relation to the closure, and means for raising and lowering said closure independently of the shaft sinker. 2nd. In a mining apparatus, the combination with a steam generator, of a shaft sinker consisting of an open pipe, a flexible connection between the pipe and generator, a closure through which the shaft sinker loosely passes, tackle connected to the closure adapted for raising and lowering it on the shaft sinker, and a manipulating-handle, adapted for connection to the pipe at any point thereof.

No. 69,146. Ore Washing Machine.
(Machine à laver les minerais.)



Frank Collins Pinnell, Fresno, California, U.S.A., 29th October, 1900; 6 years. (Filed 27th March, 1899.)

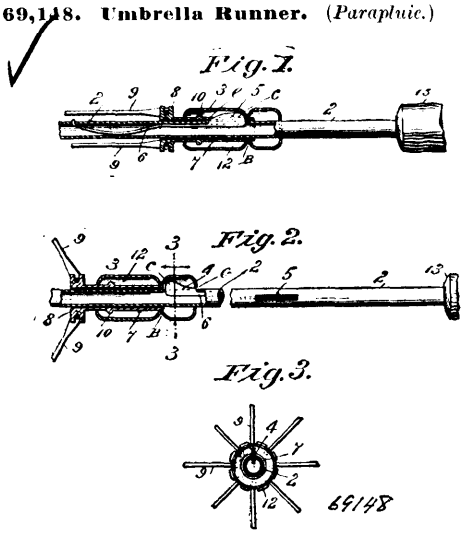
Claim.—1st. The herein described riffle consisting of a base plate, transverse strips secured thereto, sheet metal caps secured to the strips, forming pockets, longitudinal rails secured to the transverse strips, a screen supported by said rails, and U-shaped clamps, each having one end provided with a cam lever, said levers operating against the bottom of the riffle box, drawing the opposite end downward against the screen, as and for the purpose described. 2nd. In combination, a riffle box, a riffle consisting of a plate, transverse strips secured thereto, a metal cap secured to each of said strips and projecting beyond the sides thereof forming pockets, longitudinal rails provided on the top of the strips, a screen having a series of concavities with perforations formed therein, U-shaped clamps each having a cam lever journalled in one end thereof, said clamps being arranged to have their cam levers operate against the bottom of the box drawing the opposite ends downward to clamp the screen and riffle plate, substantially as described. 3rd. In combination with a machine of the character described, a riffle box, screens and riffles therein, a clamp having one end bent over the edge of the side of the riffle box and bearing against the screen, with its opposite end lying against the side of the box, and a cam lever pivoted to the end and bearing against the bottom of the riffle box, substantially as described. 4th. In combination with the machine of the character described, a riffle box, a screen having concavities at the openings, riffles in the box, clamps embracing the sides of the box and having one end bearing against the screen and means whereby the clamp may be adjusted to admit screens and riffles of various sizes, substantially as described.

No. 69,147. Food Made of Blood. *(Aliment.)*

Max Dietrich, Friedrichsberg, near Berlin, German Empire, 29th October, 1900; 6 years. (Filed 3rd January, 1900.)

Claim.—1st. A preparation of hemo-globin produced by mixing animal blood with a low percentage of unslaked lime about 3 per cent, to the jelly thus formed is added about one per cent, of phosphate of lime and to the resulting mixture an equal quantity of wheat bran or a similar substance possessing slightly acidifying qualities is added partly for solidifying the mass and partly to secure the hydrate of carbon contained in the bran, and drying the product at a temperature below that at which the albuminates coagulate, as set forth. 2nd. A phosphate of Thomas slag as a substitute for the slaked lime and the phosphate of lime in the above described process, for the purpose and in the manner set forth.

No. 69,148. Umbrella Runner. *(Parapluie.)*



Nathan Dwight Ingram, Brooklyn, New York, U.S.A., 29th October, 1900; 6 years. (Filed 4th October, 1900.)

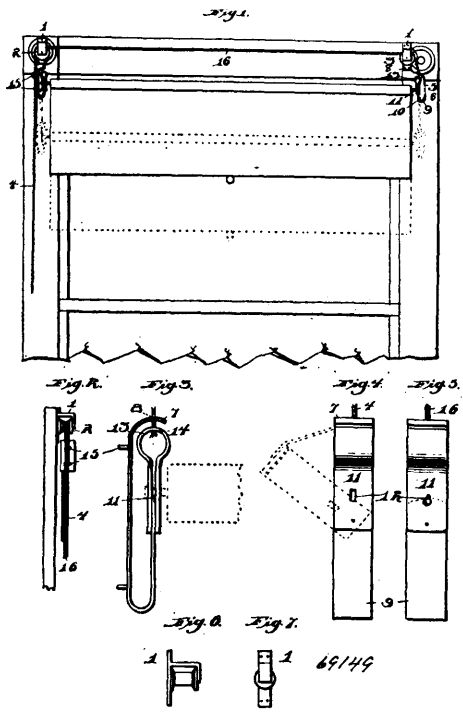
Claim.—An umbrella runner comprising an inner tube having a projection thereon, and a catch operating tubular slide of greater length than the inner tube and embracing and inclosing said inner tube, and having sliding connection therewith limited to the distance between one end of the tube and the projection on the tube, said catch operating slide bent inward at its opposite ends and having a circumferential construction formed intermediate of the ends, one slope of which construction is adapted to have a cam action on one of the umbrella catches, and the other slope upon the other to depress them preparatory to the runner being locked in either of its extreme positions, substantially as described.

No. 68,149. Shade Roller. *(Baton pour stores de fenetres.)*

James M. Mays, Pittsburg, Pennsylvania, U.S.A., 29th October, 1900; 6 years. (Filed 3rd October, 1900.)

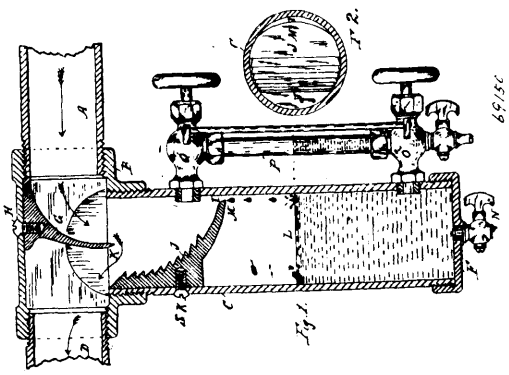
Claim.—1st. The hangers 5 each comprising a base plate, an an inwardly extending bent portion 7, an upwardly extending portion 10, a clamp adapted to receive said upwardly extending portion, said clamps being pivotally secured to the portion 10 and provided

with openings to receive the ends of the shade roller, combined with the operating cords 4 and 16 connected to said hangers, and the



pulleys 2 and 3 supported from the window frame and adapted to receive said operating cords, substantially as described. 2nd. In a device of the character described, the combination with a pair of hangers each consisting of a base plate having an inwardly bent portion 7 and an upwardly extending portion 10, with a clamp 11 pivotally secured to said upwardly extending portion and provided with an opening to receive the end of a shade roller, of the operating cords connected to said hangers and clamps, and means for guiding said cords during their operation, substantially as set forth. 3rd. The hanger 5 comprising a base plate, an upwardly extending bent portion 7, an upwardly extending portion 10, and a clamp 11 pivotally secured thereto and having openings formed therein for the reception of the shade roller, substantially as specified. 4th. The hanger 5 comprising a base plate, an upwardly extending bent portion 7, an upwardly extending portion 10, a clamp adapted to receive said upwardly extending portion, the latter being pivotally secured thereto and having openings formed therein to receive the ends of the shade roller, and means whereby said hanger may be raised or lowered, substantially as set forth.

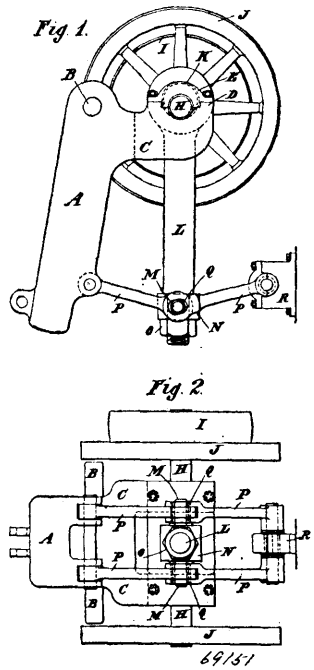
No. 69,150. Machine for Separating Oil and Water from Steam. (*Machine à séparer l'huile et l'eau de la vapour.*)



John Henry Ross, Orillia, Ontario, Canada, 29th October, 1900; 6 years. (Filed 2nd October, 1900.)

Claim.—The said circular baffle plate made of iron, marked *g*, held in position by screw *h* inserted in exhaust pipe, also corrugated iron baffle plate marked *j*, held in position by screw *sk*, inserted in said receptacle for oil and water.

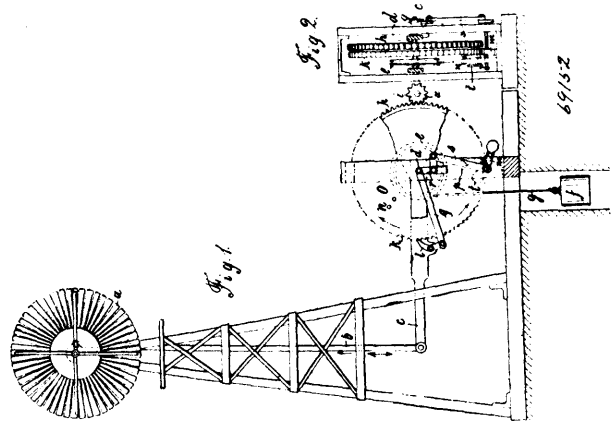
No. 69,151. Apparatus for Imparting Motion to Machinery. (*Appareil pour communiquer le mouvement aux machines.*)



William Henry Baxter, Harrogate, York, England, 29th October, 1900; 6 years. (Filed 23rd July, 1900.)

Claim.—1st. In motion imparting mechanism, the combination of a shaft mounted in fixed bearings, a lever mounted by its upper end pendantly on said shaft, arms rigidly connected to and moving with said lever, a shaft carried in bearings on and rising and falling with said arms, an eccentric mounted upon the last named shaft, a connecting rod mounted on said eccentric, and toggle levers connected at their inner ends to the said connecting rod, and at their outer ends respectively to a fixed pedestal, and to the moving end of said lever, all substantially as and for the purposes herein set forth. 2nd. In motion imparting mechanism, the combination of a shaft mounted in fixed bearings, a lever mounted by its upper end pendantly on said shaft, arms rigidly connected to and moving with said lever, a shaft carried in bearings on and rising and falling with said arms, an eccentric mounted upon the last named shaft, a connecting rod mounted on said eccentric, toggle levers connected at their inner ends to the said connecting rod, and at their outer ends respectively to a fixed pedestal, and to the moving end of said lever, fly wheels and driving pulleys mounted upon said eccentric shaft, a slide, a block reciprocating in said slide, and a rod connecting said reciprocating block to the moving end of said lever, all substantially as and for the purpose set forth.

No. 69,152. Wind Motor. (*Moteur à vent.*)

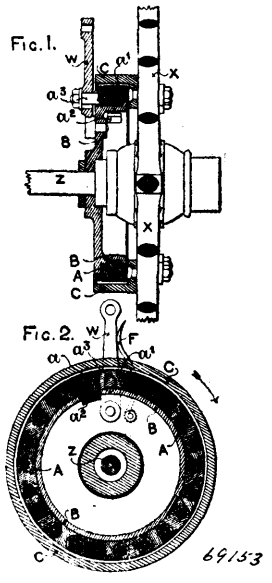


Max Gehre, Rath, German Empire, 29th October, 1900; 6 years. (Filed 21st August, 1900.)

Claim.—The combination with a wind wheel having a Pitman rod *b* of a lever *c* connected to said rod, ratchet wheel *k*, drum *e*, pro-

vided with a cord and weight, driving gear wheel *h*, and an elbow lever *q*, all mounted on a shaft *d*, carried by a stationary frame, the outer end of lever *q*, connected by a link to lever *e*, said lever *e* having a pawl *l* engaging the ratchet wheel, a lever *s* having one end pivotally connected to the elbow of lever *q* by a link, and the other end of said lever *s* connected to a stop pawl *m*, engaging the ratchet wheel, said stop pawl having a weighted arm *t* engaged by a cam *o* on the ratchet wheel, as set forth.

No. 69,153. Brake. *(Frein.)*



Edward C. F. Otto and Edward C. F. Otto, Jr., both of 16 Therapia Road, Honor Oak, Surrey, England, 29th October, 1900; 6 years. (Filed 9th April, 1900.)

Claim.—1st. In a brake, the combination of a strap or band formed of a series of links pivoted together, of a drum mounted on the rotating part to which the braking effect is to be applied and with which the linked strap or band engages, and of a second drum mounted concentrically with the brake drum and adapted to support the linked strap or chain band when it is out of action with the brake drum, the links of the strap or band having their operative faces curved to the same radius as the operative face of the drum with which the strap or band engages, as set forth. 2nd. In a brake, the combination of a strap or band formed or a series of links pivoted together, of a drum mounted on the rotating part to which the braking effect is to be applied and with which the linked strap or band engages, and of a second drum mounted concentrically with the brake drum and adapted to support the linked strap or chain band when it is out of action with the brake drum, the links of the strap or band being pivoted or otherwise connected together so that their ends abut against one another, each link having its operative face curved to the same radius as the operative face of the drum with which the strap or band engages, as set forth. 3rd. In a brake, the combination of a strap or band formed of a series of links pivoted together, of a drum mounted on the rotating part to which the braking effect is to be applied and with which the linked strap or band engages, and of a second drum mounted concentrically with the brake drum and adapted to support the linked strap or chain band when it is out of action with the brake drum, the links of the strap or band being pivoted or otherwise connected together and having their operative faces curved to the same radius as the operative face of the drum with which the strap or band engages, the one end link of the said strap or band being attached to the supporting drum and the other end link to reversing mechanism adapted to be operated to cause the strap or band to engage the brake drum with its links in extension, as set forth. 4th. In a brake, the combination of a strap or band formed of a series of links pivoted together, of a drum mounted on the rotating part to which the braking effect is to be applied and with which the linked strap or band engages, and of a second drum mounted concentrically with the brake drum and adapted to support the linked strap or chain band when it is out of action with the brake drum, the links of the strap or band being pivoted or otherwise connected together so that their ends abut against one another, each link having its operative face curved to the same radius as the operative face of the drum with which the strap or band engages, the one end link of the said strap or band being attached to the supporting drum and the other end link to reversing mechanism adapted to be operated to cause the strap or band to engage the brake drum with its links in compression, as set forth. 5th. A brake for velocipedes, comprising a linked strap or chain band and a pair of drums arranged concentrically both with one another and with the hub of the driving wheel, one of said drums being adapted to support the linked strap or band when the brake is out of action and the other to receive the engagement of the linked strap or band when the brake is in action, and one end link of the strap or band being attached to the supporting drum and the other end of the link to the sprocket wheel mounted loosely on the hub of the driving wheel, as set forth. 6th. In a brake for velocipedes, the combination with the hub of the driving wheel, of a drum mounted concentrically thereon and adapted to support the operating strap or band when the brake is out of action, of a sprocket wheel mounted loosely on the said drum, of a second drum mounted on the axle of the driving wheel concentrically with the first drum and so attached to the frame of the machine that it cannot rotate, and of a strap or band formed of a series of links pivoted together, the one end link of the said strap or band being connected to the drum fixed to the hub of the driving wheel and the other end link to the sprocket wheel, as and for the purpose set forth. 7th. In a brake for velocipedes, the combination with the hub of the driving wheel, of a drum mounted concentrically thereon and adapted to support the operating strap or band when the brake is out of action, of a sprocket wheel mounted loosely on the said drum, of a second drum mounted on the axle of the driving wheel concentrically with the first drum and so attached to the frame of the machine that it cannot rotate, and of a strap or band formed of a series of links pivoted together so that their ends abut against one another, each link having its operative face curved to the same radius as the operative face of the drum with which the strap or band engages when the brake is in action, the one end link of the said strap or band being connected to the drum fixed to the hub of the driving wheel and the other end link to the sprocket wheel, as and for the purpose set forth. 8th. In a brake for velocipedes, the combination with the hub of the driving wheel of a drum mounted concentrically thereon and adapted to support the operating strap or band when the brake is out of action, of a sprocket wheel mounted loosely on the said drum, of a second drum mounted on the axle of the driving wheel, concentrically with the first drum, and so attached to the frame of the machine that it cannot rotate, and of a strap or band formed of a series of links pivoted together so that their ends abut against one another, each link being of the same width and having its operative face curved to the same radius as the operative face of the drum, with which the strap or band engages when the brake is in action, the one end link of the said strap or band being connected to the drum fixed to the hub of the driving wheel and the other end link to the sprocket wheel, as for the purpose set forth. 9th. In a brake for velocipedes, the combination with the sprocket wheel Y, of a flanged sleeve V, fixed to the part to be driven, and connected with the sprocket wheel by a clutch, of a brake drum B fixed to the part to which the brake action is to be applied, of a supporting drum C, mounted concentrically with the brake drum in such a manner that it cannot rotate, of a disc E, mounted loosely on the supporting drum and connected by means of a clutch with a disc Y, carried by the sprocket wheel, of a linked band or chain A, formed of a series of links pivoted together, the one end link A, of the said band or chain being connected to the brake drum, and the other end link *a*1 engaging one end of a rocking lever D, mounted on the brake drum B, the other end of the said lever, engaging a projection *e* on the disc E, as and for the purpose set forth. 10th. In a brake for velocipedes, the combination with the sprocket wheel Y, of a flanged sleeve V, fixed to the part to be driven, and connected with the sprocket wheel by a clutch, of a brake drum B, fixed to the part to which the brake action is to be applied, of a supporting drum C, mounted concentrically with the brake drum in such a manner that it cannot rotate, of a disc E, mounted loosely on the supporting drum and connected by means of a clutch, with a disc *y* carried by a sprocket wheel, of a linked band or chain A, formed of a series of links pivoted together so that their ends abut against one another, each link having its operative face curved to the same radius as the operative face of the drum with which the band or chain engages when the brake is in action, the one end link *a* of said band or chain being connected to the brake drum C and the other end link *a*1 being adapted to engage the one end of a rocking lever D pivoted to the brake drum B, the other end of the said lever being adapted to engage a projection *e* on the disc E, as and for the purpose set forth. 11th. In a brake for velocipedes, the combination with the sprocket wheel Y, of a flanged sleeve V, fixed to the part to be driven, and connected with the sprocket wheel by a clutch, of a brake drum B, fixed to the part to which the braking action is to be applied, of a supporting drum C, mounted concentrically with the brake drum in such a manner that it cannot rotate, of a disc E mounted loosely on the supporting drum and connected by means of a clutch with the disc *y* carried by the sprocket wheel, of a linked band or chain A, formed of a series of links pivoted together so that their ends abut against one another, each link being the same width and having its operative face curved to the same radius as the operative face of the drum with which it engages when the brake is in action, the one end link *a* of the said band or chain being connected to the brake drum C, and the other end link *a*1, engaging a rocking lever D, mounted on the brake drum B, and in engagement with disc E, and a spring F, engaging the end links of the band or chain A, to lie in contact with the supporting drum C, when the brake is out of action, as and for the purpose set forth.

No. 69,154. Corset. *(Corset.)*

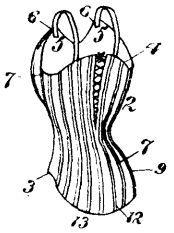


Fig. 1

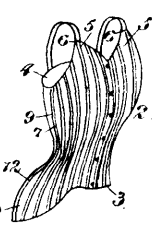


Fig. 2

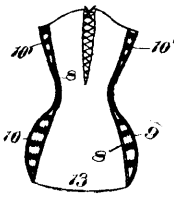


Fig. 3 69/154

Minnie W. Lawrence, Winchester, Massachusetts, U.S.A., 29th October, 1900; 6 years. (Filed 4th October, 1900.)

Claim.—A corset having twin neck extensions suitably stiffened said corset being made comparatively short in front at its lower end, with depending sides and rear portions, the body of said corset comprising a lining or inner ply of material 8 extending from the top to the bottom thereof, and outer ply or cover also extending from the top to the bottom thereof with interposed springs to hold the front upper, and side and rear lower portions of the said cover outward or away from the said lining or inner ply of material, so as to give an apparent shapely figure to the wearer.

No. 69,155. Lever Driven Mechanism.
(Mécanisme de levier.)

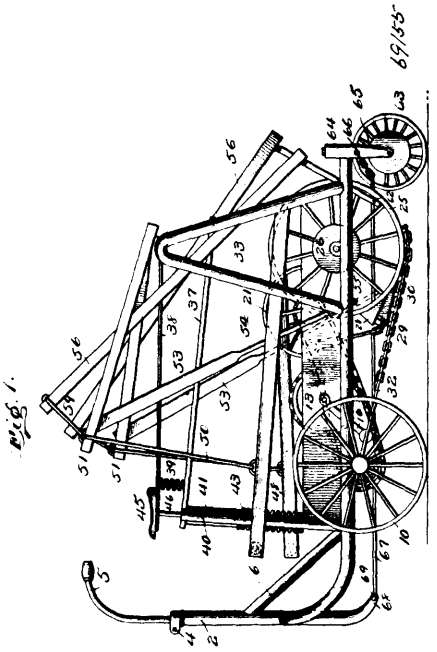


Fig. 1. 69/155

Friedrich Kleinvogel, Newport, Kentucky, U.S.A., 29th October, 1900; 6 years. (Filed 13th June, 1900.)

Claim.—1st. In mechanism such as described, a crank shaft wheels mounted upon separate axle and having a partial rotatory or rocking movement in opposite relation to each other, segments secured to the lower peripheries of said wheels, and chains guided upon said segments and connecting the crank shaft and wheels, pedal levers pivoted at their rear extremities to a stationary part, a series of levers operatively connecting said pedal levers and wheels for imparting a rocking movement to the latter, means for transferring motion from the crank shaft upon a driven shaft, and including a balance wheel to regulate the movement, substantially as specified. 2nd. In a vehicle, a frame for the vehicle, a revoluble front axle, traction wheels upon said axle, a crank shaft, shafts journalled in bearings near the back of the frame, a wheel upon each shaft, having each a partial rotatory or rocking movement in opposite relation to the other, segments secured to the lower peripheries of said rocking members or wheels, and chains guided upon said segments and connecting the crank shaft and wheels, pedal levers pivoted to the rear of the frame, a series of levers operatively connecting said pedal levers and wheels for imparting a rocking movement to the latter, and means for transferring motion from the crank shaft upon the front axle, including a balance wheel to regulate the movement, substantially as described.

No. 69,156. Motor Vehicle. *(Véhicule à moteur.)*

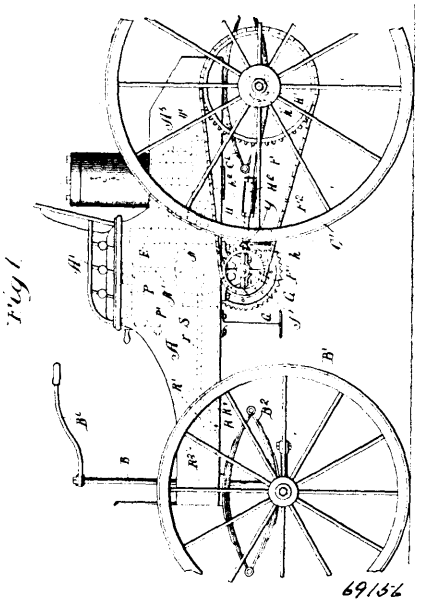


Fig. 1 69/156

George Washington Lewis, Philadelphia, Pennsylvania, U.S.A., 29th October, 1900; 6 years. (Filed 21st June, 1899.)

Claim.—1st. The combination with the vehicle driving wheels and a motor or prime mover, of a driving or brake gear comprising a friction disc, a pulley adapted for contact with said disc, said pulley being movable toward and from the centre of the disc and also toward and from the friction surface of the same, and a friction strip arranged opposite to the face of the friction disc and in position for contact of the pulley therewith when shifted away from the face of the friction disc, substantially as described. 2nd. The combination, with vehicle driving wheels and a prime mover, of a combined driving and brake gear comprising a friction disc, a pulley adapted for contact with said disc, said pulley being movable toward and from the centre of the disc and also toward and from the friction surface of the same, a friction strip arranged opposite the disc and adapted for contact of the pulley therewith when moved away from the disc, and means under the control of the operator for forcing the pulley toward the disc and toward the friction strip, substantially as described. 3rd. The combination with the vehicle driving wheels and a prime mover, of a combined driving and brake gear comprising a friction disc, a pulley adapted for contact with said disc said pulley being movable toward and from the centre of the disc, and also toward and from the friction surface of the same, a friction strip arranged opposite the disc and adapted for contact of the pulley therewith when moved away from the disc, a spring applied to hold the pulley free from contact with both the disc and the strip, and means under the control of the operator for forcing the pulley toward either the disc or the friction strip, substantially as described. 4th. The combination with the vehicle driving wheels and a prime mover, of a combined driving and brake gear comprising a friction disc, a pulley adapted for contact with said disc, a movable shaft with which said pulley has sliding but non-rotative connection, a friction strip at the side of the pulley opposite the friction disc, a laterally movable bearing for said shaft, and an actuating lever connected with said bearing for throwing the pulley into contact with the disc or the strip, substantially as described. 5th. The combination with vehicle driving wheels and a prime mover, of driving connections comprising a friction disc, a pulley adapted for contact with the face of same, a shaft supporting the pulley with which said pulley has sliding engagement, a laterally movable bearing for one end

of said shaft, and a pivotal bearing f r the opposite end of the shaft, comprising a tube or sleeve and pivot studs engaging the opposite sides of the said tube or sleeve, substantially as described. 6th. The combination, with vehicle driving wheels and a prime mover, of a driving gear comprising a friction disc, a pulley adapted for contact with said disc, a movable shaft with which said pulley has sliding but non-rotative connection, and an actuating lever connected with said pulley for moving it endwise on the shaft, the actuating connection between said actuating lever and the pulley embracing a pivotal point permitting lateral movement with the shaft of the parts immediately engaged with the pulley, substantially as described. 7th. The combination, with the vehicle driving wheels and a prime mover, of a driving gear comprising a friction disc, a pulley adapted for contact with said disc, a movable shaft with which said pulley has sliding but non-rotative connection, an actuating lever for moving said pulley endwise on the shaft, and connections between said lever and the pulley embracing a horizontally arranged rock shaft and an arm connected with the rock shaft by a pivotal joint to allow lateral movement of the outer end of the arm when the pulley is laterally shifted, substantially as described. 8th. The combination with vehicle driving wheels and a prime mover, of a driving gear comprising a friction disc, a pulley adapted for contact with the face of the disc, a shaft with which said pulley has longitudinally sliding but non-rotative connection, said shaft being movable toward and from the disc, an actuating device for moving the shaft toward and from the disc, and means for moving the pulley endwise on the shaft embracing a rock shaft having an arm, the free end of which is connected with the pulley, a second rock shaft connected with the first by means of rigid arms on both rock shafts and a connecting rod, a hand lever on the second rock shaft, a notched segment, and a spring detent on the hand lever adapted for engagement with the notched segment, substantially as described. 9th. The combination, with vehicle driving wheels and a prime mover, of driving connections comprising a friction disc, a pulley adapted for contact with the face of the disc, which pulley is movable toward and from the face of the disc and also toward and from the centre of the same, and a spur gear speed changing mechanism consisting of two gear wheels and an endwise movable shaft carrying two gear pinions of different sizes, either of which may be engaged with one of the gear wheels, and means for giving endwise movement to the said shaft, substantially as described. 10th. The combination, with vehicle driving wheels and a prime mover, of driving gear comprising a friction disc, a shaft movable toward and from the face of the disc, a pulley movable endwise on the shaft adapted for contact with the face of the disc, two gear wheels having operative connection with the driving wheels, and two gear pinions mounted on said shaft, said gear pinions being movable to permit the engagement of one or the other of them with one or the other of the gear wheels, substantially as described. 11th. The combination, with vehicle driving wheels and a prime mover, of driving connections comprising a friction disc, a shaft movable toward and from the face of the disc, said shaft being movable endwise in its bearings, a pulley movable endwise on the shaft and adapted to engage the face of the disc, two gear wheels of different sizes having operative connection with the driving wheels, and two pinions affixed to the shaft and adapted for engagement with said gear wheels by the endwise shifting of the shaft, substantially as described. 12th. The combination, with vehicle driving wheels and a prime mover, of driving connections comprising a friction disc, a shaft movable toward and from the face of the disc and also movable endwise, a pulley having sliding but non-rotative connection with said shaft, a pivotally supported bearing for one end of the shaft through which the latter is adapted to slide endwise, a laterally movable bearing for the opposite end of the shaft through which the shaft is also adapted to slide endwise, and a spur gear speed changing device comprising two pinions on said shaft and two gear wheels having operative connection with the driving wheels, substantially as described. 13th. The combination, with a friction disc, a shaft movable toward and from the disc and also movable endwise, a pulley having sliding but non-rotative engagement with the shaft, and a laterally movable bearing for the shaft embracing a sleeve which immediately engages the shaft and through which it is adapted to slide endwise, and anti-friction balls or rollers interposed between said sleeve and the main part of the bearing, substantially as described. 14th. The combination, with a friction disc, a shaft movable toward and from the disc and movable also endwise in its bearings, a pulley having sliding but non-rotative connection with said shaft, and a spur gear speed changing device comprising two pinions affixed to the shaft, two gear wheels of different sizes adapted for engagement with said pinions by the endwise movement of the shaft, a lever connected with said shaft, a foot lever for actuating the shaft, a longitudinally movable bar connecting said levers, said bar being provided with notches and a spring detent adapted for engagement with the notches of the bar, substantially as described. 15th. The combination with vehicle driving wheels and a motor, of driving connections comprising a friction disc, a shaft extending transversely of the vehicle and movable toward and from the face of the disc, a friction pulley having sliding but non-rotative engagement with the shaft, a second shaft parallel with the first one and provided at each end with a sprocket wheel, and a spur gear speed changing device connecting said shafts, said sprocket wheels being mounted to turn independently of each other and being connected with the speed changing device through the medium of an equalizing driving gear, a sprocket wheel attached to each driving wheel, and chain bolts connecting the sprocket wheels on the said second shaft with those attached to the driving wheels, substantially as described. 16th. The combination, with vehicle driving wheels and a motor, of driving connections comprising a friction disc, a shaft extending across the vehicle frame parallel with the face of the disc, said shaft being movable toward and from the disc and being also endwise movable, a friction pulley having sliding but non-rotative engagement with the shaft, a second shaft arranged parallel with the first shaft, a speed changing and equalizing gear connecting said shafts consisting of two rigidly connected gear wheels of different diameters mounted to turn on the shaft, gear pinions affixed to the first shaft and adapted for engagement with said gear wheel by the endwise movement of said first shaft, sprocket wheels mounted on a said second shaft and adapted to turn independently of each other, gear wheels mounted on said second shaft and rigidly connected one with each of said sprocket wheels, a gear pinion mounted in said rigidly connected gear wheels first mentioned with its axis radial to the shaft, said gear pinion intermeshing with both of the gear wheels which are connected with the sprocket wheels, sprocket wheels attached to the said driving wheels, and chain bolts connecting the sprocket wheels of the said second shaft with the sprocket wheels attached to the driving wheels, substantially as described.

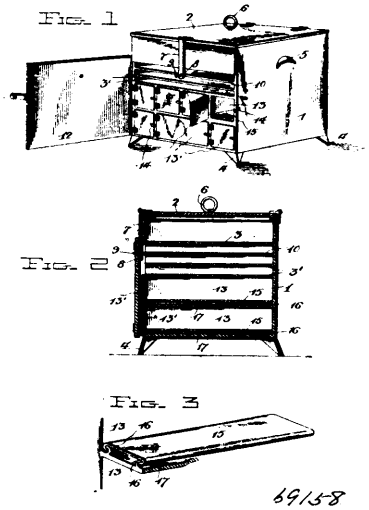
No. 69,157. Treatment of Gold and Silver Ores.

(Traitement de minerais d'or et d'argent.)

Joseph Smith, Salt Lake City, Utah, U.S.A., 29th October, 1900; 6 years. (Filed 6th October, 1899.)

Claim.—The herein described process for treating gold and silver ores, tailings, slimes and like materials containing precious metals, which consists in mixing the material to be treated, with caustic lime, saturating or covering the mixture entirely with water and keeping it thus until all the acid present has combined with the lime, drying the material, exposing it to the action of atmospheric air, and treating it with a cyanide.

No. 69,158. Cake Safe. *(Boite à gâteau.)*



Nellie Eunice Rand, South Windham, Maine, U.S.A., 29th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. A cake safe or canister, comprising a retangular box provided with horizontal trays 3 3¹, the former being provided with a stud pin 9, the cover 2 hinged to the top of said box, the hasp 7, provided with an orifice 8, to receive said pin, and the door 12 adapted to lock said hasp in place, substantially as and for the purpose set forth. 2nd. A cake safe or canister, comprising a rectangular box formed with a horizontal partition 3, and a series of compartments 13, an individual door for each compartment, a tray having a sliding enagement with the bottom of each compartment, and a door common to all the compartments, a hinged cover and a hasp carried by said cover and extending between the common door and the box, substantially as and for the purpose set forth.

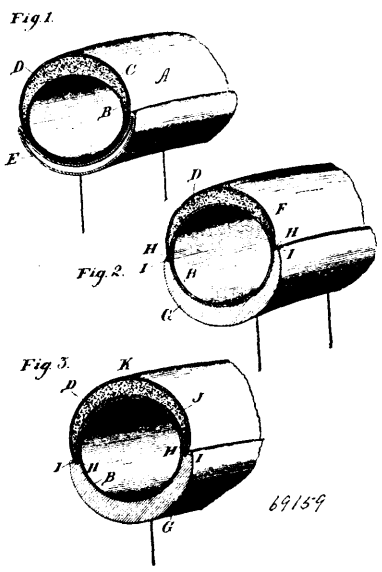
No. 69,159. Pneumatic Tires for Bicycles.

(Bandage pneumatique pour bicycles.)

Albert P. Cochrane, Brooklyn, New York, U.S.A., 29th October, 1900; 6 years. (Filed 23rd July, 1900.)

Claim.—1st. The combination, with a wheel rim, of a pneumatic tire comprising an inner inflatable tube, and an outer shoe or tread

consisting of a tube folded to crescent shape in cross section and containing a filling of sponge rubber, and means for securing the



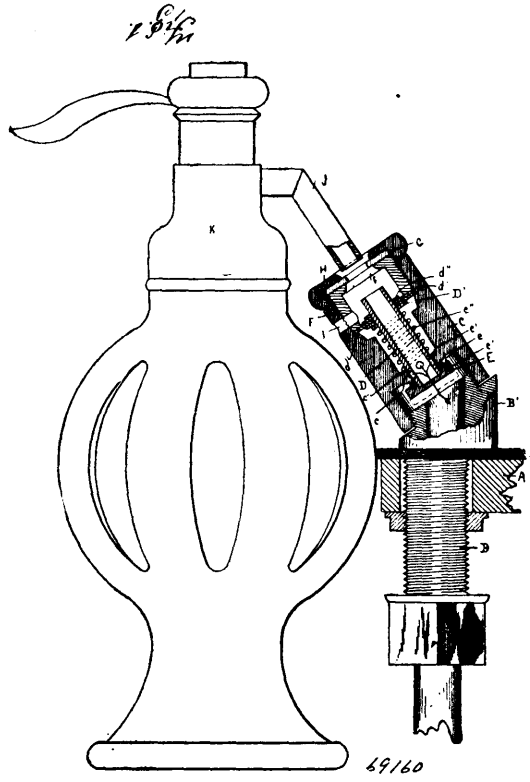
folded shoe to the rim. 2nd. The combination, with a wheel rim provided with edge grooves, of a pneumatic tire comprising an inner tube and an outer tube or shoe having a filling of sponge rubber, the folded edges of said outer tube or shoe resting in the grooves of the wheel rim and provided with openings to receive securing wires. 3rd. As an improvement in pneumatic tires for use in concaved wheel rims, the combination, with an air tube, of a tread layer forming between said air tube and said layer a cushing receiving space of crescent shaped cross sectional form having the greatest width at the tread of the tire and gradually decreasing in width toward the edges of said space, said edges being located adjacent to the points where the tire joins the edges of said concaved wheel rim, and an elastic cushioning material—such as sponge rubber filling said crescent shape space and terminating in thin edges at the side of the tire contiguous to the point where the tire bears against the rim edges, whereby the effect of the cushioning material is gradually reduced from the center of the tread toward the sides of the rim and terminates adjacent to the edges of said rim, substantially as described. 4th. The combination, with a wheel rim concaved in cross section, of a pneumatic tire comprising an inner inflatable tube the walls of which are of the same thickness throughout, a tread or shoe comprising a completely formed tube the walls of which are likewise of the same thickness throughout and so disposed with relation to said inner tube that one part of said tread tube is in engagement with a portion of said inner tube while another part thereof is free of engagement therewith and constitutes the tread of the tire and forms intermediate the same and said inner inflatable tube a cushion receiving chamber of crescent shape cross sectional from having the greatest width at the tread of the tire and gradually decreasing in width toward the edges of said chamber, said edges being located adjacent to the points where the tire joins the edges of such concaved wheel rim and where the outer tube engages the inner tube, and a sponge rubber cushioning material filling said crescent shaped chamber and terminating in thin edges at the sides of the tire adjacent to the points where the tire bears against the rim edges, whereby the effect of the cushioning material is gradually reduced from the center of the tread toward the sides of the rim and terminates adjacent to the edges of said rim, substantially as described. 5th. A pneumatic tire comprising an inner inflatable tube, an outer shoe or tread comprising a tube folded to form a chamber crescent shaped in cross section, and a cushioning material in said chamber.

No. 69,160. Siphon Filling Device.

(Appareil à remplir les siphons.)

John Cederstrom and Charles F. Yarke, both of Buffalo, New York, U.S.A., 29th October, 1900; 6 years. (Filed 25th September, 1900.)

Claim.—1st. A siphon filling device, the same comprising a head, a valve seated therein for controlling the outlet from the main reservoir and adapted to be opened by the application of the siphon nozzle, a continuation of said head adapted to surround said nozzle to form a closed chamber about the same, and an aperture forming an outlet from said chamber, substantially as described. 2nd. A siphon filling device, the same comprising a head and forming part of the controlling valve, said tube adapted to be encircled by the end of the siphon nozzle, a flange near the end of said tube to receive the end of said nozzle for depressing the tube to open the valve, a sleeve with an annular cap constituting a continuation of said head and forming (when said nozzle is inserted) a closed cham-



ber around the same, said sleeve being provided with an aperture to permit the discharge of gas from said chamber, substantially as described. 3rd. In combination with the head of a siphon filling device, a sleeve or continuation thereon, an annular gasket carried in the end of said sleeve to admit a siphon nozzle, a spring pressed tube in said head constituting a valve controlled outlet, a flange on said tube to be engaged by said nozzle for opening said valve, said sleeve and gasket forming a closed chamber surrounding the end of the nozzle and the said chamber being provided with an opening to carry off leakage, substantially as described. 4th. The combination with the head of a siphon filling device and a spring pressed tube seated therein and constituting a valve controlled outlet and having near its end a washer, of a sleeve forming a continuation of said head and surrounding said tube to inclose a chamber terminating in an annular gasket carried by said sleeve, and the nozzle of a siphon fitting snugly within said gasket to form a tight joint and encircling said tube to bear closely upon said washer and form a second tight joint, said surrounding chamber being provided with an outlet for leakage, substantially as described.

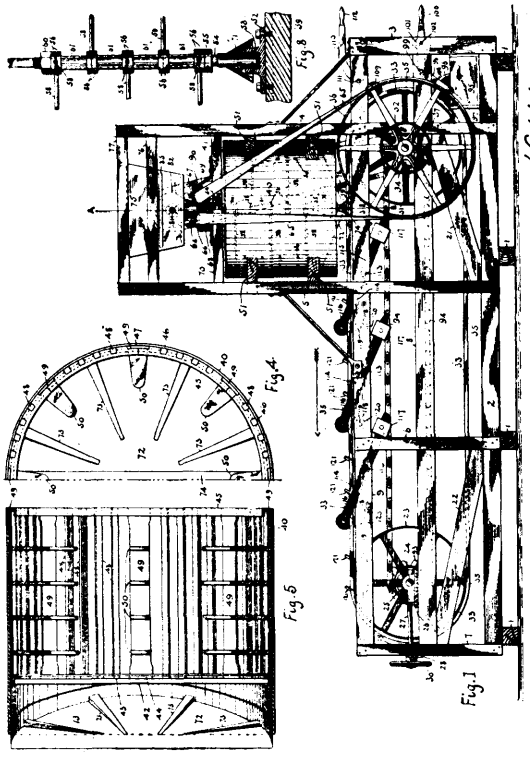
No. 69,161. Ore Amalgamating Machine.

(Machine à amalgamer les minerais.)

Andrew McMillan Ernsberger and Artemas Ward, both of New York City, New York, U.S.A., 29th October, 1900; 6 years. (Filed, 25th August, 1900.)

Claim.—1st. In an amalgamating machine, a frame-work adapted to carry horizontal revolving drums at a distance apart and above the same a vertical disintegrating cylinder, an amalgamated belt upon the drums and means for its driving, revolving and stationary disintegrating means within the vertical cylinder, means to operate the same from the means to run the amalgamated belt, means to introduce material into the disintegrating cylinder at opposite sides, by feeding mechanism driven from the drum shaft, and in uniform and in desired quantities, means to deliver the material thereafter to the amalgamated belt, across its width, a plurality of means to press the material to the amalgamated belt as it passes from drum to drum and distributors at each side of the pressing means, substantially as described and set forth. 2nd. In an amalgamating machine, a pair of drums, one in fixed position, and one in movable position, a belt upon the drums, a cylinder above the belt, a hopper above the cylinder, feeding means within the hopper to deliver material to be operated upon into the cylinder by mechanism worked from the belt operating mechanism, means within the cylinder to rapidly move and disintegrate the material, means to distribute the material evenly to the belt, multiple rolling means to press the material to the belt, means to distribute

the material before and after pressure to the belt, and means from the drum shaft to drive the mechanism to cleanse the belt, substan-



tially as described. 3rd. In an amalgamating machine, a framework, drums thereby supported, one in fixed and one in movable position and means for its moving, multiple rollers upon a belt run upon the drums, brackets upon the framework, and distributors composed of continuous flexible material secured to brackets so distributed as to place the distributers at each side of the rollers, in continuous stretch from bracket to bracket reaching across the belt and adapted to continiously touch the belt upon its upper surface with their lower edge, substantially as described. 4th. In an amalgamating machine, a framework, a fixed and movable drum thereon, a belt upon the drums, pressure-rollers above and carrier rollers below the belt, between the drums and pressing upon the opposite sides of the belt at the same point, the upper ones being adapted to move to or away from the belt, and means to cause them to press with greater or less degree upon the belt, distributers at either side of the upper rollers, secured to the framework and adapted to touch the belt, but to yield under pressure and a flexible dam secured to each outer edge of the belt, substantially as described. 5th. In an amalgamating machine, a framework, drums carried thereby for revolving, one in fixed and one in shifting position, a belt upon the drum, positive means to revolve the drums in unison, a water receptacle adjacent to the fixed drum, a shaft journalled upon the framework above the receptacle, a revolving brush, yieldingly supported partially immersed in the water, means upon the shaft to support the brush in normal position clear of the belt aforesaid, means upon the arms to elevate the brush to the belt, means to hold it in such elevated position, or remove it from contact with the belt and means from the drum-driving mechanism to revolve the brush, substantially as described. 6th. In an amalgamating machine, a framework therefor, carrying drums and a belt, a water tank and a brush therein, means to press the brush to the belt or remove it from the belt and a wringer roller suspended from the framework in a manner to cause it to normally fall away from the belt by its own gravity, and means to move the wringer to and press it against the belt or away from contact with the belt, as and for the purposes set forth. 7th. In an amalgamating machine, a frame work carrying drums positively driven and a belt thereon, a tank and a brush suspended from the framework to normally be partially immersed therein, means to move the brush upward in the tank to or from the belt and a shield secured to the elevating means and over the brush to prevent its throwing water outwardly from the belt, substantially as described. 8th. In an amalgamating machine, a framework, drums carried thereon having a belt connection, a disintegrating-cylinder disposed above the belt, a central vertical shaft therein, means to run the drums and the central shaft, and rods reaching outward from the central shaft arranged on and secured to the shaft by clamp collars having rectangular central holes therein and placed on a shaft of rectangular section, a collar at each side of each rod, a collar fixed on the shaft below the collars and their rods, a nut above the collars and their rods, and thimbles between the pairs of rod-collars and all clamped in place by the shaft collar and nut aforesaid in a manner set forth and substantially as described. 9th. In an amalgamating machine, a framework carrying drums having a belt thereon, and a vertical disintegrating cylinder, a shaft within the cylinder, rods reaching outward therefrom and secured thereto by clamp collars, means to run the drums and the vertical shaft, segemental rings secured within the cylinder near its upper and somewhat removed from its lower end and rectangular bars secured thereby in a vertical position within the cylinder's inner wall, substantially as described. 10th. In an amalgamating machine, a framework, drums carried thereby, a belt upon the drums, a disintegrating cylinder disposed above the belt, a shaft within the cylinder, means to move the drums and the shaft, rectangular bars held within the cylinder walls and secured by segmental rings at their upper and lower ends, and breaker bars, having inwardly projecting fingers adapted and spaced to pass between the breaker bars, substantially as described. 11th. In an amalgamating machine, a framework, carrying drums and a disintegrating cylinder, a belt upon the drums, a shaft within the cylinder and means to move the drums and the shaft, rectangular bars and breaker bars secured within the cylinder, rods upon the shaft intermeshing with fingers upon the breaker bars, and within the cylinder at its lower end chutes oppositely disposed and inclined and set apart to form a space between their adjacent edges, and in direction across the belt aforesaid, substantially as described. 12th. In an amalgamating machine, a framework carrying drums and a belt thereon, a disintegrating cylinder and a shaft therein, means to move the drums, the belt, and the shaft, rectangular and breaker bars secured within the drum, oppositely inclined chutes located within the cylinder, at its lower part and so disposed as to form a delivery space between them and at their lower part, and multiple directing ribs thereon, for the purpose and of the form, substantially as described. 13th. In an amalgamating machine, a framework, and thereby held and carried a pair of drums, one in movable and one in fixed positions on the frames and means to positively revolve the drums by a chain belt connected to a chain wheel on each drum shaft and independent of the belt carried thereon, supports upon the framework, and therein resting and thereby carried, a cross piece, a vertical disintegrating cylinder supported upon the cross piece, a step bearing centrally disposed upon the cross piece, a step therein, a shaft within the step, a shield secured upon the shaft at its upper end projecting downwardly and outwardly over and clear of the step and its bearing, outwardly projecting bars secured and clamped to the shaft, a bearing at the shaft's upper end secured to the framework and a pulley upon the shaft at its upper end, substantially as described. 14th. In an amalgamating machine, drums located upon and supported by the framework of the machine, an amalgamated belt upon the drums, a disintegrating cylinder upon the framework, a central shaft therein, a hopper the cylinder, double inclines therein toward the centre thereof, and means driven from the drum shaft aforesaid to gradually remove the material fed to the hopper into spouts leading into the disintegrating cylinder, substantially as set forth. 15th. In an amalgamating machine, a framework supporting drums carrying an amalgamated belt, a disintegrating cylinder supported by the framework, above the belt and having a shaft therein and means for its driving from the drum shaft, a hopper above the disintegrating cylinder, double inclines in the hopper centrally inclined and having a central space between them, oppositely disposed slides under the inclines to increase or decrease the central space, a shaft within the hopper, right and left hand screw blades thereon, spouts from the hopper bottom at the end of the screws and leading into the disintegrating cylinder, and means to positively move the shaft and screw blades, from the drum shaft of the machine, substantially as set forth.

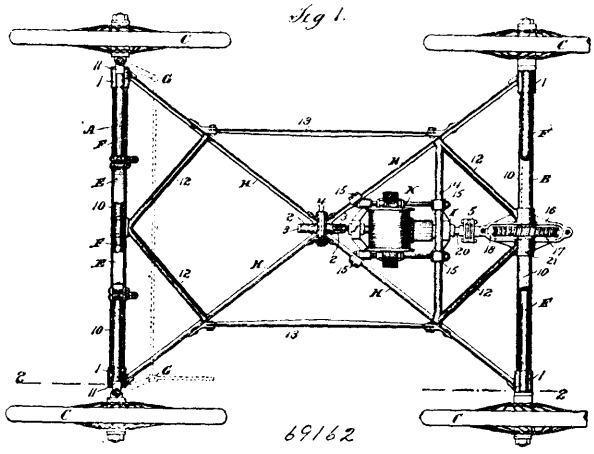
No. 69,162. Motor Carriage. *(Voiture à moteur.)*

Omri Ford Hibbard, assignee of Frank Alvord Perret, both of Brooklyn, New York, U.S.A., 29th October, 1900; 6 years. (Filed 17th July, 1900.)

Claim.—1st. The combination with front and rear carriage axles, of two V-frames converging from points near the ends of the axles and united between the axles and at the apexes of the frames by a joint permitting vertical rotation of the frames independently of each other, and brace bars between the side bars of said V-frames and the axles, substantially as described. 2nd. The combination with front and rear carriage axles, of two V-frames converging from points near the ends of the axles and united between the axles and at the apexes of the frames by a joint permitting vertical rotation of the frames independently of each other, and bars connecting said V-frames on opposite sides and permitting the vertical rotation of the V-frames independently of each other, substantially as described. 3rd. The combination with front and rear carriage axles, of two V-frames converging from points near the ends of the axles and united between the axles and at the apexes of the frames by a joint permitting vertical rotation of the frames independently of each other, brace bars between the side bars of said V-frames and the axles, and bars connecting said V-frames on opposite sides and permitting the vertical rotation of the V-frames independently of each other, substantially as described. 4th. The combination with the axles A B, of the V-frames H H, connected at their apexes by a

joint permitting vertical rotation of the frames independently of each other, brace bars 12 between the axles and the side bars of said

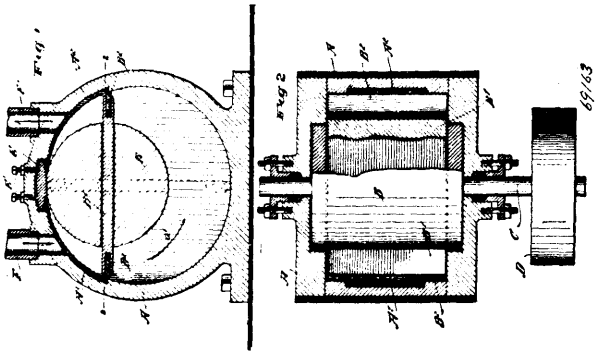
Fig 1.



69162

frames, and bars 13 connecting the side bars of said frames on opposite sides and constructed to yield under torsional strain to permit the vertical rotation of the V-frames independently of each other, substantially as described. 5th. The combination with front and rear axles A B, of the V-frames H H, connected at their apexes by a joint permitting vertical rotation of the frames independently of each other, cross bar 14 connecting the side bars of the rear frame H, a motor carried by said cross bar and the side bars of the rear frame H, brace bars 12 between the side bars of the rear frame H and the axle B, and a driving connection between said motor and the rear axle between the brace bars 12, substantially as described. 6th. The combination with front and rear axles A B, of the V-frames H connected at their apexes by a joint permitting vertical rotation of the frames independently of each other, cross bar 14 connecting the side bars of the rear frame H, a motor carried by said cross bar and the side bars of the rear frame H, brace bars 12 between the side bars of the rear frame H and the axle B, driving shaft 21 in the tubular rear axle, a worm gear on the driving shaft between the brace bars 12, and a worm shaft in line with the motor shaft and driven directly thereform for driving said worm gear, substantially as described. 7th. The combination with front and rear carriage axles, of two V-frames converging from points near the ends of the axles, and each having at its apex a sleeve 2 extending inwardly from the apex of the frame, and bolt 3 in said sleeves securing the frames together with the ends of the frames abutting, substantially as described. 8th. The combination with front and rear carriage axles, of two V-frames converging from points near the ends of the axles, and each having at its apex a sleeve 2 extending inwardly from the apex of the frame, vertical bearing plates 4 at the abutting ends of the frames, and bolt 3 in said sleeve securing the frames together, substantially as described. 9th. The combination with front and rear carriage axles, of two V-frames converging from points near the ends of the axles and abutting at their apexes, vertical bearing plates 4 at the abutting ends of the frames, and means for securing the frames together and permitting vertical rotation of the frames and plates 4 independently of each other, substantially as described.

No. 69,163. Rotary Engine. (*Machine rotatoire.*)



69163

Allan Murray, Ross Port, and Peter McKeller, Fort William, both in Ontario, Canada, 29th October, 1900; 6 years. (Filed 15th October, 1900.)

Claim.—1st. A rotary engine, comprising a cylinder oval in cross section, a cylindrical piston mounted to turn eccentrically in said cylinder and in contact with the inner surface thereof at a point along the miner axis of the cylinder, and a piston head slidable radially in said piston and in contact at its ends with the interior surface of said cylinder, as set forth. 2nd. A rotary engine, comprising a cylinder oval in cross section, a cylindrical piston mounted to turn eccentrically in said cylinder and in contact with the inner surface thereof at a point along the minor axis of the cylinder, a piston head slidable radially in said piston and in contact at its ends with the interior surface of the cylinder, and inlets and outlets for the interior of the cylinder and located at opposite sides of the contact between the piston and cylinder, as set forth. 3rd. A rotary engine, comprising a cylinder, a piston mounted to turn eccentrically therein and having a radially slidable piston head, and inlet and outlet pipes opening into said cylinder at opposite sides of the point of contact between the piston and the cylinder, the openings of the inlet and outlet pipes being at the recesses formed in the inner wall of the cylinder extending from the point of contact to and beyond said pipes, as set forth.

No. 69,164. Ore Separator and Amalgamator.
(*Séparateur et amalgamateur de minerais.*)

Fig 1.

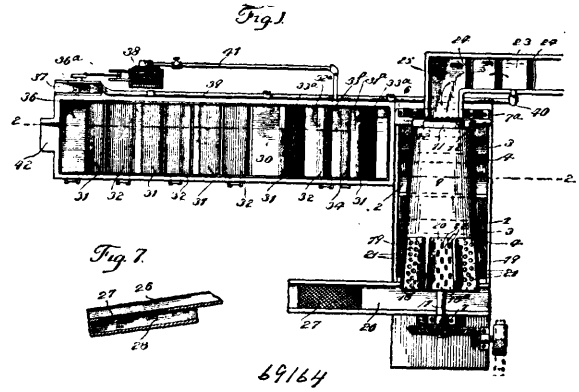


Fig 7.

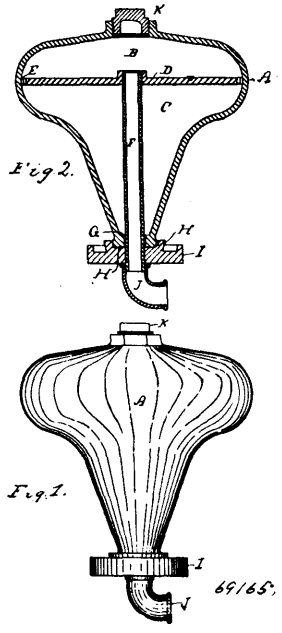
69164

Henry Fuller, Newton Falls, New York, U.S.A., 29th October 1900; 6 years. (Filed 26th July, 1900.)

Claim.—1st. In an ore separator and amalgamator, the combination with a settling chamber, of a series of amalgamated plates arranged therein to form a tortuous channel for the circulation of water and ore, and a permanently magnetic collecting plate suspended between adjacent amalgamated plates and provided at its lower edge with a series of fingers which permit of the circulation of liquid and ore, substantially as described. 2nd. In an ore separator and amalgamator, a settling chamber provided with two series of almagamated plates arranged to form a tortuous passage for the flow of ore washings, other amalgamated plates provided with offstanding baffles and situated in the settling chamber at the head or receiving end thereof, and a magnetic plate suspended in the chamber between adjacent plates having the baffles, whereby the flow of ore washings is tranquilized, the fine floating metal is free to amalgamate with the plates, and magnetizable metals are attracted by the magnetic plate, substantially as described. 3rd. In an ore separator and amalgamator, spaced amalgamated plates disposed in the path of the water and ore, and serving to deflect the same in transit, and a magnetic plate arranged between the spaced plates in the path of the deflected ore and water and having spaced portions, substantially as described. 4th. In an ore separator and amalgamator, spaced amalgamated plates vertically arranged in the path of the ore and water, adapted to deflect the same in transit, baffle plates joined at their upper edges to the upper portions of the spaced amalgamated plates and inclining forwardly and downwardly, a magnetic plate disposed between the spaced amalgamated plates and in the path of the deflected ore and water and having spaced portions, substantially as described. 5th. In an ore separator and amalgamator, the combination of an elevated revoluble cylinder having a discharge at one end, a horizontal sluiceway below and longitudinally of the cylinder to receive ore washings at its head, the baffles 3, fixed within the sluiceway below the head thereof, and provided with the offstanding lips 4 at their upper edges, the intermediate baffle 2, also fixed within the sluiceway and arranged to form with the baffles 3, the tortuous passage through the sluiceway for tranquilizing the flow of ore washings, and a settling chamber having amalgamated collector devices, substantially as described. 6th. In an ore separator and amalgamator, the combination of a settling chamber provided with a plurality of amalgamated plates arranged to form a tortuous passage within said chamber for tranquilizing the flow or washings therethrough, an overflow spout 42, at the discharge end of said chamber, a return water pipe connected to the settling chamber at its discharge end and near the bottom thereof, an outlet pipe 36, over the end of the return water pipe and having its upper end terminating in the settling chamber on a plane between the overflow spout and the open receiving end of the return water pipe, and a pump, substantially as described.

No. 69,165. Hydrocarbon Burner.

(Foyer à hydro-carbures.)

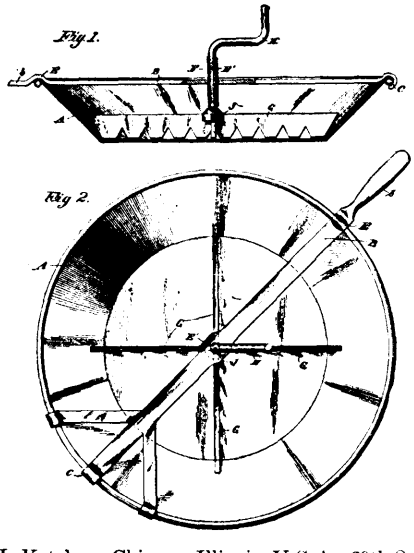


Chester R. Sutton, Carpenteria, California, U.S.A., 29th October, 1900; 6 years. (Filed 8th October, 1900.)

Claim.—1st. A hydrocarbon burner, comprising a fuel supply pipe, terminating in the upper chamber of a vaporizer, a vaporizer divided into an upper and a lower chamber by a perforated partition, a perforated partition in the vaporizer screwed upon the upper end of the fuel supply pipe, and adapted to be rotated thereon to cause the lower part of the vaporizer to raise off, or be seated firmly on the valve seat, a valve seat surrounding the fuel supply pipe immediately below the bottom of the vaporizer, substantially as described herein. 2nd. A hydrocarbon burner, comprising vaporizer *A* divided into chambers *B* and *C*, perforated partition *D* separating said chambers, fuel supply pipe *F* screwed into partition *D*, and valve seat *H* surrounding pipe *F*.

No. 69,166. Ore Separating Pan.

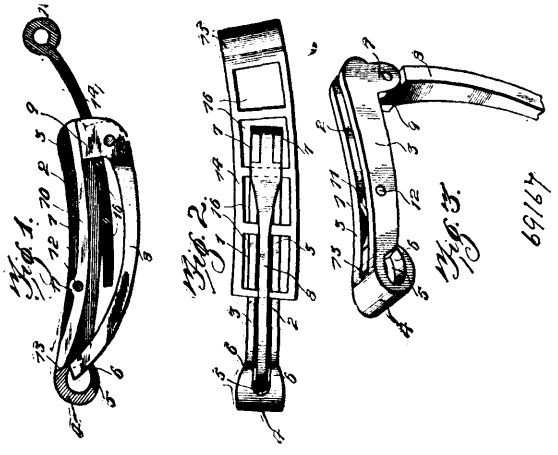
(Appareil à séparer le minerais.)



Andrew J. Ketelsen, Chicago, Illinois, U.S.A., 29th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. In combination with a suitable separator receptacle, a detachable separator adapted to be supported from the top of the receptacle, comprising a supporting bar having hook portions adapted to engage the edges of the receptacle, a tubular bearing on said supporting bar, magnetic separator blades rotatably mounted in said tubular bearing and means for operating the blades, substantially as described. 2nd. In combination with a pan or like receptacle, a detachable separator adapted to be supported upon the pan and projected thereinto comprising a brace bar having a hooked end adapted to engage one edge of the pan and an offset portion adapted to engage the opposite end of the pan, an extended portion constituting the handle of the offset end of the rod, magnetic separator blades supported centrally of said bar and adapted to project into the pan and means for agitating the blades, substantially as described.

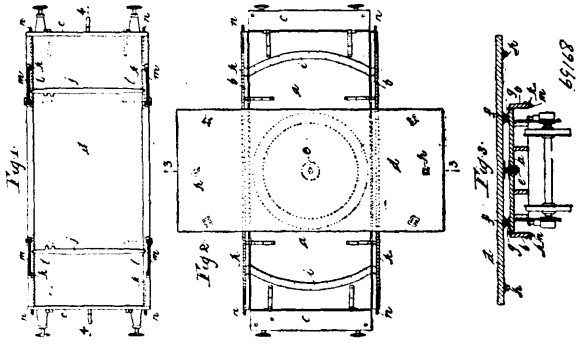
No. 69,167. Hame Fastener. *(Couplière d'attelles.)*



Frank H. Lake and Stephen W. Sims, both of Loyalton, California, U.S.A., 29th October, 1900; 6 years. (Filed 8th October, 1900.)

Claim.—A hame fastener, comprising a main part, having a longitudinal bifurcation or slot, the end wall of which is beveled outwardly, a cam lever mounted within the opposite end of the bifurcation, a leaf spring housed within the bifurcation, and having a beveled end to overlap the beveled end of the bifurcation, an intermediate removable fastening passing through the spring and the opposite walls of the bifurcation, the free end of the spring bearing against the cam portion of the lever, and an eye plate for engagement with the lever.

No. 69,168. Railway Truck. *(Châssis de chemin de fer.)*



Joseph Bragge, Camberwell, near Melbourne, Victoria, Australia, 29th October, 1900; 6 years. (Filed 8th October, 1900.)

Claim.—1st. A carriage truck having a revolving platform or bottom substantially as and for the purposes specified. 2nd. In a carriage truck a revolving platform or bottom mounted upon a king bolt and ring of anti-friction balls or rollers, substantially as and for the purposes specified.

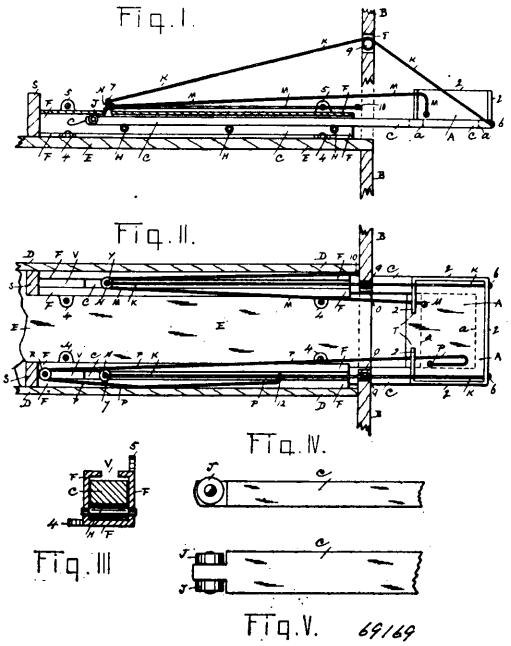
No. 69,169. Fire Escape and Extinguisher.

(Sauveteur d'incendie et extincteur.)

Walter Newburn, Hamilton, Ontario, Canada, 29th October, 1900; 6 years. (Filed 8th October, 1900.)

Claim.—1st. In a fire escape, a balcony, parallel arms supporting said balcony and extending a distance in the interior of a building, casings or guides for said arms firmly secured to a hallway in the building, guy cables secured to the upper and the rear parts of the arms, there being longitudinal openings in the tops of said guides for the fastenings of the cables to slide in said cables supported on elevated rollers, the outer ends of said cables secured to the balcony to support the same when drawn out, and means in the balcony whereby the same may be drawn outward or inward to position, as

described. 2nd. In a fire escape, a balcony, parallel arms extending from the balcony into the interior of the building, stationary guides



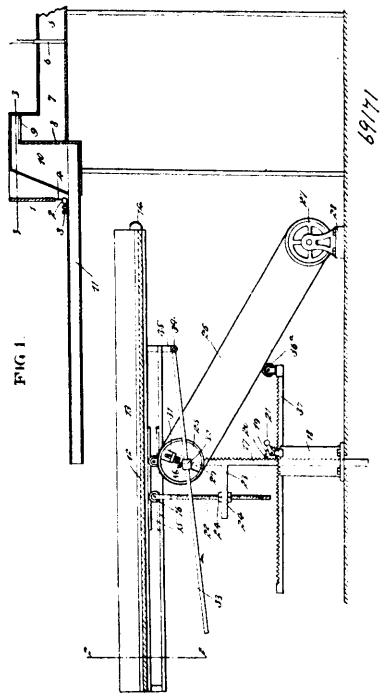
for said arms, guy cables secured to said arms and to the balcony, said cables suspended over elevated rollers to support the balcony, openings in the guides to allow the guide cable fastenings to operate therein, a cable pulley connected to the upper part of one said arm, an operating cable, one end of the cable attached to the building and passed over said pulley and extended to the balcony to draw the balcony outward, as described. 3rd. A fire escape comprising horizontal stationary guides, arms capable of sliding in said guides, a balcony on the outer ends of the arms, suspended guide cables attached to the inner ends of said arms and to the outer parts of the balcony, and means in the balcony whereby the same may be drawn outward and inward to position against the wall of the building, as described. 4th. A fire escape, comprising a balcony, horizontal arms supporting said balcony and extending into the interior of the building, parallel and stationary guides in the building for said arms, rollers in the guides to support the arms, rollers at the inner ends of the arms to engage with the upper parts of the guides, suspended guy cables attached to the arms and to the balcony, to support the same, and means in the balcony for drawing the same outward and inward to position, as described. 5th. In a fire escape, a balcony, horizontal and parallel arms, extending from the balcony into the building, stationary guides, rollers in the guides to support the arms, rollers at the inner ends of the arms to engage with the upper parts of the guides, guy cables loosely suspended above said arms and attached to said arms and to the balcony to support the same, there being longitudinal openings in the guides to allow the guy cable fastenings to operate, a cable pulley connected to the upper part of one said arm, an operating cable, one end of the cable attached to the building and passed on said pulley and extended to the balcony to draw the balcony outward from the building, and an operating cable over a pulley above the inner end of a guide, one end of said cable attached to one said arm and the other end extending to and in the balcony, to draw the same inward, as described.

No. 69,170. Gold and Silver Extracting Process.
(Procédé pour extraire l'or et l'argent.)

Thomas Cruise, Helena, Montana, U.S.A., 30th October, 1900; 6 years. (Filed 21st March, 1900.)

Claim.—1st. The improved process of recovering precious metals from their ores, which consists in reducing the ore to a pulp, adding cyanide of potassum and heating the mass, adding bluestone while the mass is still hot, then decomposing the precipitated compounds and recovering the precious metals. 2nd. The improved process of recovering precious metals from their ores, which consists in reducing the ore to a pulp, adding cyanide of potassium, adding blue stone to the mass, then decomposing the precipitated compounds to free the precious metals, then adding quick silver. 3rd. The improved process of recovering precious metals from their ores, which consists in reducing the ore to a pulp, adding cyanite of potassium to the mass, a suitable compound to precipitate the gold and silver cyanides, adding a re-agent to precipitate the precious metals which may remain in the solution after the precipitation of the aurous and silver cyanides, then decomposing the precipitated substances to free the precious metals, then adding quicksilver to form amalgums. 4th. The improved process of recovering precious metals from their ores, which consists in first reducing the ore to a pulp, heating the pulp, adding to the mass cyanide of potassium, adding sulphate of copper to precipitate the aurous and silver cyanides, then a re-agent to precipitate the precious metals, which may remain in solution after the cyanide is precipitated, then adding sulphuric acid to the hot mass to decompose the precipitated matter and quicksilver to form an amalgam. 5th. The improved process of recovering precious metals from their ores, which consists in first reducing the ore to a pulp adding to the mass cyanite or potassium, adding bluestone to precipitate the aurous and silver cyanides, then adding a re-agent to precipitate the precious metals which may remain in solution after the precipitation of the aurous and silver cyanides, then decomposing the precipitated cyanides to free the precious metals, then extracting the precipitated metals. 6th. The improved process of recovering precious metals from their ores, which consists in first heating the ore pulp to the boiling point, adding cyanide to potassium to the hot mass and then permitting the mass to gradually cool and while it is cooling add to the mass the following:—bluestone, iron sulphate, sulphuric acid and quicksilver, substantially as shown.

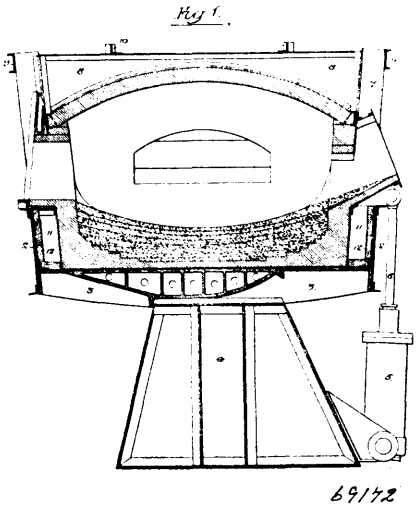
No. 69,171. Ore Concentrator. (*Concentrateur de minerai.*)



Cleofas Galvan, Zacatecas, Mexico, 30th October, 1900; 6 years. (Filed 27th April, 1900.)

Claim.—1st. A concentrator having an ore feed device, a concentrating table, a table supporting frame adjustable vertically toward and from said ore feed device, a pulley on said frame, means for vibrating the table by the rotation of the pulley, a driving pulley journalled in stationary bearings, a belt connecting the driving pulley with the pulley on the frame, a tension pulley on said belt, and an adjusting device for said tension pulley, operated by the adjusting movement of the table supporting frame. 2nd. A concentrator comprising a stationary separator or grader having an inlet and an outlet, a concentrator table adjustable toward and from said outlet, driving mechanism adjustable with the said table for imparting a vibratory motion thereto, a stationary driving pulley, a belt connecting said pulley with another forming part of the above named driving mechanism, and a tension device engaging the belt and operatively connected with the table adjusting devices. 3rd. A concentrator comprising a stationary separator or grader having an inlet and an outlet, a concentrator table, a vertical rack carrying said table and movable toward and from the outlet of the blast channel, a driving mechanism adjustable with the rack for imparting a vibratory motion to the table, a stationary driving pulley, a belt connecting it with another pulley forming part of said driving mechanism, a tension roller engaging the belt, an approximately horizontal rack carrying the tension roller, and an adjusting pinion engaging both racks. 4th. A separator or grader comprising a hopper, an air chamber to the hopper, a vertical deflector at the end of said chamber, a horizontal perforated partition adjacent to the deflector, and a series of blast channels located below the outlet of the hopper and extending forwardly therefrom.

No. 69,172. Open Hearth Furnace. (*Fournaise.*)



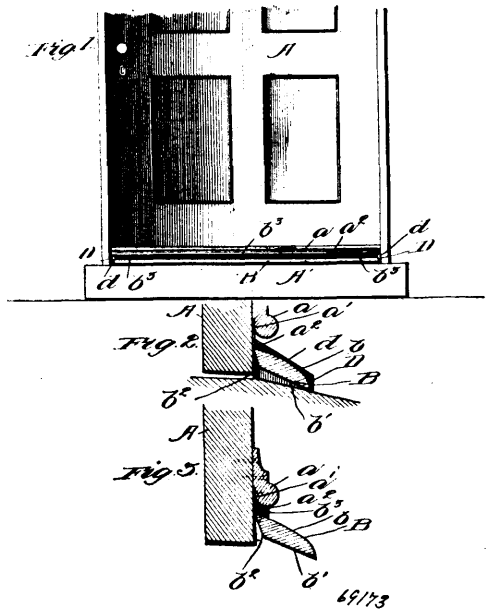
S. T. Wellman, C. H. Wellman and J. W. Seavers, all of Cleveland, Ohio. U.S.A., 30th October, 1900: 6 years. (Filed 14th July, 1900.)

Claim.—1st. An open hearth furnace having at the transverse structures resting upon the furnace supports, longitudinal side girders connected to the ends of said supporting structures, transverse base beams alternating with the supporting structures, but not resting upon the supports, and upright buck-staves at the sides of the furnace, said buck-staves and base beams being secured to the longitudinal side girders whereby the latter serve as the mediums for conveying the weight of the furnaces to the transverse supporting structures, substantially as specified. 2nd. An open heart furnace having at the base transverse structures resting upon the furnace supports, longitudinal side girders connected to the ends of said supporting structures, transverse base beams alternating with the supporting structure, but not resting on the supports, upright buck-staves at the sides of the furnace, said buck-staves and base beams being secured to the longitudinal side girders, and transverse stay beams connecting portions of opposite buck-staves which project above the roof of the furnace, substantially as specified. 3rd. An open hearth furnace having a roof arched transversely to the length of the furnace, buck-staves at opposite sides of the furnace projecting above the arched roof thereof, transverse braces connecting said projecting portions of said buck-staves, said transverse braces having concaved under faces which conform to, and have a bearing upon the transversely arched roof, and serve to retain the same in shape, substantially as described. 4th. An open hearth furnace having transverse supports, intervening transverse base beams, upright buck-staves at the sides of the furnace, and longitudinal side girders serving to connect said transverse supports to the base beams and buck-staves, said transverse supports having convex under faces mounted upon fixed pedestals so as to permit of the tipping or tilting of the furnace, substantially as specified. 5th. An open hearth furnace having transverse base girders and supports, upright buck-stave at the sides, deep longitudinal plate girders secured to the outer sides of said buck-staves, and also to the base structure of the furnace, so that air spaces intervene between said furnace and the furnace shell or casing, and a refractory lining for said air spaces, whereby the deep plate girder is protected from the heat of the furnace, substantially as described.

No. 69,173. Weather Strip. (*Bourrelet de porte.*)

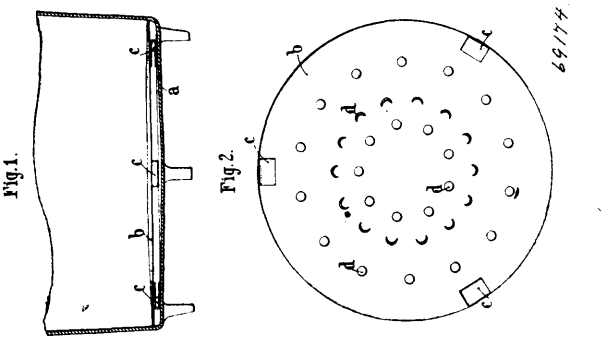
Joseph Skerry, New Ross, Nova Scotia, Canada, 30th October, 1900; 6 years. (Filed 16th October, 1899.)

Claim.—1st. A weather strip comprising a moulding secured to the lower portion of a door, a weather strip secured thereto, and a bracket secured to the door jamb and adapted to engage said weather strip and hold it in its operative position, substantially as described. 2nd. A weather strip, comprising a moulding secured to the lower portion of the door, a metal strip secured to said moulding, a weather strip secured to said metal strip, and a bracket secured to the door jamb and adapted to engage said weather strip and hold it in its operative position, substantially as described. 3rd. A weather strip, comprising a moulding secured to the lower portion of the door, a flexible metal strip secured to said moulding, a weather strip secured to said metal strip, a bracket secured to the door jamb, and



a flange formed on the upper edge of said bracket and adapted to engage said weather strip and hold it in its operative position, substantially as described.

No. 69,174. Cooking Utensil. (*Ustensile de cuisine.*)



Armand Allendy, 21 Avenue de Messine, Paris, France, 30th October, 1900; 6 years. (Filed 15th September, 1900.)

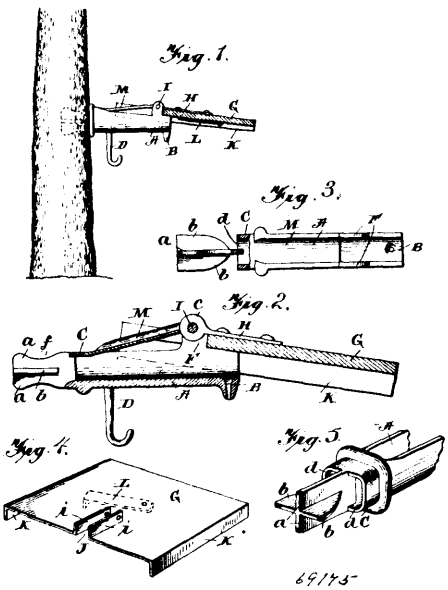
Claim.—In combination with a pot or saucepan or the like, a device whereby the food or other substance being cooked or heated therein is prevented from adhering to the bottom of the said pot or saucepan or the like and being burnt, this device consisting of a metallic flat or convex plate or disc having practically the same diameter than the pot or saucepan, this plate or disc bearing on the bottom of the pot or saucepan by means of feet suspending it at a distance from the said bottom and having perforations allowing water circulating between the spaces above and below the said disc or plate but preventing the material to be cooked from passing through, substantially as set forth.

No. 69,175. Sap Spout. (*Siphon à sève.*)

Edward J. Tebbetts, Lower Cabot, Vermont, U.S.A., 30th October, 1900; 6 years. (Filed 19th September, 1900.)

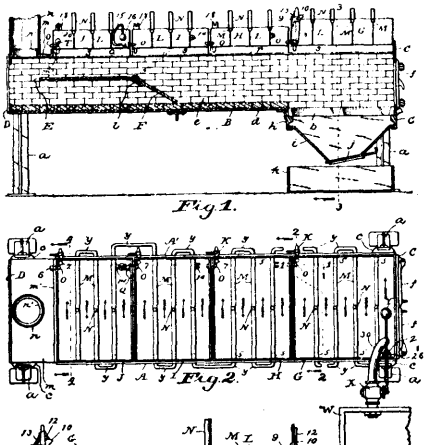
Claim.—1st. A sap spout comprising a trough portion having at its inner end a closed portion with a longitudinal opening communicating with the trough portion, a vertical web united to said closed portion, said vertical web provided with oppositely projecting horizontal webs extending from opposite sides thereof, the inner ends of the horizontal webs being tapered, and the distance between the opposite edges of the rear ends of the horizontal webs being equal to the external diameter of the closed portion, substantially as described. 2nd. A sap spout comprising a trough portion having means at its inner ends for attachment to a tree, and an inwardly declined shield extending over a portion of the trough leaving open

spaces at the sides thereof, substantially as described. 3rd. A sap spout comprising a trough portion having between its ends upward-



ly extending perforated ears, in combination with a hinged cover having at its inner edge an inwardly extending slot, the cover hinged to the said trough ears and adapted to be turned up, substantially as described. 4th. A sap spout comprising a trough portion having between its ends upwardly extending perforated ears, in combination with a cover having an inwardly extending slot receiving said ears, the cover hinged to the ears, and an inclined shield connecting the upper ends of the ears and the inner portion of the trough and extending thereover, substantially as described. 5th. A sap spout comprising a trough having between its ends upwardly extending ears, in combination with a cover having an inwardly extending slot, the cover hinged to the said ears, and a button carried by the cover at its inner side and adapted to engage the trough when the cover is turned upward for locking it in its upward position, substantially as described. 6th. A sap spout comprising a trough having upwardly extending ears between its ends, in combination with a cover having an inwardly extending slot with upturned parallel ears pivoted to said trough ears and depending side walls, substantially as described.

No. 69,176. Evaporator. *(Evaporateur.)*

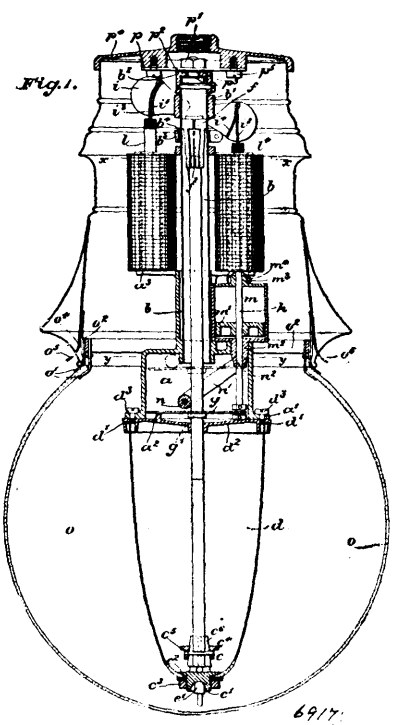


Jasper J. Henry, Greencastle, Indiana, U.S.A., 30th October, 1900; 6 years. (Filed 27th September, 1900.)

Claim.—1st. An evaporator, including a series of pans having each a series of partitions, each provided with a tube extending horizontally along the top thereof, and branch pipes connecting such tubes in pairs so as to form a continuous cooling duct through such tubes, whereby the upper edges of such tubes may be influenced by a cooling current. 2nd. An evaporator, including a series of pans having each a partition or plurality of partitions dividing the pan into compartments in pairs, passages connecting the compartments at ends thereof, ducts connecting the pans at the ends of compartments opposite the ends having the passages, whereby the relative positions of the pans may be transposed without changing the course of the passages through the series, interchangeable valves for the ducts, an outlet valve for each pan, a horizontally disposed cooling tube at the top of such partitions, and connecting pipes for such tubes. 3rd. An evaporator, comprising a furnace, a sap pan and a series of transposable syrup pans, a series of hollow plugs connecting such pans in alignment and situate between adjacent walls of the pans near the corners thereof, transverse partitions in the pans, passages in the partitions so disposed with relation to said ducts as to form a continuous passage for the liquid alternating uniformly in transverse directions throughout a series of pans, detachably mounted valves for the hollow plugs, outlet valves for the pans, and cooling tubes disposed horizontally at the tops of the partitions. 4th. An evaporator, comprising a furnace, a sap pan and a series of transposable syrup pans having interchange hollow plugs connecting the pans, interchangeable valves fitted to the hollow plugs, valve levers, brackets on each of the transposable pans whereby to support the valve levers, an outlet cock connected with each pan, partitions in the pans, passageways in the partitions, a weighing lever bracket attached to each of said transposable pans, an interchangeable outlet valve seated at one of the outlet cock ducts, a weighing lever connected with the outlet valve and pivoted in the weighing lever bracket, and cooling tubes disposed at the tops of the partitions and extending from one end to the other end thereof. 5th. An evaporator, comprising a furnace, a series of transposable pans having interchangeable hollow plugs connecting the pans, interchangeable valves fitted to the plugs, valve levers, brackets on each of the pans whereby to support the valve levers, an outlet cock connected with each pan, a weighing lever bracket attached to each pan, an interchangeable outlet valve seated at one of the outlet cock ducts, and a weighing lever connected with the outlet valve and pivoted in the weighing lever bracket. 6th. In an evaporator, the combination of the furnace comprising the side plates, the front and the rear plates connected to the side plates, the grate bars at the lower parts of the front ends of the side plates, the horizontal partition extending between said side plates near the rear ends thereof, the bottom plate extending from said grate bars to the rear ends of said side plates, the brick lining facing said side plates and said bottom plate, the damper operating at the front of said partition, the damper lever, the hopper supported below said grate bars, and the slide working at the bottom of said hopper, the pans having the partitions therein and resting upon said side plates, the ducts between said pans, the inlet valve, the outlet valve, the valves at said ducts, and the floats in said pans and connected to said several valves, whereby liquid may enter one of said pans and pass through the series of pans and flow from one of said pans automatically, substantially as set forth. 7th. In an evaporator, the combination of the furnace comprising the side plates, the front and the rear plates secured to the side plates, the bottom plate, the angle irons at the upper edges of said plates, the grate bars between one end of said bottom plate and said front plate, the brick lining upon said bottom plate, the brick vertical lining against said side plates, the horizontal partition attached to said side plates, the damper working between said vertical linings, the damper lever, the hopper having the inclined sides supported below said grate bars, and the slide mounted in an inclined plane at the bottom of said hopper, the notched sector secured to one of said side plates and engaged by said damper lever, the sap pan mounted upon said angle irons, the series of interchangeable syrup pans also mounted upon said angle irons, the hollow plugs connecting said pans, the interchangeable valves engaging said plugs, the levers connecting said valves, the supports for said levers, the partitions having the apertures in said pans and so disposed relatively to each other and to said hollow plugs as to provide a continuous channel from one corner of said sap pan forward and backward alternately to the farther corner of the last one of said series of pans, and the inlet and outlet valves for said pans, substantially as set forth. 8th. In an evaporator, the combination of the furnace comprising the side plates, the angle irons at the upper edges of said plates, and the front and rear plates secured to said side plates, the bottom plate secured to said side plates, the brick lining for said plates, the horizontal partition, the grate bars between one end of said bottom plate and said front plate, the hopper supported below said grates, and the slide at the bottom of said hopper, the series of pans having each the ribs at the bottoms thereof resting upon said angle irons, the hollow plugs connecting said pans, the damper at said horizontal partition and operating against the bottom of one of said pans, the damper lever connected with said damper, and the sector attached to one of said side plates and engaging said damper lever, substantially as set forth. 9th. In an evaporator, the combination of the furnace having the side plates, the series of pans mounted upon the side plates, the open brackets secured to the side plates and projecting outwardly therefrom, and the props each comprising an arm extending through one of said brackets and an arm extending over said bracket and pivoted at the junction of said arms to a pan,

substantially as set forth. 10th. In an evaporator, the combination of the furnace having the angle irons at the top thereof, the pans having the ribs at the bottoms and resting upon said angle irons, the apertured partitions in said pans, the horizontal cooling tubes extending along the tops of said partitions, the detachable hollow plugs connecting said pans, the open brackets secured to said furnace, and the props each comprising an arm adapted to engage one of said brackets either at the top or in the opening thereof and an arm projecting over the top of said bracket and pivoted to one of said pans, whereby said pans may be supported in inverted positions, substantially as set forth. 11th. In an evaporator, the combination of the furnace comprising a pair of vertical side plates, angle irons secured to the top edges of the side plates, a front plate secured to said side plates, doors hinged to said front plate, a rear plate secured to said side plates, a roof plate secured to said side plates, a bottom plate secured to said side plates, a smoke stack on said roof plate, legs attached to said side plates, a damper situate between said side plates, grate bars supported at the front end of said bottom plate, a hopper supported by said side and bottom and front plates below said grate bars, linings for said bottom and side plates, and a slide mounted at the bottom of said hopper, the pans mounted upon said angle irons, the hollow plugs forming ducts between said pans and having the valve seat at each end thereof, the valves operating at a seat of said plugs, and the ash pan below said slide, substantially as set forth. 12th. In an evaporator, the combination of the furnace having the open top, the pans having the apertured partitions provided with the cooling tubes extending along the tops thereof, the detachable hollow plugs each having a valve seat at each end thereof and forming a duct between two of said pans, the drain cocks situate in proximity to said plugs, the valves operating at the seats of said plugs, the levers connected to said valves, the brackets attached to said pans and supporting said levers, the supply tank adjacent one of said pans, the supply valve connected to said tank, the adjusting rod connecting with said valve, the float mounted on one of said pans and connected with said adjusting rod, the outlet valve seated in one of said pans, and the automatic weigher connected to said outlet valve, substantially as set forth. 13th. In an evaporator, the combination of the furnace, the pans mounted on the furnace and having each the aperture at each of two opposite sides thereof in alignment, the welts secured at said apertures, the hollow plugs removably inserted in said apertures and bearing against said welts, the valve seat at each end of said plugs, the brackets attached to portions of said pans, the levers pivoted to said brackets, and the valves connected to said levers and engaging said valve seat, substantially as set forth.

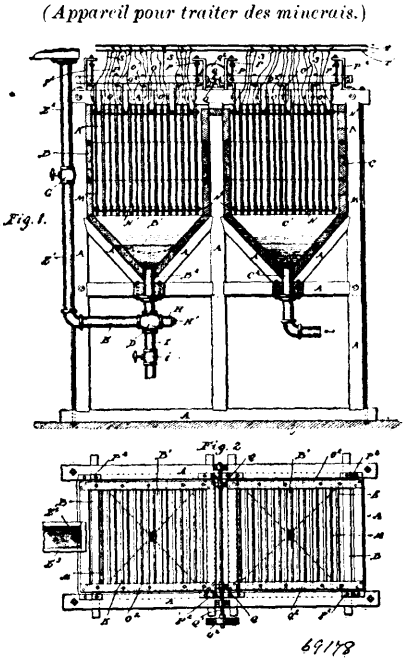
No. 69,177. Electric Arc Lamp. (*Lampe électrique à arc.*)



William James Davy, 52 Durham Road, East Finchley, and Charles Williamson Milne, London, all in Middlesex, England, 30th October, 1900; 6 years. (Filed 18th January, 1900.)

Claim.—1st. In an enclosed arc lamp in which the carbon tends to feed forwards, the feed mechanism chamber closed at its ends, a transparent enclosing bell bearing against one end of the chamber, a carbon passing through this end of the chamber into the enclosing bell, a disc fitting loosely in the mechanism chamber and having a hole through which the carbon passes freely, a regulating rod loosely attached to the disc near its periphery, a stop adapted to limit the motion of the disc at an opposite point of the periphery, and a means for determining the position of the rod according to the resistance of the arc. 2nd. An enclosed electric arc lamp consisting of the carbon guide tube closed at one end, the feed mechanism chamber attached at one end to the the other end of the guide tube, a transparent enclosing bell bearing against the other end of the chamber, a dash pot fixed on the end at one side of the chamber, a piston working in the dash pot and a rod fixed to the piston passing into the mechanism chamber to operate the feed device therein and passing outwards to the regulating mechanism, the whole forming an enclosed chamber in which any transference of the gases has to take place through the dash pot. 3rd. The means for fixing the enclosing bell in position consisting of a fitting fixed on the end of the bell opposite to its mouth and provided at its outer end with a recess, a loop or double yoke having a projection bearing in the recess and side arms, and spring bolts hung on the lamp frame and a swivel joint connecting the side arms of the yoke to the spring bolts. 4th. The carbon holder consisting of a split cylinder forming tongues adapted to grip the carbon and spring contacts rivetted at one end to the tongues and bearing at the other end on the carbon guide tube. 5th. The negative carbon holder comprising the split socket with tapered exterior surface and an internally tapered bush fitting on the tapered jaws and having a pin adapted to pass through the slits in the socket. 6th. The means for conveying current to the movable carbon consisting of a contact roller, a link carrying the contact roller and a piece fixed to the feed devices that raises the roller off the carbon when the feed devices are operative. 7th. The shunt cut out device comprising a cut out lever fulcrumed to an insulating ring on the main tube and capable of being engaged by the main lever, an insulated spring contact plate forming with the cut out lever, the cut out switch, and a shunt coil, one end of which is connected to the negative terminal of the lamp, whilst the other end is connected to the spring contact. 8th. A regulating mechanism for arc lamps consisting of a lever, curved guide surfaces on the lever, cords or bands fixed to the lever and bearing on the guide surfaces and the regulating device and the feed device, the moving parts of which devices are directly connected to the cords. 9th. The method of suspending the lamp consisting in suspending the frame from the crown, the crown from the ceiling and the case from the crown by springs, straps or the like.

No. 69,178. Apparatus for Treating Ores.
(*Appareil pour traiter des minerais.*)



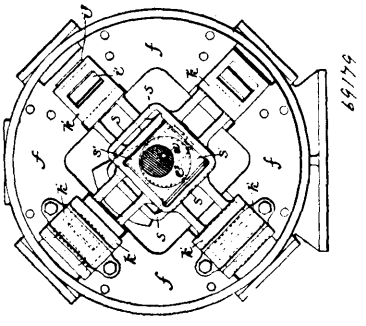
Harald de Raasloff, New York City, New York, U. S. A., assignee of Joseph Gaskell McNulty, Waverly, Nova Scotia, Canada, 30th October 1900; 6 years. (Filed 20th November, 1899.)

Claim.—1st. The art of extracting precious metals from their ores, consisting in mixing pulverized ore with an electrolytic fluid, causing the mixture to flow from one level to another between adjacent electrode plates of opposite polarity, passing an electric current between said plates and vibrating the electrodes in a direction substantially at right angles to the plane of said electrodes for the pur-

pose preventing the polarization thereof. 2nd. In apparatus for electrolytic treatment of ores, a tank or vat provided with an inlet and an outlet, at substantially different levels, whereby the pulp must flow from one level to another in passing through the vat, adjacent electrode plates of opposite plates of opposite polarity suspended in the vat and the pulp and connected with a source of electric energy, and means for vibrating the electrodes in a direction substantially at right angles to their planes, substantially as described. 3rd. In apparatus for electrolytic treatment of ores the combination of a vat for containing a moving mass or stream of pulp consisting of pulverized ores and an electrolytic fluid, means for causing the pulp to flow through the vat, a removable electrode structure carrying adjacent electrode plates of opposite polarity suspended within the vat and having necessary electrical connections, and means for vibrating said electrodes substantially at right angles to their planes, substantially as described. 4th. In apparatus for electrolytic treatment of ores, the combination of a plurality of communicating vats operatively connected with a source of hydrostatic pressure each vat having an inlet an outlet at substantially different levels, adjacent electrode plates of opposite polarity suspended within said vats and connected with a source of electrical energy, and means for vibrating said electrodes in a direction substantially at right angles to their planes, substantially as described. 5th. In an apparatus for the elctrolytic treatment of ores the combination of a plurality of vats arranged pairs communicating at the top, adjacent electrode plates of opposite polarity suspended within said vats and connected with a source of electricity, vibratory supports for said electrodes, means for vibrating the same at substantially right angles to their planes, a pressure conduit for pulp leading to the bottom of the first vat to provide an upward current therethrough, and an exit at the bottom of the succeeding vat providing a discharge from the downward current of pulp overflowing from the top of the vat preceding, substantially as described.

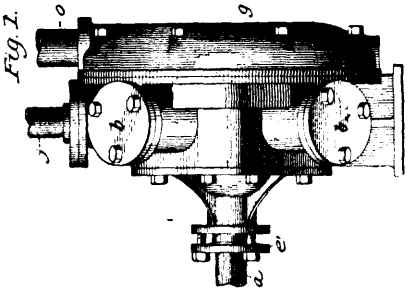
No. 69,179. Multiple Cylinder Engine.
(*Cylindre de machine multiple.*)

Fig. 2.



69179

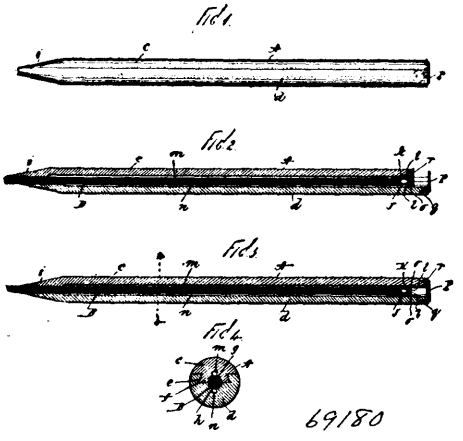
Fig. 1.



Edward Everett Pettee and John James McCutchan, both of New York City, New York, U.S.A., 30th October, 1900; 6 years. (Filed 28th September, 1900.)

Claim.—1st. In a multiple cylinder engine, the combination of the cylinders, their pistons, and the admission and exhaust valves, with the main shaft, said shaft being formed with its crank pin and the cam for actuating the valves all cast in one piece. 2nd. In a multiple cylinder engine, the combination of the cylinders, their pistons, the admission and exhaust valves, the cover enclosing the valves, and the chamber for separating the oil from the exhaust steam and collecting it for re-use, said chamber being also enclosed by the cover. 3rd. In a multiple cylinder engine, the combination of the cylinders, their valves, the casing, the central shaft extending through the casing, the head closing the casing at one side and having the main bearing for the shaft, and the cover closing the casing on the opposite side and enclosing the valves, said cover having a supplemental bearing for the end of the shaft. 4th. In a multiple cylinder engine, the combination of the cylinders, their valves, the casing, the central shaft extending through the casing, the head closing the casing at one side and having the main bearing for the shaft, a chamber communicating with the interior of the casing for collecting and separating the lubricating oil from the exhaust steam, a cover closing the opposite end of the casing and enclosing the chamber, and a supplemental bearing for the end of the shaft carried by the cover, said bearing communicating with the oil separating chamber. 5th. In an engine, a cylinder, a casing into which one end of the cylinder opens, an exhaust valve communicating with the interior of the casing, a shaft extending through the casing, and a piston, the rod of which is connected to the shaft, said piston being hollow and open at its inner end so that the exhaust steam in the casing may jacket the interior of the piston. 6th. In a multiple cylinder engine, the combination of the casing through which the engine shaft extends, the cylinders, the valves through which the cylinders exhaust into the casing, a removable cover closing one side of the casing, and an oil collecting and separating chamber formed on the inner side of and enclosed by the cover. 7th. The combination of the casing *c*, the cover *g*, having the bearing *q* for the end of the shaft, the oil collecting and separating chamber *u*, communicating with the exhaust and having openings for the passage of the oil to the crank pin. 8th. The combination of the casing *c*, the cover *g*, having the bearing *q* for the end of the shaft, the oil collecting and separating chamber *u*, formed on the inner side of the cover and open to the interior of the casing, openings for the passage of the oil from the chamber to the crank pin, and the baffle material in the chamber for breaking up the escaping steam and collecting and separating therefrom the oil of lubrication.

No. 69,180. Lead Pencil. (*Crayon*)



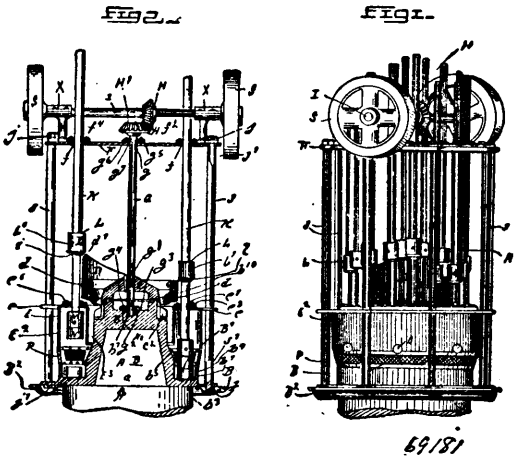
69180

Paul Althouse Hagy, Reading, Pennsylvania, U.S.A., 30th October, 1900; 6 years. (Filed 5th March, 1900.)

Claim.—1st. An improved lead pencil, comprising a body made up of sections relatively slidable with respect to each other and having a bore, a lead or graphite strip slidable in said bore and unsecured to the body sections, and means for operating said lead in an advancing movement by the sliding movement of one of said body sections with relation to the lead. 2nd. An improved lead pencil comprising the body made up of sections relatively slidable with respect to each other and having a bore, a lead or graphite strip slidably operating in said bore, and means contained within the bore in rear of said lead or graphite and operating to advance the latter, said means having an operative connection with the slidable body sections. 3rd. An improved pencil, comprising a body made up of sections relatively slidable with respect to each other and having a bore, a lead or graphite strip slidably mounted in said bore, and means carried by one of said sliding body sections and projecting therefrom into engagement with the lead. 4th. An improved lead pencil comprising a body made up of sections relatively slidable with respect to each other and having a bore, a lead or a graphite strip slidable in said bore, and unsecured to the body sections, means for operating said lead in advancing movement by the sliding movement of one of said body sections with relation to the lead, and means for retaining the lead in advanced position independent of the return movement of said slidable body member. 5th. In a lead pencil of the class described, a body formed of bi-sections slidably mounted and connected by a dovetail joint, the base line of which intersects the bore of the lead or graphite, and means whereby the lead or graphite may be moved by said slidable sections. 6th. In a lead pencil of the class described, a body formed of bi-sections having a relative sliding movement with respect to each other and connected by a longitudinal dovetail joint, each of said sections having a semi-groove or bore whereby the bore for the lead or graphite is formed and the base of said dovetail connection intersects a transverse plane comprised within said bore, and means whereby the lead or graphite may be moved by said slidable sections, substantially as and for the purpose set forth. 7th. An improved lead pencil, comprising a body fomred of sections relatively slidable with respect to each other and

having a bore, a lead or graphite strip mounted in said bore, and means intervening the two slidable sections and adapted to alternately engage said slidable body sections and carry said lead in its advancing movement. 8th. An improved lead pencil, comprising a body formed of sections relatively slidable with respect to each other and having a bore, a lead slidably mounted within said bore, means contained within said bore and adapted to be operated by said sliding body section to advance the lead, and means for guiding said advancing means in its operative travel within the bore. 9th. An improved lead pencil, comprising a body formed of sections relatively slidable with respect to each other and having a bore, a lead or strip of graphite slidably mounted in said bore, said sections having longitudinal guide grooves on their interiors and intersecting said bore, and a device operating in said bore in an advancing movement by action of said sliding body members and projecting within said grooves and guided thereby. 10th. An improved lead pencil, comprising a body formed of sections relatively slidable with respect to each other and having a bore, a lead or graphite strip slidably mounted in said bore, and a spring device arranged within the bore and alternately engaging said slidable body sections in a series of steps for the advancement of the lead. 11th. An improved lead pencil, comprising a body formed of sections relatively slidable with respect to each other, a leador graphite strip inclosed by said sections and operatively slidable within the same, and independent means against said lead and engaging the sliding sections in a series of steps corresponding to the successive sliding movement of said sections. 12th. An improved lead pencil, comprising a body formed of sections relatively slidable and reciprocating with respect to each other and having a bore, a lead or graphite strip having a slidable operative movement within said bore, and a device bearing against the lead and having divergent engaging means adapted to engage the reciprocating body sections on their advancing stroke and to release the same on their return stroke. 13th. An improved pencil, comprising a body formed of sections relatively slidable with respect to each other and having a bore, a lead or graphite strip slidably mounted in said bore and a spring clip mounted in said bore in rear of the lead and having divergent arms adapted to alternately engage the slidable body sections, substantially as and for the purpose set forth. 14th. An improved pencil, comprising a body formed of sections relatively slidable with respect to each other and having a bore and guideways, a lead or graphite strip slidably mounted in said bore, a spring clip having arms adapted to engage said sliding sections in their advancing sliding movement, and entering said guideways. 15th. An improved pencil, comprising a body made up of sections relatively slidable with respect to each other and having a bore, a lead or graphite strip slidably mounted in said bore, said sections being provided with guide grooves which intersect said bore, and a spring clip arranged in the bore and rearwardly of the lead and having arms adapted to engage the body sections and received by and guided in said grooves. 16th. An improved pencil, comprising a body made up of sections relatively slidable and reciprocating with respect to each other and having a bore, a lead or graphite strip slidably mounted in said bore, means for advancing said lead in the outward movement of the reciprocating body section and means for limiting the return stroke of said reciprocating body sections with respect to the normal relative position of said body section. 17th. An improved lead pencil, comprising a body formed of bi-sections relatively slidable with respect to each other and having a bore, the upper body section having a reciprocating movement, a lead or graphite strip slidably mounted in said bore, means carried in the bore and operated on the advancing stroke of said reciprocating body section to advance the lead, and means carried by the under section to limit the return stroke of said reciprocating body section at its normal position. 18th. An improved lead pencil, comprising a body formed of sections relatively slidable with respect to each other and having a bore, a lead or graphite strip slidably mounted within said bore, means for advancing the lead by the sliding action of the body section, and means carried by said body section for conjointly closing and limiting the return stroke of the sliding body section. 19th. An improved pencil, comprising a body formed of sections slidable with respect to each other and having a bore, a lead or graphite strip slidably mounted in said bore, means contained within the bore and operated by the slidable body section in its advancing movement to advance the lead, and means carried by the body section for partially closing and partially cleaning the bore during the sliding movement, substantially as shown and described. 20th. In a pencil of the class described, a body formed of longitudinal bi-sections slidably mounted with respect to each other and having a bore, and means for retaining said relatively sliding body sections in connection during their sliding movement, in combination with a lead or graphite strip slidably mounted in said bore and normally retained by frictional pressure between said body sections by action of the connection means for advancing said lead against its frictional resistance by the sliding action of the body sections. 21st. As an improved article of manufacture, a lead pencil, having its body formed of longitudinal bi-sections relatively slidable with respect to each other and forming conjointly a longitudinal bore, the front end of said body being pointed or tapered, a lead or graphite strip slidably mounted within said bore, means contained within the bore and bearing against the lead strip, means engaging and moving said latter means by the advance movement of the sliding body sections.

No. 69,181. Stamp Mill. *(Bocard.)*



Frederick L. Preston, Beloit, Wisconsin, U.SA., 30th October, 1900; 6 years. (Filed 14th March, 1900.)

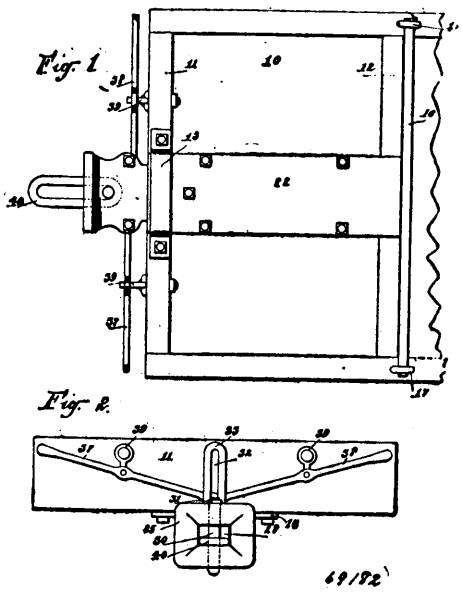
Claim.—1st. In an annular stamp mill, the combination with a mortar frame provided with a die chamber, a supporting frame secure upon or adjacent to said mortar frame, a plurality of stamps mounted to reciprocate in said die chamber having stems which rotatively engage said supporting frame, and tappet collars on said stamp stems, of a centrally arranged wheel mounted to rotate on said mortar frame provided with a plurality of cam surfaces engaging the several tappet collars of said stamp stems, the adjacent parts of the collars and cams being provided with beveled surfaces which are formed on a uniform incliantion with respect to the vertical axis of said wheel, and means for rotating said cam wheel. 2nd. In an annular, central feeding stamp mill, the combination with a mortar frame provided with an annular die chamber, and stamps mounted to reciprocate therein, of a cam wheel mounted to rotate on the upper surface of said mortar frame and having engagement with upwardly extending stems secured to said stamps by means of which said stamps are reciprocated, openings in said wheel through which ore may drop upon said mortar frame, means operated by said wheel to scrape the ore from the frame to the die chamber and means for rotating said wheel. 3rd. In an annular central feeding stamp mill, the combination with a mortar frame provided with an annular die chamber stamps mounted to reciprocate therein and an ledge or shelf on said frame adjacent to the upper surface thereof, of a cam wheel mounted to rotate on the upper surface of said mortar frame to operate said stamps provided with a conical hub and a plurality of aperture through which ore may drop upon said annular ledge, ploughs mounted on said wheel and adapted to scrape the ore from said ledge to the die chambers, and means for rotating said cam wheel. 4th. A stamp mill comprising a mortar provided near its upper end with an annular ledge or shelf and at its opposite end with an annular die chamber, a plurality of die chamber, a plurality of dies therein, a plurality of stamps mounted to co-act with said dies, provided with vertically extending rotatable stems, a frame mounted on said mortar adapted to support and guide said stamp stems, tappet surfaces on said stems, a cam wheel rotatively mounted on said mortar the cam surfaces of which have rolling contact with said tappet surfaces, apertures between the periphery of said wheel and the hub thereof for the passage of ore therethrough upon the annular ledge or shelf, a plurality of ploughs secured to said wheel and adapted to scrape ore from said shelf, and means for rotating said wheel.

No. 69,182. Car Coupler. *(Attelage de chars.)*

Alphone Vezina, Hedleyville, Quebec, Canada, 30th October, 1900; 6 years. (Filed 12th October, 1900.)

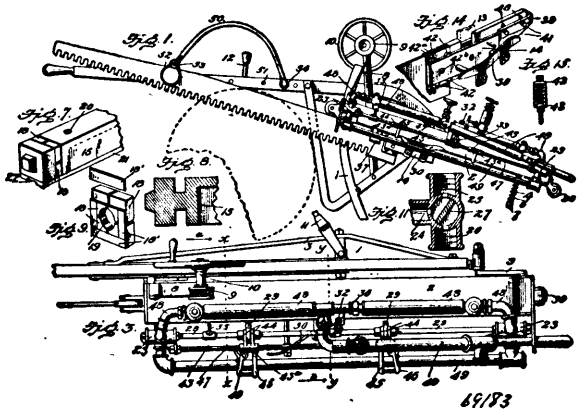
Claim.—1st. In a car coupler, the combination of a slidable draw bar provided with flanges on its opposite sides, a housing the recessed side plates arranged to receive the flanges of the draw bar and to limit the endwise movement thereof, and a pressure spring bar in operative engagement with the rear end of said draw bar, substantially as described. 2nd. In a car coupler, the combination with a drawhead, and a gravity pin therein, of a spring repressed slide arranged in the drawhead to engage with said pin, a vertically

slotted guide mounted on the drawhead adjacent to the pin, a guide plate attached to the pin and fitted slidably in the slot of the guide,



and uncoupling levers connected with said guide plate, substantially as described.

No. 69,183. Cross-cut Saw. (*Scie à deux mains.*)

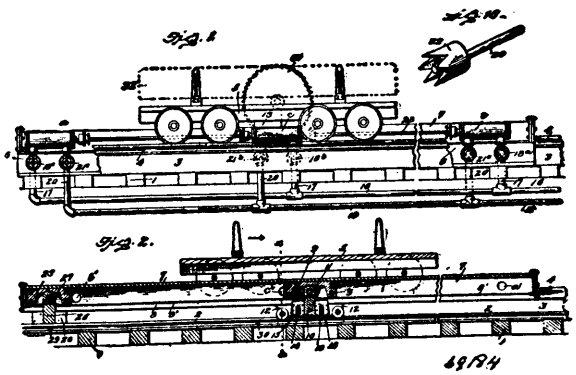


John Bunyon Kelly, Portland, Oregon, U.S.A., 30th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. The combination with the saw blade head, of a saw blade, means for securing the saw blade to said head, and rivets and lugs passed through the saw blade at points above and below the upper and lower edges of the hand and adapted to engage said edges, substantially as and for the purpose set forth. 2nd. The combination with the saw blade and saw blade head, of clamping plates, rivets passed through the saw and clamping plates and engaging the upper and lower edges of the saw blade head, and means for securing the saw blade to said head, substantially as as and for the purpose set forth. 3rd. The combination with the saw blade head and the saw of clamping plates, rivets passed through the saw blade and clamping plates and having their opposing surfaces squared and adapted to engage the edges of the saw blade head, and means for securing the saw blade to said head, substantially as and for the purpose set forth. 4th. In a saw blade, the combination with two plates arranged upon opposite sides thereof, of rivets passed through said plates and having their opposing faces squared and adapted to engage the edges of the saw blade head, substantially as and for the purpose set forth. 5th. The combination with the cylinder, of the piston, valve chests communicating with said cylinder, valves arranged within said chests to admit steam to and exhaust it from said cylinder, a rock shaft connecting said valves, trip arms secured upon said shaft to rotate therewith and slide longitudinally thereupon, a fixed rod parallel with said shaft, sleeves mounted upon said rod and connected with said arms, and means for locking said sleeves in longitudinal adjustment on said rod, substantially as and for the purpose set forth. 6th. The combination with the longitudinally slotted cylinder, and a piston arranged therein and provided with an attaching arm projecting through the slot in the cylinder, and stops carried by said cylinder, of the flexible strap arranged within the cylinder to cover said slot and passing through a guide in the piston, a head secured to said attaching arm, and a shoe vertically adjustably secured to the head, substantially as and for the purpose set forth. 7th. The combination with a longitudinally slotted cylinder, of a flexible strap arranged within the cylinder to cover said slot, and a piston arranged within said cylinder and provided with an attaching arm having a guide eye or aperture through which the flexible strap passes, the base of said piston being provided with a longitudinal grove, the walls of which straddle said strap, subtantially as set forth. 8th. The combination with the longitudinally slotted cylinder, of the flexible strap arranged within the cylinder to cover said slot, a piston arranged within said cylinder and provided with an attaching arm, having a guide eye or aperture through which the flexible strap passes, and a wearing shoe secured to said piston and having a groove, the walls of which straddle said strap, substantially as set forth. 9th. The combination with the longitudinally slotted cylinder and a tape or band to cover said slot, of a piston arranged therein and provided with a wearing shoe having a grove to straddle the band or tape, said piston being formed with gooves near its ends, angular packing blocks inserted in said grooves, plates or strips arranged to break joint with the angular blocks and springs for pressing the angular blocks outwardly, substantially as and for the purpose set forth. 10th. The combination with the longitudinally slotted cylinder, each head of which is composed of three sections, an inner and outer metallic section and an interposed elastic or cushion section of greater area than the inner section, of a piston arranged therein and provided with an attaching arm, and valves for alternately admitting steam to the opposite ends of the cylinder, substantially as and for the purpose set forth.

No. 69,184. Saw Mill Feed.

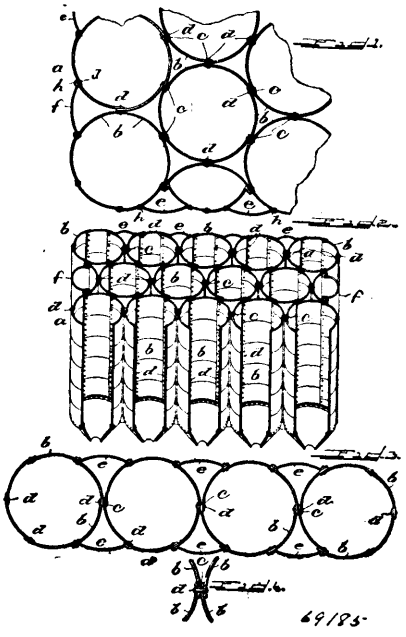
(*Alimentateur de moulin à scie.*)



John Bunyon Kelly, Portland, Maine, U.S.A., 30th October, 1900; 6 years. (Filed 26th September, 1900.)

Claim.—1st. In a steam feed for saw mills, the combination of a longitudinally slotted cylinder, a flexible band arranged within said cylinder to cover the slot therein, a piston travelling in said cylinder, an arm connected to said piston and projecting through the slot in said cylinder, and a log carriage connected to said arm substantially as and for the purpose set forth. 2nd. In a steam feed for saw mills, the combination of a longitudinally slotted cylinder, a movable head located within said cylinder, means for locking said head in its longitudinal adjustment within said cylinder, a series of valve chests communicating with said cylinder and provided with inlet and outlet ports, valves arranged within said chests, means for actuating said valves, a flexible band arranged within said cylinder to cover the slot therein, a piston travelling in said cylinder between the movable and stationary heads thereof, an arm connected to said piston and projecting through the slot in said cylinder, and a log carriage connected to said arm, substantially as and for the purpose set forth. 3rd. In a steam feed for saw mills, the combination of a longitudinally slotted cylinder, a flexible band arranged within said cylinder to cover the slot therein, a suitably mounted wheel truck, an arm connected to said piston and extending through the slot in said cylinder and connected to said truck, a suitably mounted log carriage, and an arm extending from said log carriage connected to said truck, substantially as and for the purpose set forth. 4th. The combination of a longitudinally slotted cylinder, a flexible band arranged within said cylinder to cover the slot therein, a suitably mounted wheel truck, an arm connected to said piston and extending through the slot in said cylinder and connected to said truck, a suitably mounted log carriage, and an arm extending from said log carriage and connected to said truck so as to have a slight independent vertical moement relatively thereto, substantially as and for the purpose set forth.

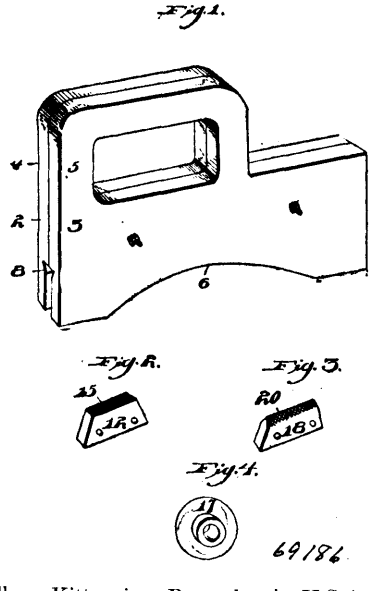
No. 69,185. Storage Bin. *(Coffre d'emmagasinage.)*



James Macdonald, Chicago, Illinois, U.S.A., 30th October, 1900; 6 years. (Filed 4th October, 1900.)

Claim.—1st. In a structure of the class described, the combination of a series of justaposed cylindrical compartments, each composed in any given horizontal section of metal plates of equal curvature overlapping at their adjacent ends and where said ends are in contact with the adjacent bin, the compartment sections of the several bins being secured together at such points of contact by vertical rows of rivets or bolts extending through, and uniting the overlapping portions of the sections composing said bins and thereby forming lateral ties and vertical supports for said bins, substantially as described. 2nd. In a structure of the class described, the combination of a series of justaposed cylindrical compartments, each composed in any given horizontal section of six metal plates of equal length and curvature overlapping at their adjacent ends in the surface of contact with the adjacent bin, the compartment sections of the several bins being secured together at such points of contact by vertical rows of rivets or bolts extending through, and uniting the overlapping portions of the sections composing said bins and thereby forming lateral ties and vertical supports for said bins.

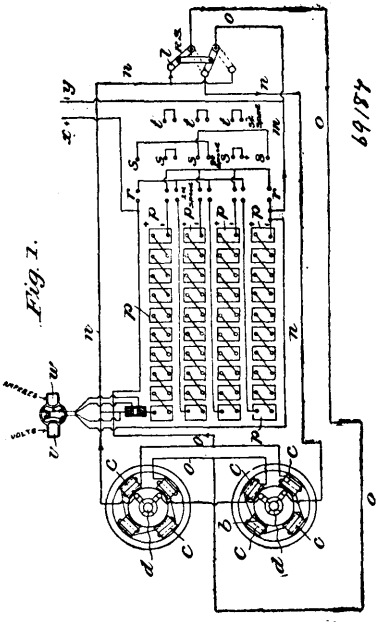
No. 69,186. Saw Setting Device. *(Tourne à gauche.)*



Milton E. Shaw, Kittanning, Pennsylvania, U.S.A., 30th October, 1900; 6 years. (Filed 3rd October, 1900.)

Claim.—1st. In a saw teeth setting device, a pair of longitudinal members forming a frame provided with a pair of circular recesses, a pair of rotating saw teeth setting wheels mounted in said recesses, and means for sharpening the saw teeth also mounted in the said frame, substantially as described. 2nd. In a saw teeth setting device, a frame provided with a series of circular recesses, a pair of rotating saw teeth setting wheels mounted in said recesses, a sharpening block for the teeth also mounted in the said frame, and means carried by the said frame for evening the saw teeth, substantially as described. 3rd. In a saw teeth setting device, the combination of a frame provided with a suitable recess to receive a saw and a series of circular recesses, a pair of rotating saw teeth setting wheels mounted in said circular recesses, and means for evening the saw teeth carried by the said frame, substantially as described. 4th. In a saw teeth setting device, the combination of a frame provided with a suitable recess to receive a saw, a series of circular recesses and a series of irregular recesses, a pair of rotating saw teeth setting wheels mounted in said circular recesses, a block for evening the saw teeth carried by the said frame, and means mounted in a pair of the said irregular recess for sharpening the saw teeth, substantially as described. 5th. In a saw teeth setting device, the combination of a pair of longitudinal members suitably secured together forming a frame, each of the said members provided with a pair of circular and irregular recesses, a handle formed integral with the said members, the said members provided with a suitable groove adapted to receive a saw, a block for evening the saw teeth mounted within a pair of the said irregular recesses, a pair of saw teeth setting wheels suitably mounted within the said circular recesses, and means carried by the said frame for sharpening the saw teeth, substantially as described.

No. 69,187. Electric Control of Vehicles. *(Automobile.)*

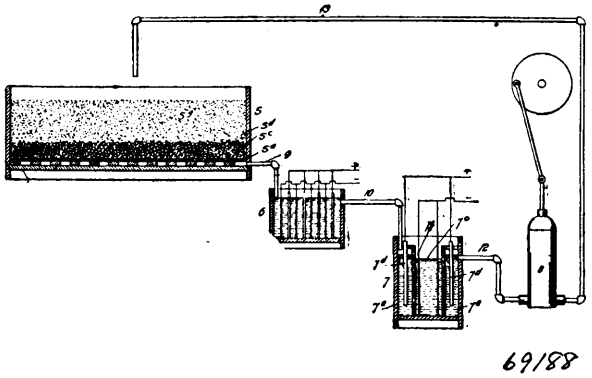


The Hewitt Lindstrom Motor Company, assignee of Charles August Lindstrom, all of Chicago, Illinois, U.S.A., 30th October, 1900; 6 years. (Filed 25th May, 1900.)

Claim—1st. In an electric automobile, a battery, a pair of electrical motors having their fields connected in multiple and their armatures connected in series; electrical connections between said motors and the battery; and a switch interposed in the circuit between the motors, whereby the speed of the motors may be changed by varying the E.F.M. derived from the battery while maintaining the motor fields always in multiple and the motor armatures always in series. 2nd. In an electric automobile, two multipolar motors, the fields of both motors being permanently connected in multiple and the armatures of both motors being permanently connected in series, and the air gaps between the armatures and the field magnets being less than one-fifth the width of the armature slots, with an electrical battery and connections between said battery and the motors, and means for changing the electro-motive force derived from the battery interposed between the battery and the motors. 3rd. In an electric automobile, two multipolar motors each having its field ring and poles or field magnets cast integral and its field coils connected in series, the fields of both motors being permanently connected in multiple and the armatures of both motors permanently connected in series, and the air gaps between the armatures and the field magnets being one-fifth or less of the width of the armature slots, with an electrical

battery and connections between said battery and the motors, and means interposed between the batteries and the motors for grouping the cells of the battery so as to change the electro-motive force derived therefrom and thereby vary the speed of the motors, all substantially as shown and for the purpose described. 4th. In an electric automobile, the combination of the axle, the independent motors supported near the opposite ends of the axle, said motors having their fields always connected in parallel and their armatures always connected in series, and an electrical battery composed of sets of units, the units in each set being connected in series, with a switch mechanism interposed in the circuit between the battery and the motors and adapted to connect the sets of battery units in multiple, multiple-series, or series, thereby varying the voltage of the current and regulating the speed of the motors accordingly, while always maintaining the multiple connections of the motor fields and the series connections of the motor armatures, substantstantially as and for the purpose described.

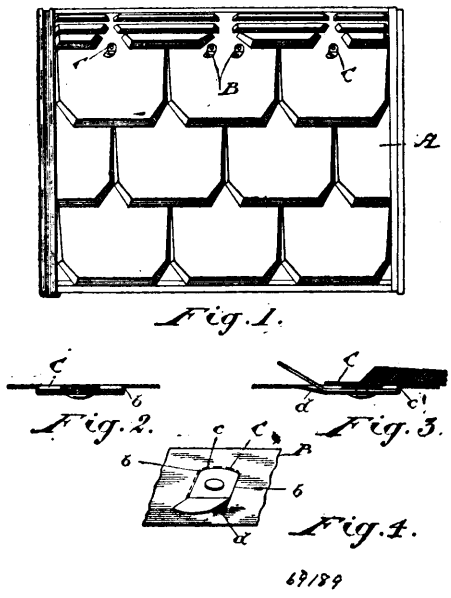
No. 68,188. Process of Extracting Precious Metals.
(*Procédé pour extraire les métaux precieux.*)



John E. Greenawalt and William Robinson, both of Denver, Colorado, U.S.A., 30th October, 1900; 6 years. (Filed 11th August, 1900.)

Claim.—1st. A process for the treatment of gold and silver ores which consists, first, in properly roasting the pulverized ore, second, in placing the ore in a filtering vat, third, in passing through the ore an electrolyzed solution of chlorids, chiefly sodium and ferric chlorids, and small quantities of chlorin and hypochlorous acid, with such other compounds as result from the electrolysis of a chlorid solution; fourth, passing the solution after it leaves the ore through a precipitation-tank; fifth, passing the solution, after it leaves the precipitation-tank, through the positive or anode compartment of an electrolytic cell, keeping the solution separate and distinct from the solution in the negative or cathode compartment in the cell, and sixth, returning the solution from the regenerating cell to the ore in the, and passing it again to the precipitating tank, and again to regenerating cell, and again the ore as often as may be required to effect the necessary saving of the values. 2nd. A process for the treatment of gold and silver ores, which consists, first, in properly roasting the pulverized ore; second, in placing the ore in a filtering vat; third, washing the ore to remove soluble salts; fourth, in passing through the ore an electrolyzed solution consisting of a solution of chlorids, chiefly sodium and ferric chlorids, and small quantities of chlorin and hypochlorous acid, with such other compounds as result from the electrolysis of a chlorid solution; fifth, passing the solution after it leaves the ore, through a precipitating tank; sixth, passing through the solution after it leaves precipitating tank through the positive or anode department of an electrolytic cell, keeping the solution separate and distinct from the solution in the negative or cathode compartment of the cell, and seventh, returning the solution from the regenerating cell to the ore in the vat and passing it thence to the precipitating tank, again to the regenerating cell, and again to the ore as often as may be required to effect the necessary saving of the values. 3rd. A process for the treatment of gold and silver ores which, which consists, first, in properly roasting the pulverized ore; second, placing the ore in a filtering vat, third, in passing through the ore an electrolyzed solution consisting of a solution of chloride, chiefly sodium and ferric chlorids, with a small percentage of bromids, and small quantities of chlorin, bromin, and hypochlorous acid, with such other compounds as result from the electrolysis of chlorid and bromid solution, fourth, passing the solution, after it leaves the ore through a precipitating tank, fifth, passing the solution after it leaves the precipitating tank through the positive or anode compartment of an electrolytic cell, keeping the solution separate and distinct from the solution in the negative or cathode compartment of the cell, and sixth, returning the solution from the regenerating cell to the ore in the vat, and passing it thence to the precipitating tank, again to the regenerating cell, and again to the ore as often as may be required to effect the necessary saying of the values. 4th. A process for the treatment of gold and silver ores which consists, first in properly roasting the pulverized ore, second, placing the ore in a filtering vat, third, washing the ore to remove soluble salts, fourth, passing through the ore an electrolyzed solution consisting of a solution of chlorids, chiefly sodium and ferric chlorids, with a small percentage of bromids, and small quantities of chlorin, bromin and hypochlorous acid, with such other compounds as result from the electrolysis of a chlorid and bromide solution, fifth, passing the solution after it leaves the ore through a precipitating tank, sixth, passing the solution after it leaves the precipitating tank through the positive ar anode compartment of an electrolytic cell, keeping the solution separate and distinct from the solution in the negative or cathode compartment of the cell, and seventh, returning the solution from the regenerating cell to the ore in the vat, and passing it thence to the precipitating tank, again to the regenerating cell, and again to the ore as often as may be required to off-set the necessary saving of the values.

No. 69,189. Metal Shingle Cleat. (*Taquet pour bardeau.*)



The Metallic Roofing Company of Canada, assignee of Carlton Wescott Conner, all of Toronto, Ontario, Canada, 30th October, 1900; 6 years. (Filed 1st October, 1900.)

Claim.—1st. A metal shingle having a recess formed therein below the level of its upper surface in combination with a cleat having one end fitted in the said recess and suitably secured therein, substantially as and for the purpose specified. 2nd. A metal shingle having a recess formed therein below the level of its upper surface with substantially perpendiclar sides and upper end and a beveled lower end gradually rising to the level of the shingle in combination with a cleat having one end secured in the said recess in contact with the sides and upper end of the recess, substantially as and for the purpose specified. 3rd. A metal shingle having a recess formed therein below the level of its upper surface with more or less abruptly dropping sides and upper end and a beveled lower end gradually rising to the level of the upper surface of the shingle in combination with a cleat having one end secured in the said recess, substantially as and for the purpose specified.

No. 69,190. Ore Crusher. (*Machine à broyer le minerai.*)

Byron I. Turman, Thomas J. Hampton, both of Los Angles, California, and Nellie J. Downing, Kearney, Nebraska, U.S.A., 30th October, 1900; 6 years. (Filed 27th June, 1900.)

Claim.—1st. In an ore crusher the combination of a rotating shaft a frusto conical metallic runner slidably mounted on a squared portion thereof, a cylindrical shell surrounding said runner and supported thereby, means for holding and guiding the upper portion of the shell in a position eccentric to the shaft, a ring surrounding the shaft immediately below and engaging and supporting the runner, and having an annular race or groove in the under

surface thereof, a stationary annular bed plate having an annular groove or race formed in the upper face thereof, pulverizing

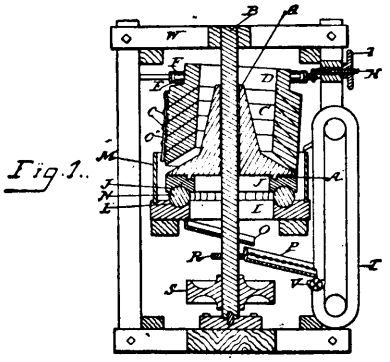


Fig. 1.

69190

balls adapted to fit between said groove and the annular race in the under face of the ring which carries the runner, a peripheral casing or curb extending up from the bed plate, a chute or apron below the central opening in the bed plate and adapted to receive the ore therefrom, a screen receiving the ore from the chute and adapted to separate the thoroughly pulverized portion from the coarser, a wiper wheel mounted on the shaft and communicating motion to the screen, and a return elevator receiving the coarse overtail from the screen and redelivering it inside the casing to the pulverizing, substantially as and for the purposes set forth. 2nd. In an ore crusher, the combination of a central shaft having a squared or non-circular portion, a runner mounted upon said shaft to rotate therewith, but free to rise and fall thereon, said runner comprising a conical upper portion, a larger flaring conical central portion, and an annular portion engaging and supporting the conical portions and having an annular race or groove in its lower face, a stationary annular bed plate having a groove or race in its upper face, pulverizing balls fitting in said race and groove, a peripheral casing or curb surrounding said bed plate and extending above the base of the conical portions of the runner, a cylindrical shell surrounding the conical portions of this runner and having an internal conical bottom surface of substantially the same pitch as that of the lower conical portion of the runner, and means for holding the upper portion of the shell in a position eccentric to the shaft, substantially as set forth. 3rd. In an ore crusher the combination of the central vertical operating shaft B, runner A slidably mounted on said shaft, shell C surrounding said runner having collar D, frame E, having anti-friction rollers F surrounding collar D, threaded bolt H, having hand wheel I, ring J having an annular race J^1, in its lower face, immediately below and engaging with runner A, annular bed plate L, having L^1 in its upper face, pulverizing balls N, fitting in said race J^1, and groove L^1, casing M, surrounding bed plate L and extending above the base of the runner A, chute O, below the central opening in the bed plate and adapted to receive the ore therefrom, screen P, adapted to receive the ore from chute O and separate the thoroughly pulverized portion thereof from the overtail, wiper wheel R, mounted on shaft B and adapted to impart a shaking motion to screen P, screw V, adapted to convey the overtail to elevator T, and elevator T adapted to convey the overtail into casing M, all constructed and operated, substantially as described herein.

No. 69,191. Building Construction.

(*Construction d'édifice.*)

Hans Friedrich Einfeldt, Elstorf, Harburg, Germany, 21st October, 1900; 6 years. (Filed 15th October, 1900.)

Claim.—1st. The construction of buildings with walls built of bricks or their equivalents formed with openings through them which when the bricks are set from channels or flues running continuously through the entire building for the purpose of obtaining a saving of materials great strength and a thorough ventilation of the entire building and its walls to prevent humidity and rot, constructed and arranged, substantially as hereinbefore described. 2nd. In constructing buildings the use of bricks formed with openings which when the bricks are set form air or ventillating flues, constructed and arranged substantially as hereinbefore described. 3rd.

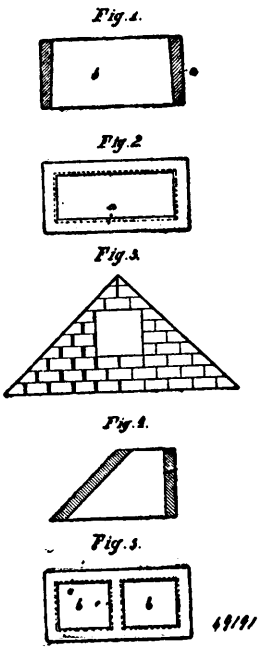


Fig. 4.

Fig. 2

Fig. 3.

Fig. 4.

Fig. 5.

69191

In building constructed with bricks having opening forming ventilating flues, the arrangement of regulating device, such as sliding or flap valves for regulating the current of air througn said flues, constructed and arranged, substantially as hereinbefore described.

No. 69,192. Clamp for Quilting Frames.

(*Agrafe pour cadres à piquer.*)

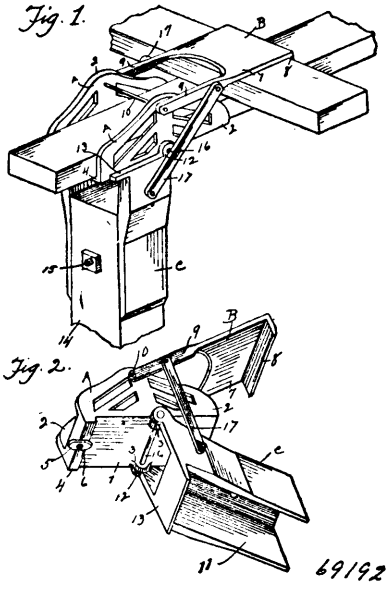


Fig. 1.

Fig. 2.

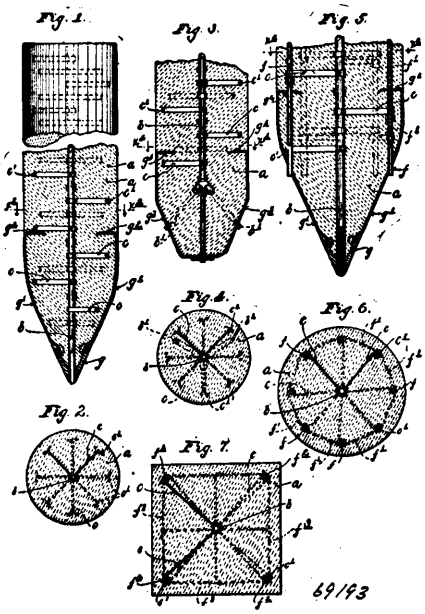
69192

Nicholas Rupp, Toledo, Ohio, U.S.A., 31st October, 1900; 6 years. (Filed 9th October, 1900.)

Claim.—1st. In a clamp for frames, a body portion adapted to adjustably engage a bar of the frame, a jaw pivoted to the body portion and adapted to engage a crossing bar, in combination with a standard pivoted to the body portion and linked to the jaw, adapted, when moved to a vertical position, to support the corner of the frame formed by the crossed bars, to move the jaw to compress and securely clamp the bars at their crossing between the body portion and the jaw. 2nd. A clamp for quilting frames, comprising a body portion having a channel adapted to longitudinally receive a bar of the frame and to adjustment thereon, a jaw pivoted thereto, adapted to engage another bar crossing and resting on the first at

right angles, a standard pivoted to the body portion of the clamp and adapted to support it, and with it a corner of the frame, and link-bars pivotted to the standard and to the jaw, adapted, when the standard is moved to a vertical position to support the frame, to move the jaw, to compress and securely clamp the bars at their crossing between the body portion and the jaw. 3rd. A clamp for quilting-frames, comprising a body portion having a channel adapted to longitudinally receive a bar of the frame and to adjustment thereon, a jaw pivoted thereto adapted to engage another bar crossing and resting on the first at right angles, a standard pivoted to the body portion of the clamp and adapted to support it, and with a corner of the frame, link-bars pivoted to the standard and to the jaws, adapted when the standard is moved to a vertical position to support the frame, to move the jaw, to compress and securely clamp the bars at their crossing between the body portion and the jaw, and means to lock the standard in a vertical position.

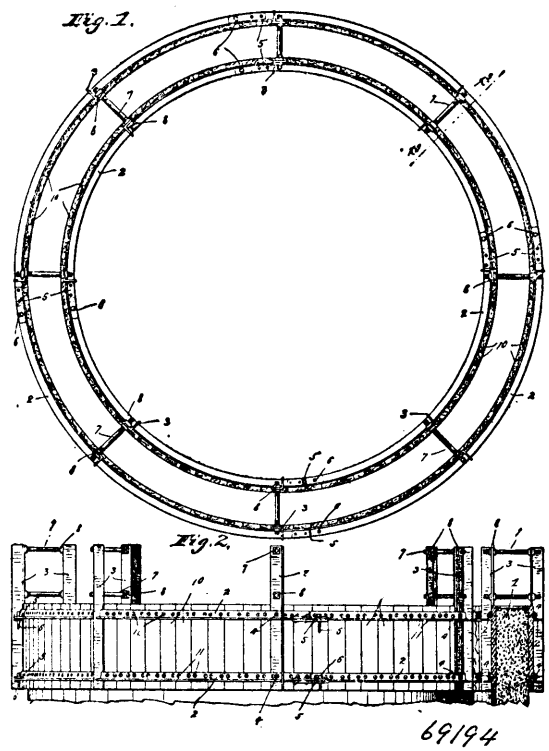
No. 69,193. Concrete Pile. *(Pilotis de béton.)*



Olaf Hoff and Charles F. Haglin, both of Minneapolis, Minnesota, U.S.A., 31st October, 1900; 6 years. (Filed 15th October, 1900.)

Claim.—1st. A concrete pile or column having a longitudinally extended core and a plurality of radial binding brackets or braces projecting from said core and imbedded in the body of the pile, substantially as described. 2nd. A concrete pile or column, having a longitudinally extended core and a plurality of binding brackets or rods radiating from said core in different vertical planes, and imbedded within the body of the pile, substantially as described. 3rd. A concrete pile or column having longitudinally extended core, and the plurality of brackets or braces arranged in different planes and partially encircling the said core with their prongs radiating therefrom, which core and brackets are imbedded within said pile, substantially as described. 4th. A concrete pile, having a hollow core serving as a jetting tube, and a plurality of binding brackets or rods radiating from said core and imbedded within the body of the pile, substantialy as described. 5th. A sheet pile of concrete having a longitudinally extended jetting pipe, provided with a plurality of branches opening at one edge thereof, substantially as described. 6th. A concrete pile, having a longitudinally extended jetting passage plugged at its lower end and provided with one or more lateral passages opening at the edge or side of the pile and through which water and cement may be injected, substantially as described. 7th. A concrete pile, having a primary central core and a plurality of auxiliary cores imbedded therein, surrounding said central cores, and radial binding braces connecting the said primary and auxiliary cores, substantially as described. 8th. A concrete pile, having a primary, central core, and a plurality of auxiliary or surrounding cores, radial binding braces, connecting said primary and auxiliary cores, and tie brackets or rods connecting said auxiliary cores, substantially as described. 9th. A concrete pile having one concave and one convex edge, which edges are engagable with the reversely formed edges of adjacent piles for less than a semi-circle, whereby said piles are aligned and may be separated by transverse movements. substantially as described.

No. 69194 Mould. *(Moule.)*



Charles F. Haglin, Minneapolis, Minnesota, U. S. A., 31st October, 1900, 6 years. (Filed 15th October, 1900.)

Claim.—1st. A device for use in the construction of concrete bins, comprising approximately parallel mould-boards having vertical projections, and spacing and clamping devices connecting said projections above the mould-boards, whereby said mould-boards may be properly spaced from above and may be drawn and clamped onto the hardened top layer of the partially formed bin, substantially as described. 2nd. A mould for use in the construction of concrete bins, comprising concentric annular mould boards having vertical projections extending above said mould-boards, and spacing bolts or rods arranged in pairs to tie together the upper parts of said vertical projections and space apart the concentric mould-boards, and provided with nuts for clamping said mould-boards onto the partially formed bin, substantially as described. 3rd. In a mould for use in the construction of concrete bins, the combination with the segmental frames formed by the horizontal frame sections 2 and vertical projections 3, of the facing 10, secured to said frame sections 2, and the pairs of spacing bolts 7, connecting the upper ends of said vertical frame projection 3, substantially as described.

No. 69,195. Rotary Engine. *(Machine rotatoire.)*

John Knowles, Denver, Colorado, U. S. A., 31st October, 1900; 6 years. (Filed 9th October, 1900.)

Claim.—1st. The combination with divided, double cylinders, and removable cylinder heads, of the shafts through the said cylinder, pistons adapted to rotate in rolling contact with each other inlet ports leading into opposite sides of said cylinders, the rotating said steam inlet valve having oppositely arranged ports, each of which is arranged to register with the steam inlet port of one of said cylinders, the exhaust-ports arranged at the opposite entrances of said inlet port into said cylinder the tubular exhaust valves rotatively seated at the intersection of steam inlet and exhaust ports, the valve stem on said exhaust valves, the gears on said valve stems and a toothed bar slidably supported in mesh with the gears of said exhaust valves and for defining their rotative movement and means iucluding gears of equal diameter for rotating said pistons and said steam inlet valves at equal speeds, and in operative rotative unison, and the combination with two or more sets of double cylinders and pistons with two of the rotating steam valves made with steam ports for two or more cylinders and pistons and the outer shell arranged to set and cut off steam at any port of a revolution if the steam valve placed above and near the exhaust ports or in the shafts, substantially as described. 2nd. The combination with the casing, the double divided cylinders, the cylinder-heads, the rolling pistons, the shafts supporting said pistons, the journal boxes for supporting said shafts, the gears secured to said shafts, the belt fly wheel and the stuffing boxes surrounding said shafts, with the semi-circular shaped steam imlet port arranged to deliver steam as substantially the horizontal center of the rolling

contact of said pistons and at diametrically opposite sides of said cylinder, an exhaust port in each cylinder in lin with said horizon-

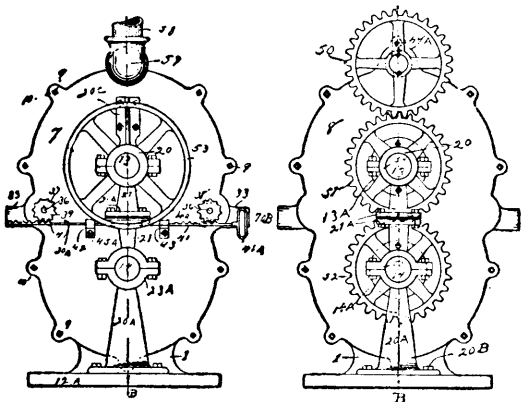


FIG. 1.

FIG. 2.

69193

tal rolling center of said positions at opposite sides of said cylinders intersecting the cylinder entrances of said steam inlet ports, a round hollow exhaust valve rotatively journalled at the inner section of each of said steam inlet and exhaust ports, and extending across both and all cylinders and having a port opening through its shell or about one half its diameter and arranged and adapted to close the steam inlet port to one side, of said cylinder and open the steam-inlet port on the opposite side of said cylinder and close the adjacent exhaust port, and means including toothed rack and gears arranged to connect valves together for manually reversing the position of the valves, substantially as described.

No. 69,196. Rotary Plough. (*Charrue rotatoire.*)

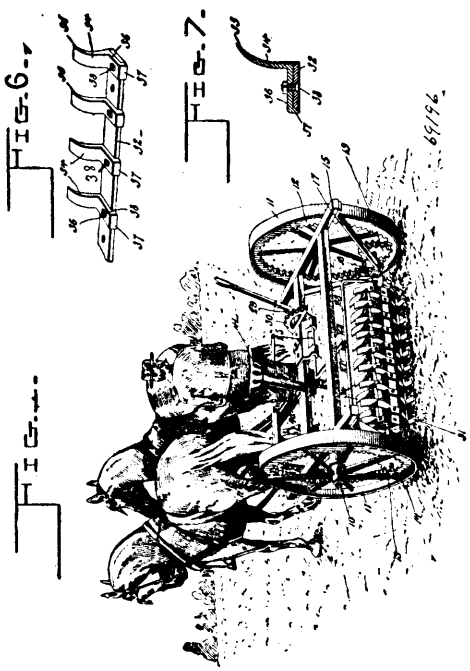


FIG. 6.

FIG. 7.

FIG. 4.

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Samuel Hampton, Rapid City, Manitoba, Canada, 31st October, 1900; 6 years. (Filed 10th October, 1900.)

Claim.—1st. In a rotary plough, a cutter mechanism consisting of a drum or cylinder, and series of blades mounted on the cylinder for the blades of one series to occupy a staggered relation to the blades of the other series, substantially as described. 2nd. A rotary plough comprising a wheeled frame, a rotary cutter having a plurality of blades arranged in multiple series thereon for the blades one series to occupy a staggered relation to the blades of adjacent series, means for suspending said revoluble cutter from the frame, and a driving mechanism for rotating the revoluble cutter rapidly, substantially as described. 3rd. A rotary plough, comprising a frame, ground wheels connected with the frame and having the internally toothed master gears, a drum shaft suspended from the frame and provided with gear pinions having intermeshing engagement with the master gears, and multiple series of blades mounted on the cylinder for the blades of one series to occupy a staggered relation to the blades of the other series, substantially as described. 4th. In a rotary plough, a cutter mechanism comprising a drum or cylinder, a series of equi-distant bars secured on the drum, and a series of blades secured individually to each bar, the blades on one bar being staggered with reference to the blades on adjacent bars, substantially as described. 5th. A rotary plough comprising a suitable frame, a revoluble cutter cylinder having a plurality of curved blades, means for suspending the cutter cylinder movably from the frame, and an adjusting mechanism mounted on the frame and connected operatively with the cutter cylinder for raising and lowering the latter, substantially as described.

No. 69,197. Fish Canning Machinery.

(*Machine à mettre le poisson en boîte.*)

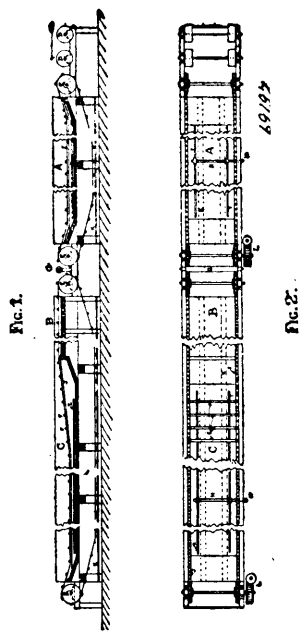


FIG. 1.

FIG. 2.

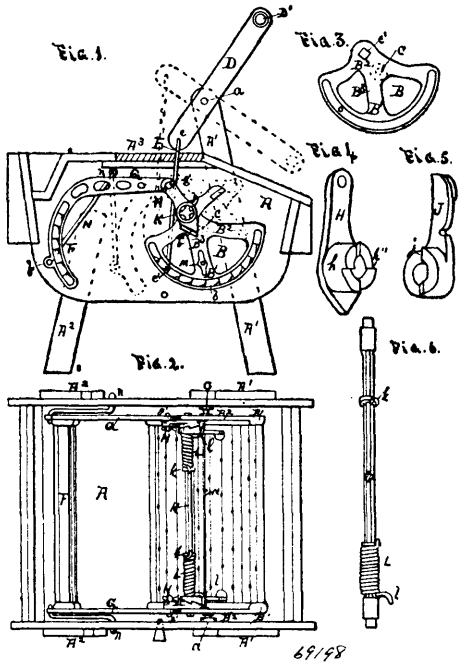
69197

Thomas James Cosens, New Westminster, British Columbia, Canada, 31st October, 1900; 6 years. (Filed 10th October, 1900.

Claim.—1st. In combination with a long shallow tank, receiving rolls at the entering end, a conveyer travelling through the length of such tank, sprocket wheels at each end to drive such conveyer, a worm wheel and worm to drive the sprocket wheel shaft and conveyor at a slow, uniform speed, perforated steam pipes at the bottom of the tank and means whereby steam is conveyed thereto, a table in line with the aforementioned tank the height of which is level with the ends of the tank, a second tank forming a continuation of such table, a conveyer passing over the table and through the length of this tank, and means whereby it may be driven at the same speed as the conveyer in the first tank, a supporting roller between the two conveyers, a steam pipe having branches extending along the sides of the bottom of the tank, perforations toward the extreme ends of the branches, and means whereby steam is admitted to the same, substantially as described. 2nd. In combination with a long shallow tank having receiving rolls at the entering end and a conveyer passing through its lengh actuated by suitably driven sprocket wheels at the ends, a perforated steam pipe in the bottom of the tank and means whereby steam may be admitted thereto, a table in line with the tank, the height of which is level with the ends of the same, a second tank forming a continuation of the table, a conveyer within the width of the tank formed of slats between sprocket chains passing over sprocket wheels at the outer end of the table and opposite end of the tank, a worm on a vertical shaft engaging a worm wheel on the shaft of the sprocket wheel, a supporting roller between the conveyers, a steam pipe at the bottom of the tank having branches along the sides of the same, perforations toward the extreme outer ends of the branches, and means whereby steam is admitted to the same, all substantially as described, 3rd. In combination with a tank having a table in continuation of the same and a conveyer passing over the table and through the tank, a second tank forming a continuation of aforesaid tank and table, a conveyer in the second tank, sprocket wheels by which such conveyer is driven. a vertical shaft carrying a worm gearing with a worm wheel on the sprocket wheel shaft, a supporting roller between the con-

veyers, receiving rollers at the entering end of second tank, and perforated steam pipes in the bottom of the tank, all substantially as described.

No. 69,198. Washing Machine. (*Machine à laver.*)



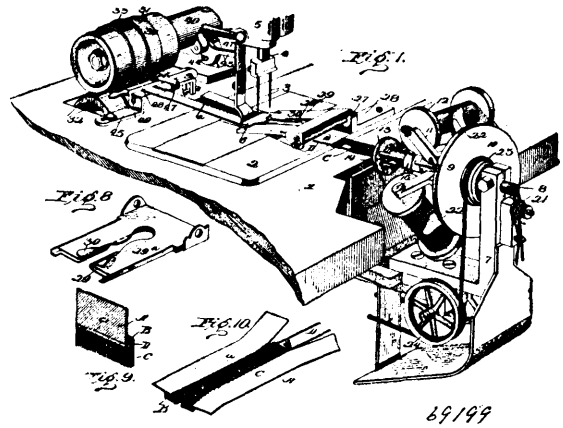
Philip Vollmar, Chatham, Ontario, Canada, 31st October, 1900; 6 years. (Filed 10th October, 1900.)

Claim.– 1st. The combination with the tub A, of an oscillatory rubber B, a movable bumper F, and oscillatory arms being provided with the hub *h*, and the ratchets h^{11}, for the purpose of connecting bumper F, with said rubber B, substantially as specified. 2nd. The combination with a tub of an oscillatory rubber, a movable bumper, oscillatory arms, connecting said bumper with said rubber, and the adjusting lever J, being provided with ratchets *j*, for the purpose of regulating the tension of the spiral springs L, substantially as set forth. 3rd. The combination with a tub of an oscillatory rubber, a movable bumper, oscillatory arms, connecting said bumper with said rubber, adjusting levers and spiral spring L, regulating their tension on said levers H, and the connecting shaft K, substantially as and in the manner specified. 4th. The combination with the tub A, an oscillatory rubber B, a bumper F, oscillatory arms H, adjusting lever J, and the spiral springs L, executing their tension upon the said tension adjusting levers J, and the shaft K, when the tension of the spring L, is overcome, the rubber B, may oscillate independent of the bumper F, substantially as described, and for the purposes specified.

No. 69,199. Apparatus for Making Trimming.
(*Appareil pour faire des garnitures.*)

Charles P. Schlegel, Rochester, New York, U.S.A., 31st October, 1900; 6 years. (Filed 11th October, 1900.)

Claim.—1st. In a machine for making trimmings, the combination with a support, means for feeding a tape along one side of the support, of mechanism for winding continuous strands of fibrous material around the support and tape, and sewing mechanism for uniting the loops of the strands to the tape, as it is fed forward. 2nd. In a machine for making trimmings, the combination with a support and feeding devices for moving a tape along one side of the support, of means for winding continuous strands of fibrous material around the support and tape, a fabric guide and sewing mechanism for sewing the fabric, tape and the loops of the strands together as they are fed forward. 3rd. In a machine for making trimmings, the combination with means for feeding forward two separated tapes, of mechanism for winding continuous strands of fibrous material around the tapes, two sewing mechanisms for sewing the loops of fibrous material to the tapes as they move forward, and a cutting device for severing the fibrous material between the tapes. 4th. The combination with the rotary twister head, the blade or former, and a sewing mechanism arranged at one side of the end of the blade. 5th. The combination with the rotary twister head, the blade or former, and a tape guide at one side thereof, of sewing mechanism arranged at one side of the end of the blade. 6th. The combination with the rotary twister head, of two separated tape guides and sewing mechanism arranged in line with each of the tape guides. 7th. The combination with a rotary twister head, of the two separated tape guides, the two fabric guides in line with the tape guides, and two sewing



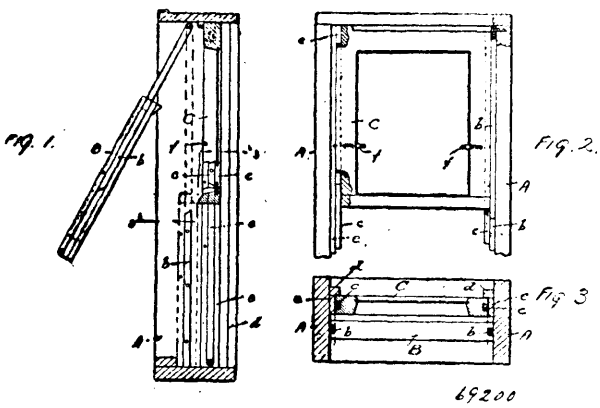
mechanisms in line with the tape and fabric guides. 8th. The combination with the rotary twister head, of two separated tape guides, the two fabric guides, the two sewing mechanisms, and a cutting mechanism arranged between the planes of the tape and fabric guides. 9th. The combination with the twister head, of the two separated tape guides, sewing mechanisms in line with the tape guides, feeding devices for the tapes, and a cutting mechanism arranged to sever material extending between the tapes. 10th. The combination with the twister head, the two separated tape guides, two fabric guides, and sewing mechanisms in line with the fabric and tape guides, of a feeding device for the tapes and fabrics, and cutting mechanism arranged to sever the material extending between the tapes. 11th. The combination with the tape guides, two sewing mechanisms in line therewith, of feeding devices for the tapes, means for twisting strands of fibrous material around the tapes and means for severing the strands between the tapes. 12th. The combination with two sewing mechanisms, means for feeding two separate parallel tapes longitudinally past the sewing mechanisms, and means for twisting continuous strands of fibrous material around the tapes before reaching the sewing mechanisms. 13th. The combination with two sewing mechanisms, means for feeding two separate tapes longitudinally past the sewing mechanisms, means for twisting continuous strands of fibrous material around the tapes before they reach the sewing mechanisms, and devices for severing the fibrous material between the tapes. 14th. The combination with two sewing mechanisms, means for feeding two separate tapes longitudinally past the sewing mechanisms, means for twisting continuous strands of fibrous material around the tapes before they reach the sewing mechanisms, means for guide strips of fabric upon the tapes at the sewing mechanisms, and devices for severing the fibrous material between the tapes. 15th. The combination with the feeding rollers, of the guide having the supporting bar, the removable top bar and spring tongue thereon. 16th. The combination with the feeding rollers, of the guide having the supporting bar, the hinged top bar, the catch for securing it, and the curved spring tongue. 17th. The combination with the twisting head, the blade or support, having the tape guides at the side, and the portion extending beyond the guide, of the sewing mechanism arranged at the end of the tape guide. 18th. The combination with the twisting head, the blade or support having the tape guides at the sides, and the central portion extending beyond the guides, of two sewing mechanisms arranged at the ends of the guides. 19th. The combination with the twisting head, of means for guiding two separate tapes, a fabric guiding and turning or hemming device in line with each tape and sewing mechanisms, one for each tape adapted to secure the tapes and fabrics together. 20th. The combination with the twisting head, the blade and the tape guides, of the pivoted double fabric hemmer, and sewing mechanisms in line with the tape guides.

No. 69,200. Window. (*Fenêtre.*)

Jacob Appell, Milwaukee, Wisconsin, U.S.A., 31st October, 1900; 6 years. (Filed 11th October, 1900.)

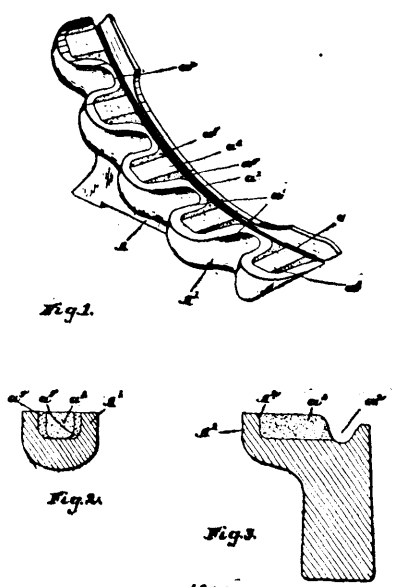
Claim.—A window frame having its stiles provided with outside stops, cleats on the frame stiles longitudinally of same adjacent to the stops, a set of sash guides in the form of strips each comprising two sections of unequal length, the short section being rigid with a cleat and the long section pivoted to the lower end of said cleat, another set of sash guides also in the form of strips comprising two sections of unequal length, the short section being rigid with a frame stile and the long section pivoted at its upper end to said stile, the meeting ends of all said strip sections being at such eleva-

tion as to require bringing of sash a greater distance than its full length out of normal position before either pair of the movable



sections can be swung on their pivots, it also requiring that the run up lower sash be swung out before run down upper sash can be swung in position for removal.

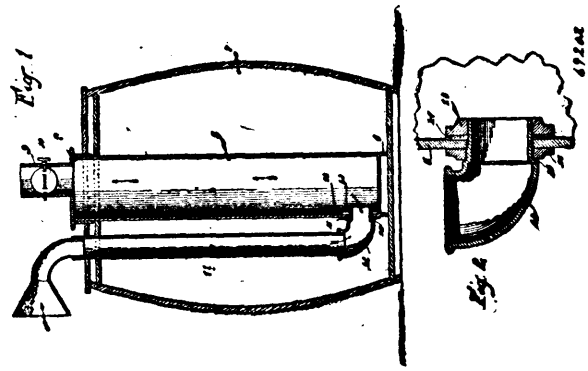
No. 69,201. Car Wheel Truing-Up Shoe.
(*Sabot pour ajuster les roues de chars.*)



Michael Power, Toronto, Ontario, Canada, 31st October, 1900; 6 years. (Filed 11th October, 1900.)

Claim.—1st. A truing shoe for car wheels comprising an arc-shaped body having a groove at the inner side to fit the flange of the wheel and forming a flange at the inner side, and a series of laterally projecting teeth having chilled cutting edges as shown and for the purpose specified. 2nd. A truing shoe for car wheels comprising an arc-shaped body having a groove at the inner side to fit the flange of the wheel and forming a flange at the inner side, a series of laterally projecting teeth having chilled cutting edges having a sheer or incline outwardly, so that the teeth are narrower at the point than at the base, as and for the purpose specified. 3rd. A truing shoe for car wheels comprising an arc-shaped body having a groove at the inner side to fit the flange of the wheel and forming a flange at the inner side and a longitudinal recess in such flange and a series of laterally projecting teeth having chilled cutting edges, as shown and for the purpose specified. 4th. In a truing shoe for car wheels, the combination with the arc-shaped body having a groove at the inner side to fit the flange of the wheel and forming a flange at the inner side, and a series of laterally projecting teeth having chilled cutting edges and recesses formed in the teeth extending to the arc-shaped groove, of a suitable block of roughening material fitting within the recees and extending to the edge of the groove as and for the purpose specified. 5th. In a truing shoe for car wheels, the combination with the arc-shaped body having a groove at the inner side to fit the flange of the wheel and forming a flange at the inner side, and a series of laterally projecting teeth having chilled cutting edges, and recesses formed in the teeth extending to the arc-shaped groove, of a suitable block of roughening material fitting within the recess and extending to the edge of the groove and strips of adhesive acting metal fitting within the recess at each side of the roughening material. 6th. The combination with the shoes provided with an arc-shaped groove at the inner side and the laterally extending teeth, of the block of roughening material comprising emory corundum, portland cement and fish glue in the proportions specified and the side strips of adhesive acting material as and for the purpose specified.

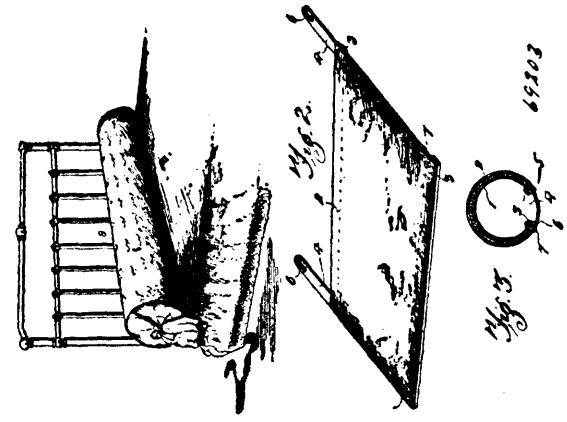
No. 609,22. Feed Cooker. (*Poêle de cuisine.*)



Joseph A. Mineau, Louiseville, Quebec, Canada, 31st October, 1900; 6 years. (Filed 15th October, 1900.)

Claim.—1st. A feed heater or cooker, comprising a grateless shell, a draft inlet pipe, and a mechanical coupling united to said pipe and having a fire resisting packing at its jointed connection with the shell, substantially as described. 2nd. A feed heater or cooker, comprising a vertical combustion chamber, a draft pipe, and a coupling connected to the draft pipe and united to the cylinder by a threaded pipe and socket coupling which is insulated from the action of fire in the cylinder by a suitable insulating material, whereby the heater is adapted to heat all the feed contained in the barrel in which the heater is submerged. 3rd. A feed heater or cooker, comprising a vertical grateless shell or cylinder, a draft inlet pipe, an elbow connected to said pipe and entering the shell, and clamping collars fitted to the elbow and insulated from action of heat by a fire resisting packing, substantially as set forth. 4th. A feed heater or cooker, comprising a vertical cylinder or shell, a draft inlet pipe, an elbow, coupling collars connected with the elbow, and a fire resisting packing interposed between the collars and clamped firmly in place against the shell by the action thereof, substantially as described. 5th. A feed heater or cooker, comprising a vertical shell or cylinder, a draft inlet pipe, a coupling elbow having the annular shoulder, a collar fitted loosely on the elbow and interposed between the shell and said shoulder, a packing fitted against the shell, and a collar having threaded connection with the elbow, substantially as and for the purpose described.

No. 69,203. Bolster. (*Coussin.*)

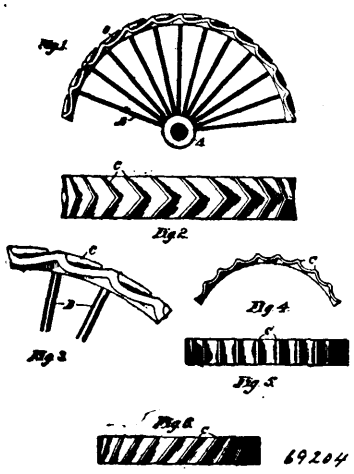


John Edward Long, Chillicothe, Ohio, U.S.A, 31st October, 1900; 6 years. (Filed 9th October, 1900.)

Claim.—1st. A collapsible bolster comprising a thin sheet of flexible material having holding devices on the outer side edge thereof near the ends, and resilient end straps secured to said sheet and

having a length greater than the width of the said sheet, the ends of the straps unengaged by the sheet being provided with articulating devices to removably engage the holding devices on the side edge of the sheet. 2nd. A collapsible bolster of cylindrical form comprising a thin sheet of flexible material having brace straps along the side edge portions, resilient metal end straps attached to the sheet and of greater length than the width of said sheet, and having articulating devices in the free ends thereof, and headed studs on the ends of the sheet opposite that from which the straps extend to detachably receive the free ends of the latter.

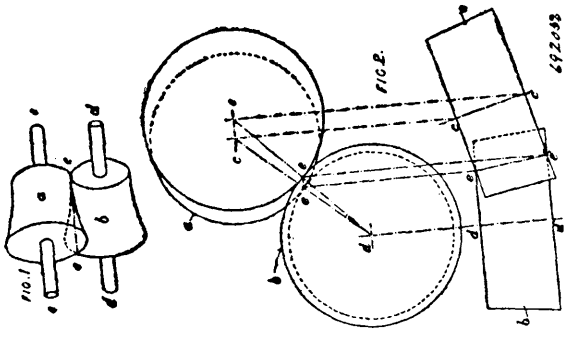
No. 69,204. Traction Wheel. (*Roue de traction.*)



George F. Connor, Port Huron, Michigan, U.S.A., 31st October, 1900; 6 years. (Filed 8th October, 1900.)

Claim.—1st. In a traction wheel, the combination with the hub and supporting member or spokes, of a rim having its outer face formed with a series of forwardly inclined triangular ribs, the apex of which are located centrally of the rim, and inwardly curved faces between the ribs, the curvature of which is increased from the rear faces of the ribs to the front faces of the companion rib, substantially as described. 2nd. In a traction wheel, the combination with the hub and supporting member or spokes, of a rim having its outer face formed with a series of ribs, and inwardly curved faces between the ribs, the curvature of which is increased from the rear faces of the ribs to the front faces of the companion rib, substantially as described. 3rd. In a traction wheel, the combination with the hub and supporting member or spokes, of a rim having its outer face formed with a series of ribs, and inwardly curved faces between said ribs, concaved with reference to the outer periphery of said wheel. 4th. In a traction wheel, the combination with the hub and supporting member or spokes, of a rim having its outer face formed with a series of ribs, and inwardly curved faces between said ribs, concaved with reference to the outer periphery of said wheel, and having the inner side of said rim shaped with curving surfaces parallel to the configurations of the curved faces between the ribs on the outer surface of said rim.

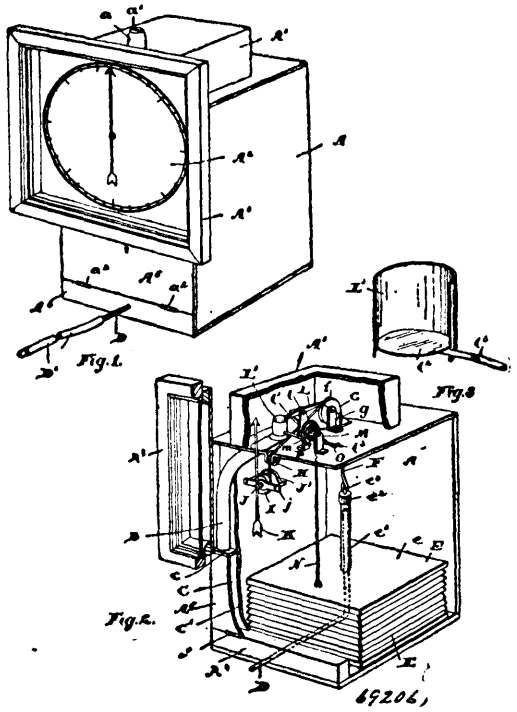
No. 69,205. Roller Mill. (*Laminoir.*)



Johannes Christiaan Wegerif, Leigh-on-Sea, Essex, England, 31st October, 1900; 6 years. (Filed 11th October, 1900.)

Claim—1st. A roller mill for grinding and crushing, whereof the rolls are so mounted that their axes lie obliquely to each other in parallel (preferably horizontal) planes, so that the planes of rotation of the rolls will be mutually oblique and a disruptive or tearing action in addition to crushing or grinding action will be produced, the grinding faces of the rolls being of such configuration that their line of contact or bite is continuous from end to end of the rolls, as described. 2nd. A roller mill of the kind specified in claim 1, whereof the rolls have their axes lying obliquely across each other in parallel (preferably horizontal) planes, so that a disruptive or tearing action will be produced in addition to a crushing action, the rolls being of truncated conical form and their grinding faces being hollowed so that the line of contact or bite of the rolls will be continuous from end to end of the rolls, as described. 3rd. A roller mill for grinding and crushing, whereof the rolls are mounted to rotate on axes oblique to each other and having a continuous line of contact or bite and whereof the yielding or pressure roll is mounted in a single frame fulcrumed to act as a pressure lever and to the end of which spring or other yielding pressure is applied, substantially as and for the purpose specified. 4th. In a roller mill for grinding and crushing, whether two high or three high, and whether the roll axes be parallel or oblique, mounting the journals of the upper or pressure roll in the bearings in a single frame fulcrumed to act as a pressure lever and having a single point of application of spring or other yielding pressure so that the pressure will always be equally applied to the two ends of the roll, the journals of the roll being so supported in the lever that the distance between the rolls may be readily adjusted by means of a stop at the end of the lever, the lever being adapted to be thrown over on its fulcrum and to carry with it the roll mounted therein so as to afford access to the roll beneath, substantially as specified.

No. 69,206. Lung Tester and Exerciser.
(*Appareil à sonder les poumons, etc.*)



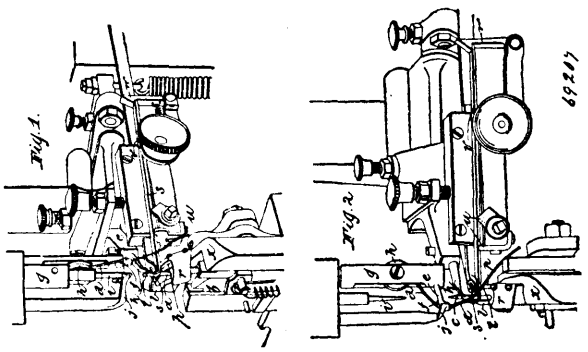
John Robert Connon, Elora, Ontario, Canada, 31st October, 1900 6 years. (Filed 28th July, 1900.)

Claim.—1st. The combination with the casing and dial plate in the front thereof and arbour and indicating arrow secured thereto and the drum and helical spring designed to actuate the arrow, so as to cause the said arrow to rotate in one direction, of the bellows suitably secured in the bottom of the casing, the tube leading upwardly from the bellows and closed at the top, the bent pipe leading through the bellows into the tube from the front of the casing and provided with a suitable blow tube, the cord connecting the top of the tube at the centre of the bellows to the actuating drum on the arbour of the indicator arrow, such cord extending over suitable pulleys and a coin controlling device for permitting of the movement of such cord as the bellows ascend, as and for the purpose specified. 2nd. The combination with the casing and dial plate in the front thereof and arbor and indicating arrow secured thereto and the drum and helical spring designed to actuate the arbour, so as to cause the said arrow to rotate in one direction, of the bellows suitably secured in the bottom of the casing, the tube leading upwardly from the bellows and closed at the top, the bent pipe leading through the bellows into the tube from the front of the casing and provided with a suitable blow tube, the cord connecting the top of the tube at the centre of the bellows to the actuating

drum on the arbour of the indicator arrow, such cord extending over suitable pulleys, the coin tube leading from the interior of the upper casing down to a suitable coin receptacle, the walking beam pivoted in a suitable bracket, the bead on the cord with which one end of the walking beam is designed to come in contact, the coin receiving tube at the opposite end of the walking beam and a suitable bottom for same designed to temporarily receive the coin, as and for the purpose specified. 3rd. The combination with the casing and dial plate in the front thereof and arbour and indicating arrow secured thereto and the drum and helical spring designed to actuate the arbour, so as to cause the said arrow to rotate in one direction, of the bellows suitably secured in the bottom of the casing, the tube leading upwardly from the bellows and closed at the top, the bent pipe leading through the bellows into the tube from the front of the casing and provided with a suitable blow tube, the cord connecting the top of the tube at the centre of the bellows to the actuating drum on the arbour of the indicator arrow, such cord extending over suitable pulleys, the coin tube leading from the interior of the upper casing down to a suitable coin receptacle, the walking beam pivoted in a suitable bracket, the bead on the cord with which one end of the walking beam is designed to come in contact, the coin receiving tube at the opposite end of the walking beam, a disc secured in the end of a crank arm and pivotally held in the bottom of the coin receiving tube, an arbour suitably supported and connected by a cord to the top of the bellows, a helical spring connected to the arbour and to one of the bearing brackets of the same and an arm extending outwardly from said arbour and underneath the outer end of the crank arm, as and for the purpose specified.

No. 69,207. Boot and Shoe Making Machine.

(*Machine à faire des chaussures.*)

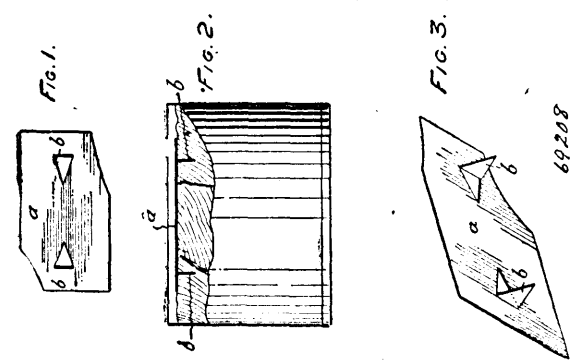


Hector Marshall, No. 227 Bay street, Port Melbourne, Victoria, Australia, 31st October, 1900; 6 years. (Filed 8th October, 1900.)

Claim.—1st. The herein described mechanism for lasting, welting, and sewing boots and shoes at one operation comprising a welt strip guide as 1, in combination with a straight reciprocating needle, a hook as *s*, engaging with the back of the insole, and a presser fork as *t* for pressing back the lower edge of the insole substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings. 2nd. In mechanism for lasting, welting and sewing boots at one operation a welt strip guide forming a rest for the work having a slot as *o* for the passage of the awl and needle and a shoulder as *p* of sufficient depth to relieve the welt strip of the pressure of the boot and thus allow said strip to pass freely through the guide, substantially as and for the purposes herein described and explained and as illustrated in the accompanying drawings.

No. 69,208. Meat Can Shield.

(*Protecteur de boite en fer blanc.*)

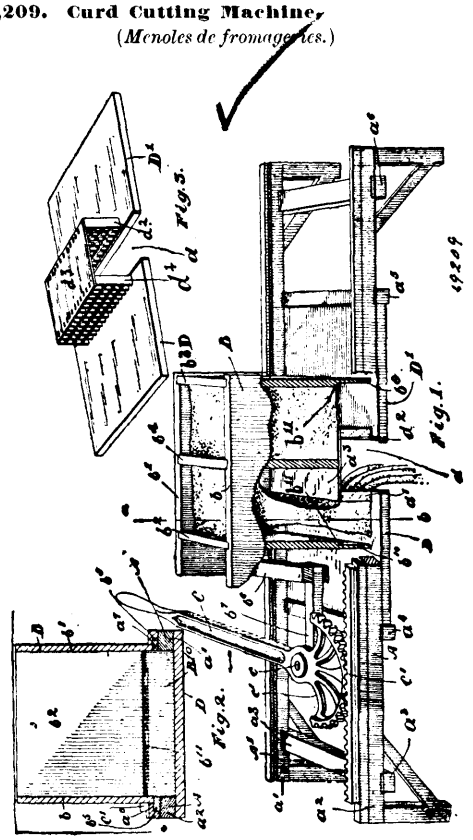


James Moore K. Letson and Frank Watts Burpee, both of Vancouver, British Columbia, Canada, 31st October, 1900; 6 years. (Filed 8th October, 1900.)

Claim.—A shield for the purposes set forth having one or more V-shaped points die punched in the blank of the shield and turned at right angles to the plane of the same, as specified.

No. 69,209. Curd Cutting Machine.

(*Menoles de fromageries.*)



Charles Asa Beach and Mahlon F. Beach, both of Winchester, Ontario, Canada, 31st October, 1900; 6 years. (Filed 2nd October, 1900.)

Claim.—1st. A curd cutting machine comprising a reciprocating hopper, stationary intersecting knives suitably supported beneath and projecting up into the hopper, means for supporting the curd within the hopper and mechanism for imparting a reciprocating motion to the hopper as and for the purpose specified. 2nd. In a curd cutting machine, the combination with the main frame provided with grooves in the longitudnial timbers thereof, of a reciprocating hopper having recesses formed in the end wall thereof and provided with tongues secured to the lower end of the side walls of the hopper and designed to operate in the said grooves formed in the main frame, stationary intersecting knives secured beneath and projecting up into the hopper, means for supporting the curd within the hopper, and mechanism for imparting a reciprocating motion to the hopper, as and for the purpose specified. 3rd. In a curd cutting machine, the combination with the main frame, of a reciprocating hopper slidably supported thereon, a stationary divided floor secured to the main frame below the hopper, intersecting knives secured to the inner ends of the parts of the stationary floor and projecting up into the hopper, and mechanism for imparting a reciprocating motion to the said hopper, as and for the purpose specified. 4th. In a curd cutting machine the combination with the main frame, of a reciprocating hopper slidably supported thereon, stationary intersecting knives suitably supported beneath the hopper, means for supporting the curd within the hopper, a toothed rack supported on the main frame, a segmental toothed lever suitably connected to the hopper and designed to mesh within the said rack, as and for the purpose specified. 5th. The combination with the main frame, a reciprocating hopper slidably supported thereon, a central dividing wall extending down to the level of the knives within the hopper a stationary divided store secured to the main frame beneath the hopper, intersecting knives secured to the inner ends of the said divided floor and a tie plate securing the two sets of knives together, as and for the purpose specified. 6th. In a curd cutting machine the combination with the main frame provided with a toothed rack, of a reciprocating hopper slidably supported thereon and provided with extended side walls connected together at the base by a cross bar, a draw bar rigidly connected to said cross bar, a hand lever provided with a toothed segmental and designed to mesh within the said rack as and for the purpose specified.

TRADE-MARKS

Registered during the month of October, 1900, at the Department of Agriculture—Copyright and Trade-Mark Branch.

7498. BAIRD & PETERS, St. John, N.B. Pork. 1st October, 1900.

7499. CHARLES A. GRIFFITH, Toronto, Ont. Confections of all kinds, Prepared Pop Corn, Sweet Meats and similar goods. 1st October, 1900.

7500. WILLIAM JOHN CHAPLIN, Westmount, Que. Axes. 1st October, 1900.

7501. ALEXANDRE ERNEST LOUIS MORELLE, trading as LOUIS ALEXANDRE, 30 Westbourne Grove, London, England. Hair Dyes. 2nd October, 1900.

7502. THE ROBERT SIMPSON COMPANY, LIMITED, Toronto, Ont. Corsets and Woollen and Cotton Underwear for Women, 2nd October, 1900.

7503. THE NASMITH COMPANY, LIMITED, Toronto Ont. Bread and Biscuits. 5th October, 1900.

7504. THE OMEGA CHEMICAL COMPANY, Borough of Manhattan, New York, N.Y., U.S.A. Medicinal Preparations. 5th October, 1900.

7505. HERBERT W. BURGESS, Toronto, Ont. Patent Medicines in Bottles. 5th October, 1900.

7506. CHRISTIE, BROWN & COMPANY, LIMITED, Toronto, Ont. Soda Biscuits. 8th October, 1900.

7507. THE WOLVERTON MILLING COMPANY, LIMITED, Wolverton, Ont. Flour. 8th October, 1900.

7508. HERMAN CARL YANK, Inlet, Township of Mulgrave, Que. A Rupture Cure, 9th October, 1900.

7509. CH. PREVET & COMPAGNIE, Paris, France. Produits Hygieniques et Pharmaceutiques, 9 octobre, 1900.

7510. CH. PREVET & COMPAGNIE, Paris, France. Pruduits Hygieniques et Pharmaceutiques, 9 octobre, 1900.

7511. CONSEIL SUPREME DES CORDONNIERS UNIS DU CANADA, Montréal, Qué. Chaussures, 11 octobre, 1900.

7512. WILLIAM S. RICE, Adams, New York, U.S.A. Medicinal Preparation for the Cure of Rupture, 13th October, 1900.

7513. E. LAZENBY & SON, LIMITED, 18 Trinity Street, London, England. Food and Relishes, 15th October, 1900.

7514. PHILIP GABLE & COMPANY, Nanaimo, B.C. Cigars, 15th October, 1900.

7515. C. ALF. R. DESJARDINS, St. Andre, Comte de Kamouraska, Qué. Moulins a battre le Grain, 16 octobre, 1900.

7516. SPIRITINE LIMITED, 5 Carteret Street, Westminster, England. General Trade Mark, 17th October, 1900.

7517. THE M. A. SEED DRY PLATE COMPANY, St. Louis, Missouri, U.S.A. Photographic Supplies such as Dry Plates, Films and Developers, 17th October, 1900.

7518. SOCIETE ANONYME DE LA PANGADUINE, 44 Rue Cambon, Paris, France. General Trade Mark, 17th October, 1900.

7519. LEONARD MEYER, Toronto, Ont. Heating Stoves, 20th October, 1900.

7520. CONSUMERS CORDAGE COMPANY, LIMITED, Montreal, Que. Yarns, Twines and Cordages, 22nd October, 1900.

7521. CONSUMERS CORDAGE COMPANY, LIMITED, Montreal, Que. Yarns, Twines and Cordages, 22nd October, 1900.

7522. JAMES HALFORD & SON, 12 Upper St. Martin's Lane, London, England. Curried Goods and Foods, or Ingredients used as Foods, 23rd October, 1900.

7523. ROBERT HENRY NEVILL JOHNSON, 43 Holford Square, London, England. Medicine, 23rd October, 1900.

7524. THE CANADIAN PORTLAND CEMENT COMPANY, LIMITED, Toronto, Ont. Cement, 24th October, 1900.

7525. THE McLENNAN-FRENCH PAINT COMPANY, LIMITED, Buffalo, New York, U.S.A. Paints and Painters' Supplies, 25th October, 1900.

7526. F. SCHRYBURT, Quebec, Que. Shoes, 26th October, 1900.

7527. THE BRITISH AMERICA PAINT COMPANY, Vancouver, B.C. Paints and Varnishes, 26th October, 1900.

7528. THE NEWBRO DRUG COMPANY, Butte, Montana, U.S.A. A Hair Remedy, 29th October, 1900.

7529. THE JUDGE AND DOLPH PHARMACEUTICAL COMPANY, St. Louis, Missouri, U.S.A. Drugs and Chemicals and a Medicinal Compound for Ailments and Diseases of the Genito-urinary Organs, 29th October, 1900.

7530. HANAN AND SON, New York, N.Y., U.S.A. Leather, Cloth and Rubber Boots, Shoes and other Footwear, 29th October, 1900.

7531. HANAN AND SON, New York, N.Y., U.S.A. Leather, Cloth and Rubber Boots, Shoes and other Footwear, 29th October, 1900.

7532. HANAN AND SON, New York, N.Y., U.S.A. Leather, Cloth and Rubber Boots, Shoes and other Footwear, 29th October, 1900.

7533. ALEXANDER BREMNER, Montreal, Que. Cement and Plaster, 29th October, 1900.

7534. H. B. McCARTHY, Port Hope, Ont. Men's, Boys' and Youths' Boots and Shoes, 30th October, 1900.

INDUSTRIAL DESIGNS.

Registered during the month of October, 1900, at the Department of Agriculture—Copyright and Trade-Mark Branch.

1710. THE CANADIAN CAMERA AND OPTICAL COMPANY, LIMITED, Toronto, Ont. Photographic Mount *re* "The Sun Series," 8th October, 1900.

1711. BENJAMIN FLETCHER, Toronto, Ont. Water Fountain Globe for Soda Founts, 10th October, 1900.

1712. JOHN SAMUEL HUMBERSTONE, Bedford Park, Ont. Churn Dashers, 12th October, 1900.

1713. WILLIAM ALEXANDER BAKER, Montreal, Que. Skirt or Garment Protector, 15th October, 1900.

1714. ARTHUR FREDERICK RUTTER, Toronto, Ont. Package used in the sale of Envelopes and Stationery, 16th October, 1900.

1715. GEORGE CHILLAS, Montreal, Que. Handle for Spoons, Forks, etc., 17th October, 1900.

1716. EDWARD THOMAS SMITH. Toronto, Ont. Snow Guard for Roofs, 23rd. October, 1900.

1717. SHUTTLEWORTH & HARRIS, Brantford, Ont. A Bottle, 27th October, 1900.

1718. MACDONALD MANUFACTURING COMPANY, Toronto, Ont. Tinware: Series of Torches intertwined with cord like patterns, a border of leaves and semi-circles above and leaf pattern border below, 27th October, 1900.

1719. THE BURROW, STEWART AND MILNE COMPANY, LIMITED, Hamilton, Ont. Cook Stove *re* "The Souris Grand Jewel." 27th October, 1900.

COPYRIGHTS

Entered during the month of October, 1900, at the Department of Agriculture—Copyright and Trade-Mark Branch.

11672. SKELETON SPECIFICATION SUGGESTIONS FOR ARCHITECTS. By David Alexander Hewitt, Toronto, Ont, 1st October, 1900.

11673. RULES PERTAINING TO THE GAME OF TOSSO. Charlotte Elizabeth Leigh, Toronto, Ont., 1st October, 1900.

11674. THE LANDLORDS' AND TENANTS' MANUEL: LE MANUEL DES LOCATEURS ET LOCATAIRES. By Robert T. Mullin, B.C.L., and Auguste Lemieux, LL.B. The Snow Law Publishing Co., Montreal, Que., 2nd October, 1900.

11675. ALL'S WELL THAT ENDS WELL. Words by Ralph M. Skinner. Music by Warner Crosby. Whaley, Royce & Co., Toronto, Ont., 2nd October, 1900.

11676. SELF-INSTRUCTOR FOR THE GUITAR. Folio No. 1. The Herrington Music Co., Kingsville, Ont., 3rd October, 1900.

11677. THE SONG OF SIR GILES. (Le Bon Des Barrières.) Words by William Morris. Music by Charles Willeby. The John Church Co., Cincinnati, Ohio, U.S.A., 3rd October, 1900.

11678. CANADIAN CATHOLIC READERS; NOTES ON LESSONS IN LITERATURE FOR ENTRANCE EXAMINATIONS, 1901. The Copp, Clark Co. (Ltd.), Toronto, Ont., 4th October, 1900.

11679. SELECT POEMS OF SYDNEY LANIER. Edited with an Introduction, Notes and Bibliography. By Morgan Calloway, Jr., Ph.D. George N. Morang & Co. (Ltd.), Toronto, Ont., 4th October, 1900.

11680. STATUETTE *re* RED CROSS NURSE IN THE ACT OF POURING A DOSE OF BOVRIL. Bovril (Ltd.), London, England, 4th October, 1900.

11681. WHEN YOU WERE FIRST A BRIDE. Words and music by Verner J. Cavers, Toronto, Ont., 5th October, 1900.

11682. DIAMOND DYE RUG BOOK. The Wells and Richardson Co., Montreal Que., 5th October, 1900.

11683. AN EXPOSITION OF THE PRINCIPLES OF ESTOPPEL BY MISREPRESENTATION. By John Skirving Ewart, Winnipeg, Man., 5th October, 1900.

11684. THE CANADIAN MAGAZINE. October, 1900. The Ontario Publishing Co. (Ltd.), Toronto, Ont., 5th October, 1900.

11685. TO YOU, TO ME. Song. By Edward Baxter Felton. (Music.) The John Church Co., Cincinnati, Ohio, U.S.A., 5th October, 1900.

11686. THE BROOK. Song. Words by William Ordway Partridge. Music by Edward Baxter Felton. The John Church Co., Cincinnati, Ohio, U.S.A., 5th October, 1900.

11687. MY WHITE, WHITE ROSE. Song. Words by Oliver J. Booth. Music by Edward Baxter Felton. The John Church Co., Cincinnati, Ohio, U.S.A., 5th October, 1900.

11688. O, I WILL WALK WITH YOU, MY LAD. Song. Words by James Whitcomb Riley. Music by Edward Baxter Felton. The John Church Co., Cincinnati, Ohio, U.S.A., 5th October, 1900.

11689. LULLABY LAND: SONGS OF CHILDHOOD. By Eugene Field. Selected by Kenneth Grahame and Illustrated by Charles Robinson. George N. Morang & Co., Limited. Toronto, Ont., 6th October, 1900.

11690. DO YOU EVER MISS ME, DEAREST? Words by W. H. Gardner. Music by W. C. Parker. The Canadian American Music Co. (Ltd.), Toronto, Ont., 6th October, 1900.

11691. INSIGNIFICANT THOMPSON. Two Step and Cake Walk. By James B. Glionna. Harry H. Sparks, Toronto, Ont., 6th October, 1900.

11692. SONS OF THE MORNING. By Eden Philpotts. W. J. Gage & Co. (Ltd.), Toronto, Ont., 8th October, 1900.

11693. OUR BRAVE CANADIAN BOYS. Words and Music by Lorne S. Bell, Toronto, Ont., 9th October, 1900.

11694. OUR BOYS IN KHAKI. (Engraving.) The Ottawa *Citizen* Co. (Ltd.), Ottawa, Ont., 10th October, 1900.

11695. THE CHARGE OF STRATHCONA'S HORSE. Patriotic Song. By William Richard Boyd, Montreal, Que., 10th October, 1900.

11696. DOMINION COMMERCIAL TRAVELLERS ASSOCIATION HOTEL GUIDE, 1901. John Edward Wright, Montreal, Que., 12th October, 1900.

11697. TOMMY AND GRIZEL. By James M. Barrie. The Copp, Clark Co. (Ltd.), Toronto, Ont., 13th October, 1900.

11698. ON THE ALERT. (Photo.) R. H. Trueman, Vancouver, B.C., 13th October, 1900.

11699. MENUET. For Piano. By Frank Squire Welsman. Whaley, Royce & Co., Toronto, Ont., 15th October, 1900.

11700. VALSE MINTO. Par Madame Alphonse Leblond, Lévis, Qué., 15 octobre, 1900.

11701. PRICE LIST No. 24, FALL AND WINTER 1900-1901. The S. Carsley Co. (Ltd.), Montreal, Que., 16th October, 1900.

11702. IN MEMORIAM OF THE LATE GEORGE AUGUSTUS HINE. (Book.) Edith Frances Hine and Joanna M. Reeve, Toronto, Ont., 16th October, 1900.

11703. THE NINETEENTH CENTURY SERIES: RELIGIOUS PROGRESS IN THE CENTURY. By W. H. Withrow, M.A., D.D., F. R. S. C. Volume I. The Bradley-Garretson Co. (Ltd.), Toronto, Ont., 16th October, 1900.

11704. THE NINETEENTH CENTURY SERIES: LITERATURE IN THE CENTURY. By A. B. de Mille, M. A., Volume II. The Bradley-Garreston Co. (Ltd.), Toronto, Ont., 16th October, 1900.

11705. PUBLIC SCHOOL BOOK KEEPING AND BUSINESS FORMS. By J. S. Black. The Copp, Clark Co. (Ltd.), Toronto, Ont., 17th October, 1900.

11706. EDUCATIONAL REVIEW SUPPLEMENTARY READINGS, CANADIAN HISTORY, NUMBER ELEVEN, SEPTEMBER, 1900. George U. Hay, St. John, N.B., 17th October, 1900.

11707. McALPINE'S HALIFAX CITY DIRECTORY FOR 1900-1901. Hezekiah M. McAlpine, Halifax, N.S., 17th October, 1900.

11708. McALPINE'S ST. JOHN CITY DIRECTORY 1900. Charles David McAlpine, St. John, N.B., 19th October, 1900.

11709. IN MEMORIAM. (Painting.) Archibald Wayne Dingman, Toronto Ont., 19th October, 1900.

11710. HER MAJESTY QUEEN VICTORIA. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11711. RIGHT HONOURABLE SIR WILFRID LAURIER. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11712. RIGHT HONOURABLE SIR JOHN ALEXANDER MACDONALD. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11713. HONOURABLE SIR CHARLES TUPPER. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11714. SIR RICHARD J. CARTWRIGHT. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11715. HONOURABLE JOSEPH ISRAEL TARTE. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11716. HONOURABLE GEORGE E. FOSTER. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11717. HONOURABLE HUGH JOHN MACDONALD. (Portrait placque.) William Joseph Hynes, Toronto, Ont., 19th October, 1900.

11718. IN A MANGER RESTS A KING. (Song.) Christmas Solo with Violin obligato. By P. A. Schnecker. The John Church Co., Cincinnati, Ohio, U.S.A., 19th October, 1900.

11719. JUDEA. (Song.) A Dream of the Christmas Time. Words by Wm. H. Gardner. Music by George Lowell Tracy. The John Church Co., Cincinnati, Ohio, U.S.A., 19th October, 1900.

11720. THE PERFECT WAY. (Christmas Song.) Words by R. E. Phillips Music by Eduardo Marzo. Op. 81. The John Church Co., Cincinnati, Ohio, U.S.A., 19th October, 1900.

11721. FORMULAIRE DE PROCÉDURE DE LA PROVINCE DE QUÉBEC. Par O. P. Dorais et A. P. Dorais. C. Théoret, Montréal, Qué. 19 octobre, 1900.

11722. HURRAH FOR CANADA. (Patriotic Song.) Words and Music by Mrs. Wm. Foran, McKellar, Ont., 20th October, 1900.

11723. THE FLAG WE HAVE LEARNED TO LOVE. (Patriotic Song.) Words by H. Drummond Hastings. Music by Otto Zimmerman. H. Drummond Hastings, Montreal, Que., 20th October, 1900.

11724. DR. NORTH AND HIS FRIENDS. By S. Weir Mitchell, M.D. The Copp, Clark Co. (Ltd.), Toronto, Ont., 20th October, 1900.

11725. SUPPLEMENT TO THE ONTARIO LAW INDEX. (1867-1895.) By Harris H. Bligh, Q.C., Ottawa, Ont., 22nd October, 1900.

11726. THE LANE THAT HAD NO TURNING. And other Associated Tales concerning the People of Pontiac; together with certain "Parables of Provinces". By Gilbert Parker. George N. Morang & Co. (Ltd.), Toronto, Ont., 23rd October, 1900.

11727. THE BELL OF ATRI; AND OTHER POEMS. By Henry Wadsworth Longfellow. And HOW THE LEAVES CAME DOWN. By Sarah C. Woolsey. George N. Morang & Co. (Ltd.), Toronto, Ont., 23rd October, 1900.

11728. DON'T CRY MAMMA. (Engraving.) The Sheppard Publishing Co. (Ltd.), Toronto, Ont., 24th October, 1900.

11729. MOOSWA AND OTHERS OF THE BOUNDARIES. By W. A. Fraser. Illustrated by Arthur Heming. William Briggs, Toronto, Ont., 24th October, 1900.

11730. ON THE MAKING OF PRINTED BOOKS. Warwick Brothers & Rutter, Toronto, Ont., 26th October, 1900.

11731. OFFICIAL TELEPHONE DIRECTORY, MANITOBA. The Bell Telephone Company of Canada (Ltd.), Montreal, Que., 26th October, 1900.

11732. HUGH WYNNE, FREE QUAKER. By S. Weir Mitchell, M.D. With Illustrations by Howard Pyle. The Copp, Clark Co. (Ltd.), Toronto, Ont., 27th October, 1900.

11733. GUÉRISON DU FRÈRE METHELME. (Photographie du tableau.) Joseph Amedée Dumas, Montréal, Qué., 29 octobre, 1900.

11734. CLASSICS FOR CANADIAN CHILDREN: FAIRY TALES AND FABLES, No. I. A. & W. MacKinlay, Halifax, N.S., 29th October, 1900.

11735. THE CHILDREN'S HOUR. By Henry Wadsworth Longfellow. George N. Morang & Co. (Ltd.), Toronto, Ont., 29th October, 1900.

11736. ABRÉGÉ D'HISTOIRE DU CANADA. Par F. X. Toussaint. F. X. Toussaint et Philippe Masson, Québec, Qué., 29 octobre, 1900.

11737. PETIT ABRÉGÉ DE GÉOGRAPHIE MODERNE. Par F. X. Toussaint. F. X. Toussaint et Philippe Masson, Québec, Qué., 29 octobre, 1900.

11738. LIFE IN THE PHILIPPINE ISLANDS DURING THE SPANISH-AMERICAN WAR. (Portfolio of Stereoscopic views.) O. B. Varner, Winnipeg, Man., 30th October, 1900.

11739. THE CANADIAN CONTINGENTS MARCH. By Roméo Poisson, Arthabaskaville, Que., 30th October, 1900.